

Banking on *Municipalities*

World Bank Support in East Asia and Pacific

East Asia and Pacific has the largest urban population of any Bank Region; 805 million people—42 percent of the total population—live in cities, and urbanization continues at a rapid pace, with the population in cities growing by 2.9 percent annually. The World Bank, through 44 municipal development projects (MDPs) active during the 1998–2008 decade, committed \$5.7 billion to urban development.

This portfolio aimed to strengthen the management of 445 municipalities across 16 countries. By number of MDPs, the most active borrowers were China (23 projects) and Indonesia (12), followed by a newer MDP borrower, Vietnam (4), and an older one, the Philippines (3). In addition, Mongolia and Korea hosted 1 MDP each. Thus, nearly all of the Region's MDPs, 86 percent, were in lower-middle-income countries. Countries in this Region with large urban populations (15 million plus) but no Bank-financed MDPs are Thailand and Myanmar.

PORTFOLIO PERFORMANCE

On average, MDPs in the Region are strong performers, with 80 percent achieving satisfactory outcomes. Also, 90 percent had satisfactory Bank performance, and 83 percent had satisfactory borrower performance, all well above averages for the worldwide MDP portfolio.

Although no project had an outcome rating of highly satisfactory, there are numerous examples of successful MDPs in several countries in this Region that can serve as models for MDPs elsewhere. **China III**, thanks to an outstanding municipal team in the megacity of Tianjin (population 10.3 million), succeeded on several fronts, building and operating a solid waste sanitary disposal facility that became a model for China, increasing sewage collection and treatment, improving traffic management, and consolidating municipal planning capability. **Philippines I** was particularly successful at upgrading low-income areas by developing new local markets and in training 9,129 staff from 74 municipalities. These efforts resulted in a new municipal management style that was better adapted to the increasing responsibilities under decentralization. **China IV** got

good results across the board in Zhejiang Province by improving municipal management as it related to urban planning, land development, and environment in key cities that offered among the best investment climates in China. **Indonesia V** produced good results in five municipalities in Kalimantan, particularly through the successful Kampung Improvement Program in Pontianak (population 455,173).

Under **Indonesia XIX**, which focused on municipal innovations, the municipality of Bogor (population 769,000) was particularly success-

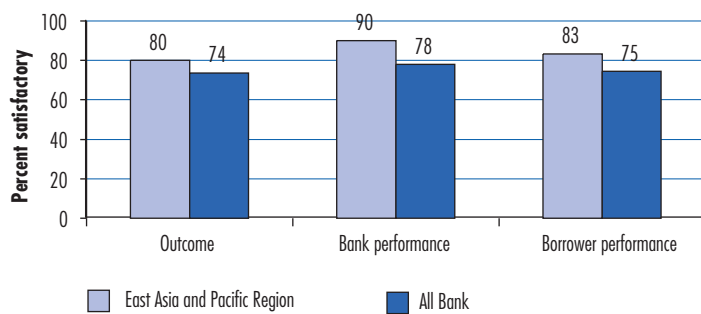
Table 1: Summary of MDP Portfolio, 1998–2008

Completed (number)	30
Completed MDPs (% satisfactory)	80
Ongoing MDPs (number)	14
IBRD commitments (US\$ million)	4,512
IDA commitments (US\$ million)	1,158
Bank commitments per completed MDP (US\$ million)	126
Commitments per ongoing MDP (US\$ million)	136
Wholesale MDPs (number)	11
Retail MDPs (number)	33
Countries served (number)	6
Municipalities served (number)	445

Source: World Bank data.

Note: IBRD = International Bank for Reconstruction and Development; IDA = International Development Association; MDP = municipal development project.

Figure 1: MDP Portfolio Performance, Fiscal 1998–2008



Source: IEG special study.

Note: MDP = municipal development project.

ful in developing a lively and informative public Web site that was an online version of the earlier public information booths. There were significant environmental gains in improved water supply and sewage and solid waste disposal through **China VII** and **VIII** in Shanghai and Liaoning, respectively. Directly focused on retooling municipal management, **China IX** was effective in helping four municipalities manage the deep structural reform involving the divestiture of enterprise housing. The **Mongolia MDP** helped develop the country's capability to design, build, and operate urban services through the successful improvements the project brought to the water supply of the municipality of Ulaanbaatar (population 844,818).

Some MDPs in the Region performed poorly. **Indonesia III** achieved little, as the repeated turnover in municipal leadership in Surabaya (population 2.4 million) undermined commitment to agreements. This led to inaction on service provision to the city that should have called for a thorough project reappraisal. **China XI** did not lead to the hoped-for reduction of air pollution by replacing old industrial plants in the municipality of Chongqing (population 32 million) because of the slow divestiture of such plants and the cancellation of the project's credit component. Pollution did decline, but not because of the project; instead, that improvement occurred because of the slow-down of industrial activity.

Indonesia VII intended to improve solid waste and sewage treatment services in 41 municipalities in Sulawesi, but it was only partly implemented because of lack of government commitment and concerns over misuse of funds. This left municipalities without the management progress intended, especially in operations and maintenance (O&M), the project's model of which was too complicated to administer.

BETTER CITY PLANNING

More information

Some MDPs in the Region improved the information available to municipalities. Under **China III**, for instance, the municipality of

Tianjin (population 10.3 million) was able to develop a real-time information system for the megacity's intense traffic. Under **Indonesia IX**, Bogor's success in assembling and disseminating information on municipal services publicly on the Web is an important information system achievement.

Monitoring and evaluation

Monitoring and evaluation (M&E) systems exhibit the weaknesses found in other Regions and sectors. Thus, under **China IV** in Zhejiang Province, an operation that excelled in many other respects, M&E did little more than count and cost the delivery of individual subprojects. **China XII**, in Yunnan Province, did a little better with monitoring the project's physical achievements, but it fell short on verifying progress on the institutional front. M&E for **Indonesia II** and **VI** ventured little beyond counting the number of subproject contracts awarded and the amount of disbursements. This meant that M&E was able to provide precise information about the number of community toilets built and their exact unit costs, but not how much those facilities were used—which proved to be very little. The Independent Evaluation Group (IEG) saw communal toilet blocks designed for 15 families being used by only 1 or 2.

China X in Hubei had weak M&E, as the indicators were defined too broadly to be measurable. The M&E of **China IX** suffered the classic shortcoming of not providing baseline values for 38 indicators that were selected to measure progress in divesting state-owned enterprise housing.

Even when indicators are good, M&E problems can arise. This happened when measuring water quality of the environmentally stressed Huangpo River in Shanghai under **China VII**. Data on baseline and endline water quality were available, but the samples were drawn from different locations on the river. Furthermore, the monitoring station built under the project was not fully operational. An implementation weakness under-mined the effectiveness of M&E for **China XV** in Sichuan Province, where records of measurement of the well-designed performance indicators were not systematically kept.

But even when its design is weak, M&E can be improved during implementation, as when the strong local team of **China III** in Tianjin, at its own initiative, incorporated outcome indicators to measure greater municipal management effectiveness, which had been overlooked by the initial M&E design. Finally, one of the most complete M&E systems was introduced through **Vietnam I**, where four project municipalities used indicators that covered all aspects of improvement in water supply service, ranging from physical provision to management efficiency.

Urban and spatial planning

MDPs have achieved a lot, especially in China, where many local municipalities have embraced city planning in recent years. Thus, under **China I**, the Urban Master Plan of Beijing (population 14.9 million) incorporated for the first time environmental priorities of the municipal environmental protection bureau. **China III** helped Tianjin prepare

its Master Plan and consolidate it with the indicative budget for 2005–20, again for the first time. Particularly for the city of Ningbo in Zhejiang Province, **China IV** strengthened its long-term land use planning through technical assistance and firmly embedded the conservation of historic and cultural monuments into its city center planning, now recognized as one of China's best.

On the urban transport side, two operations, **China II** and **VI**, enabled Shanghai (population 14.6 million) to improve its transport planning by providing expert input. Other countries also saw some of their city planning improve through MDP assistance. Thus, under **Indonesia X**, nine municipalities prepared local environmental plans and strategies for the first time, one of which was the critical Drainage Master Plan for Jakarta (population 8.5 million). Through **Philippines I**, some 70 municipalities learned how to incorporate specific investments of the operation in subprojects into their local city plans.

More innovative approaches to planning did not always succeed. Under **Indonesia II** support for Integrated Urban Infrastructure Development Planning, a modernized and multisectoral approach to planning, made only modest inroads in smaller municipalities, which found it too complex and were more comfortable with the traditional sectoral approach they knew well.

Investment planning and strategies

MDPs in the Region generally did not require client municipalities to strengthen the management of their investment planning and strategies. Larger municipalities in particular often had their own investment plans in place before the MDP.

STRONGER MUNICIPAL FINANCES

Better financial management

In China, a number of municipalities improved their financial management and accounting procedures with the help of MDPs. **China III**, for instance, helped the mega-municipality of Tianjin integrate different financial networks across its very large organization, where computerization of all accounts within a local area network has now become standard. **China V** helped improve cost recovery for water supply, allowing four municipalities in southern Jiangsu Province to cover operating, if not investment, costs. The municipal audit bureau of Shanghai (population 14.6 million) was quickly able to adopt international accounting standards, as required by **China VII**.

Mobilizing own revenues

Revenue enhancement through MDPs in the Region focused particularly on increasing direct cost recovery from the project investments themselves, rather than seeking broader improvements in general revenues. In practice, cost recovery has been as challenging in this Region as in others. **China VII** was unable to raise tariffs enough to enable five municipal sanitation companies in Liaoning Province to cover their operating costs. **China XII** did not enable the five municipal sanitation utilities in Yunnan Province to achieve full cost

Table 2: Municipal Management Focus of Region Portfolio

Share of all MDPs with a project design focus on:	Completed	Ongoing
City planning		
In objectives (%)	50	50
In components (%)	40	64
Municipal finance		
In objectives (%)	60	21
In components (%)	33	64
Service delivery		
In objectives (%)	90	100
In components (%)	97	93
Number of all MDPs	30	14

Source: IEG special study.

Note: MDP = municipal development project.

recovery, but there has been some progress in tariff adjustment. **China X** reported similar constraints in limiting cost recovery, but for solid waste management in Hubei Province.

Although the details are scarce, **Indonesia II** did report enhanced revenue collection among the 45 municipalities assisted by the project in East Java and Bali. Under **Indonesia IV**, however, inflation eroded effective cost recovery of municipal water utilities in Semarang (population 1.3 million) and Surakarta (population 555,308). **Mongolia's MDP** achieved a lot on the municipal finance front, but not the full financial autonomy for the municipal sanitation utility of Ulaanbataar (population 844,818) promised by the project's ambitious objectives. Nevertheless, computerized billing worked well and considerably enhanced tariff collections. **Philippines I** achieved significant results across the 74 client municipalities, especially through property tax cadastres that more than doubled assessed values; actual tax collections increased by 64 percent over the 1994–2001 project period. **Vietnam's MDP** enabled municipal water supply utilities in Hanoi (population 1.4 million) and Haiphong (population 602,695) to cover their operations and maintenance (O&M) costs and even build up some reserves.

Municipal creditworthiness and debt management

This aspect of municipal management was explored on a small scale. **Philippines I's** Municipal Development Fund established a long-term credit window that loaned \$34 million to eligible municipalities. Although the lending was small scale relative to municipal needs, the credit mechanism did introduce 74 municipalities across the country to debt service management.

Private finance participation

IEG found little evidence of significant effort by MDPs to enhance private finance for municipal services in the Region.

IMPROVED SERVICE PROVISION

Investment priorities

Some 60 percent of MDPs provided economic rate of return (ERR) estimates for project investments at appraisal and completion. They were widely used for MDPs completed in China. **China XIII** yielded a 39 percent ERR based on users' willingness to pay for sanitation services in 38 municipalities in Shandong Province. **China II** and **VII** reported ERRs of 28 percent, from the benefits of time and operating cost savings from improved traffic flows in Shanghai. **China III** led to ERRs of 23 percent Tianjin, based on benefits accruing principally from urban land development for housing and industrial uses.

But a more robust economic analysis, distinguishing new businesses from those that had simply transferred to the **China IV** project area in Shaoxing (population 421,283) in Zhejiang Province, would have evaluated the project's land development more precisely. Satisfactory ERRs in the 14–18 percent range were reported elsewhere through **Mongolia's** and **Vietnam's** MDPs, as well as **Indonesia II**. In some cases, unpersuasive reasons were given for project teams not estimating even simplified internal rates of return. Thus, excessive cost and time needed were cited as reasons for not estimating an ERR for **China VII**, despite the high cost of the project investment incurred to improve the quality of the water supply to Shanghai.

Procurement

MDPs in this Region reported few significant results, as far as changes in procurement practice at the municipal level are concerned. One exception was **China III**, through which the municipality of Tianjin conducted successful international competitive bidding to establish the Shuangkou solid waste disposal site, China's first fully sanitary landfill, complete with an onsite leachate treatment plant that became a model operation for the country.

Operations and maintenance

The results of some MDPs call for municipalities to pay more attention to assuring financing for ongoing operations of existing infrastructure and municipal services. For instance, a municipal water supply system provided under **Indonesia II** for the Kintamani district of Denpasar (population 405,923) in Bali fell into disuse, as the local authorities could not afford to pay to operate the necessary pumps for more than a fraction of the time needed. In Sulawesi, **Indonesia VII's** 41 client municipalities were unable to adopt the project's "performance-oriented maintenance management systems," which they found too complicated. In Western Java **Indonesia X** saw that continuing uncertainties about the funding mechanisms for municipal waste management corporations put the project's urban environmental achievements at risk. **China XV**, completed in 2007, reported that the four beneficiary municipalities needed to raise more revenues to ensure O&M funding.

Services—Most affected sectors

MDPs in this Region provided support to municipalities to improve services connected with water supply, basic sanitation, and other

environmental improvements. In addition, they helped improve urban transport, through new urban roads, street paving, and drainage and traffic management measures. The upgrading of low-income areas through the introduction of basic infrastructure continues through MDPs in East Asia, but on a smaller scale than before, and elsewhere.

To improve the municipal management of water supply, MDPs made some notable achievements in China in particular. A significant environmental and public health gain for more than 8 million inhabitants of Shanghai was the result of **China VII's** provision of a safer water supply. This was done by implementing a major intake upriver in less-polluted reaches of the environmentally stressed Huangpo River, as well as implementing mitigation measures in solid waste collection and disposal and restricting use of agricultural fertilizers to prevent runoff from further polluting the river. Major municipal water treatment plants under **China IV** improved service quality to the people living in key cities of Zhejiang Province, Hangzhou (population 1.9 million), Ningbo (population 719,867), and Wenzhou (population 865,672).

MDPs also improved basic sanitation. The innovative, low-cost, small-scale "modular" approach to sewage treatment was adopted by the municipality of Malang (population 747,000) under **Indonesia VI**. However, its success was limited, as low-income residents continued to discharge sewage without charge into storm drains, rather than paying the (modest) fee imposed by the new system.

MDPs made more progress helping municipalities improve their solid waste management, especially in the final disposal of waste. **China III** led to the building and operation of the country's first sanitary landfill at Shuangkou near Tianjin—now considered a successful model nationwide. This experience built on earlier successful efforts to improve solid waste disposal in Beijing under **China I**. Under **China X**, the municipality of Xianfang (population 462,956) in Hubei Province succeeded in disposing of 100 percent of its collected solid waste in a sanitary landfill built by the project. **Indonesia V** introduced controlled landfills to five municipalities in Kalimantan that also closed down their earlier unsanitary dumps, which had polluted the surface water of nearby settlements.

MDPs made significant improvements to urban transport. The municipality of Shanghai was able to complete its high-capacity inner ring road under **China II**, an operation like others in the country that paid little attention to public transport. Mostly through traffic management improvements, with construction limited to widening existing streets, **China III** introduced better traffic surveillance and monitoring to the city of Tianjin. Traffic management was a priority under **Vietnam II**, too, especially through the successful introduction of computer-controlled traffic lights in Hanoi (population 1.4 million), which led to average trip time savings of 30 percent, well above the 10 percent targeted.

Compared with other Regions, MDP coverage of slum upgrading was thin, although **Philippines I** supported investments in this area

Box 1: Key to MDPs Referred to in Text

China: I—Beijing Environment; II—Shanghai Metropolitan Transport; III—Tianjin Urban Development Project; IV—Zhejiang Multicity Development; V—Southern Jiangsu Environmental Protection; VI—Shanghai Environment; VII—Second Shanghai Metropolitan Transport; VIII—Liaoning Environment; IX—Enterprise Housing and Social Security Reform; X—Yunnan Environment; XI—Hubei Urban Environment; XII—Chongqing Industrial Pollution Control and Reform; XIII—Shandong Environment; XIV—Liaoning Urban Transport; XV—Sichuan Urban Environment; XVI—Chongqing Urban Environment; XVII—Urumqi Urban Transport; XVIII—Shijiazhuang Urban Transport; XIX—Tianjin Second Urban Development; XX—Wuhan Urban Transport; XXI—Chongqing Small Cities Infrastructure Improvement; XXII—Liuzhou Environment Management; XXIII—Second Shanghai Urban

Source: IEG.

(APL). **Indonesia:** I—Sulawesi—Irian Jaya Urban Development; II—East Java/Bali Urban Development; III—Semarang Surakarta Urban Development; IV—Surabaya Urban Development; V—Kalimantan Urban Development; VI—Second East Java Urban Development; VII—Second Sulawesi Urban Development; VIII—Urban Poverty; IX—Municipal Innovations; X—Western Java Environmental Management; XI—Second Urban Poverty; XII—Urban Sector Development and Reform. **Korea:** Pusan Urban Transport. **Mongolia:** Urban Services Improvement. **Philippines:** I—Third Municipal Development; II—Local Government Unit Finance and Development; III—Support for Strategic Local Development and Investment. **Vietnam:** I—Water Supply; II—Urban Transport Improvement; III—Urban Upgrading; IV—Coastal Cities Environmental Sanitation.

across 74 municipalities. This focus was also found under **Indonesia V** in Kalimantan. The most successful component of the latter MDP was the **Kampung Improvement Program** in five municipalities, a program component that the Bank has supported for more than two decades throughout the country. In contrast, an activity supported in East Asia but not found often elsewhere was the support under **China I** that enabled twice the coverage by Beijing's interconnected district heating network.

Services—Private provision

Very few MDPs focused attention on expanding the role of the private sector in providing municipal services. Consequently, IEG found few examples of significant results in this area within the Region. Efforts were made through some MDPs to stimulate private commercial operations in service delivery by closing old municipal service departments and replacing them with agencies, such as the Beijing Drainage Company under **China I** and the Shanghai Public Transport Company under **China II**, but these new enterprises remained firmly harnessed to the state sector. The first steps toward a private-public partnership in water supply at the municipal level were taken in Shandong Province under **China XIII**.

Income level of beneficiaries—Poverty reduction

Few MDPs in the Region—mostly those in Indonesia and the Philippines—focused clearly on the urban poor. **Indonesia VIII**, for instance, supported 18,000 infrastructure microprojects that had

been identified by participatory community development plans in low-income urban areas. **Indonesia V**, particularly through its *kampung* improvement program of upgrading low-income areas with basic services, is estimated to have benefited nearly half the population of the five client municipalities in Kalimantan. **Philippines I** started out with a strong focus on benefiting the poor, but this became less clear in the face of incentives for municipalities to embark on revenue-generating subprojects that would benefit higher-income groups.

CONCLUSIONS

- In countries with unitary municipal administrations for very large cities (even megacities), such as China, the retail approach to strengthening municipal management can be an appropriate model.
- MDPs have enabled many municipalities to strengthen their management of service provision, especially for improving the urban environment. The sectoral focus varies across countries in the Region, pointing to possibilities of fruitful exchanges of successful experiences among them.
- Results in strengthening municipal finances have been less evident across this Region, calling for more MDP efforts to enhance revenue mobilization for municipalities to fund the O&M necessary to sustain the service provision achievements obtained thus far.