



INDIA:

**CASE STUDIES ON
Private Sector Development and
Operations**

A Case Study from the 2007 Special Evaluation Study
on Private Sector Development and Operations:
Harnessing Synergies with the Public Sector

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Abbreviations

ADB	Asian Development Bank
CFS	complementary finance scheme
CSP	country strategy and program
FDI	foreign direct investment
GDP	gross domestic product
NBFI	nonbank financial institution
NPL	nonperforming loan
PPP	public private partnership
PRC	People's Republic of China
PSD	private sector development
PSDS	Private Sector Development Strategy
PSIF	private sector infrastructure facility
PSOD	Private Sector Operations Department
PSO	private sector operation
SAPE	sector assistance program evaluation
SIDBI	Small Industries Development Bank of India
SME	small and medium enterprises
TA	technical assistance
VCF	venture capital fund
WTO	World Trade Organization

WEIGHTS AND MEASURES

km	kilometer
MW	megawatts

Note

In this report, "\$" refers to US dollars.

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I. Investment Climate

1. Background

1. India's economic liberalization reform process started approximately 15 years ago. At the time, because of a socialist philosophy, Government regulation and administrative processes at the national, state, and local levels were extensive. Public sector investment dominated the economy. The economy was inward oriented, based predominantly on agriculture with a large public sector and an import substitution policy. High tariffs protected domestic industry. Following a balance of payments crisis in the early 1990s, the Government decided to review the import substitution policy and began to introduce a program of market liberalization. This program has been largely successful, and it has laid the foundation for India's impressive economic performance over the past decade.

2. Macroeconomic Stability

2. India avoided the worst effects of the Asian financial crisis due to the rigid foreign exchange controls that were in place. Similar to the Philippines, the fiscal deficit is the primary risk to macroeconomic instability, and political constraints have made it difficult to implement reforms that are needed in taxation, public expenditure reduction, and privatization of commercial state enterprises. Nevertheless, the Government has started to make progress on fiscal reforms, although monetary policy continues to be subject to high levels of political influence.

3. Competition and Trade

3. The Government has started to liberalize the economy under its obligations to the World Trade Organization (WTO), which India joined in 1995. Despite these measures, increased agricultural tariffs and the imposition of anti-dumping duties have offset reductions in the overall rates. The Government also has moved to modernize domestic competition, and introduced the new Competition Act (2002). The Government has removed bureaucratic restrictions on business licensing. Nevertheless, the regulatory environment is still very constrained compared to other countries in the region, and price controls and state monopolies continue to be prevalent. Obsolete labor laws further constrain the development of a competitive manufacturing sector in India.



4. Privatization

4. Privatization has not been a feature of private sector development (PSD) programs in India. A Cabinet Committee on Disinvestment, headed by the Prime Minister, was set up in 2000 to supervise a divestment program. The policy was unsuccessful. By 2005, the Government had divested its controlling shares in only 17 industrial companies and 19 hotels. The Government continued to own 222 public

sector units, of which 130 were incurring losses. With the change of Government in 2004, the divestment policy was put on hold.

5. Public Private Partnerships

5. Public-private partnerships (PPP) have played a limited role in India, and almost 50% of the PPP investment has occurred in Gujarat. Given the fiscal constraints, PPPs are being given a larger role to play in financing infrastructure. The Government has established a PPP Appraisal Committee at the national level that will evaluate central Government projects. This committee will help address a key constraint on PPPs, as traditionally no single agency has been responsible for public sector infrastructure procurement. Line agencies at the central and state levels have been responsible for their own projects, creating problems with project formulation and implementation.

6. In 2005, the Government initiated a new framework designed to strengthen the legal and regulatory environment. The Government intends to provide “viability gap” funding in the form of grants to private sponsors to cover up to 40% of project costs. The Government also established the India Infrastructure Finance Company Limited, which has authority to provide loans covering up to 20% of project cost and refinance loans on a tenor of at least 5 years. The Government’s \$40 billion road development program is the main area envisaged for PPPs, although it is also inviting private investors and contractors to build airports and ports, water systems, and electricity distribution networks.

6. Foreign Direct Investment

7. The Government has sought to encourage foreign direct investment (FDI) and foreign portfolio investment in non-strategic sectors, including parts of the manufacturing sector, telecommunications, finance, and insurance. Portfolio investment has risen dramatically, attracted by high growth rates coupled with the liberalization of foreign ownership laws and the opening of Indian stock exchanges to foreign capital. FDI has been rising, although the amount represented less than 1% of gross domestic product (GDP) in 2005. To help streamline FDI approval processes, the Government formed the Foreign Investment Implementation Authority in 1999. An export-import policy was introduced in 2000 that launched a series of special economic zones based on the Chinese model, consisting of geographic duty free enclaves. Most FDI has been directed towards information communication technology and outsourcing. FDI could play a critical role in financing India’s infrastructure deficit, although reforms in this area have been only moderately successful to date. India’s largest FDI project was a power plant at Dahbol, where the funding facility was withdrawn due to problems with the tariff, leading to a withdrawal of most foreign companies from power generation projects sponsored by the Government.

Foreign direct investment could play a critical role in financing India’s infrastructure deficit, although reforms in this area have been only moderately successful to date.

7. Infrastructure

8. The quality of infrastructure in India is considered particularly poor, and it is one of the main constraints on growth. The Committee on Infrastructure has estimated the investment needed for ports, national highways, and airports are equivalent to 8% of GDP per year over the next 5–7 years. Traditionally, the Government has financed about 80% of infrastructure, although it is seeking to increase the level of private sector participation through PPPs.

9. **Telecommunications.** Although the industry continues to lag other countries, such as the People's Republic of China (PRC), telecommunications infrastructure has seen the most progress on reform and development. While some disputes over issues such as interconnection and availability of spectrum rights have arisen, the overall regulatory framework in the communications sector appears to be working reasonably well and the sector is expanding rapidly.

10. **Power Generation.** This is the most resource-intensive infrastructure sector, and private sector participation has been very limited to date. Problems with supply include (i) inefficient production, (ii) theft and technical losses of about 25%, (iii) tariffs set at levels substantially below cost, (iv) cross-subsidization policies that distort demand, (v) substantial underinvestment, and (vi) failure to enforce billing. While central and state governments are involved in the power sector, the 21 state electricity boards and 14 electricity departments traditionally have had monopoly rights for generation, transmission, and distribution. In 2003, the Government enacted the Electricity Act, which led to 13 states initiating reform programs by the end of 2005 to unbundle vertically integrated state boards and establish independent regulators to initiate tariff reforms. The Government is seeking additional capacity of 100,000 megawatts (MW) over the next 10 years, and much of this capacity will need to be financed by the private sector.

11. **Transport.** The Government still dominates almost all aspects of infrastructure provision in this sector, although PPP schemes are being pursued, especially at the national level. The National Highways Authority of India is responsible for developing the national road network. The National Highways Development Project seeks to expand the 14,000-kilometer (km) network by 10,000 km under private sector concession, and increase the width to between four and six lanes. The private sector is financing many of these roads under PPP arrangements, using a combination of toll revenue-based concessions and annuities financed by the Government from the Central Road Fund. The Government recently announced a PPP program in the road sector with a total value of \$40 billion, which is probably the largest such program in the world. The Government has decided to liberalize airlines and move forward on privately financing airports in major centers, such as Mumbai, and more than 30 non-metropolitan airports across the country. The development of seaports has progressed in states such as Gujarat. The Government continues to own and operate the rail system, although it



recently permitted private sector participation in non-core functions such as container services.

12. **Water.** In this sector, private sector participation is constrained by the absence of a national water regulatory body and cost-based tariff system administered by independent regulators. Private sector participation in the water, sewerage, and sanitation systems is almost nonexistent, as tariffs in most cities are set at levels substantially below cost, and revisions are politically difficult. Overstaffing and poor revenue collection practices accentuate problems with low levels of cost recovery. Unaccounted for technical water losses generally range from 40% to 50%. In the past, the predominant sources of finance were state and central government loans and grants, although they have been declining in importance due to fiscal constraints. Governments in states such as Tamil Nadu are experimenting with commercial sources of water.

8. Small and Medium-Sized Enterprises

13. The main means of supporting small and medium-sized enterprises (SME) has been directed credit through the Small Industries Development Bank of India (SIDBI). SIDBI uses the concept of industry clusters and small enterprise financial centers to service SMEs, often in conjunction with commercial banks. In 2005, the Government announced a comprehensive policy package requiring public sector banks to double the amount of funding directed to SMEs. The Government also reserves some labor-intensive industries, such as textile manufacturing, for small enterprises. These provisions are enforced through the licensing system.

9. Financial and Capital Markets

14. The Government owns 27 of the 96 commercial banks, and they hold about 75% of all bank assets. These state-owned banks typically were established as development finance institutions, which gradually have been commercialized. Despite these changes, all state-owned banks must lend 40% of advances to sectors such as agriculture and small businesses, and an additional 12% to exporting firms. The Government recently allowed private competition to emerge by issuing a limited number of licenses to new private banks, while starting to relax restrictions on foreign banks. As a result, deposits and bank credit have been growing over the past decade at more than 15% per year. However, the benefits of improved access to finance have been offset by an associated rapid increase in nonperforming loans (NPL), leading to undercapitalization of banks. NPLs, which peaked in 1994 at 25% of bank assets, have been declining slowly, reaching about 13% in 2001 and 5% in 2005. Bankruptcy procedures are ineffective, and the state banks have been recapitalizing and issuing shares through initial public offers to access additional equity.

15. The Government has extensive ownership interests in nonbank financial institutions (NBFI) operating in areas such as housing development and microfinance. Municipal and state governments are experimenting with local infrastructure funds that pool finance from different sources and issue rated bonds. The Government is a major shareholder in venture capital funds (VCF) through its ownership of banks. VCFs

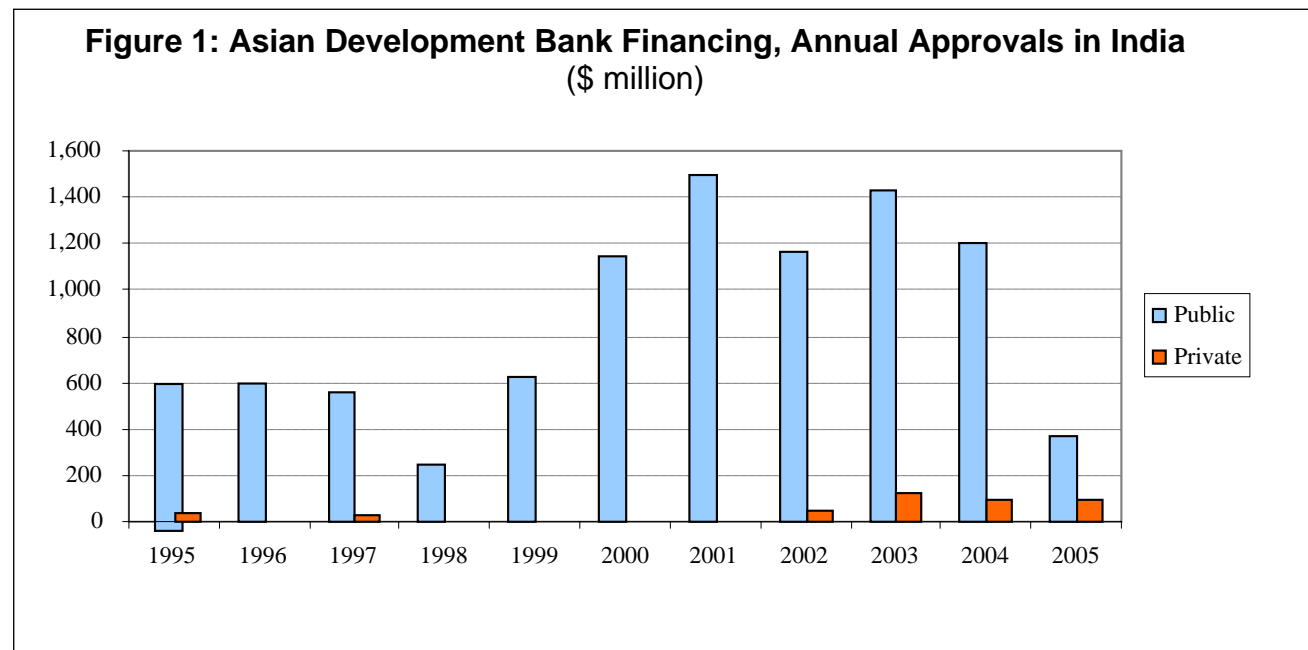
focused on the information communication technology data have expanded rapidly, especially in the past 6 years. The state is a dominant owner in financial institutions, such as Life Insurance Corporation, General Insurance Corporation, and Unit Trust of India. These institutions are an important source of long-term investment funding. Similar to banking, foreign ownership restrictions in the insurance sector have been relaxed in recent years.

16. Capital markets are going through a rapid transformation. A group of large institutional investors established the National Stock Exchange in 1994 using a corporate ownership structure. This operation is based on an electronic trading platform that was used successfully to break the oligopoly of the 22 state stock exchanges operating across the country. Apart from the Bombay Stock Exchange, the state stock exchanges are now defunct, although they continue to exist on paper. The size of the Indian stock market has increased significantly in recent years, fueled in part by foreign portfolio investors, and corporate bonds have become an increasingly important source of funding.

II. ADB's Country Strategy and Development Program

1. Overview

17. India began to borrow from Asian Development Bank (ADB) in 1986. In India, ADB has traditionally funded public sector infrastructure projects (power, gas, and roads) and finance reforms (NBFIs and capital markets) identified in country strategies. Public and private sector financing levels have been volatile (Figure 1).



Source: Asian Development Bank records.

18. Public sector lending fell because of the nuclear testing sanctions in 1998. Demand for public sector funds to finance national road projects was high during 2000–2004. In 2005, no lending occurred outside the natural resource sector. Private sector operations (PSO) have been minor relative to public sector lending, although it has become more significant since 2002. During the period reviewed, only one project involved a complementary finance scheme (CFS) for \$5 million.¹

2. Country Strategies

19. From the mid-1990s through early 2000, ADB changed its strategy in India. It began decentralizing some assistance from the national to the state level, targeting Gujarat, Kerala, and Madhya Pradesh. PSD was a major theme of the country strategy and program (CSP), which identified the following possibilities: (i) providing credit enhancements to mobilize private resources using ADB's guarantee operations, (ii) providing Government-guaranteed public sector loans to support private investments in infrastructure, and (iii) pooling ADB funds with private investors in funds or credit facilities to finance infrastructure. These instruments were to be used to help pursue sector strategies. In the power sector, the focus was on creating new generation and transmission capacity, and privatizing existing power stations. The CSP also envisioned establishing telecommunications facilities, and developing highways and ports, in part by mobilizing the private sector.

20. As envisaged, ADB would support industrial liberalization programs that increased competition and corporate restructuring programs, and establish financial facilities to support SMEs in agro-based industries. ADB also would help identify ways of developing the long-term debt markets. Financial markets would be strengthened by supporting interest rate liberalization, developing new private sector banks, restructuring state banks, and strengthening the regulatory framework. In the capital markets, the focus would be on developing an integrated national market; developing depositories; reforming stock exchanges; facilitating FDI in financial institutions; freeing up long-term sources of capital from insurance companies and pension funds; developing credit enhancement and loan securitization instruments; and strengthening capital market regulation.

21. In 2001–2002, ADB prepared a new CSP for 2003–2006 to reflect the new overarching goal of poverty reduction, and presented a program that was consistent with the Government's Tenth Five Year Plan (2002–2007). The primary focus of the revised ADB strategy was on growth, supported by social development and environmental protection programs. The main sector and thematic priorities of the CSP included fiscal consolidation, infrastructure development, PSD, agriculture and rural development, state-level operations, regional cooperation, social development,

¹ While this study only examines private sector operations (PSO) during 1995–2005, six additional PSO projects in India, with a total value of \$347.6 million, were approved in 2006, bringing the cumulative total approvals to \$975.6 million by September 2006. These recent approvals include three projects in energy and power, two in financial institutions focusing on infrastructure financing, and one in a capital markets institution. In addition to these direct ADB facilities, Private Sector Operations Department mobilized two loans from third party commercial banks with a total value of \$225 million under complementary finance scheme.

environmental protection, and good governance. In 2003, ADB commissioned a Private Sector Assessment² to help sharpen the PSD emphasis in its economic sector work, as well as in the overall CSP process. This document did not form part of the CSP process, and was used primarily as a discussion document. In 2004, ADB issued a local currency bond that raised Rs5 billion (equivalent at the time to \$110 million) to help alleviate problems with local currency risks for large infrastructure projects. International finance institutions, such as ADB, increasingly have sought local currency since the Asian financial crisis, when many foreign sponsors ran into difficulties servicing financial structures denominated in foreign currency while project receipts were denominated in local currency. With dramatic depreciations in currency, project sponsors needed to increase project output prices to maintain their return on investment.

3. ADB Assistance

22. As illustrated by the breakdown in public sector lending relevant to PSO in Table 1, infrastructure, especially in transport and power sectors, has been the primary focus of the regional departments.

Table 1: Sector Allocation of Public Sector Lending (1995-2005)
(\$ million)

Year	Public Administration	Power and Energy	Transport	Urban Development	Finance	Total
1995		275		105	250	630
1996	250	100			250	600
1997		150	113		300	563
1998				250		250
1999	250			375		625
2000		600	180		120	900
2001		350	450	500	200	1,500
2002	200	150	814			1,164
2003		250	980	200		1,430
2004	150	400	650			1,200
2005						0
Total	850	2,275	3,187	1,430	1,120	8,862

Source: Asian Development Bank records.

23. ADB has pursued institutional reforms to strengthen PPP procurement capacity in the infrastructure by providing technical assistance (TA) to help create PPP units at the state level, as well as in National Highway Authority of India. Contrary to proposals in some of the earlier country strategies and the PSA, ADB exited the telecommunications and ports sectors in the mid-1990s, and has focused on power, roads, water, and urban infrastructure since then. The public sector side of ADB has been engaged consistently in the power sector. Successful ADB-supported reforms are starting to create conditions for private sector investment, and possible increased Private Sector Operations Department (PSOD) deals in the power sector. Public sector operations in the gas sector contributed to strengthening the framework for the private sector to enter the industry. Assistance from the public sector side of ADB in the

² Prepared by Credit Rating Information Services of India Limited.(CRISIL)

transport sector has been oriented mostly to roads and, to lesser extent, railways. Some TA was provided in 2000 and 2001 to support private sector participation for road maintenance. After pursuing a substantial public sector lending program up to 2004, PSO-related lending ceased in 2005. PSOD has not been involved in the transport sector, even in ports³ where it would seem feasible to support private projects.

24. The finance sector has been the other strategic focus with a PSO orientation. ADB assistance has been designed to help channel funds to infrastructure in sectors such as power, roads, and urban facilities. TA in the finance sector was unrelated to the lending program and appeared to lack focus. TA was targeted at the stock exchange, dispute resolution, housing finance, pension and insurance reform, and use of mortgage-backed securities in the capital markets. The public sector loans provided to the Government were essentially infrastructure and housing credit lines. Two large sovereign guaranteed private sector infrastructure facility loans ran into difficulties due to the high cost of funds and denomination in foreign currency, which reduced demand, and there were problems finding attractive projects.

25. ADB approved its first PSO investments in India in 1987. Initial PSO investments in the 1980s were targeted at the manufacturing industries. Throughout the 1990s, the finance sector was emphasized with many relatively small capital market equity investments. After the approval of the Private Sector Development Strategy (PSDS) in 2000, the emphasis on infrastructure increased, particularly in energy and power, with one power plant approved in 2003. By the end of 2005, 39⁴ projects had been approved for \$478 million, making India the largest recipient of ADB's PSO. The average investment size was \$13.7 million. During the period of analysis, only one CFS facility was issued for \$5 million. At the end of 2005, outstanding PSO commitments were \$289.3 million, with most of these funding facilities directed to the finance sector.⁵

26. Finance sector interventions have been the main source of assistance provided by PSOD, initially by taking equity interests in banks, then moving to equity funds and providing banks with Tier 2 capital funds (secondary bank capital such as subordinated debt). In recent years, PSOD has had difficulty obtaining central bank approval for bank-related transactions due to concerns about ADB crowding out commercial operations because of its potential to provide funds at below-market rates. Central bank concerns about ADB's involvement in the Indian finance sector also have affected infrastructure operations. PSOD has experienced

In recent years, Private Sector Operations Department has had difficulty obtaining central bank approval for bank-related transactions due to concerns about ADB crowding out commercial operations because of its potential to provide funds at below-market rates.

³ While the Petronet liquefied natural gas facility had a port that formed part of the overall plant, it could be used only for conveying liquefied natural gas to the shore. As such, it falls under the classification of an energy rather than transport facility.

⁴ Including one line of equity of \$5 million, from which 15 small equity sub-investments were made by 1994.

⁵ While the study covers 1995–2005, six more projects with a total value of \$347.6 million were approved 2006, bringing cumulative approvals to \$975.6 million by September 2006.

problems obtaining access to competitively priced local currency through mechanisms such as the swap market due to perceived risks that ADB's involvement might distort that market.

4. PSO Transactions in India

27. During 1995–2005, 22 PSO transactions were approved for India, totaling \$459.85 million (Table 2). The dominant focus was on finance sector and capital market projects. Possibly due to inadequate due diligence or premature processing, ten of the 21 approved projects subsequently were canceled for reasons such as regulatory restrictions, lack of demand, or uncompetitive pricing. Taking into account these cancellations, the portfolio shrunk by \$353.2 million, or 58%, to \$258.4 million. The resulting portfolio had a disproportionately large amount of equity, totaling \$126.4 million (49%), compared to \$132.0 (51%) in senior debt. This is a high-risk portfolio structure. Dividing the non-canceled approvals according to sectors, \$136.9 million (53%) was invested in financial and capital markets interventions, \$71.5 million (8%) in two infrastructure projects, and \$50 million (19%) indirectly target infrastructure through local financial institutions.

Table 2: PSO Investment Approvals in India (1995–2006)

Name	Sector	ADB Financing (\$ million)					Date	Status
		Loan	CFS	Equity	PCG	Total		
Equity Management	Finance	–	–	0.1	–	0.1	1995	–
Sectoral Equity Fund	Finance	–	–	15.0	–	15.0	1995	–
Securities	Finance	–	–	4.3	–	4.3	1995	Canceled
Capital Markets	Finance	–	–	21.2	–	21.2	1995	–
Finance Company	Finance	–	–	4.5	–	4.5	1995	–
Power Company	Power	25.0	100.0	15.0	–	140.0	1996	Canceled
Infrastructure Finance	Finance	–	–	15.5	–	15.5	1997	–
Mortgage Guarantee	Finance	–	–	10.0	–	10.0	2002	Canceled
Healthcare Institute	Services	20	–	–	–	20.0	2002	Canceled
Infrastructure Fund	Finance	–	–	15.0	–	15.0	2002	–
Transmission	Power	62.3	–	–	–	62.3	2003	–
Bank (supplementary)	Finance	–	–	0.7	–	0.7	2003	Exited
Housing Finance	Finance	20.0	–	–	–	20.0	2003	–
Home Finance	Finance	20.0	–	–	–	20.0	2003	Canceled
LNG	Energy	–	65.3	–	–	65.3	2004	Canceled
Power Generation	Power	54.4	–	20.6	–	75.0	2004	Canceled
Private Equity	Finance	–	–	20.0	–	20.0	2004	–
Asset Reconstruction	Finance	–	–	5.6	–	5.6	2005	Canceled
Infrastructure Finance	Finance	50.0	–	–	–	50.0	2005	Canceled
Bank	Finance	23.0	–	–	–	23.0	2005	Canceled
Private Equity	Finance	–	–	15.0	–	15.0	2005	–

– = not applicable, ADB = Asian Development Bank; CFS = complementary financing scheme; LNG = liquefied natural gas; PCG = partial risk guarantee; PSO = private sector operations.

Source: Operations Evaluation Department staff compilation.

28. An OED evaluation of the PSO projects in India, based on a mixture of desk-based reviews and company visits, derived the indicative project performance results shown in Table 3.

Table 3: Summary of Evaluated Project Performance in India (1995–2005)

Project	PSD	Investment Performance	Comments/Issues
Equity Management	Satisfactory	Satisfactory	–
Sectoral Equity Fund	Excellent	Satisfactory	–
Securities	Canceled	–	Lack of demand
Capital Markets	Satisfactory	Satisfactory	–
Finance Company	Satisfactory	Satisfactory	–
Power Company	Canceled	–	–
Infrastructure Finance	Excellent	Excellent	–
Mortgage Guarantee Bank(supplementary)	Satisfactory	Satisfactory	Regulatory issue
Healthcare Institute	Unsatisfactory	Unsatisfactory	Almost bankrupt
Infrastructure Fund	Canceled	–	–
Transmission Limited	Satisfactory	Satisfactory	–
Housing Finance	Satisfactory	Satisfactory	–
Home Finance	Canceled	–	Price not competitive
LNG	Satisfactory	Excellent	–
LNG	Canceled	–	Price not competitive
Power Generation	Canceled	–	Price not competitive
Private Equity	Satisfactory	Satisfactory	–
Asset Reconstruction	Canceled	–	Regulatory issue
Infrastructure Finance	Canceled	–	Price not competitive
Bank	Canceled	–	Regulatory issue
Private Equity	Excellent	Satisfactory	–

– = not applicable, LNG = liquefied natural gas, PSD = Private Sector Development.
Source: Operations Evaluation Department staff compilation.

III. PSD Issues in India

29. India has grown more than 8% per year over the past 3 years, primarily due to three factors: (i) a robust global economy, (ii) the delayed impact of liberalization measures initiated in response to economic crisis in 1991, and (iii) a substantial boom in consumer lending. While interest rates are starting to rise, growth appears to be sustainable in sectors such as manufacturing, where macroeconomic stability coupled with increasing competition is improving quality and cost-effectiveness. Nevertheless, overall progress and balanced growth will depend upon reforms to modernize infrastructure for power, ports, and roads. The benefits of reforms in the infrastructure are starting to become apparent only now, and most private sector participation continues to be limited to PPPs in the road sector and some captive ports and power generation projects. While the finance sector is liquid and consumer credit growth is booming, long-term corporate debt and access to foreign credit and FDI continues to be limited.

30. Traditionally, India has not had a policy of pursuing PSD. It has been focused on developing its industrial sector through regulatory protection and directed lending programs. The economy for the most part has been closed, which helped insulate it from the effects of the Asian financial crisis. Recently, the Government has started to liberalize the economy, and it is pursuing investment in infrastructure, particularly in the power and transport sectors. The Government continues to maintain a highly centralized approach to economic reform, especially in the infrastructure and finance sector development where development programs are articulated in five-year plans. Liberalization is modest, with high trade barriers and regulatory constraints by international standards, though much improved relative to historical conditions. In critical infrastructure sectors, such as power and water, tariffs continue to be set at levels substantially below cost. The Government's lack of control over state governments in the power sector has meant reform has been extremely slow, although moving in the right direction. While progress is more apparent in the road and ports sectors, funding needs are substantial. Infrastructure still needs to be developed to improve access to water and support more inclusive growth in semi-urban manufacturing and service initiatives. A key constraint has been the lack of access to long-term finance. The Government appears to have made good progress in this area, although credit availability at affordable rates continues to be quite low despite high levels of savings.

The substantial gap between demand for resources and the low levels of foreign direct investment and modest growth in local sources of corporate finance indicates the Government also needs to pursue reforms in the finance sectors to help mobilize the necessary funding.

31. The Prime Minister recently estimated that \$155 billion⁶ is required over the next 5 years to support infrastructure development, and this figure could rise as high as \$250 billion if infrastructure investment reaches 9–10% of GDP. Assuming the public sector provides about 80% of this funding, the private sector would have to provide up to \$50 billion over the next 5 years. In practice, the total financing figure seems optimistic, and only a fraction of this amount is likely to be raised without substantive reforms. In the power and water sectors, cost-based tariffs administered by independent regulators are the key issue. For roads and infrastructure, acquisition of

land is the primary constraint. The substantial gap between demand for resources and the low levels of FDI and modest growth in local sources of corporate finance indicates the Government also needs to pursue reforms in the finance sectors to help mobilize the necessary funding. Critical areas of reforms involve strengthening the municipal and corporate bond markets, removing investment restrictions on local savings vehicles, and freeing up of the capital account to improve access to long-term foreign sources of finance.

32. ADB's CSP issued in 1996 signaled a shift in focus from the national to state level. Private sector development was a core priority of the country strategy, and ADB intended to focus on power infrastructure, and government guaranteed private infrastructure credit lines. In 2003, the CSP shifted emphasis toward poverty reduction and social and agriculture projects. A draft PSA was issued in 2003 that highlighted the

⁶ 18 August 2006. Editorial. *Financial Times*.

importance of issues such as privatization and resolving NPL problems, although it did not form part of the country strategy. In line with ADB's country strategic programs, public sector support for power sector reforms has been reasonably constant throughout the period of analysis, occurring initially in Gujarat, followed by Madhya Pradesh, and then Assam. In 1998, PSO-related public sector lending almost stopped due to India's nuclear testing, and then grew rapidly to peak in 2001 due to substantial incremental demand to help finance national road projects. Lending for urban development has been reasonably constant over the review period, with emphasis on housing and urban water. Financial assistance has occurred primarily in the form of four private sector infrastructure facilities and seven housing loans.

33. Despite being the single largest country exposure in PSOD's portfolio, India's level of PSO over the period of analysis has been surprisingly limited given the size of the country. The size of the PSO portfolio at \$289.3 million, or 17% of the portfolio as of 31 December 2005, is small given the number of transactions and effort expended over a 10-year period. The private sector development strategy approved in March 2000 does not seem to have had a material impact on the scale and focus of PSOD's activities. While the public sector provided assistance to help strengthen the enabling environment in selected states in power infrastructure, reforms have been slow to materialize. As such, the Board has approved only three significant transactions. This lack of progress reflected in part the serious constraints present in the energy sector in the form of insolvent state electricity boards and noncommercial tariffs. PSOD also has made surprisingly little progress in the transport sector, especially in subsectors such as ports that can finance operations without having to hedge currency risks. ADB's public sector operations provided assistance to the National Highway Authority of India as early as 2000 to help facilitate PPPs in the road sector. However, it was directed mainly at maintenance contracts, and only a few privately financed concessions have been put in place successfully.

34. The weak enabling environment has been reflected in the poor performance of the Government-guaranteed PSIF provided by ADB's public sector operations. The PSIF loans were not particularly successful as suitable projects were hard to find. The Government, which appears to accept the need for fundamental reform to support private investment, has indicated that it does not consider the infrastructure credit lines consistent with its policy on PPP. The Government's shift toward viability gap funding, and general progress on unbundling the power sectors and putting in place independent regulators, suggests that circumstances are starting to improve for PSO in India. This change has been reflected in the scale of PSOD's operations, as approvals have started to accelerate since 2003. Four approvals were recorded in 2005, followed by five approvals midway through 2006. These transactions are occurring increasingly frequently in the infrastructure sector in line with the private sector development strategy priorities.



35. Despite these encouraging trends, obtaining central bank approval to access local currency finance in the swap market has been a serious problem. In most cases, sponsors and borrowers praised ADB's commercial processing procedures. However, several complaints were heard about unnecessarily complex legal documentation requirements that were slow to process compared to those of competing development institutions, such as International Finance Corporation. Social safeguard project processing requirements might be another issue, especially in the road sector, although this is difficult to confirm given the lack of PSOD involvement in this sector. The National Highway Authority has been negotiating with ADB's public sector operations over whether squatters should receive compensation, and whether this should be paid at market rates. The Government has expressed concerns about PSOD's low level of engagement in infrastructure reforms. The resident mission in Delhi has only one PSOD staff member who does not have any support staff. This scale of operation appears seriously inadequate given the scale of opportunities within the country, the complexity of the environment, and the need to be on the ground establishing relationships with the Government and the private sector.