

ASIAN DEVELOPMENT BANK

IES:REG 97019

IMPACT EVALUATION STUDY

ON THE

BANK ASSISTANCE

TO THE

URBAN DEVELOPMENT AND HOUSING SECTOR

December 1997

ABBREVIATIONS

BPNT	-	Bang Plee New Town
BUDP	-	Banding Urban Development Project
DMC	-	Developing Member Country
EIRR	-	Economic Internal Rate of Return
FIRR	-	Financial Internal Rate of Return
GOI	-	Government of Indonesia
GOM	-	Government of Malaysia
GOP	-	Government of Pakistan
GOT	-	Government of Thailand
IES	-	Impact Evaluation Study
IUIDP	-	Integrated Urban Infrastructure Development Program
KIP	-	Kampung Improvement Program
MUDP	-	Medan Urban Development Program
NHA	-	National Housing Authority
NWFP	-	Northwest Frontier Province
PIU	-	Project Implementation Unit
PPAR	-	Project Performance Audit Report
SSP	-	Shelter Sector Project

WEIGHTS AND MEASURES

t	-	ton (metric ton)
ha	-	hectare
mgd	-	million gallons per day

NOTES

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

EXECUTIVE SUMMARY

Countries in the Asian region have undergone a dramatic urbanization process during the last 30 years. The urban population increased from 270 million in 1960 to 850 million in 1990. The percentage of urban population experienced corresponding changes, increasing from 18 to 30 percent of the total population. Projections are that this trend will continue, making the Asian region predominantly urban by 2020.

The Bank has been lending to the urban development sector since 1976. Since then, 41 loans for \$2.2 billion were approved for integrated urban development, regional development, and housing. This Impact Evaluation Study (IES) was conducted to assess the impact of some of these projects. By drawing lessons from past experience, the IES intends to contribute to improving project design and implementation, and enhance project impacts. It also aimed to provide inputs to the Bank's initiative to formulate its urban development strategy.

The IES reviewed a total of 12 loans. This included five integrated urban development projects in Indonesia, three regional development projects in Malaysia, two integrated urban development projects in Pakistan, and two housing projects in Thailand. This sample represents 31 percent of loan amounts approved for projects in these three subsectors. The projects were approved between 1976 and 1989. The IES collected data from government officials, staff of executing agencies, and agencies providing urban services. Beneficiary surveys were conducted in project and control areas.

Following the Logical Framework, the IES defined impacts as changes that occur in respect to project objectives. It aimed to evaluate technical, financial, economic, social, institutional, and environmental impacts. The IES found that intended impacts of projects were not well defined. As a result, project inputs and activities are not well focused on attaining impacts. This impedes their effectiveness. In addition, the imprecise definition of intended impacts, and lack of baseline information made an assessment of actual impacts difficult.

Integrated urban development projects generally succeeded in improving living conditions. However, the IES found that a better integration of project components is necessary to ensure that synergistic effects are attained. Without clear linkage between components, the rationale for an integrated project seems to be the loan size rather than its intended impacts. Projects were less successful in attaining orderly urban development or improving the efficiency of urban service delivery. Apart from definitional problems, orderly urban development depends on a great number of factors outside the control of projects. For projects to improve efficiency in urban service delivery, institutional reasons for inefficiencies would need to be analyzed. This is not done by projects. Sustaining positive impacts on living conditions is difficult because of increasing urban pressure on infrastructure and continuing weaknesses of urban management institutions.

Regional development projects showed varied results. The main reason is that their success depended on a favorable location and economic conditions. When economic opportunities were available, regional development projects facilitated an industrialization process. Particularly so, when projects included components to support training, employment creation, and necessary infrastructure. However, when such positive external conditions were not available, projects proved less successful. The sustainability of project facilities were found to depend on its economic success. In the first project, facilities were well maintained. Facilities of the less successful projects were not in full use, thus deteriorating. Additional funds to rehabilitate these facilities would be required if ever demand would increase sufficiently to require their operation at full capacity.

The economic performance of both housing projects was generally successful. However, one of the projects had rather ambitious goals which were not met. It aimed to alleviate the population pressure on Bangkok, but its size was inadequate for such a complex task. This project demonstrated the importance to consider and involve local governments. Being a new town, its status and the responsibility of local authorities were not well defined. As a result service provision and maintenance of infrastructure were an issue. In addition, none of the local authorities were responsible for and able to deal with social issues that arose as the new town's social fabric had to develop. The other project experienced during implementation a drastic revision of scope. It met its revised targets, but fell short of the initial goals.

The findings of the IES underpinned once again the importance of involving local governments and beneficiaries. Their active participation in project design and implementation is necessary to ensure project relevance. When beneficiaries were left out, their demand for services and willingness to pay for them was limited. This affected capacity utilization rates and financial performance of project facilities. When local governments were not involved in project decision, their commitment to take over project facilities after completion was affected. Their reluctance to accept ownership was affected by their concern over loan repayment and financial viability of project facilities.

Local capacities to operate and maintain project facilities were not always in place. However, projects have not given much support to developing such capacities. The opportunity to develop a client-oriented service attitude of agencies delivering urban services was missed. Such a client orientation is needed if service delivery is to improve. Instead, projects focused on setting up implementation units, equipping counterpart staff with knowledge for project administration. As a result institutional impacts of projects were negligible.

The IES found that the success of urban development hinges on a functioning institutional framework. In order to optimize efficiency and maximize benefits, urban management capacities should combine a clearly structured institutional framework with flexibility for responding to changing demands. Actually, project-related institutions involved in urban management and service delivery tended to be rigid while relationships among them was not well defined. The role of central government agencies needs to change towards setting policies and standards, and more responsibility and authority should be devolved to local governments. Capacities responsive to urban development requirements need to be developed at local levels, such as the capability to develop, manage, and monitor new projects, and to operate and maintain existing facilities delivering urban services. They should involve public and private sectors. The reform processes would require that analyses are carried out to develop individualized institutional development strategies.

I. INTRODUCTION

A. Purpose of the Evaluation

1. The Bank has approved loans and technical assistance projects for urban development and housing since 1976. While a number of projects have been postevaluated, a comprehensive review of their long-term impacts has not been undertaken. To verify whether the right approaches are being followed, the Bank decided to review its 20 years of experience in this sector and to assess the impacts attained through its projects. This Impact Evaluation Study (IES)

was conducted to draw lessons from past experience to improve the quality of project design and implementation, and aimed to provide inputs to the Bank's initiative to formulate its urban development policy.

B. Scope of the Evaluation

2. Urban development and housing are often based on an urban planning exercise and include projects that cover municipal infrastructure, services, and dwellings. Projects in the sector can be grouped into the following subsectors: (i) integrated urban development, (ii) regional development, and (iii) housing. Bank lending to this sector from 1976 to 1996 totaled \$2.2 billion in support of 41 projects (pare. 30 and Appendix 1). Other projects that aim to improve municipal services in a single subsector but are not part of an overall planning framework for urban development were excluded from this IES.

3. The IES covers 12 loans in Indonesia, Malaysia, Pakistan, and Thailand (representing group A, B, and C countries). The subsectors are reflected in the sample as follows:

- (i) seven integrated urban development projects (five in Indonesia, two in Pakistan):
- (ii) three regional development projects (all in Malaysia); and
- (iii) two housing projects (both in Thailand).

4. These projects involved Bank loans amounting to \$686.1 million, or 30.9 percent of the Bank's lending to the sector. Details on the projects are given in Table 1.

5. At the time of impact evaluation, all projects (except Loan No. 1004-PAK: *Second Urban Development Project*) had been completed and their completion reports had been available (except for 793-PAK[SF]:*Karachi Urban Development Project*, which was completed in December 1995). Eight of the twelve projects have been postevaluated, and one has been reevaluated.¹ Seven projects were rated generally successful, three were partly successful, and two have not yet been rated. Positive ratings were based on evaluation observations that project objectives had, by and large, been met, and that acceptable economic internal rates of return (EIRRs) had been attained. Projects that were rated partly successful had not become dynamic growth centers, and were generating economic returns below acceptable rates. Lessons from previous postevaluations are summarized in Appendix 2.

¹ Postevaluation reports and their findings have been summarized in the Sector *Synthesis of Postevaluation Findings in the Urban Development and Housing Sector*, PEO, October 1995. Details from postevaluation reports can be accessed through the computer-based Postevaluation Information System (PEIS).

Table 1: Loans Included in the Impact Evaluation Study

Loan No.	Title	S million	% ^a	Rating ^b
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INDONESIA			
0400-INO	Bandung Urban Development Project (BUDP I)	32.3	- RES: GS
0550-INO	Medan Urban Development Project(MUDP I)	39.3	- PAR: GS
0629-INO	Small Towns Urban Development (Sector) Project (STUDP)	36.7	- PAR: GS
0768-INO	Second Bandung Urban Development Project (BUDP II)	132.4	- PCR: GS
0919-INO	Second Medan Urban Development Project (MUDP II)	175.0	- PCR: GS
	Subtotal	415.7	18.7
MALAYSIA			
0344-MAL	Trengganu Tengah Township Development Project	16.0	- PAR: PS
0583-MAL	Second Trengganu Tengah Development Project	30.2	- PAR: PS
0729-MAL	Kedah Regional Development (Sector) Project (KEDAH)	45.0	- PAR: GS
	Subtotal	91.2	4.1
PAKISTAN			
0793-PAK(SF)	Karachi Urban Development Project(KUDP)	55.2	- n.a.
1004-PAK(SF)	Second Urban Development Project (SUDP)	66.0	- n.a.
	Subtotal	121.2	5.4
THAILAND			
0481 -THA	Bang Plee New Town (BPNT)	20.0	- PAR: PS
0736-THA	Shelter Sector Project (SSP)	38.0	- PAR: GS
	Subtotal	58.0	2.6
		Total	686.1
			30.9

a Percent of total lending to the sector.

^b Reflects the latest rating, using the following codes: PCR = Project Completion Report; PPAR = Project Performance Audit Report; RES = Reevaluation Study; GS = Generally Successful; PS = Partly Successful; n.a. = not available.

C. Evaluation Approach

6. The IES was financed by a regional technical assistance.² Resources were used to recruit international and local consultants to support postevaluation staff.

² TA No. 5662: *Impact Evaluation Study of Bank Assistance in the Urban Development and Housing Sector*, for \$400,000, approved on 18 December 1995.

7. The IES started with a desk review of available background information and existing evaluations. Questionnaires for field surveys were developed. Field work, conducted from June to September 1996, included discussions with government officials and staff of executing agencies, inspections of sites and physical works, and beneficiary surveys in project areas and control areas. The latter were chosen to provide "with" and "without" project comparisons. Issues and preliminary findings were discussed with all parties concerned in each country and compiled in country reports. An interdepartmental technical committee was formed to guide the IES and reviewed all interim reports. These contributions are reflected in this report.

8. The IES adopted the same terminology as used in the project framework: impacts are measured at the level of project objectives, while outputs are physical deliverables. For example, a drainage system (output) reduces flooding (effect), with resultant impacts on lives, time, and property. Factors such as incidence of water-borne diseases, soil erosion, and water pollution affect the economic, social, and environmental impacts. Intended impacts discussed in this report were derived from sector goals or long-term objectives specified in appraisal reports. To measure actual impacts, the IES devised various categories.

9. Technical or physical impacts were assessed in terms of service expansion (coverage of population and/or area) and service quality (frequency of services, water quality, extent to which waste water and solid waste removal has been increased). Initially, the IES intended to assess project impact on technical solutions. However, only housing projects (introducing the core house concept) and one integrated urban development project (innovative non-clogging drains) intended to introduce new technologies. Actual impacts of these examples were adverse: the core house concept was not acceptable to customers and abandoned after project completion, and the performance of drains was unsatisfactory. Other projects either built on existing facilities, thus maintaining the same technological level, or did not consider technology issues at all. Institutional impacts were measured in terms of changes in the capacities to operate and maintain facilities, provide services efficiently, and manage resources. Environmental impacts were considered in terms of changes in air, soil, and water conditions, run-off erosion, and encroachment on environmental assets as a result of urban expansion.

10. Financial impacts were measured by calculating financial internal rates of return (FIRR). In addition, the IES attempted to assess impacts on other financial performance criteria such as tariff policy, subsidies, cost recovery, affordability, financial sustainability, and local government finance.

11. The IES wanted to assess economic impacts on spatial patterns of growth as well as urban land management, efficiency, and productivity of urban centers. However, most projects did not significantly impact on spatial growth patterns or urban land management because of their size, and because of associated political sensitivities. Estimates of impacts on urban efficiency would have required an assessment of the combined effects of project components on, among others, urban transaction costs (travel times, vehicle operating costs, and safety resulting from road projects), cost of doing business (transaction costs, costs of organizing essential urban services not available from a public/regular source, health-related labor costs, etc.), income gains/losses to workers (days gained/lost at work or school due to illness resulting from water and sewerage problems), environmental costs (cost of preventing or cleaning up water, air, soil, and noise pollution), and social costs (functioning of social groups, violence, safety, and security). Because reliable baseline data for these criteria were not collated at appraisal, a scientific assessment of project impacts was not possible. Therefore, EIRRs were used to assess economic impacts.

12. Socioeconomic impacts were measured by assessing the extent to which equitable access to urban services have been created for low-income groups and the resultant effects on poverty reduction, and the extent to which the role of women in economy and society has been promoted.

II. URBAN DEVELOPMENT IN THE REGION

A. Urbanization Trends in the Region

13. Countries in the Asian region have undergone a dramatic urbanization process during the last 30 years (Table 2). In 1960, the urban population numbered 270.6 million—18 percent of the region's population. In 1990, the percentage increased to 30 percent, and total number trebled to 849.1 million. The rate of urbanization has been unprecedented, averaging 3.9 percent per year between 1960 and 1990. In absolute terms, the urban population of developing member countries (DMCs) has been increasing by an average of nearly 20 million per year. It is anticipated that by 2020 the region will be predominately urban with a total urban population of 2.2 billion, or 54 percent of total Asian population. The annual compound increase is estimated at 3.3 percent, and the annual average absolute increase at 46 million.³

14. Rapid urban growth is typical for the transformation from agricultural to manufacturing and service-based economies. Cities are thought to be important centers of economic growth and industrialization because they bring human, financial, and material resources together in one location. They provide transportation, communications, services, information, entrepreneurial opportunities, and trade and business linkages between domestic producers and international markets. However, rapid urbanization also poses major challenges because urban infrastructure, housing markets, environmental quality, and urban management capacity are severely strained. With an average annual population increase of 4 percent in major cities over the past 40 years, many cities have outstripped their urban infrastructure, and now require \$6.9 trillion in investments over the next 25 years.⁴

Table 2: Population and Urbanization Trends in the Region

	Indonesia	Malaysia ^a	Pakistan	Thailand	Asia
Total Population (millions)					
1960	93.5	8.2	50.2	25.4	1,503.3
1990	181.6	18.0	122.7	54.8	2,830.3
2020	274.6	28.4	248.7	78.5	4,146.6
Total Urban Population (millions)					
1960	14.0	2.3	11.0	3.3	270.6
1990	56.3	9.6	39.3	12.6	849.1
2020	151.0	24.0	131.8	35.3	2,239.2
Urban Population (%)					
1960	15.0	28.0	22.0	13.0	18.0
1990	31.0	52.8	32.0	23.0	30.0
2020	55.0	84.5	53.0	45.0	54.0
Urban Population Growth Rate (%)					
1960-1990	4.7	4.5	4.3	4.6	3.9
1990-2020	3.3	3.0	4.1	3.5	3.3

³ Asian Development Bank. 1996. *Key Indicators of Developing Asian and Pacific Countries*, Manila: Asian Development Bank; and United Nations. 1990. *World Urbanization Prospects*, United Nations.

⁴ R. Brockman. Overview of *Urban Finance in the Region*, Theme Paper, ADB Seminar, 16-18 April 1996.

^a Figures for total urban population in Malaysia were provided by the Economic Planning Unit, Government of Malaysia.

15. Indonesia's current rate of urbanization is almost 5.4 percent. The country's total population doubled between 1960 and 1990. Over the same period, the urban population growth rate quadrupled and the percentage of people living in urban areas doubled (Table 2). It is estimated that between 1990 and 2020, the urban population will grow at a rate of 3.3 percent, resulting in an urban population of 151.1 million by 2020.

16. Malaysia's urban population growth rate averaged 4.5 percent per annum during the period 1960-1990. In absolute terms, the total population increased from 8.2 million to 18 million, with an increase in the urban population from 2.3 million in 1960 to 9.6 million in 1990. The total population is projected to increase to 28.4 million—24 million living in urban areas—by 2020, assuming an urban population growth rate of 3 percent over the next 30 years.

17. Pakistan's total population was estimated at 50.2 million in 1960, of which 11 million lived in urban areas. The urban population almost quadrupled by 1990. The percentage of people living in urban areas increased from 22 percent in 1960 to 32 percent in 1990. This trend is expected to accelerate so that by 2020, 53 percent of the total population, or 131.8 million people, will live in urban areas. The average annual growth rate of the urban population is estimated at 4.1 percent over the next three decades.

18. Thailand's urban population almost quadrupled between 1960 and 1990. The total population more than doubled over the same time span. By 2020, both the total population and the urban population are expected to triple. Likewise, the percentage of people living in urban areas, only 13 percent in 1960 is projected to reach 45 percent in 2020, with an average annual urban population growth of 3.5 percent between 1990 and 2020.

B. Government Policies and Programs

19. Although a comprehensive description and analysis of government policies is beyond the scope of this report, the details summarized in this section are necessary to describe briefly the context in which Bank-financed projects were designed and implemented.

1. Indonesia

20. Throughout the last three decades, the Government of Indonesia (GOI) implemented a vigorous urban infrastructure expansion program. Building on its successful *Kampung Improvement Program* (KIP),⁵ GOI broadened its approaches to urban infrastructure development through a series of projects focused on entire urban areas. Drawing on the experience of these projects and using the output of a National Urban Development Study, GOI, working with international donors, designed and introduced the Integrated Urban Infrastructure Development Program (IUIDP). The concept integrates planning and programming of city-wide infrastructure investments. Instead of preparing separate sector projects (e.g., a project for water supply, another for solid waste), the approach seeks to develop multisectoral infrastructure investment programs. This integrated approach is thought to capitalize on synergy effects (by combining planning and design work for a range of infrastructure services), accelerate urban infrastructure investment, promote decentralized decisionmaking (by encouraging local governments to

⁵ The Program started in the 1960s in Jakarta to improve the physical conditions of low-income residential areas (*kampungs*). From the very beginning, it included water supply, sanitation, drainage, solid waste management, upgrading of paths and lanes, and other community facilities.

participate in the design process), and enhance local financial independence and accountability (by requiring local governments to repay capital costs).

21. GOI's *Policies for Urban Development in Indonesia* were prepared in 1987 by the Coordination Team for Urban Development, chaired by the National Development Planning Board. The policy paper establishes six principles and goals.

- (i) Local governments are responsible for providing infrastructure, including its operation and maintenance (O&M).
- (ii) Applying a decentralized and integrated approach will continue to improve planning, programming, and implementation of investment projects at all levels of government.
- (iii) Local government resource mobilization will continue to be strengthened.

- (iv) The financing system of urban infrastructure development will be strengthened by devising a unified lending mechanism and improved grant allocation criteria.
- (v) A coordinated institutional and human resource development program will be introduced.
- (vi) Interagency coordination will be improved.

These six policy objectives remain valid, and have been supplemented with additional goals such as poverty alleviation, private sector participation in the provision of urban infrastructure and services, development of industrial areas, and employment generation.

2. Malaysia

22. The Government of Malaysia (GOM) has focused on economic and social development since attaining its independence, formalizing its strategies and development goals in five-year development plans. At independence, income and physical infrastructure facilities were unevenly distributed and developed among the states. To rectify these imbalances and to eradicate poverty, GOM devised a regional development policy in line with its New Economic Policy, which formed the basis for the Second Malaysia Plan (1971-1975). The primary goal of this policy was to narrow inequality in living standards and to ensure an equitable sharing of benefits. The reduction of physical and economic disparities among regions was to be achieved by restructuring human and physical resources in less developed regions.

23. To implement its policies, GOM set up Regional Development Authorities with responsibility for planning, promoting, coordinating, participating in, and implementing socioeconomic projects within their jurisdictions. The regional development approach was designed to provide employment opportunities in agriculture and industry, and to create new townships and growth centers. Unlike the traditional estates established during colonial times, where laborers lived on the estate itself, the new approach called for the provision of urban facilities and services to workers and settlers in the rural development scheme. To a certain extent, this helped increase the number of *Bumiputras*⁶ living in urban areas and enhanced their quality of life. At the same time, urban services were made available to the population in towns, creating the basis for a productive urban economy. However, the extent to which these regional development schemes succeeded required a long gestation period and depended on the number and type of economic opportunities available in the various regions. Because the approach has not proven effective, GOM undertook to revise the role of regional development authorities

3. Pakistan

24. The Government of Pakistan (GOP) divides the responsibility for urban development between federal, provincial, and local governments. At the federal level, annual and five-year economic and social development plans include urban development targets. A line ministry responsible for urban affairs has a coordinating role, while a number of other ministries are involved in aspects of urban infrastructure. For instance, the Ministry of Health is responsible for ensuring water quality standards and resultant effects on health indicators. Departments at the provincial level and local governments are responsible for planning, designing, and implementing urban development projects in line with federal policies. While respective municipalities have their own sources of

⁶ Indigenous Malaysian population.

revenue and legal powers, regulated by the province, they also receive grants from the provincial Annual Development Program for capital development projects or services of a special social nature.

25. GOP's current National Five-Year Plan (1993-1998) focuses on poverty alleviation, increased employment opportunities, broad social development in education and health, and improvement in the technological base of various sectors. Under these themes major sectoral programs include urban and rural water supply and sanitation, provision of residential plots to low-income families,

improvement of *katchi abadis*,⁷ construction of housing for Government employees, and construction of Government offices. The annual Public Sector Development Program, which was

⁷ Low-income areas on public land.

designed to implement goals set in five-year plans, allocated funds to the development of serviced plots for low-income families in urban areas in 1 995/96.

4. Thailand

26. The Government of Thailand (GOT) assigns a vital role to urban areas as physical framework to disperse economic activities, reduce geographic inequalities, and aid the process of economic restructuring.⁸ Recognizing the strains on urban areas resulting from rapid economic growth over the past ten years, GOT has adopted policies for improving living standards in urban areas. The primary objective for urban development, articulated in the Eighth National Economic and Social Development Plan (1997-2001), emphasizes the flow and interchange of goods, people, and information among various types of urban areas corresponding to their complementary roles. Policies focus on (i) improving the quality of life in urban areas; (ii) reversing environmental deterioration and improving environmental standards; and (iii) improving the delivery of urban social services to all socioeconomic groups. A further important objective arises from Thailand's strong urban primacy. GOT continues to stress the need for urban decentralization to relieve pressure on Bangkok's urban infrastructure. Its policies aim to reduce rural-urban disparities by increasing the demographic growth and economic strength of urban areas outside the Extended Bangkok Region. This policy has already resulted in rapid urban population growth in the Northeast Region, where the population of cities grew at about twice the rates of the country as a whole, as well as the Extended Bangkok Region from 1980 to 1990. In other regions, urban areas grew at about the same rate as the Extended Bangkok Region, a trend that appears to be continuing in the 1990s.

27. In pursuit of its decentralization policy, GOT is considering new institutional mechanisms. So far, the National Housing Authority (NHA) is the public institution entrusted with the responsibilities of providing housing, upgrading slums, and developing new towns. NHA has been under increasing competitive pressure from the expanding private sector because target client groups of NHA and the private sector are overlapping. At the same time, NHA has a complex mandate, as it must combine the provision of shelter for the poor with profitability targets. New institutional mechanisms may include urban development corporations, formed by NHA and private entities, with a mandate to develop suburban centers by building comprehensive housing estates or self-contained towns. Such corporations would be profit-making and operate within the confines of approved master plans for designated local areas. In this context, NHA is now planning another new town in addition to the one built with Bank financing: Bang Plee New Town (BPNT), and, in partnership with the private sector, is considering four more new towns to the north and west of Bangkok.

C. The Bank's Policy and Portfolio

1. The 1987 Review of Bank Operations

⁸ GOT's planning calls for the Bangkok Metropolitan Region to serve as the transition to a communications and high-tech economy, and the Eastern Seaboard and the Upper Central Regions as the country's industrial areas.

28. The first comprehensive document on the Bank's urban development portfolio was prepared in 1987.⁹ Much of the Review's discussion centered around issues of rural-urban migration, the need

⁹ IN 290-87: *Review of Bank Operations in the Urban Development and Housing Sector*, 23 December.

and rationale for and expected effects of improving urban infrastructure. Arguments were brought forward in defense of urban development projects because, at that time, they were challenged on grounds that improved infrastructure would contribute to spiraling growth trends of urban centers. The Review further discussed operational issues, including the need for institutional development, the complementarity of efficiency and equity goals, the role of the private sector, and the justification of an integrated urban development approach.

29. The Review set ambitious goals for future directions of Bank operations. It aimed at both city-wide and region-wide impacts—pursuing growth, efficiency, and equity objectives, while meeting the needs of underserved areas. Another goal was to assist in developing and managing cities through shelter, integrated urban infrastructure, and community services. Previous approaches and assistance were to be continued and expanded to cover urban transportation and land management. In addition, participation of the private sector was to be promoted, and different lending modalities (sector and program loans) were to be utilized. These directions for future projects were not to impede the Bank's portfolio of loans to individual urban subsectors that did not follow an integrated urban development approach.

30. In 1989, the Review's conclusions formed the basis for Section 79 of the Operations Manual, formalizing directions for operational activities in the sector. The *Framework for Economic and Financial Analysis of Urban Development Sector Projects*, published in January 1994, is a guideline for project appraisal. None of the mentioned documents set forth a formal Bank policy paper for assistance in the sector, the preparation of which began only recently.

2. Sector Portfolio

31. A total of \$2.2 billion, 3.8 percent of the Bank's total lending from 1976 to 1996, was approved for 41 loans to the sector (Appendix 1). The largest borrower was Indonesia (\$1,304.9 million), followed by Bangladesh (\$278.7 million) and Pakistan (\$121.2 million). Group A countries signed 14 loan agreements for \$593.9 million (26.8 percent), group B countries obtained loans for \$1,392.9 million (62.8 percent), and group C countries borrowed \$231.3 million (10.4 percent). Of the total lending to the sector, \$558.9 million were approved from the Asian Development Fund and \$1,659.2 million from ordinary capital resources. The lending portfolio was complemented by technical assistance: \$24.6 million for 55 advisory and operational technical assistance, and \$18.1 million for 50 project preparatory technical assistance.

32. In line with the Bank's urban development objectives to promote growth, efficiency, and equity, 31 loans were approved for integrated urban infrastructure development, totaling \$1.9 billion. Projects of this type comprise a variety of urban services such as water supply, waste water collection and treatment, drainage, solid waste management, roads and pathways, and upgrading of low-income areas. The underlying reason for this approach is that synergetic effects are expected from improving interdependent urban subsectors in parallel. The approach was used first in 1976,¹⁰ and has been employed in 30 loans approved since then. They are increasingly funded from sector loans. As the approach is now used for loans to secondary cities, projects cover not only several subsectors but also a large number of cities. This type of project matched the policies of both GOI and GOP.

33. The Bank's objective of promoting balanced regional growth was pursued through regional development projects. GOM borrowed \$91.2 million for three projects, corresponding to its goals to foster the development of less developed regions. The projects include shelter and municipal

¹⁰ Loan No. 271-INO: *Bandung Urban Development and Sanitation*, for \$1.2 million, approved on 26 August 1976.

facilities as well as income-generating activities and roads. The last regional development project was approved in 1985, reflecting policies of the GOM to deemphasize this type of project.

34. Corresponding to the Bank's objective to assist in providing shelter, seven loans were approved for \$198.1 million. Six of these were approved for low-income housing, while one aimed to develop a new town. The last such project was approved for Sri Lanka in August 1991. The projects in the IES sample matched the goals of GOT.

III. IMPACT ASSESSMENT

35. This chapter first establishes definitions that were used in the IES. Impacts of projects to each subsector are discussed in the subsequent three sections. Institutional and environmental impacts are discussed in separate sections.

36. Intended impacts to the extent that they are sufficiently defined in appraisal reports—were used to assess whether these were actually met by project results, adhering to the evaluation principle of comparing planned with actual achievements. This approach does not establish impacts on efficiency and management of a municipality as a whole unless such impacts were intended at project appraisal—but focuses on the intentions of project planners. It was necessary to choose such an approach given the magnitude of urban development challenges, since the average project size is too small to effect major impacts on urban centers. Quantitative and qualitative data was compiled to reflect the circumstances prevailing at the time of evaluation. However, a scientific comparison with the pre-project situation was not always possible because of the lack of quantified baseline data.

A. Integrated Urban Development

37. While the IUIDP approach formed the basis of a national policy framework in Indonesia, a similar approach was used in Pakistan¹¹ and other countries. Projects are based on an urban

¹¹ In Pakistan, the integrated approach was identified in the UNDP-supported Master Plan for Karachi 1985 prepared in 1973.

development plan and include assistance to a variety of municipal services. The approach aims to increase impacts by generating synergy between interdependent components and respond to diverse needs through a multisectoral approach. For instance, without a functioning water supply system, a water-based waste water system (as compared to pit latrines) cannot function. Thus, the simultaneous development of water supply and waste water collection and treatment promises reasonable synergetic effects. Similar effects can be obtained by combining the construction of adjacent roads and drains with solid waste collection (to maintain clean and functioning roads and drains). In short, the approach aims to improve interdependent municipal services. The intended and actual impacts of these projects are summarized in Appendix 3.

1. Intended Impacts

38. The common goal of all projects was to improve urban environmental and living conditions, particularly of the urban poor. Projects in Bandung and Medan were aimed additionally at ensuring the planned and orderly urban development of these two cities. All projects were intended to increase the capacities of local government in project implementation and urban management. The projects in Pakistan were intended to improve efficiency in service delivery and to increase service standards.

39. The above goals can be interpreted to include a variety of aims. Environmental impacts could include varying degrees of reducing air, water, soil, and noise pollution. Improved living conditions may be understood as a compound of various municipal services, however, their impact would need to be measured in terms of financial and time savings to households, improved health conditions (number of sick days, cost of health treatment), education (number of hours spent studying rather than attending to household chores), and convenience and entertainment (culturally appropriate indicators are required to measure these). Unfortunately, none of the projects defined specific criteria and indicators to measure targets, establish actual baseline data, or set quantified targets for any of these goals. As a result, intended impacts are ambiguous, particularly since the beneficiaries are not defined in terms of percentage of total population.

40. Failing to determine precisely the type and magnitude of impacts a project aims to achieve has several effects. At appraisal, cost and benefits cannot be compared, thus feasibility and desirability of projects cannot be assessed, nor can alternative approaches be considered during implementation. Furthermore, project activities are not clearly focused on attaining specific targets, and monitoring remains limited to financial and input delivery. This situation effectively thwarts the intention of the IES—to assess actual impacts against original targets and therefore necessitates a more qualitative evaluation.

2. Actual Impacts

a. Technical Impacts

i. Water Supply

41. The expansion of water supply systems had some positive impacts on living conditions, service quality, and standards. In Medan, 200,000 additional connections were installed serving an

additional 668,000 people, while in Bandung households connected to the water supply system increased from 48 to 57 percent as a result of the projects, although the frequency of supply is limited to 3-4 hours per day in the eastern and western parts of the city. In towns in Northwest Frontier Province (NWFP), Pakistan, the project focused on improving the quality of the service network, replacing the existing system without expanding it: new water pipes were installed next to still functioning old ones. Meanwhile, however, adjacent town areas had no access to piped water at all. In Karachi, the water supply component did not improve living conditions or service quality because the water reservoir constructed by the project is not connected to a source, thus remains empty and unused.

ii. Waste Water

42. The impact of waste water collection and treatment components is limited. Service coverage has not been significantly expanded in any project (except one in which the construction of sanitation systems is not yet completed). In Indonesia, physical infrastructure was expanded. However, only 17.3 percent of the population in Bandung, and 3.1 percent that of Medan, are connected to the system. Consequently, the impact on the amount of waste water collected has been minimal. In Bandung, waste water receives secondary treatment using waste stabilization ponds, while in Medan, an upward-flow anaerobic sludge blanket process is used. In Karachi, the project rehabilitated to some extent the existing system which covers an area where 4 million people live (about 41 percent of Karachi's population), but did not expand the system or increase the number of connections. The treatment plants are operating at 30 percent capacity, treating approximately 13 percent of the total sewage generated by the city, while removing 60-70 percent of organic loads. As a result, large amounts of waste water remain untreated or minimally treated so that pollution and biological oxygen demand levels in water systems are not significantly reduced. In NWFP, because waste water systems were still incomplete impact could not be measured. However, the IES observed that residents tend to discharge waste water directly into drains, and are therefore likely to be reluctant to connect to a system for which fees are charged. Local governments, however, are convinced that these systems will contribute to improving environmental and living conditions in their towns.

iii. Solid Waste Management

43. The impact on solid waste management has been positive in Indonesia: in Bandung and Medan service coverage increased to 90 and 76 percent, respectively, and solid waste is disposed at sanitary landfills. Consequently, living conditions have improved in that health hazards due to flooding, odor, and the unpleasant appearance of solid waste scattered in streets and drains were reduced to a large extent. In Pakistan, the experience has been mixed. Project towns in NWFP increased solid waste collection from 10 to about 32 percent, generating positive effects similar to those in Indonesia, albeit to a lesser extent. In Karachi, the total amount of waste collected increased from 1,000 tons (t) per day in 1985 to 6,000 t per day in 1996,¹² the percentage of solid waste collected remained the same as before the project: just above 30 percent. Solid waste disposal is suffering similar problems: only 20 percent of solid waste reaches the landfill, and the sanitary landfill is not yet operating. As a consequence, project impact has been insignificant in Karachi.

¹² The cited amounts are totals for the city. The Karachi Municipal Corporation, the project counterpart, is only one of the agencies (although the major one), responsible for solid waste collection and disposal.

iv. Drainage and Flood Control

44. Overall, positive impacts on living conditions were attained by this type of component. In Bandung and Medan, drains were designed to protect against ten-year flood intervals, apparently reducing the occurrence of flooding, although not preventing it completely. Similarly, in NWFP towns the project financed major parts of the drainage system or created vital links between already existing drains. In Karachi, drains were part of the *katchi abadi* upgrading component only (impact on the city as a whole was not foreseen). Results are poor because drains are minor, remain clogged with solid waste (solid waste management, while being part of the project, did not cover *katchi abadis*) and health hazards are caused as sewage is discharged into drains for lack of a functioning sewerage system which the project failed to upgrade effectively. This case clearly illustrates the benefits that could have been generated had project components been truly integrated.

v. Roads and Footpaths

45. These components positively impacted on mobility, although the scope of each project, thus the extent of impacts, varied considerably. In Indonesia, minor roads were linked, thus improving road networks in *kampung* areas. In Pakistan, some roads and adjacent footpaths in *katchi abadis* and slum areas were paved, and 54 kilometers (km) of dual carriage road were constructed as part of Peshawar's ringroad. Connections and road networks improved as a result of expansion works, particularly in the case of Peshawar where heavy traffic is now diverted from the city center. Technical standards varied, and in some cases improvements were nullified by later construction works that required reopening of road surfaces. The IES observed instances where the changed gradient of a footpath channeled heavy rainfalls into houses rather than into drains as the latter had not been included in the project. In other cases, hard pavement (concrete or brick) improved the road surface and increased mobility of vehicles and pedestrians.

vi. Community Facilities

46. Projects in Indonesia included provisions for public toilets and lavatories, as well as market places. Toilets and lavatories, however, were not constructed due to land acquisition problems. While market facilities had been improved, these had already been replaced in thriving market places which could afford further improvements, or had fallen into disrepair in markets which were not doing well due to their location.

vii. Housing

47. The provision of housing was included in all projects, except in Karachi. In Peshawar and NWFP towns, the component was dropped, largely because of land acquisition problems. In Indonesia, where housing schemes were implemented, however, technical standards were higher than anticipated, with resultant effects on cost and beneficiary group.

b. Financial Impacts

48. FIRR's were calculated using actual cost of investment, operation and maintenance, replacement cost of depreciated equipment, and actual incremental revenue. Results varied greatly, as reflected in Table 3

Table 3: FIRR's of Integrated Urban Development Projects ^a

Bandung (400-INO and 768-INO)	Medan (550-INO and 919-INO)	Karachi Urban Dev. (793-PAK)	Second Urban Dev. (1004-PAK)
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Peshawar: 47.9

Water Supply

0.9

(2.5)

n.a.

NWFP towns: 26.1

Sewerage and Sewage Treatment	2.8	n.c.	(8.6)	n.c. b
Solid Waste Management	1.1	(25.0)	n.c. c	n.c.
Housing	n.a	17.2	n.a.	n.a.
Low-income Area Upgrading	n.c.	n.c.	(14.4)	n.c.
Combined	n.c.	(0.9)	n.c.	n.c.

FIRR = financial internal rate of return; NWFP = Northwest Frontier Province.

- ^a FIRRs were not calculated for the Secondary Towns Urban Development Project.
- ^b Revenue will not be generated on the basis of services provided. Costs will be covered indirectly through a surcharge on taxes raised on entering the municipality (octroi).
- ^c The FIRR is anticipated to be negative as current revenue from solid waste collections is only 10 percent of total costs.

49. In Bandung, low rates of return are explained by tariffs for water and solid waste collection below cost of services, inadequate metering of water (which makes accurate billing impossible and results in high rates of unaccounted-for water), and low connection rates to the sewerage system. The same reasons apply to low rates of return on sewerage services and solid waste management in Medan where, however, the housing component produced a positive FIRR because houses were sold to middle-income rather than low-income groups so that higher prices could be achieved.

50. In Karachi, negative FIRRs are due to a longer-than-expected construction period (nine instead of five years)¹³ resulting in higher costs and delays in revenues. In addition, collection

¹³ The loan was suspended for parts of the implementation period.

rates are low. The performance of the *katchi abadi* upgrading component in Karachi shows negative results because the anticipated sales of leases did not materialize. This was due to ill-functioning institutional mechanisms that made applications cumbersome, and because fees were not only high relative to income, but increased by informal charges.

51. Positive FIRR were achieved by the water supply components in NWFP because the upgrading of systems was coupled with increases in water tariffs. Nonetheless, municipalities are concerned that the repayment of loans will adversely affect their financial position, because a number of components (footpaths and roads, drainage, and street lighting) are not generating revenues, while others are of a technical level and cost above their normal standards. Charges for waste water collection and treatment will not be collected as a direct levy, but will be borne from a surcharge on *octroi*, a tax raised on goods entering towns. This revenue base will fluctuate due to trade-related factors regardless of the performance and cost of the sanitation system. The sanitation system is therefore at risk that its cost may not be recovered. In addition, cost-accounting systems and incentives to operate the system in a cost-effective way are missing when the system is delinked from its revenue basis. A double-entry cost accounting system for local governments was designed under a related advisory technical assistance but has not yet been put into operation.

c. Economic Impacts

52. The IES used land value appreciation to measure economic impacts of urban infrastructure improvements. These were discounted by land value increases resulting from the growth of the national or regional economy. Benefits from drainage and flood control components were estimated as prevented cost for repairing flood damage, and solid waste management benefits include positive effects on drainage (reduced cost for maintenance).

53. EIRRs for water supply in Bandung and Medan are expected to be higher than the low FIRRs because willingness to pay is presumably higher than the actual tariffs. Estimates for drainage components in Indonesia, ranging between 3.6 and 13.3 percent, reflect that not all flooding problems have been resolved but that property continues to be damaged by occasional flooding, reducing the benefits generated by the drainage component. Positive results were achieved by the KIP in Medan (EIRR of 36 percent) and in towns assisted by the Secondary Towns Urban Development Project (EIRR of 35.6 percent). In Medan, the beneficiary area was estimated at 1,880,000 m² and impacts on property value estimated to be Rp4,000 m². In secondary towns, it was estimated that 60,000 residential properties in *kampung*s benefited, with land values increasing by 40 percent. Some of the *kampung* improvements were annulled when attractively located low-income areas were converted into commercial areas, i.e., project infrastructure was superseded by new developments.

54. In Karachi, the only component for which an EIRR was calculated was the *katchi abadi* upgrading component, estimated at 10.4 percent. Land price increases, discounted by those experienced in control areas, were used to estimate benefits from infrastructure improvements. Negative EIRRs on investments in low-income areas in NWFP were caused both by lengthy construction periods and the fact that upgraded infrastructure was not operating well (which probably dampened property values). EIRRs above 30 percent were calculated for the drainage component of the Second Urban Development Project, showing their beneficial impact on property values through prevented property damage.

d. Social Impacts

55. The impact of integrated urban development projects on living conditions has been positive wherever physical impacts had been attained. Levels of service provision (percentage of households receiving services and frequency of service provision) were higher in project areas than in the control towns. Customer satisfaction was, in general, higher than that of residents in control areas. Women benefited from piped water supply (reducing time required to fetch water), cleaner surroundings (increasing hygiene and reducing health risks), greater mobility, and better access to markets and facilities. Dissatisfaction was expressed when the quality of services did not improve in spite of investments: residents were well aware of the cost of investments, and expressed disappointment if resources did not yield commensurate benefits. Another reason causing discontent was when upgrading works covered only parts of a neighborhood, thus introducing inequalities within low-income areas.

56. In Karachi, the project intended to help regularize the tenancy of residents in *katchi abadis*, helping them to obtain 99-year leases to their plots. This would have improved the legal position of tenants, protecting them from evictions or resettlements without compensation, and simultaneously increased their ability to raise funds, using leases as security. The latter was mentioned as the main reason for seeking leases. However, only 44 percent of the targeted 50,000 leases were issued, because the one-stop operation under the project became dysfunctional after a short time, and because residents could not afford the lump sum lease fees and additional informal payments.

57. Poverty was not necessarily reduced as a result of improved infrastructure. Higher property values (resulting from improved infrastructure) can be realized by residents of low-income areas only if they relocate,¹⁴ although some economic benefits can be derived by them (at least those holding land titles) when using their land as collateral when applying for loans. Thus, disposable income as such is not increased. In Karachi, an opportunity to reduce household expenditures for water was lost when the project failed to provide access to the citywide water supply system. As a result, households have to spend approximately PRs500 per month for informal water supplies (if they can afford it), as compared to PRs250 per annum if they had a formal water connection. Overall, monthly household expenditures tended to be higher in project areas than in control areas, while household incomes and saving levels varied without consistent pattern. It is difficult to establish a clear link between urban infrastructure improvements and poverty alleviation, but the former seems to have invariably resulted in higher living cost, while income generation is dependent on other factors than access to urban services.

B. Regional Development

58. Only three regional development projects (as part of the urban development program) were approved by the Bank. For all of them, the borrower was GOM. Details of the projects' impacts are summarized in Appendix 4.

1. Intended Impacts

¹⁴ Investment costs of relocation would be as high or higher if residents relocate in the same area (because property prices would have increased for all plots) or would entail longer travel times and higher transportation costs if relocated to a cheaper area which is most likely outside city centers. Thus, financial gains that could be materialized have to be weighed against the cost of alternatives.

59. The objective of the Kedah Regional Development Project was to improve living conditions by developing regional townships, providing urban infrastructure, promoting income-generating activities, and providing training. With the projects in Trengganu Tengah, GOM aimed to improve agricultural productivity, raise rural incomes, alleviate poverty, and reduce economic disparities between regions. As in the case of integrated urban development projects, benchmark data were not established, nor were quantified targets set.

2. Actual Impacts

a. Technical Impacts

60. Physical impacts were significant in Kedah where project areas provided facilities to 948,544 persons, creating seven towns to accommodate 2.4 percent of the region's population. However, such was not the case in Trengganu Tengah, where only 35,109 new settlers were attracted. Facilities were also provided for industrial and commercial purposes, and a training institution, all of high technical standards. In Kedah, the availability of such facilities and the attractive location of the project site provided the physical context needed to establish businesses and create an economic impact. In Trengganu Tengah, while facilities of high technical standards were created, the location of the project site was unattractive, thus limiting the number of businesses and employment opportunities moving into the area. In all towns, infrastructure was provided that improves living conditions.

b. Financial Impacts

61. The projects in Trengganu Tengah yielded a negative FIRR (6.3 percent), caused by lower-than-projected population growth, thus limited and slow demand for housing, commercial, and industrial buildings. Moreover, because prices and payment programs were subsidized, cost recovery could not be attained. In Kedah, the component for industrial facilities performed well, achieving an average rate of return of 12.1 percent. FIRRs varied for each town, depending on accessibility and proximity to Penang (which accelerates industrial development). The performance of the housing component under this project was less successful, rates varying between 4 percent and 10.2 percent. Constructions were not phased, thus units remained vacant for some time, and cost recovery and willingness to pay were not considered in the design of housing.

c. Economic Impacts

62. In Kedah, EIRRs were estimated at 17.7 percent and above for the various components resulting from income- and employment-generating opportunities in industry and agriculture. For the project in Trengganu Tengah, an EIRR was not calculated because project cost exceeded financial returns and other benefits by far. This poor performance was caused by extensive layout of urban infrastructure to which demand did not correspond.

d. Social Impacts

63. Projects were used by GOM to implement its policy of upgrading living conditions of a well-targeted beneficiary group, the *Bumiputras*. The IES survey results indicate that household incomes in towns are significantly higher than in *kampung* areas, suggesting that there has been an improvement in *Bumiputra* incomes. Residents in project towns are generally more satisfied with services than residents in control areas. *Bumiputra* residents benefit from purchasing highly subsidized housing, paying an average of RM400 per unit compared with the development cost of RM8,500. Existing *kampungs* have benefited from improved access to coastal areas which also increased their pace of industrialization, increasing employment opportunities and income levels. Women benefited from access to improved health services, increased mobility, and access to employment opportunities.

C. Housing

64. Housing projects focused on the provision of shelter, including requisite municipal services. Seven loans were approved under this category, including one to develop a new town in Thailand, which is not a typical housing project. Two of the projects in this group, both in Thailand, were included in the evaluation. Details of the projects' impacts are summarized in Appendix 5.

1. Intended Impacts

65. Both projects intended to support the policies of GOT to decentralize urban development away from Bangkok and improve living conditions of low-income groups. BPNT, in addition, aimed to secure a more economical, efficient, and orderly pattern of urban growth in the metropolitan area of Bangkok and relieve pressure on the capital's already strained infrastructure. The Shelter Sector Project (SSP) had the additional goals of ameliorating the shortage of low-income housing close to job opportunities, and of introducing institutional improvements.

2. Actual Impacts

a. Technical Impacts

66. The project financed BPNT by providing shelter for 80,000 persons, building industrial sites, and developing urban infrastructure for the new town. Technical problems with the housing design were experienced in the beginning because the core house concept was not acceptable to buyers. Meanwhile, houses have been maintained in good condition, often upgraded by their owners, and are expected to have an economic life of 30 years (instead of the 20 years anticipated in the earlier postevaluation). Although the original plans were exceeded (BPNT was designed for 30,000 inhabitants), the impact on decentralizing urban growth and on the orderly development of Bangkok's metropolitan area is not obvious. The size of Bangkok, and factors affecting changes in its structure and the development of its surroundings are such that a project of the size of BPNT cannot be expected to have major impact.

67. The urban infrastructure built into BPNT has suffered from shortcomings in planning and operations. Water supply was not carefully considered, leaving the new town without reliable connection to a water source. Residents are therefore dependent on supplies from a private company that delivers water by truck. The sanitation system discharges into an adjacent canal, polluting water normally used for households and irrigation purposes. Roads have deteriorated to

a large extent due to lack of maintenance. One positive impact attained in the BPNT Project was equipping it with a pumping system to facilitate drainage, thus reducing flooding periods from one week to two days. In spite the shortcoming of BPNT, 70 percent of respondents in the IES survey felt that their living conditions are now better than those in their previous residences.

68. SSP financed housing for 14,935 persons, accounting for an average of 2.3 percent of total town population in the various locations of the schemes. These housing schemes were complemented with standard urban service facilities provided by the municipality where each housing scheme is located. Dwellings are in good order, upgraded, and well-kept by their owners.

b. Financial Impacts

69. The financial performance of BPNT has been strong. Based on completed constructions, estimates of operating and maintenance cost, and revenues, an FIRR was calculated at 20.4 percent. This high rate of return resulted from the high percentage of residents—about 50 percent—that have refinanced their house purchase rather than retain a hire-purchase arrangement with NHA. As a result, NHA was able to recover its financial layout prior to the termination of the hire-purchase agreement. In addition, large profits were made on the sale of developed land: land purchased in 1976 for about \$230 per hectare (ha) was sold in 1985, after development, for \$7,000/ha.

70. The housing schemes financed from SSP showed a positive performance. FIRRs ranged from 16 percent in Rachaburi to 24.5 percent in Surat Thani. Assumptions of the economic life of housing units and facilities were extended from 20 years to 30 years in view of current good conditions of housing units. As in the case of BPNT, residents have refinanced their hire-purchase arrangements with NHA, thus contributing to the positive financial performance of this project.

c. Economic Impacts

71. The EIRR of 25.4 percent estimated for BPNT results from increases in land prices, imputed rents, and residual values of housing units with an economic life beyond the amortization period. Because of continued difficulties with service delivery, residual values were estimated at 60 percent of the original cost, instead of 120 percent suggested in the Bank's *Framework for Economic and Financial Appraisal*. Assuming the same economic life, the EIRRs were reestimated to range from 18.3 percent to 31 percent for the different housing schemes under SSP.

d. Social Impacts

72. As mentioned above, 70 percent of respondents in the IES survey felt that their living conditions had improved since moving to BPNT. Moreover, the survey indicates that because low-income housing is not generally available in the areas surrounding BPNT, the project filled a gap in this area. However, satisfaction with urban services was lower in Bang Plee compared to the control area. Similarly, household incomes and expenditures showed that residents in the

control area were better off.¹⁵ While incomes were lower, monthly expenditures were higher in BPNT. Residents in SSP-financed housing schemes also felt their current living conditions

¹⁵ Control was provided by an area with comparable plot and house sizes and similar facilities in a "new town" built by the private sector.

compared favorably with those in their previous residences. Their satisfaction with services varied and was comparable to that of residents in the control area. Income levels and monthly expenditure in project schemes were below those in the control area, a factor affected by location rather than by standard and quality of project facilities.

73. The intention of reaching low-income groups as target beneficiaries was not always fulfilled: core houses designed to be affordable to low-income groups did not meet with the beneficiaries' approval. Improved standards, however, were affordable to higher income groups than initially targeted. In BPNT, houses originally designed as two-story family homes have been converted into multi-story buildings with sleeping spaces rented out to workers on a temporary basis with an obvious positive impact on the income of homeowners.

D. Institutional Impacts

74. All projects included in the IES showed similar results on institutional development. The major institutional focus of projects was on setting up Project Implementation Units (PIUs). These often were established and operated at the cost of local governments by drawing staff from their regular jobs and functions at local government offices. The function of PIUs was to ensure timely project implementation. Capacities were therefore developed for project construction, administration of project schedules, and finance. PIUs, temporary in nature, were closed as soon as project implementation was completed.

75. Of importance to sustained capacity building are efforts to develop capacities for service delivery, operation and maintenance of facilities, and management of the agency delivering services. Often this type of capacity was not developed because the need for doing so was recognized neither at project design nor during implementation. In those instances where projects aimed to develop such capacities, strengths and weaknesses of institutions were not analyzed, and targets and indicators to measure institutional performance were not specified.

76. Roles of project counterpart institutions, whether ministries or agencies delivering urban services, were not always well defined. In some cases, projects tried to broaden functions of counterpart institutions beyond their regular roles. This resulted in confusing the functions of the different institutions, while diluting the core function and stretching the resources of the counterpart agency.

77. The implementation of institutional development components was determined by the type of inputs available, rather than following a systematic institutional reform process. For example, machinery was delivered and installed, and consultants wrote operating manuals, but neither of these inputs were integrated and combined with staff development programs or efforts to institute operational procedures. As a result, equipment lay idle and consultants' reports remained unused. Training, if not part of an institutional change process, was equally ineffective because training outcomes could not be applied in an unchanged institutional environment.

78. Some positive results were achieved at the policy level. The NWFP project increased the provincial government's awareness of different cost recovery options. In Thailand, technical assistance provided in connection with the loans contributed to the debate on the involvement of private suppliers in the housing sector, who have become major players in the sector thanks to the country's economic boom. In Indonesia, Bank assistance supported and probably helped refine the IUIDP approach of the GOI. While these initiatives have been supportive of government programs, however, they have not had major impacts on institutional capacities. In other

instances, institutional development aimed at the capacities of service agencies. These include the water authorities and solid waste management agencies in Indonesia where positive results were attained. Collection rates on billings were improved in Bandung to 80 percent, and to Medan at 97 percent, while solid waste collection per employee increased by more than 100 percent from 1988 to 1996.

79. All projects discussed cost recovery issues (tariff increases being the recommended tool to achieve the same) but did not attempt to develop systematically financial management capacities¹⁶ such as (i) cost accounting principles and systems that establish the actual costs of services; (ii) policymaking and implementing capacities to analyze and decide on the level of subsidies, if any, and criteria to designate the beneficiaries; (iii) specific billing and collection systems; and (iv) capacities to analyze and streamline operations and procedures to make them more cost effective.

E. Environmental Impacts

80. Projects showed similar environmental results, as discussed below.

1. Water Pollution

81. In Bandung, some positive impacts were achieved as the amount of solid waste and, to lesser extent, waste water discharged into water systems, was reduced. Similar positive impacts were not attained in Medan (where the rate of connections was persistently low) or Karachi (where the system is ill-functioning, not connected to a treatment plant, or operating far below capacity). Aggravating this situation was the effect of projects on the beneficiaries to-be: in Medan and parts of Karachi, they discontinued using septic tanks in anticipation of receiving house connections to the formal system which they never received. As a result, the amount of waste water released outside a sanitation system increased. In the case of BPNT, the sanitation system disposes raw waste water into a canal which otherwise could be used for household and irrigation purposes. In NWFP, waste water treatment plants had not been completed at the time of evaluation. However, positive results are expected because waste water had not previously been treated.

2. Solid Waste

82. The disposal of solid waste has improved in the case of projects in Indonesia and Malaysia where new landfills are better located. In Pakistan, difficulties were experienced for a number of reasons: (i) the new sanitary landfill site is far outside the city, (ii) instructions had not yet been issued to deposit solid waste there, and (iii) the amount of waste reaching the landfill is limited (around 20 percent of total waste generated by the city). BPNT faces difficulties because solid waste disposal was not considered part of the project and no official landfill site has been designated. This problem is expected to be resolved once Bang Plee's status is changed so that local authorities gain greater responsibilities and resources to manage the town. Soil pollution from a landfill site was feared by farmers in the surrounding of one the NWFP towns because the selected site was located among their farm land. Protests stopped implementation of this subproject.

¹⁶ Except in the case of the Second Urban Development Project in NWFP which helped develop an improved accounting system (pare. 50).

3. Encroachment on Natural Resources

83. Encroachment occurred in the case of regional development and new town projects which were designed to increase access to previously remote areas. In Malaysia, regional development projects introduced forestry and agricultural use of land. In Thailand, the vast expansion of Bangkok is diverting land from its previous wetland function of absorbing flood and rain waters. BPNT, while not the major factor responsible for this effect, contributes to the overall trend. Flooding levels are expected to worsen as a result of this encroachment on natural resources.

IV. LESSONS LEARNED

84. The IES confirmed lessons drawn by previous evaluations (Appendix 2), and contributes its own observations and suggestions in this section.

A. Validity of Approaches

85. Projects included in the IES followed one of three approaches. Drawing on the experience of DMCs and the Bank, the validity, strengths, and weaknesses of each of these approaches are discussed below.

1. Regional Development

86. Providing urban infrastructure and services to underdeveloped regions of a country, thus integrating them into the national economy and the country's infrastructure network is an important contribution. Infrastructural improvements alone, however, are insufficient to support urban settlement which depends first and foremost on the economic opportunities offered by a region. Positive results were achieved in Kedah. The project supported opportunities for skill development and income-generating activities and expanded the road network, thus linking the project area to an economically active region. A less successful example was that of Trengganu Tengah, where original infrastructure development plans were overly ambitious, anticipating a much higher number of migrants into the region than was realistic.

2. Building New Settlements versus Improving Existing Towns

87. The new town concept¹⁷ was chosen by the GOT in an attempt to divert pressure on Bangkok's urban infrastructure by creating satellite towns on the capital's periphery. BPNT, one of four originally planned new towns, is the only one that was implemented because the others had land acquisition problems. Today, GOT is reviving its new towns strategy (pages 26 and 27). A clear advantage of the approach is that an organized town structure with a full complement of urban services can be created, including social, commercial, and industrial areas. Setbacks,

¹⁷ The concept was not interpreted in the true sense of its theoretical foundation (i.e., a new town should remain separated from other urban developments in the area through a greenbelt established around the new town), but rather considered as the structured establishment of a new settlement.

however, can arise from the cost and availability of land—a problem increasingly encountered as megacities expand forcing new towns into less attractive locations, limiting their size, and reducing their effectiveness in diverting pressure from primary cities. Further problems can be expected, as in the case of BPNT, because issues of town status, local government, responsibilities for the town's urban services, and organization of service supply remain to be addressed.

88. Improving the urban infrastructure of existing towns has the comparative advantage of predictability. Because historical data are available, demand trends for urban services tend to be more predictable. The experience of migration patterns to entirely new settlements, on the other hand, needs to evolve. The examples of the towns established in Kedah and Trengganu Tengah indicate that urban growth and demand for urban services in new settlements is a long-term process that can be stimulated only to a limited extent, whereas upgrading existing services is likely to meet existing immediate demand.

89. From the social perspective, improving existing towns has the advantage that existing social structures can be maintained or improved, whereas in new settlements social networks have to develop over time. Another benefit is that upgrading low-income areas increases their social status. The lack of a social fabric, observed in the case of BPNT and some of the new housing schemes, caused concern to the National Economic and Social Development Board of Thailand, which considers functioning social networks important to social security and stability. The Board responded through programs set up to create social awareness and organize communities

90. Technically, building on existing facilities is often more cost effective than constructing entirely new systems, although the latter may have the advantage of starting at a higher technological level.

3. Integrated Urban Development Projects

g1. Experience with the IUIDP approach in Indonesia underpinned the value of improving several urban subsectors simultaneously. However, the IES confirmed an observation previously made by the postevaluation of the Medan Urban Development Project. This observation states that in reality project components are implemented separately, often in areas that are not linked, so that no systematic infrastructure network is developed. Synergetic effects—one of the main rationales for the approach—cannot be attained in this way. More specifically, the following problems were observed.

92. The larger the number of subsectors included in an integrated project, the greater the risk that firstly, resources are spread too thinly, thus reducing the significance and likely impact of each intervention; and secondly, that vital subcomponents of a subsector might be excluded from a project (lack of vertical integration). In projects where waste water pipes were laid without connection to treatment plants, for example, impacts are limited to immediate living environments; whereas pollution levels and health risks arising from water systems (rivers and sea) remain the same or possibly increased as waste water discharges are more concentrated. This aspect becomes even more important when using the IUIDP in megacities where infrastructure systems are larger and more complex, and infrastructure needs outstrip available resources. Unless projects set priorities and focus on specific attainable development impacts, resources will be insufficient to yield measurable results.

93. Geographical integration is equally important as vertical integration. The effects of synergy are lost if urban infrastructure components in different parts of a city are upgraded without requisite connections, undermining the entire rationale of the approach. Performance, effects, and impacts of individual subprojects suffer. For instance, drains may become clogged or flow over because

downstream infrastructure has not been put into place in discharging areas, so that occurrence, level, and duration of floods are not reduced. Thus losses of property or increases in water-borne diseases during flooding are not prevented. Further examples where components lacked integration were discussed in Part III.B (pages 41, 42, and 44).

94. An institutional consequence of integrating various subsectors into one project is that the number of agencies involved increases, sometimes to the extent that management and coordination are impeded. This is even more so when the roles and responsibilities of the different agencies are not clearly delineated, and when the areas in which coordination and cooperation are required are not well understood. At the same time, the involvement of central and local governments, private providers of urban services, and communities is necessary to ensure that infrastructure projects meet actual demand and willingness to pay for services. In addition, the involvement of communities in the implementation or supervision of construction works, and in the operation of facilities, can have positive effects. In Karachi, a nongovernment organization ensured a rational layout of the sanitation system, while residents in beneficiary areas monitored construction works to ensure they were carried out according to plan. In Indonesia, communities organized solid waste collection and transport from neighborhoods to public collection points, thus creating some employment and reducing the cost of public services. These cases are, however, more the exception than the rule. More often, the lack of community and local government involvement in project design and implementation alienates target recipients from infrastructure and services, diminishing their interest in taking over, operating, and maintaining facilities.

95. The risk of the above problems increases with the number of towns to be assisted by multisectoral urban development projects because their institutional framework becomes either extremely complex or, for simplicity's sake, remains centralized. Thus local government involvement is limited, which then results in the use of standardized packages for upgrading works with little room to reflect actual demands of local governments and beneficiaries.

B. Designing for Impact

96. As discussed in Part III, project designs set broad long-term objectives without specifying the impacts that should be achieved. Instead, impacts are implicit and depend on interpretation in terms of both qualitative and quantitative indicators. For instance, living conditions can be concerned with health standards and sanitation, security, or convenience factors, or all of these. Improving equity (implied in low-income area upgrading), may be limited to creating equal access, or have financial implications on household incomes and expenditures, or create an environment with better opportunities to develop small businesses and income-generating activities. An indefinite objective, with enough flexibility to note any impact as success, reduces focus and specificity of project inputs and activities, thus limiting their cost effectiveness and diluting their actual impacts.

97. To increase specificity of intended impacts, a better understanding is required of beneficiaries and demand, and resultant implications on sector policies, institutional responses, and investment programs. For instance, extremely low connection rates to the sanitation system in Medan were experienced. Had actual demand and willingness to pay been projected, project designers and decisionmakers could have considered technical alternatives (on-site latrines), political factors (the need/lack of support for mandatory connections), indirect financing methods (adding a levy to other utilities), public awareness (information and education campaigns), and the need for and phasing of subsidies. The choice of alternatives is influenced by the underlying intentions (intended impacts) of decisionmakers. If they are bent on improving environmental conditions of a city, their strategy may include legislation, subsidies, or indirect financing mechanisms. If their goal

is to improve urban standards, their strategy may involve user participation to discuss the advantages of different types of services, and to identify priorities, as well as to determine users' ability and willingness to pay.

98. At the macro level, impact is determined by significance and magnitude of projects. Relating the magnitude and type of urban development problems with the focus of the project is essential to gauge the achievability of intended impacts. Key questions to consider: Does the project concentrate on useful or on strategic aspects? Are resources sufficient to make a major contribution to solving problems? The mismatch between objectives and magnitude is most obvious in the case of BPNT, which aimed to divert population pressure from Bangkok and planned to accommodate 30,000 people. This compares to Bangkok's annual growth rate of 2.3 percent during the 1980s. In 1987 alone, 77,220 persons migrated into Bangkok.¹⁸ This observation does not imply that impact can only be achieved with large interventions, but suggest that interventions and their resources need to be commensurate with the problems they try to address.

C. Involving Local Decisionmakers and Service Providers

1. Commitment and Ownership

99. The importance of participation of stakeholders was underpinned by the findings of the IES. Recognized advantages are project relevance, and commitment and ownership of local authorities. These factors have become even more crucial in times when local authorities are responsible for loan repayment, thus want to influence the choice of subprojects, their location and technical standards, and ensure that projects do not have a negative impact on their financial position. For instance, some of the NWFP towns are reluctant to take over project facilities because they do not agree with cost and technical standards of project components, and are not familiar with their operations. Involving all local stakeholders becomes more difficult as more towns and subsectors are covered under one project, with an increasing likelihood that Central authorities determine standardized packages of upgrading works.

100. In addition to commitment and ownership, early involvement of all agencies would help delineate the roles and responsibilities, strengths, and weaknesses of each party. Such an analysis of the institutional framework of a project could then form the basis for deciding on appropriate institutional development strategy necessary coordination arrangements, and options for involving and building partnerships between public and private sectors.

2. Institutional Development

101. In projects, institutional development is based on broad descriptions of agencies that should be reformed. In the 1970s and 1980s Bank assistance for institutional development was provided to ensure smooth implementation rather than to create capacities for day-to-day operations. Although this situation has improved somewhat during the 1990s, detailed and systematic analyses of institutional strengths and weaknesses are still lacking. Also, the roles of agencies at the beginning of a project are not specified and neither are expectations in the institution at the

¹⁸ *Migration and Urbanization in Asia and the Pacific: Interrelationships with Socio-economic Development and Evolving Policy Issues*, United Nations Economic and Social Commission for Asia and the Pacific, Asian Population Studies Series No. 111, 1992.

end of a project. Apart from this design flaw, consultant services and training are not integrated into institutional reform programs that include reviewing and deciding on the role of the institution as regards the private sector, and analyzing internal work procedures to attain efficiency gains. The timing of institutional development is such that at best it takes place in parallel with infrastructure investments, but more often it is designed and implemented afterwards. As a result, new facilities are constructed and handed over before institutional capacities to operate them were created.

3. Public and Private Service Providers

102. Projects tended to support existing public providers of urban services without considering options for involving the private sector. In one case, the privatization of solid waste management was suggested. However, no progress towards this end has been made. These shortcomings are rooted in the lack of institutional analyses. Various options for involving different private and public agencies are not well understood, and reluctance arises in particular on the part of those agencies who should be changing their roles if they are uncertain about their future.

D. Focus on Clients

103. The service orientation of public agencies that provide municipal services is inadequate because their policies and services are not focused on clients and customer satisfaction. Under such circumstances, capacities to analyze demand, ability, and willingness to pay; design services which meet demand; and collect, process, and adjust to feedback on client satisfaction are limited. Projects, with their moderate impact on institutional development, have not addressed these problems.

V. KEY ISSUES FOR THE FUTURE

104. While the 1987 Review had to argue for the recognition of urban development needs, today the importance of urban centers and their problems is well recognized. In the intervening ten years, megacities have become a reality, and the central perspective has moved from questions arising from rural-urban migration to the management of cities. Other issues raised in the Review, such as institutional development and private sector involvement, have also gained importance.

105. Key issues concerning the future development and management of cities have been discussed at various forums, including the Regional Seminar on Megacity Management organized by the Bank and the United Nations/World Bank Urban Management Programme for Asia and the Pacific in October 1995, and the Regional Seminar on Urban Infrastructure, organized by the Bank in April 1996. Reports produced by these meetings document the wide range of issues that need to be resolved in developing and managing urban centers.

106. To deal with urban development challenges effectively and to ensure that sustained impacts are attained, solutions must be based on institutional capacities. Where these do not exist, assistance to develop such institutional framework must be included. Otherwise, urban infrastructure and services will be ill conceived, badly operated, and poorly maintained. Institutional development efforts are impeded by overlapping and ambiguous responsibilities in local governments and service agencies, their lack of human and financial resources, weaknesses in their policies and procedures, and interferences by political pressure groups.

107. Ideally, urban management capacities would combine the merits of a clearly structured institutional framework with roles for both public and private sector agencies, and with enough flexibility to respond to changing demands. In reality, institutions tend to be rigid while their relationships with each other remain fuzzy. To make the institutional infrastructure more transparent, thus increasing efficiency and maximizing benefits from projects, changes are needed. Bearing in mind that institutions and their roles would have to be defined within a country context (i.e., a standardized approach applicable to all countries may not be possible), the following suggestions are made.

- (i) A substantial part of the responsibility and authority for urban development needs to be decentralized to the local level. Cities are growing rapidly, demanding responses which suit local problems and conditions, to which answers cannot be found in standardized approaches determined by agencies at the national level. Local authorities need to be involved in identifying, planning, designing, implementing, managing, and operating urban infrastructure.
- (ii) The process of devolution of functions from the central to the local level needs to be accompanied by reforms at the national level. To establish policies that set and enforce standards for urban development, the role of national agencies has to change from that of a planning function to that of a regulatory one. Policies should determine the legal framework for investments and establish a rational basis for fiscal policy that determines criteria for allocating taxes to urban areas. They should also deal with questions of the roles of public and private sector, equity and access to urban services, social development and changes in society, and environmental pollution and degradation.
- (iii) Local government at the local level needs to function as a counterpart to a national agency on policy issues. It should be responsible for urban development planning and management, including the coordination of subsector agencies. It would also be responsible for coordinating infrastructure development and management, ensuring integration of physical works, and involvement of public and private service providers.
- (iv) This urban management unit should have the capacity to analyze problems and identify various solutions to institutional and infrastructure requirements rather than prescribing standardized approaches. This would increase flexibility and ability to respond to changing demands.
- (v) Institutional capacities of service delivery agencies need to be developed by streamlining their responsibilities and functions, and systematically developing managerial, administrative, financial, and technical capacities. These agencies, whether public or private or a combination of both, will have to become flexible and responsive to policy requirements and demands of their clients, and adopt financial management principles and practices discussed in para. 79.

108. The key to the development of institutions¹⁹ is that reforms must be tailored to the requirements of individual institutions. While the process of designing reforms for various institutions may follow similar steps, the results of the design process and the implementation of reforms cannot be standardized. The design process should start with identifying the institution's clients for two reasons: clients and the services an institution provides to them are the rationale for the existence of the institution, and making clients the focus of the institutional reform should instill

¹⁹ The term "institution" is used in this context for any type of agency or organization, whether public, private, or a combination of both.

greater client orientation.²⁰ The institution itself has to have the capacity to identify its clients (existing and new) and assess actual and projected demand, willingness to pay for services, and necessity of service provision even when the ability to pay is lacking. It is fundamental that this information is gathered continuously and with some degree of precision rather than describing so-called beneficiaries in broad terms of their geographical location and income levels (e.g., urban poor in slum areas). These data determine the type, volume, and quality of services the institution should be able to provide at a certain price (determined by willingness to pay), and establish a target for the reform process. Also, an institutional analysis needs to establish whether and to what extent the institution is able to deliver requisite services at a given price. The analysis should reveal the extent to which the areas where institutional changes are needed within the institution (e.g., policies, procedures, or personnel), or in its context (e.g., need for more autonomy or different ownership). It follows from this approach that institutional development cannot be disconnected from infrastructure investment. In fact, the contrary is true: the client-focused design of the institutional reform process is essential for investment decisions.

109. This approach to institutional development places clients (or beneficiaries) at the center point of development. In analyzing its capacity to serve its clients, the institution should consider and discuss with its clients those areas in which they could best be involved. An example is solid waste management by neighborhood groups as practiced in Indonesia. Similarly, institutions must work with community-based organizations or nongovernment organizations.

VI. CONCLUSION AND RECOMMENDATIONS

A. Overall Assessment

110. As discussed earlier in this report, assessing project impacts against targets poses problems. Ambiguous objectives make precise assessments difficult whereas overambitious objectives without commensurate inputs make it difficult for projects to attain their goals. Projects were rated by comparing actual with intended impacts as reflected in Part III.

111. Integrated urban development projects in Indonesia and Pakistan can be rated generally successful in that they improved living conditions to some extent. However, impacts on so-called planned and orderly development of Bandung and Medan are not only hard to measure, but ignore numerous factors outside projects that affect development. Improvements in service efficiency targeted by projects in Pakistan will have to be measured once all project components are operational. A preliminary assessment of the Karachi project indicates that these targets have not been and are not likely to be met, whereas the project in NWFP has greater chances of succeeding. The sustainability of project impacts varies by component. In cases where functioning institutions were created, such as the water authorities in Bandung and Medan, systems are sustainable and maintained, although financial returns need to be increased. In other instances, subsequent developments have overtaken project investments as experienced in market development and some of the *kampung* upgrading projects. In NWFP, sustainability might be endangered if local authorities remain reluctant to take over, operate, and maintain facilities. In Karachi, investments in *katchi abadi* areas are so inadequate that their sustainability is not even subject to discussion, whereas further investments have been made to upgrade the sanitation system.

²⁰ Clients should be understood to include not only external clients in the traditional sense of the word, but also internal clients. These would be, for instance, the users of a management information system and its output, or finance managers who use the output of the finance department to make investment decision, to name just two examples.

112. The assessment of previous evaluations of regional development projects was confirmed by the IES, rating Kedah as generally successful as it fully met its objectives, whereas Trengganu Tengah remains partly successful because facilities were laid out for a much larger population, thus have not been put to use and are deteriorating. In Kedah, facilities are sustained, while those in Trengganu Tengah require major resources for their operation and would need further investments for repairs to make them fully operational.

113. The BPNT project is rated generally successful because of its economic performance, although objectives were overambitious and could not be met with its limited resources. Likewise, the new town was unable to divert population pressure from Bangkok to any significant extent, nor was an orderly and efficient pattern of growth in the metropolitan area of Bangkok attained by the project. SSP is rated generally successful in that it ameliorated the shortage of housing, although original targets had been far higher. Investments in housing are sustainable, as properties have been sold to private owners who maintain their dwellings. The sustainability of infrastructure investments is more problematic because high demand on infrastructure in BPNT resulted in its deterioration, but no capacities—financial or otherwise were created for maintenance

B. Recommendations

114. Future urban development projects should be based on the institutional reform process discussed under Key Issues. This requires tailored reform programs based on a client focus and detailed identification of institutional strengths and weaknesses. Capacities to be developed should include managerial flexibility and responsiveness to client demands and policy requirements, high standards of operation and maintenance, and sound financial management. Different options—rather than a singular prescriptive approach—for institutional arrangements should be worked out with local authorities during project identification to ensure their commitment and involvement, and to train them on the job.

115. Infrastructure investments should be made dependent on the existence of institutional capacities to participate in demand-based designs of infrastructure projects, and to operate facilities in a client-oriented way. The Bank should help develop suitable policy frameworks to support institutional development, create appropriate incentives, support sector development programs, and conduct sector analyses in those DMCs where the Bank anticipates approving a large number of urban development projects.

116. When designing integrated urban infrastructure projects, more attention needs to be paid to actual integration of components, rather than covering separate geographical areas or subsectors that are not interlinked. Given the magnitude of investment requirements, projects should focus on fewer subsectors but ensure their linkage. Such packages, for example, could be structured around water supply and sewerage and sewage treatment; or around solid waste management, drainage, and roads. Intended impacts should be defined more clearly by selecting indicators with which impacts can be measured. Adequate baseline information must also be established.

117. An evaluation that compares the experience of integrated urban development with that of stand-alone projects that provide or upgrade municipal services should be conducted to assess the effectiveness and efficiency of each approach, and the degree to which synergy effects are generated and can be measured.

