

ASIAN DEVELOPMENT BANK

PPA: BAN 24096

PROJECT PERFORMANCE AUDIT REPORT

ON THE

**SECONDARY TOWNS INTEGRATED FLOOD PROTECTION PROJECT
(Loan 1202-BAN[SF])**

IN

BANGLADESH

December 2003

CURRENCY EQUIVALENTS

Currency Unit – taka (Tk)

| | At Appraisal (October 1992) | At Project Completion (December 2000) | At Operations Evaluation (September 2003) |
|----------|---------------------------------------|---|---|
| Tk1.00 = | \$0.0256 | \$0.01852 | \$0.01714 |
| \$1.00 = | Tk39.00 | Tk54.00 | Tk58.35 |

ABBREVIATIONS

| | | |
|------|---|---|
| ADB | – | Asian Development Bank |
| BWDB | – | Bangladesh Water Development Board |
| EA | – | Executing Agency |
| EIRR | – | economic internal rate of return |
| EOCC | – | economic opportunity cost of capital |
| FAP | – | Flood Action Plan |
| FDR | – | flood damage rehabilitation |
| FIRR | – | financial internal rate of return |
| GDP | – | gross domestic product |
| IFAP | – | institutional and financial action plan |
| KCC | – | Khulna City Corporation |
| LGED | – | Local Government Engineering Department |
| NGO | – | nongovernment organization |
| O&M | – | operation and maintenance |
| OEM | – | Operations Evaluation Mission |
| PCR | – | project completion report |
| PIU | – | project implementation unit |
| PMO | – | project management office |
| PMU | – | project management unit |
| TA | – | technical assistance |
| SDR | – | special drawing rights |
| SWM | – | solid waste management |
| WACC | – | weighted average cost of capital |

NOTES

- (i) The fiscal year (FY) of the Government ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2000 ends on 30 June 2000.
- (ii) In this report, “\$” refers to US dollars.

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BASIC DATA

Loan 1202-BAN(SF): Secondary Towns Integrated Flood Protection Project

| Project Preparation | | Type | Person-Months | Amount (\$'000) | Approval Date |
|---------------------|---|------|---------------|-----------------|---------------|
| TA No. | TA Name | | | | |
| TA 1396-BAN | Secondary Towns Integrated Flood Protection | PPTA | 49 | 600 | 24 Oct 1990 |

| Key Project Data (\$ million) | | As per ADB Loan Documents | Actual |
|-------------------------------|---------------|------------------------------|--------|
| Project Cost | | 70.0 | 70.0 |
| Foreign Exchange Cost | | 19.9 | 29.2 |
| Local Currency Cost | | 50.1 | 40.7 |
| ADB Loan Amount/Utilization | | 55.0 | 51.9 |
| | (SDR million) | 38.1 | 37.0 |
| ADB Loan Amount/Cancellation | | | 1.4 |
| | (SDR million) | | 1.1 |

| Key Dates | Expected | Actual |
|--------------------------------------|-------------|----------------|
| Fact-Finding | | 9–24 Feb 1992 |
| Appraisal | | 11–26 Apr 1992 |
| Loan Negotiations | | 28–29 Oct 1992 |
| Board Approval | | 3 Dec 1992 |
| Loan Agreement | | 23 Dec 1992 |
| Loan Effectiveness | 23 Mar 1993 | 29 Mar 1993 |
| First Disbursement | | 12 May 1993 |
| Project Completion | 31 Dec 1997 | 30 Nov 2000 |
| Loan Closing | 30 Jun 1998 | 13 Dec 2000 |
| Months (effectiveness to completion) | 57 | 92 |

| Economic Internal Rate of Return (%) | Flood Protection and Drainage | | | Slum Improvement | | |
|---|-------------------------------|------|------|------------------|------|-------------------|
| | Appraisal | PCR | PPAR | Appraisal | PCR | PPAR ¹ |
| Dinajpur | 46.0 | 37.1 | 36.3 | 18.7 | 18.1 | 16.0 |
| Habiganj | 44.4 | 41.8 | 27.9 | 12.3 | 19.3 | 12.0 |
| Khulna | 32.8 | 37.6 | 25.3 | 18.7 | 19.1 | 12.1 |
| Kurigram | 14.3 | 15.1 | 17.1 | 0.0 | 0.0 | — |
| Moulvibazar | 28.5 | 28.6 | 39.6 | 14.7 | 16.2 | 22.6 |
| Panchagarh | 28.7 | 29.2 | 13.7 | 13.7 | 22.8 | 21.9 |

| Financial Internal Rate of Return (%) | Solid Waste Management | | | Sanitation | | |
|--|------------------------|------|----------|------------|------|-------------------|
| | Appraisal | PCR | PPAR | Appraisal | PCR | PPAR ¹ |
| Dinajpur | 14.7 | 15.0 | negative | 20.5 | 19.8 | — |
| Habiganj | 14.3 | 16.0 | 4.6 | 20.5 | 20.1 | — |
| Khulna | 20.0 | 18.8 | negative | 20.5 | 20.2 | — |
| Kurigram | 13.3 | 13.9 | negative | 20.5 | 18.0 | — |
| Moulvibazar | 26.1 | 15.9 | 5.3 | — | — | — |
| Panchagarh | 17.0 | 18.2 | negative | 20.5 | 13.7 | — |

— = not calculated, ADB = Asian Development Bank, PCR = project completion report, PPAR = project performance audit report, PPTA = project preparatory technical assistance, SDR = special drawing rights, TA = technical assistance.

¹ The Operations Evaluation Mission did not financially reevaluate the sanitation component since revenues were small and insufficient to cover the associated costs. Instead, sanitation was included as part of the economic reevaluation under slum improvement since most of the constructed facilities are within the upgraded slum sites.

BORROWER Bangladesh

EXECUTING AGENCY Bangladesh Water Development Board and Local Government Engineering Department

Mission Data

| Type of Mission | No. of Missions | No. of Person-Days |
|------------------------------------|------------------------|---------------------------|
| Fact-Finding | 1 | — |
| Appraisal | 1 | — |
| Project Administration | | |
| Inception | 1 | 3 |
| Review | 14 | 94 |
| Midterm Review | 1 | 32 |
| Project Completion | 1 | 33 |
| Operations Evaluation ² | 1 | 38 |

² The Mission comprised A. Ibrahim (Evaluation Specialist/Mission Leader) and R. Brockman (Staff Consultant/Urban Development Sector Specialist).

EXECUTIVE SUMMARY

In Bangladesh, flooding is a perennial problem that threatens lives, damages basic infrastructure, and exacerbates health problems, especially among the poor. The Secondary Towns Integrated Flood Protection Project (the Project) aimed to provide a relatively flood-free and secure living environment in six towns (Dinajpur, Habiganj, Khulna, Kurigram, Moulvibazar, and Panchagarh) within the framework of integrated environmental management plans. Urban flood protection (part A of the Project) was integrated with drainage (part B) and basic municipal services, including slum improvement (part C), to benefit the urban poor living in low-lying, flood-prone areas. Implementation assistance, such as staff, consultants, and logistics support, was covered under part D. To promote sustainable long-term development, the Project also supported institutional and policy development, including cost recovery, financial management, urban management, and operation and maintenance.

The Project was consistent with the Government's Flood Action Plan and Fourth 5-Year Plan (1991–1995). It was also in line with the Asian Development Bank's (ADB's) operational strategy for Bangladesh in the early 1990s, which focused on developing urban infrastructure and improving the environment to benefit improvement with the urban poor. While the Project was ADB's third intervention to support the Flood Action Plan, it was the first in the six project towns.

At appraisal, the estimated cost of the Project was \$70.0 million. The largest component was part A, with an estimated cost of \$24.2 million, followed by part B at \$20.2 million, part C at \$6.6 million, and part D at \$4.9 million. The actual cost was only \$40,000 below the appraisal estimate. ADB disbursements totaled \$51.9 million, which covered the foreign exchange cost of the Project and \$22.7 million of the local currency costs. In addition to the original project components, the ADB loan provided \$2 million for flood damage rehabilitation, which was required after the 1998 floods, and \$1.2 million to finance 40% of the cost for surveying and mapping the project towns. However, the final loan amount was \$3.1 million lower than expected at appraisal due to the appreciation of the US dollar against special drawing rights and the devaluation of the taka, which led to the cancellation of \$1.4 million.

On 3 December 1992, ADB approved the loan, which became effective on 29 March 1993. The original closing date of 30 June 1998 was extended twice and financially closed on 13 December 2000. The delays were caused by several problems: (i) late recruitment of consultants due to procedural bottlenecks, (ii) heavy rains during construction, (iii) considerable damage from the floods of 1998, and (iv) political turmoil.

The delays increased the cost of implementation assistance to \$7.8 million from the appraisal estimate of \$4.9 million. Delays also changed the foreign and local currency costs significantly from the appraisal estimates. The foreign exchange cost increased by around 47% from the appraisal estimate to \$29.2 million due to price escalation on civil works contracts and the extension of consulting services to accommodate the implementation delays. The local currency cost fell by about 19% to \$40.7 million, partly because of the devaluation of the taka.

Despite the delays, the major objective of the Project—to provide a relatively flood-free and secure living environment—was met. The evaluation of the Project showed that the flood protection works were strategic interventions that maximized the impact. The civil works were generally well constructed, while the designs based on regional studies that incorporated solutions suitable to the physical conditions in the six towns were appropriate.

Responsibility for the maintenance of flood protection works was to be shared equally by the Bangladesh Water Development Board (BWDB) and the municipal authorities. However, the municipal authorities were constrained by their limited resources as well as their inability to collect past and current holding charges from government departments. BWDB also lacked sufficient funding for maintenance due to inadequate budgetary support. In addition, the municipal authorities were required to take responsibility for the remaining project components. However, the poor revenue base of the municipal authorities was an impediment to meeting these operation and maintenance obligations, despite real growth in revenues in the Khulna City Corporation (KCC) and the five pourashavas (municipalities).

The financial internal rates of return were lower at evaluation than at appraisal and the project completion report because of lower-than-expected revenues and increasing costs. The methodology for recalculation of the economic internal rate of return for the flood protection and drainage components was changed from that used in the project completion report. Instead of considering land values as economic benefits, the Operations Evaluation Mission used potential savings from reduced damage to flood-prone properties. However, the economic internal rates of return were positive and exceeded the economic opportunity cost of capital.

Two key issues still must be addressed. First, the long-term sustainability of the Project remains at risk because the municipal authorities and BWDB are unable to generate adequate revenues. Second, land reclassification, which would have increased the revenues of KCC and pourashavas, has not been announced officially.

The key lessons of the Project are (i) ambitious targets regarding strengthening the institutional, organizational, and financial capacity of local governments are not likely to be met; (ii) a more focused approach, backed by significantly larger interventions, is required to make a difference in the overall context of the urban poor; (iii) cooperation may not extend beyond a project where agencies report to different ministries, as BWDB, KCC and the five pourashavas did under this Project; (iv) dump sites need to have proper environmental controls; and (v) higher quality civil works reduces the need for maintenance, which may be a factor for ADB to consider in countries where inadequate funding for maintenance is the norm.

The Operations Evaluation Mission recommended three follow-up actions: (i) communities that have realized considerable benefits from the Project should be organized and encouraged to manage and fund routine maintenance for flood protection works as needed by mid-2004, because the national and local governments do not have sufficient resources; (ii) by mid-2004, ADB might consider trying to replicate in other towns the success nongovernment organizations have had providing garbage collection facilities in Khulna; and (iii) dump sites with sanitary linings should be introduced in the next phase of the Project.

The Project is assessed as successful, because it met its main objective of providing a flood-free and secure environment in the six project towns.







I. BACKGROUND

A. Rationale

1. Flooding is a perennial problem in Bangladesh, causing severe damage to basic infrastructure in rural and urban areas. Frequent flooding threatens life and property, worsens an already deficient urban infrastructure, and exacerbates health problems, especially among the poor. A lack of resources has impeded the implementation of flood control plans that required significant investments in secondary towns. Moreover, the rapid urbanization of Bangladesh's population over the past decade has added to these difficulties. In 2001, 23.4% of the population was urban, up from about 20% of the population in 1991.¹ According to a 1990 report by the Center of Urban Studies for the United Nations Children's Fund, approximately half the urban population lived in poverty, with about 30% bordering on starvation.

2. The severe flooding of 1987–1988 focused attention on the need to preserve urban infrastructure, and prompted the Government of Bangladesh to prepare a national Flood Action Plan (FAP)² a year later. The FAP identified 15 towns³ for intervention—one among 26 activities comprising investment components, technical studies, and support activities. The formulation of an Urban Management Policy, approved in 1994, emphasized the need to strengthen the capacity of *pourashavas* (municipalities) and enhance their financial autonomy.⁴

3. The Secondary Towns Integrated Flood Protection Project (the Project) was the third intervention by the Asian Development Bank (ADB) to support the FAP,⁵ and the first in Dinajpur, Habiganj, Khulna, Kurigram, Moulvibazar, and Panchagarh.⁶ At appraisal, the population of the project towns was estimated at 1.15 million, with an annual growth rate of 4% for Khulna and 3% for the other five towns.

B. Formulation

4. The Government requested a project preparatory technical assistance (TA)⁷ from ADB to prepare an integrated flood protection project for secondary towns, including riverbank protection and other municipal and environmental components.

5. Feasibility studies for the six project towns were prepared between May 1991 and April 1992. They incorporated preliminary designs for each component based on the standards used

¹ Urbanization was a relatively new phenomenon in 1991, when the urban population was estimated at 20% of the total—lower than the Asian average of 30%. However, in recent years, growth in the urban population has been estimated at four times the rate of the rural population.

² FAP was formulated under coordination of the World Bank and confirmed at a donor's conference in London in December 1989. The Asian Development Bank (ADB) participated in the conference and indicated a willingness to provide assistance for mitigating floods.

³ The 15 towns were Bhairabazar, Brahmanbaria, Dinajpur, Gaibanda, Jamalpur, Khulna, Kurigram, Kushtia, Habiganj, Manikganj, Moulvibazar, Mymensingh, Panchagarh, Rajshahi, and Sunamganj.

⁴ The policy was an outcome of the Government-ADB dialogue.

⁵ ADB's involvement in the 5-year FAP consisted of (i) TA 1498-BAN: *Southwest Area Water Resources Management Study*, for \$3.8 million, approved on 20 March 1991; and (ii) Loan 1124-BAN(SF): *Dhaka Integrated Flood Protection Project*, for \$91.5 million, approved on 21 November 1991, assessed successful by the project completion report. A national flood council, an implementation committee, and a full-time flood plan coordination organization established in 1990 provided day-to-day coordination of the action plan.

⁶ Khulna, the only major project town, was the headquarters for the Khulna Division and was administered by the Khulna City Corporation. Other project towns were secondary towns administered as municipalities and were headquarters for their respective districts.

⁷ TA 1396-BAN: *Secondary Towns Integrated Flood Protection*, for \$600,000, approved on 24 October 1990.

by the Bangladesh Water Development Board (BWDB), part of the Ministry of Water Resources, and the Local Government Engineering Department (LGED), part of the Ministry of Local Government, Rural Development, and Cooperatives.⁸ The plans were coordinated with other supporting studies including FAP 15 (Land Acquisition and Resettlement), FAP 16 (Environmental), and FAP 25 (Flood Modeling and Management). Appraisal was completed on 26 April 1992.

C. Purpose and Output

6. The main objective of the Project was to provide a relatively flood-free and secure living environment in the project towns within the framework of integrated environmental management plans. To promote sustainable long-term development, the Project also supported institutional and policy development, including cost recovery, financial management, urban management, and operation and maintenance (O&M).

7. The Project had four parts. Part A covered flood protection works, including augmentation of embankments and flood walls, regulated structures, and revetments. Part B covered drainage improvements, including rehabilitation and cleaning of drains as well as remodeling and construction of new drains and culverts. Part C covered sanitation (single-pit, twin-pit, and public latrines as well as septic tanks); solid waste management (SWM) (storage bins, trucks, and pushcarts); and slum improvements. Part D covered implementation assistance, including staff, consultants, and logistics support.

D. Cost, Financing, and Implementation Arrangements

8. As approved, the estimated cost of the Project was about \$70.0 million. The largest component was part A, with an estimated cost of \$24.2 million, followed by part B at \$20.2 million, part C at \$6.6 million, and part D at \$4.9 million. In addition, the Project estimated physical contingencies of \$5.7 million, price contingencies of \$6.6 million, and loan service charges of \$1.8 million (Appendix 1, Table A1.1).

9. The ADB loan from the concessional Special Funds resources was to finance \$55 million (SDR38.1 million equivalent), or 78.6% of the project cost, including the foreign exchange component of \$19.9 million and \$35.1 million of the local currency cost (Appendix 1, Table A1.2). The Government funded 19.3% (\$13.5 million) of the project cost, while the Khulna City Corporation (KCC) and the five municipalities provided 2.1% (\$1.5 million).

10. The project implementation arrangements were complex. An interministerial steering committee, chaired by the secretary of the Ministry of Irrigation, Water Development, and Flood Control, was to coordinate policy matters among the various agencies involved. Under the steering committee's guidance, a project management office was to coordinate the activities of concerned offices and manage project facilities. Key responsibilities were to include investment programming, financial planning, detailed engineering design, tendering, construction supervision, design and implementation of benefit monitoring and evaluation activities, socioeconomic and engineering surveys, environmental assessment and protection, and community development programs. BWDB, the principal Executing Agency (EA), was to implement parts A and D of the Project. A project management office was to be established for this purpose within BWDB. LGED was the EA for parts B and C. A project management unit was to be established within LGED to

⁸ Guidance was sought from BWDB's *National Flood Protection Program for 85 towns of 1988*. Standards for municipal works were derived from *Secondary Towns Infrastructure and Services Development Project* of June 1990.

provide technical supervision. Project implementation units, established within each project town, were to implement the components. A steering committee at the national level and local project coordination committees were to coordinate the national and local agencies involved in the Project. These committees were to coordinate activities between the project management unit and the project implementation units.

E. Completion and Self-Evaluation

11. The project completion report (PCR), which was circulated on 27 December 2001, was well prepared and rated the Project as successful.⁹ However, the PCR noted serious start-up problems, which were attributed to the complex internal government approval process. Those procedures delayed the recruitment of consultants, the preparation of tender documents, and the awarding of contracts. Political upheavals and major floods also contributed to the delays. The PCR noted that the Project's overall targets were met. The number of beneficiaries of flood protection, drainage, SWM, slum improvements, and sanitation exceeded the appraisal estimates. The effect on the environment was positive except with the solid waste disposal facilities, which could not treat hospital waste and experienced leachate permeation problems, particularly during the rainy season.

12. The PCR noted that compliance with the loan's financial covenants on improving tax collection efficiency was not satisfactory. In addition, institutional, financial, and operational action plans were implemented poorly by the project towns. While their resource mobilization improved, the project towns failed to meet appraisal targets due to government arrears of holding tax payments. The reclassification of land from agriculture to non-agriculture, which was required to increase the towns' own source revenue, was not implemented at the time of the PCR. The municipalities also continued to subsidize SWM facilities and equipment.

13. The reevaluated financial internal rates of return (FIRRs) of the solid waste components ranged from 13.9% to 18.8%, higher than appraisal estimates except in two towns. In Khulna and Moulvibazar, funds from a conservancy tax increase, instituted as a cost-recovery mechanism, did not keep pace with rising O&M costs. FIRRs for sanitation in all project towns were lower than the appraisal estimates of 20.5%, because of a substantial reduction in the number of single-pit latrines in favor of double-pit latrines. A lack of beneficiary support because of the significant difference in cost prompted that change in the original design. The economic internal rates of return (EIRRs) for flood protection works and drainage, which ranged from 15.1% to 41.8%, were higher than estimated, because of the expanded coverage area and larger subproject scope. The EIRRs for slum improvements also were higher than at appraisal due to the expanded coverage area and effective maintenance of project facilities by organized slum communities.

F. Operations Evaluation

14. The Operations Evaluation Mission (OEM) visited Bangladesh from 18 September to 6 October 2003 to evaluate the Project's performance. The OEM talked with representatives from government agencies, including the district and municipal entities responsible for operating the project components in the six project towns. The OEM assessed the implementation of the institutional and financial action plans (IFAPs) by KCC and the five pourashavas. Through extensive field interviews, the OEM also assessed the satisfaction of project beneficiaries with the facilities provided under the Project.

⁹ The PCR followed the four-category rating system currently used by the Operations Evaluation Department.

II. PLANNING AND IMPLEMENTATION PERFORMANCE

A. Formulation and Design

15. In line with the Government's FAP and Fourth 5-Year Plan (1991–1995), ADB's operational strategy for Bangladesh in the early 1990s focused on developing urban infrastructure and improving the environment to better the lives of the urban poor. Flood protection projects were integrated with drainage and basic municipal services to benefit many of the urban poor living in low-lying, flood-prone areas. The urban sector in Bangladesh remains a priority for ADB, because it "presents a greater opportunity for both pro-poor economic growth as well as targeted poverty reduction, particularly at the secondary towns level."¹⁰

16. World Bank, United Nations Development Programme, and bilateral agencies in a number of countries—including France, Japan, Netherlands, and the United States—have assisted Bangladesh in providing basic urban infrastructure. External agency assistance covered area development, municipal services improvements, environmental upgrades, riverbank protection, potable water supply, and sanitation. During preparation and implementation of the Project, close coordination was maintained with FAP activities and other aid agencies.

17. Under the Project, the designs of the flood protection works for the six project towns were appropriate and based on regional studies that incorporated solutions suitable to the physical conditions in various parts of the country (para. 5). The designs for the delta city of Khulna, for example, were distinct from those adopted in the other five project towns, which are prone to flash flooding. Due to the migratory nature of the rivers, some redesign and readjustments were anticipated at the time of the feasibility. As expected, adjustments were made during project implementation.

18. The integrated approach was assessed as appropriate for Bangladesh, which is prone to frequent flooding, particularly in low-lying areas inhabited by the poor. However, the flood protection works and drainage components used about 75% of project funding, leaving only a small allocation for slum improvement, SWM, and sanitation. Given the urban upgrading challenges still facing Bangladesh, a separate intervention focused on these problem areas might have been appropriate.

19. The addition of solid waste dump sites during project implementation required land acquisition. However, the environmental safeguards necessary for a proper sanitary landfill were not taken into account.¹¹ No resettlement was necessary.

B. Achievement of Outputs

20. A comparison of the works completed in the six project towns with the appraisal estimates is in Appendix 2.

21. Part A, covering flood protection, involved the construction or upgrading of embankments and bank erosion protection works. About 6.5 kilometers (km) of new embankments were built, 142.4% of the appraisal target. In Khulna, the main beneficiary of the Project, 3.5 km of new embankment protection works were built (392.2% of appraisal target).

¹⁰ ADB. 2002. *Country Strategy and Program Update (2003–2005): Bangladesh*. Manila.

¹¹ While Bangladesh does not have any sanitary landfill sites, the Government needs to be engaged in the provision of environmentally sound facilities for solid waste disposal.

However, 2 km of new embankments proposed at appraisal for Habiganj were not built. Instead, 1.3 km of new embankments were constructed in the Dinajpur area. Under the Project, 42.9 km of embankments were upgraded (104% of appraisal target), with Dinajpur and Moulvibazar as the main beneficiaries. In Dinajpur, 26.7 km of upgrades were completed (95.4% of appraisal target), while 8.4 km were completed in Moulvibazar (108.8% of appraisal target). Riverbank erosion protection works included 17.5 km of bank revetments (122.3% of appraisal target), of which 12.6 km were in the Dinajpur, Habiganj, and Moulvibazar areas (45.2% of appraisal target). Flood protection works also included the construction of 1.9 km of flood and core wall, the construction and/or repair of seven groins and spurs, and the provision of 32 regulator structures (133.3% of appraisal target).

22. In the aftermath of the severe floods of 1997–1998, ADB agreed to the Government's request for an additional flood damage rehabilitation (FDR) component,¹² which involved the construction of 37.1 km of embankments and 8.3 km of revetments. Dinajpur and Habiganj accounted for three fourths of embankment construction works, covering 16.8 km and 9.9 km, respectively. Riverbank erosion protection works in Khulna, Kurigram, and Panchagarh totaled 7.2 km, or 87.5% of the completed revetments. The additional flood protection works also included the construction and repair of one groin and spur, and the provision of five regulator structures.

23. Under part B, covering drainage works, 107 km of drains were cleared (52.3% of the appraisal target). Remodeling and new drainage included 148.4 km of main drains (109% of appraisal target) and 146 km of tertiary drains (84% of appraisal target). The length of tertiary drains was reduced from the appraisal target of 174.3 km due to a major change in scope in Khulna—from 125 km to 61.1 km. About 452 culverts, bridges, and road crossings were completed (52.8% of appraisal target).

24. Part C, covering environmental improvements, comprised sanitation, SWM, and slum improvement. Major sanitation facilities provided included 28 septic tanks, 521 soak pits for septic tanks (96.5% of appraisal target), 919 single-pit latrines (4.1% of appraisal target), 9,402 double-pit latrines (74.9% of appraisal target), 19 public latrines (90.5% of appraisal target), and 17 biogas plants. Key SWM facilities included 904 solid waste bins (98.8% of appraisal target), 135 pushcarts, 22 trucks of 3-ton and 5-ton capacity (146.7% of appraisal target), and three desludging vehicles. In addition, five solid waste disposal sites were developed or rehabilitated.

25. The slum improvement component covered 71 areas, benefiting 8,218 households (98.3% of appraisal target) in all the project towns except Kurigram. The Project provided water (shallow and tubewells), sanitation facilities, security lighting on footpaths, drainage works, and solid waste collection. Part D covered implementation assistance, which included consultant inputs and other logistical support. This assistance was provided adequately (paras. 29–32).

C. Cost and Scheduling

26. Appendix 1, Table A1.1 compares the estimated project cost at appraisal with the actual cost. Despite implementation delays and a change of scope, the actual cost was only \$40,000 below the appraisal estimate. The delays increased the cost of implementation assistance to

¹² The Government of Bangladesh requested assistance from ADB for FDR in the six project towns, which consisted of rehabilitation of embankment groins, spurs, cross bars, and new civil works required for flood protection works due to riverbank erosion. Embankment protection works were completed in Dinajpur, Habiganj, Khulna, and Panchagarh, while bank erosion protection works were undertaken in Khulna, Kurigram, and Panchagarh.

\$7.8 million from the appraisal estimate of \$4.9 million. Delays also changed the foreign and local currency costs significantly from the appraisal estimates. The foreign exchange cost increased 47% from the appraisal estimate to \$29.2 million due to price escalation on civil works contracts and the extension of consulting services to accommodate the implementation delays. Helping offset the rise in foreign exchange cost, the local currency cost fell 19% from the appraisal estimate to \$40.7 million, partly because of the devaluation of the taka. Contingencies, which were valued at \$12.36 million at appraisal, were diverted to expanding the project scope.

27. The financing plan of the Project is in Appendix 1, Table A1.2. ADB disbursements totaled \$51.9 million (SDR37 million equivalent), covering the entire foreign exchange cost of the Project and \$22.7 million of local currency costs. In addition to the original project components, the ADB loan provided \$2 million for the FDR component¹³ (para. 22) and \$1.2 million to finance 40% of the cost for surveying and mapping the project towns. However, the final loan amount was \$3.1 million lower than expected at appraisal because of the appreciation of the US dollar against special drawing rights and the devaluation of the taka, which led to the cancellation of \$1.4 million (SDR1.1 million equivalent). The Government provided \$18 million in counterpart funds, 20% more than expected.

28. The ADB Board approved the loan on 3 December 1992 and the Loan Agreement was signed on 23 December 1992. The loan, which became effective on 29 March 1993, had an original project completion date of 31 December 1997. However, the Project was not completed until 30 November 2000, 35 months later than expected. The Project was hampered by (i) start-up delays due to the late recruitment of consultants, (ii) work disruptions due to political upheavals (1995–1996), and (iii) floods (1998).

D. Consultant Performance, Procurement, and Construction

29. The Government appointed consultants for project management, assistance in preparing detailed engineering designs, and construction supervision. Aside from the start-up delays, few problems emerged during implementation. Some design work from the feasibility study had to be redone because of the migrating river channels (para. 17). The consultants benefited from an experienced team leader and continuity of membership within the team.

30. Experienced, local contracting firms won most of the civil works contracts in accordance with procedures acceptable to ADB. BWDB and LGED adequately supervised their work. Coordination between the online supervisors and the consulting engineers overseeing the work was satisfactory.

E. Organization and Management

31. The Project Steering Committee met once a month and was well attended by its members. The chairman attended most of the meetings, while representatives from other ministries usually came from the joint secretary level. The committee dealt mainly with the release of counterpart funding.

32. Project management by BWDB and LGED was satisfactory. Coordination was good between the pourashavas and LGED, both of which are under the Ministry of Local Government, Rural Development, and Cooperatives. BWDB and the pourashavas also

¹³ The FDR component cost \$4 million. The remaining \$2 million was financed under Loan 1666-BAN(SF): *Flood Damage Rehabilitation Project*, for \$104 million, approved on 18 December 1998.

coordinated closely throughout the Project. After the completion of the Project, however, this coordination was not sustained, more so in pourashavas such as Moulvibazar than Kurigram.

III. ACHIEVEMENT OF PROJECT PURPOSE

A. Operational Performance

33. The flood protection works in the six project towns generally were well-constructed and reduced riverbank erosion and flooding considerably. In Khulna, evidence indicated that subsidence caused slight undulations in the surface blocks of the flood protection structure at Roosevelt Jetty. Major embankment works involving increased elevations proved durable, even with inadequate annual maintenance. However, a paved road constructed on the embankment needs repair. The regulators and sluices were built well, though a number of rusting steel gates require painting and, unless attended to, will need to be replaced.

34. In Dinajpur, runoff during periods of heavy rain caused some erosion of the sandy loam embankments. In Habiganj, boulders used for the revetments were displaced in two areas—Machulia and Alapur—and required urgent rehabilitation. In Kurigram, the settlement of the embankment in several areas damaged the outer wall. In other cases, blocks used as outer casing were missing. The severe floods of 2001, 2002, and 2003 washed away some 250 meters of embankment construction and revetments, allowing the river to inundate previously protected land. With this breach, further erosion is likely unless the remaining structure near the breach is rehabilitated with urgency. In addition, the gate of one of the regulators is damaged and requires repair. In Moulvibazar, the core walls and floodwalls are sound. However, future inspection and maintenance will be difficult due to extensive private commercial and residential development along the riverbank and over the project facilities. Repairs also are needed to rectify settlement and replace loosened blocks. In Panchagarh, the use of wire mesh on the outer structure at locations previously vulnerable to erosion was an innovative embankment improvement. Landless families taking up residence on either side of the embankment after the construction of the metal road was the main problem in Panchagarh (para. 54). That contributed to the erosion of the sandy loam embankment.

35. Drains constructed or rehabilitated under the Project were generally good quality and allowed water to flow freely. However, people throwing garbage into the drains in all six towns—and the inability of KCC and the pourashavas to provide regular cleaning—caused some blockages. In Dinajpur, some of the larger open drains are potentially fatal for children and animals at night.¹⁴ In Habiganj, a few outlets are below the normal river water level and discharge onto open land. Covers for the drains provided under the Project were still intact on most drains in most towns. In Panchagarh, however, some slabs on the covered drains were broken or missing. Handles were not included on others to enable removal¹⁵ and access for cleaning.

36. The solid waste component of the Project significantly improved the services and capacity of SWM in the six project towns. The equipment for SWM was being well maintained, though waste bins, pushcarts and, in some cases, the dump trucks, were reaching the end of their life expectancy. Garbage was carelessly thrown around garbage bins in the six towns. In Khulna, two nongovernment organizations (NGOs) effectively collected garbage from individual residences and placed the contents in communal bins. KCC emptied the bins regularly and

¹⁴ Houses open directly onto the drains where there is no street lighting.

¹⁵ Concrete slabs were pre-cast and transported to the sites.

disposed of the garbage at a landfill site. However, the disposal site does not have a liner and the garbage is not covered with soil. In Dinajpur, the dump site acquired under the Project was never used, even though a dirt access road was provided. The site, which is being used for agriculture, is targeted for future use once the existing dump site is full and closed. In Habiganj, the dump site has poor access and is between a mixed residential and small business area and the river. Though soil covering was evident, the amount of garbage dumped was small compared to that generated in the town. In Panchagarh, the dump site was constructed in a largely agricultural area and is waste deep in water during the rainy season. While some garbage was dumped on the embankments of the dump site, the pourashava is not likely to open it officially until the current site is full. The new site does not have a lining, and will negatively impact the surrounding agricultural land when used.

37. The sanitation facilities improved health conditions by reducing the incidence of disease. Households welcomed the sanitation component, and pit latrines were used and well maintained by the beneficiaries. Few beneficiaries took out loans for the construction of the latrines, preferring to pay the required Tk500. The pourashava wrote off the loans of the small percentage of residents who took out loans and were unable to repay them. A public latrine that was built at a major bus terminal in Khulna was used by about 200 people per day and was well maintained. The operations of the facility were leased out, and users pay Tk1.0 per visit. In Habiganj, many internal facilities of the public latrine were damaged, though it was reasonably well constructed and cleaned regularly. Cleaning of latrines is being undertaken locally with a charge of Tk0.50 to Tk1.00 per visit. A biogas plant constructed in a school in Khulna worked well until a blockage between the latrines and the vault temporarily stopped gas generation. The plant was well constructed and the gas produced was used for cooking.

38. Under the slum improvement component, the poor accounted for 100% of the beneficiaries. Appraisal targets were achieved by reaching 8,356 households. Detailed interviews by the OEM at project sites revealed that the benefits to the poor included (i) reduced damage to houses from flooding; (ii) easier movement through a reduction in waterlogging; (iii) access to communal toilets for families unable to construct private toilets; (iv) better street lighting, which has promoted communal interchanges; (v) a decrease in waterborne diseases; and (vi) less expensive water, as well as easier collection by women and children, through tubewells. The footpaths where cement binding was not used showed signs of erosion, however. The communities lack the resources or organizational abilities to maintain the facilities, and assistance is required from the pourashavas.

B. Performance of the Operating Entity

39. The Project aimed to strengthen the institutional capacity of KCC and the participating pourashavas to implement, operate, and maintain infrastructure and manage municipal finances. The mechanism for improving performance within each town was the implementation of an IFAP. The key objectives were (i) to enhance revenue collections and increase the tax base through reclassification, reassessment, and increased rates; and (ii) to ensure that sufficient funds were raised and allocated to cover project-related O&M costs. Annual reviews of tax collection efficiency of KCC and the pourashavas were proposed. The financial performance of KCC and the pourashavas is in Appendix 3.

40. Properties have been reassessed, tax rates increased, and coverage has expanded in the participating pourashavas. In FY2000/01, the pourashavas undertook property tax reassessments, and they intend to adjust the assessments again in FY2006. KCC has not reassessed its properties since FY1989, although discussions are under way to start the task.

Revenue collection remains a serious problem with current dues ranging from an average of 37% in Dinajpur to 56% in Khulna since FY2001.¹⁶ The coverage and collection targets established in the IFAP at appraisal for FY1999 have not been met. Own source revenues have deviated considerably from the projections made at appraisal.¹⁷ In the pourashavas and KCC, the holding tax rate¹⁸ was 7% at the time of the OEM. Conservancy rates for KCC and Moulvibazar were 6% and 5%, respectively. The other pourashavas levy a 7% conservancy rate. All towns showed real growth in own source revenues from FY1994 to FY2002, with more rapid increases after project completion in FY2000. However, these higher growth rates were not sustained in the pourashavas into FY2003. Unlike the pourashavas, KCC achieved real growth in its own source revenues in FY2003.

41. In all towns except Kurigram, own source revenues now approximate or exceed expenditures on salaries and allowances and O&M. However, O&M expenditures are not keeping pace with the rise in the towns' public assets due to resource constraints and expectations at appraisal that were too optimistic (para. 69). Significant improvements in the generation of own source revenue are needed to provide such funds. In the absence of improved local revenue generation, development expenditures will continue to be funded almost exclusively by national government subsidies or grants.

C. Financial and Economic Reevaluation

42. The financial and economic reevaluations of the Project are detailed in Appendixes 4 and 5. At appraisal, FIRR were computed for the SWM and sanitation components. The solid waste component was reevaluated based on project-initiated revenues and actual project costs. FIRR computations for the sanitation component were not reevaluated as the revenues from this component were almost negligible relative to the costs, rendering recalculation almost meaningless. Instead, the costs of sanitation were included in the economic reevaluation of the slum improvement component since the majority of the facilities are in the slums. The improved services introduced under the Project provided the opportunity for KCC and the pourashavas to impose garbage fees for SWM. However, this opportunity now has been lost, and the SWM operation may be curtailed to the level supported by the revenues of the pourashavas. Its financial sustainability is in doubt in Dinajpur, Khulna, Kurigram, and Panchagarh.

43. All FIRR were significantly below those at appraisal and the PCR because of lower-than-expected revenues and increasing costs. Revenues from conservancy rates were lower than projected, direct household charges for SWM never materialized in the pourashavas, and replacement costs were not included in the earlier analysis. FIRR of 5% were computed for Habiganj and Moulvibazar, both above the weighted average cost of capital (WACC) of 2.6%. In Habiganj and Moulvibazar, the investments were lower than for the other towns, and the resulting O&M requirements were less. Negative returns were computed for Dinajpur, Khulna, Kurigram, and Panchagarh, where investments were substantially larger and O&M costs much higher. A significant proportion of the conservancy rate would need to be allocated for SWM to achieve positive returns in these towns.

¹⁶ Achievement has been between 56% and 62% in all pourashavas, but only 33% in Khulna.

¹⁷ Two main sources of funds for local governments are their own revenues (taxes and user fees and charges) and government grants. Major own source revenues include property-based taxes (covering property holdings; street lightings; conservancy rates and water supply charges; business taxes [including business and trade license fees, vehicle fees, and ferry and ghat fees]; market fees; and rentals).

¹⁸ An increase in the holding tax was proposed, and accepted by ADB, to overcome public resistance to the proposal made at appraisal to impose a surcharge.

44. The economic reevaluation was undertaken for the flood protection and drainage components as one integrated project and for the slum improvement and sanitation components as another. EIRRs were compared to the economic opportunity cost of capital (EOCC), assumed to be 12%, as well as the EIRRs computed at appraisal and for the PCR. The evaluation methodology used for the flood protection and drainage component was changed from that used in the PCR. In the PCR, increases in land values were considered economic benefits. Since such increases are inappropriate estimators of economic benefits, the potential savings from reduced physical damages to flood-prone properties in the towns was used instead. Slum improvement followed the same methodology used at appraisal and for the PCR, using increased house rentals as the measure of benefit. In addition, the property values and infrastructure damage estimates were apportioned to areas protected by flood control and drainage works. Based on the frequency of flooding before and after the Project,¹⁹ estimates of damages avoided were computed.

45. The change in methodology accounts for the different results from the PCR and appraisal estimates for the flood protection and drainage component. All EIRRs were positive and exceeded the EOCC. In Habiganj (28%), Khulna (25%), and Panchagarh (14%), the EIRRs were lower than those at appraisal and for the PCR. In Dinajpur (36%), the change from the PCR was small, while in Kurigram (17%) and Moulvibazar (40%), the returns were higher than appraisal and PCR estimates. EIRRs recalculated by the OEM were generally lower than expected as they were based on conservative assumptions regarding the estimates of damage avoided.

46. The reevaluation of the slum improvement component produced EIRRs exceeding the EOCC in all towns. Habiganj and Khulna, with base case EIRRs of 12%, were slightly above the EOCC. The return for Habiganj, which had lower rental values and household incomes than the other towns, was similar to that at appraisal, though lower than at the PCR reevaluation. For Khulna, where the very poor areas were upgraded, the reevaluated EIRR was below the appraisal and PCR figures. In Dinajpur, the reevaluated EIRR of 16% also was lower than at appraisal and for the PCR. The 22% EIRR in Panchagarh was marginally below that at the PCR, while in Moulvibazar the 23% return was above the appraisal and PCR figures. The changes were largely the result of (i) the inclusion of sanitation costs; (ii) lower assumed rates of rental increases, which were conservatively estimated to parallel real increases in gross domestic product at about 5% per year;²⁰ and (iii) updating of the number of beneficiary households within the project sites.

D. Sustainability

47. Under the IFAP, O&M costs of part A of the Project were to be borne by BWDB, KCC, and the five pourashavas. Although BWDB, KCC, and four pourashavas formed the required joint committees and opened separate accounts for O&M budgets, the OEM confirmed that these committees were never operational. The exception was Moulvibazar, which established a separate account that had a balance of about Tk300,000 as of September 2003. The funding for this account came from an additional 1% surcharge on the holding tax rate. KCC and the other pourashavas did not allocate funds for their share of maintenance. BWDB relies exclusively on grants from the national Government, which average less than 1% of the amount requested for

¹⁹ These were based on the before and after project surveys under the project benefit monitoring and evaluation and presented in the Government PCR.

²⁰ The PCR had much higher figures ranging from 10% per year in Khulna to 25% per year in Habiganj.

maintenance. As a result, BWDB is unable to provide adequate maintenance and the facilities requiring the most urgent repairs are given priority.²¹

48. Two pourashavas, Dinajpur and Habiganj, carried out minor routine maintenance on flood protection works. While Moulvibazar pourashava allocated Tk150,000 for resectioning of the embankment in FY2000–2001, it has not made any allocations since. KCC and the four remaining pourashavas reported that they cannot make their contributions for part A of the Project due in part to the failure of government departments to pay holding taxes on their properties. The substantial arrears of those departments have constrained the resource mobilization of KCC and the pourashavas. Furthermore, KCC and the pourashavas consider the maintenance of flood protection facilities the responsibility of the central Government, and they remain unconvinced of the need to finance such work.²² The fact that the pourashavas and BWDB report to different ministries also might be a factor in their refusal to contribute to the maintenance of flood protection works of the Project (para. 32).

49. The reclassification of agricultural land for urban uses, which was intended to expand the local resource base, was completed at PCR. However, the official publication had not been finalized at OEM.

50. KCC, the pourashavas, and the communities were to be responsible for O&M for parts B and C of the Project. Upgraded slum sites were to be maintained by the beneficiary communities. Each slum committee was to organize a committee, while a maintenance and revolving loan fund was established under the Project. However, once the Project was completed, the committees became non-operational. At OEM, the pourashavas were not extending the required support to the slum community committees (para. 38).

51. KCC and the pourashavas regularly maintained solid waste vehicles and equipment. They also allocated a budget for salaries of vehicle drivers, supervisors, and the sweepers as well as O&M for vehicles and equipment. Since users are not charged a direct fee for solid waste, a proportion of the conservancy tax is allocated for this purpose. Despite these allocations, minimal expenditures have occurred in a number of cases. Revenues from increased conservancy rates in Habiganj, Khulna, and Moulvibazar were used to finance the incremental O&M costs of solid waste facilities provided under the Project. However, neither KCC nor the pourashavas was able to meet the O&M requirements of project facilities under parts B and C due to a poor resource base; inadequate management capacity; and manpower deficiencies, including absenteeism.

IV. ACHIEVEMENT OF OTHER DEVELOPMENT IMPACTS

A. Socioeconomic Impact

52. An assessment of the impact of project facilities on the beneficiaries is in Appendix 6. The flood protection works have improved property values around project sites by providing a flood-free and secure living environment. Property values have risen 20–40% in Kurigram, 20–80% in Moulvibazar, and 50–100% in Panchagarh. In interviews, beneficiaries reported that floodwaters have not scaled the flood protection works in any of the project towns since project completion. Improvements in the living environment as a consequence of the Project were

²¹ Emergency works are released promptly by cutting funding from other sources.

²² At appraisal and implementation, coordination was good. The issue arose only after project completion, a common occurrence in Bangladesh where a paucity of funding is the main reason behind the inability to invest adequately in O&M expenditures.

noted by 51% of the respondents in Khulna, 63% in Kurigram, 83% in Moulvibazar, and more than 95% in the remaining towns. Other slum improvements also have provided a greater sense of security and permanence within the towns, including the construction of tubewells under the slum improvement component.

53. The project facilities reduced flooding in all six towns. However, 15% of respondents in Khulna and 30% in Dinajpur reported some minor damage during the 2001 floods. The abatement of waterlogging made traveling to work and to shops less arduous, with 52% in Habiganj, 65% in Khulna, and more than 80% in the other towns reporting easier movement. The incidence of waterborne diseases in poor families also was significantly reduced, lowering their expenditures on medical assistance and treatment. In Khulna, 49% of the respondents reported a decline in waterborne diseases. However, more than 95% of the respondents in the remaining towns indicated a decline in the incidence of waterborne diseases.

54. Landless families have settled on the riverside of a number of revetments or embankments constructed under the Project. Their houses, made of temporary materials, are vulnerable to flooding.

55. The construction of a groin and spur in Kurigram enabled the development of a park and recreational area, with landscaping and street furniture. In other project towns, land around flood protection works also is used for recreational purposes.

B. Environmental Impact

56. The solid waste disposal sites caused some environmental degradation, although considerably less than would have occurred without the Project. The dump sites, which do not have sanitary linings or leachate and gas removal systems, continue to pollute the groundwater and surrounding areas. While the development and continued use of such facilities should be questioned, their closure is problematic since there are no alternative sanitary landfill sites available.

C. Impact on Institutions and Policy

57. The Project provided training on project benefit monitoring and evaluation activities, surveys, environmental impacts, IFAPs, and O&M to strengthen the skills of KCC, the pourashavas, BWDB, and LGED.

58. The capacity of BWDB and LGED to assess O&M has been strengthened considerably, though the Government's inability to fund their requirements remains an impediment to the success of this component. In addition, KCC and the pourashavas remain constrained by their poor cost recovery and revenue mobilization. Nonetheless, the capacity development of KCC and the pourashavas is evident, and LGED continues to spearhead the building of capacity within the local governments to plan, design, and implement basic infrastructure projects. With external assistance, an urban management support unit was created within LGED to assist local governments in nontechnical aspects, including community participation, resource mobilization, and improved governance.

V. OVERALL ASSESSMENT

A. Relevance

59. The project design was relevant as flooding and waterlogging are perennial problems in Bangladesh that threaten lives, increase the incidence of waterborne diseases, and damage property. The Project remains relevant since the urban poor continue to experience frequent flooding. The Project is assessed as highly relevant.

B. Efficacy

60. The Project achieved its primary objective of providing a relatively flood-free and secure living environment in the project towns. The flood protection works protected the six towns during the floods of 2001, 2002, and 2003. However, the IFAP was only partly successful. Even though the Project increased the resources of the pourashavas, they still do not meet the O&M requirements. The Project is rated as efficacious.

C. Efficiency

61. The consultants, the two EAs, KCC, and the five pourashavas were efficient in the delivery of their services. The reevaluated EIRRs were higher than the EOCC for flood protection and drainage and for slum improvements and sanitation. Since the major components were flood protection and drainage, the Project is rated as efficient.

D. Sustainability

62. Maintenance remains a problem for all components. Inadequate resources for the maintenance of flood protection, drainage, and slum improvement works is a serious issue. Some works were constructed better in one town than in another. For example, the mattress in Panchagarh requires minimal maintenance, while the revetments in other towns require considerable maintenance expenditures. FIRRs exceeded the WACC in only two towns and were negative in the other four. The long-term sustainability of all project components remains at risk because of inadequate allocations for maintenance. Sustainability is assessed as less likely.

E. Institutional Development and Other Impacts

63. LGED has become a major provider of assistance and capacity building to the pourashavas. However, the Project's role in LGED's emergence is unclear. Nevertheless, the Project focused the attention of local governments on the need to finance the maintenance of infrastructure and improve services. Despite this awareness of the importance of maintaining project facilities, resource constraints continue to inhibit maintenance. Other impacts include higher land prices, a reduction in waterborne diseases, easier movement because of reduced waterlogging, and improved access to clean water through the construction of tubewells under the slum improvement component. It is assessed as moderate.

F. Overall Project Rating

64. Overall, the Project is rated as successful. Since project completion, the six towns have been protected from floods. Drainage facilities have reduced the incidence of waterborne diseases in the six towns.

G. Assessment of ADB and Borrower Performance

65. With 16 review missions, including an inception and a midterm mission, ADB's performance was satisfactory. ADB worked closely with the Government and responded immediately to requests to repair structures damaged by the 1998 floods. In addition, ADB funded 40% of the cost of the land reclassification survey. ADB also responded to government requests to replace the surcharge envisaged at appraisal with an increase in the holding tax, extend the closing date of the loan, and extend the contracts for the consultants. The Bangladesh Resident Mission supervised the FDR component, assisting with the disbursement and coordination with the Government.

66. Despite start-up delays due to the late recruitment of design, supervision, and management consultants, the Borrower's performance was satisfactory. The Government responded promptly to emergencies in the aftermath of the 1998 floods and political turmoil. Beneficiaries' preferences regarding an affordable design for sanitation facilities were acted on. Audited financial statements were timely. However, cumbersome government procedures delayed the approval of consulting and civil works contracts. As a result, the start of the project management, detailed engineering design, and construction supervision contracts were delayed. The Bangladesh Resident Mission expedited the recruitment of the consultants as much as possible within the procedural constraints.

VI. ISSUES, LESSONS, AND FOLLOW-UP ACTIONS

A. Key Issues for the Future

67. A serious risk to long-term project sustainability remains. The revenue-generating abilities of KCC and the pourashavas are constrained by their limited resource base and their inability to collect current and past holding charges from government agencies. In addition, KCC and the pourashava lack a commitment to the maintenance of the flood protection works undertaken by BWDB, which is seen as the responsible line agency. Furthermore, BWDB has insufficient resources to finance maintenance nationwide. Some of the works completed under the Project will require costly reconstruction, unless routine maintenance is carried out immediately.

68. Land reclassification, completed at the time of the PCR, has not been announced officially. Thus, the reclassification has not been enacted and the additional revenues that should have been generated have not been realized.

B. Lessons Identified

69. Project targets for revenue generation and O&M support by KCC and the pourashavas were ambitious. The participating pourashavas did not have the capacity or the will to assume the additional responsibilities for maintaining flood protection works. Considerable problems also persist regarding the institutional, organizational, and financial capacity of the pourashavas to provide effective local services. Nevertheless, ADB's efforts to avoid overambitious targets to support the devolution of governance and to assist local governments in improving revenue

generation through more innovative approaches toward capacity building apply lessons learned from this experience.²³

70. In cases where the principal EA and the local government report to different ministries—as the pourashavas and BWDB did under this Project—extending cooperation beyond the duration of a project is unlikely.²⁴ Thus, joint responsibility for O&M after project completion is not likely to succeed.

71. Solid waste dump sites designed without proper environmental controls damage the surrounding areas over the long term. Appropriate environmental safeguards should be a component of future interventions.

72. For future interventions, significant benefits would be realized if slum improvement, sanitation, and SWM components are expanded or encouraged to ensure that their importance within an overall project design is not minimized. As a result, investment would be focused on the comprehensive upgrading of major low-income areas.

73. In Bangladesh, where resource constraints restrict allocations for maintenance, higher quality civil works that reduce the need for maintenance may be more appropriate. For example, the mattress and wire mesh used to protect the bank revetments in Kurigram required considerably less maintenance for a longer period than the less costly alternatives used in Dinajpur. Similarly, the low-cost unbound brick footpath paving for slum improvement areas was broken in a number of towns, requiring rehabilitation only a few years after completion. A more lasting solution, where the bricks are held in place by cement, would have been more appropriate.

C. Follow-Up Actions

74. ADB needs to discuss with the Government the financing of O&M costs for flood protection works, including the role, if any, of pourashavas. Because the national Government and the local governments lack sufficient resources for routine maintenance of flood protection works, communities that have realized considerable benefits from the Project should be organized and encouraged to manage and fund such activities as needed by mid-2004. The policy dialogue with the Government also must cover adequate allocations to BWDB for periodic maintenance.

75. NGOs effectively have provided garbage collection facilities to Khulna. By mid-2004, the Government and ADB might consider enlisting NGOs in other towns to perform this service.

76. The dump sites in Bangladesh do not have sanitary linings or leachate and gas removal systems. Sanitary linings should be introduced at dump sites in the country as part of the ongoing project preparatory TA for the Secondary Towns Integrated Project phase II.²⁵

²³ Loan 1947-BAN(SF): *Urban Governance and Infrastructure Improvement (Sector) Project*, for \$60 million, approved on 28 November 2002, has a component for institutional capacity building for pourashavas that includes (i) computerization of accounts; (ii) infrastructure inventory, assessment, and mapping; and (iii) training for decentralized township planning.

²⁴ This may have been difficult for the appraisal mission to assess since coordination is generally good in Bangladesh during project preparation and implementation. Difficulties appear after completion.

²⁵ TA 4000-BAN: *Secondary Towns Integrated Flood Protection II*, for \$900,000, approved on 25 November 2002.

PROJECT COST

Table A1.1: Breakdown by Cost Category
(\$ million)

| Category | Appraisal Estimate | | | Actual | | |
|--|--------------------|--------------|--------------|--------------|--------------|--------------|
| | Foreign | Local | Total | Foreign | Local | Total |
| Secondary Towns Integrated Flood Protection Project | | | | | | |
| Land Acquisition | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 0.47 |
| Flood Protection (Part A) | | | | | | |
| Flood Embankment Protection Works | 1.84 | 2.95 | 4.79 | 1.51 | 1.58 | 3.09 |
| Bank Erosion Protection | 7.47 | 11.99 | 19.46 | 10.99 | 11.53 | 22.52 |
| Construction of Buildings | 0.00 | 0.00 | 0.00 | 0.02 | 0.03 | 0.05 |
| Subtotal | 9.31 | 14.94 | 24.25 | 12.52 | 13.14 | 25.66 |
| Drainage (Part B) | 4.53 | 15.62 | 20.15 | 9.57 | 16.97 | 26.54 |
| Environmental Improvements (Part C) | | | | | | |
| Sanitation | 0.95 | 2.78 | 3.73 | 1.01 | 0.94 | 1.95 |
| Solid Waste Management | 0.34 | 1.01 | 1.35 | 0.38 | 0.35 | 0.73 |
| Slum Improvements | 0.39 | 1.16 | 1.55 | 0.48 | 0.45 | 0.93 |
| Subtotal | 1.68 | 4.95 | 6.63 | 1.87 | 1.74 | 3.61 |
| Implementation Assistance (Part D) | | | | | | |
| Project Implementation Support | 1.16 | 0.24 | 1.40 | 0.13 | 3.94 | 4.07 |
| Project Management (Dhaka) | 0.37 | 0.08 | 0.45 | 0.02 | 0.10 | 0.12 |
| Consulting Services | 1.08 | 1.92 | 3.00 | 1.47 | 2.13 | 3.60 |
| Subtotal | 2.61 | 2.24 | 4.85 | 1.62 | 6.17 | 7.79 |
| Contingencies (Part E) | | | | | | |
| Physical | 0.00 | 5.74 | 5.74 | 0.00 | 0.00 | 0.00 |
| Price | 0.00 | 6.62 | 6.62 | 0.00 | 0.00 | 0.00 |
| Subtotal | 0.00 | 12.36 | 12.36 | 0.00 | 0.00 | 0.00 |
| Service Charge | 1.76 | 0.00 | 1.76 | 1.70 | 0.00 | 1.70 |
| Flood Damage Rehabilitation Project | 0.00 | 0.00 | 0.00 | 1.96 | 1.03 | 2.99 |
| Survey and Mapping of Project Towns | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.20 |
| Total | 19.89 | 50.11 | 70.00 | 29.24 | 40.72 | 69.96 |

Source: Operations Evaluation Mission.

Table A1.2: Financing Plan
(\$ million)

| Source | Appraisal Estimate | | | Actual | | |
|------------------------|--------------------|--------------|--------------|--------------|--------------|--------------|
| | Foreign | Local | Total | Foreign | Local | Total |
| Asian Development Bank | 19.90 | 35.10 | 55.00 | 29.24 | 22.68 | 51.92 |
| Borrower ^a | 0.00 | 15.00 | 15.00 | 0.00 | 18.04 | 18.04 |
| Total | 19.90 | 50.10 | 70.00 | 29.24 | 40.72 | 69.96 |

^a Project cost financed by Government (\$13.47 million) and Khulna City Corporation and five municipalities (\$1.53 million).
Source: Operations Evaluation Mission.

ACTUAL WORKS COMPARED WITH APPRAISAL

Table A2.1: Works Completed Compared with Appraisal—Part A

| Work Item | Total Works | |
|---|-------------|--------|
| | Appraisal | Actual |
| Part A: Flood Protection (Secondary Towns Integrated Flood Protection Project) | | |
| 1. Land Acquisition, Compensation, Survey, and Investigation | 41 | 46 |
| 2. Embankment Protection Works | | |
| a. New Embankment Construction (m) | 4,550 | 6,480 |
| b. Existing Embankment Construction (m) | 41,200 | 42,850 |
| c. Flood Wall and Core Wall (m) | 1,800 | 1,923 |
| d. New Regulator Structures (no.) | 22 | 24 |
| e. Rehabilitated Regulator Structure (no.) | 2 | 8 |
| 3. Bank Erosion Protection Works | | |
| a. Bank Revetments | | |
| Location (no.) | 38 | — |
| Length (m) | 13,240 | 17,544 |
| b. Groins and Spurs | | |
| Repairs (no.) | 3 | 5 |
| New (no.) | 4 | 2 |
| Part A: Flood Protection (Flood Damage Rehabilitation) | | |
| 1. Embankment Protection Works | | |
| a. New Embankment Construction (m) | 0 | 0 |
| b. Existing Embankment Construction (m) | 0 | 37,145 |
| c. Flood Wall and Core Wall (m) | 0 | 0 |
| d. New Regulator Structures (no.) | 0 | 4 |
| e. Rehabilitated Regulator Structure (no.) | 0 | 1 |
| 2. Bank Erosion Protection Works | | |
| a. Bank Revetments | | |
| Location (no.) | 0 | — |
| Length (m) | 0 | 8,200 |
| b. Groins and Spurs | | |
| Repairs (no.) | 0 | 1 |
| New (no.) | 0 | 0 |

— = not available, m = meter, no. = number.

Source: Operations Evaluation Mission.

Table A2.2: Works Completed Compared with Appraisal—Parts B and C

| Work Item | Total Works | |
|--|-------------|--------|
| | Appraisal | Actual |
| Part B: Drainage | | |
| a. Rehabilitate and Clean Existing Drains (km) | 206 | 108 |
| b. Urban Drainage Area Coverage (ha) | 39 | — |
| c. Remodelling and New Drainage | | |
| Main (km) | 136 | 148 |
| Tertiary (km) | 174 | 146 |
| d. Bridges, Culverts, and Road Crossings (no.) | 856 | 452 |
| e. Drain Cover Slab (km) | 10 | 66 |
| f. Main Carrier Drain | 0 | 22 |
| Part C: Environmental Improvements | | |
| 1. Sanitation | | |
| a. Single-Pit Latrines (no.) | 22,320 | 919 |
| b. Twin-Pit Latrines (no.) | 12,560 | 9,402 |
| c. Public Latrines (no.) | 21 | 19 |
| d. Septic Tanks (no.) | 0 | 28 |
| e. Soak Pits for Septic Tanks (no.) | 540 | 521 |
| f. Biogas Plants (no.) | 0 | 17 |
| 2. Solid Waste Management | | |
| a. Storage Bin (no.) | 915 | 904 |
| b. 3t/5t Trucks (no.) | 15 | 22 |
| c. Pushcarts (no.) | 135 | 135 |
| d. Desludging Equipment (no.) | 0 | 3 |
| e. Land Acquisition (ha) | 11 | 4 |
| f. Development of Disposal Area (no.) | — | 11 |
| 3. Slum Improvement | | |
| a. Project Coverage | | |
| Areas (no.) | 83 | 71 |
| Households (no.) | 8,356 | 8,218 |
| b. Community Level Training | | |
| Groups Trained (no.) | 837 | 837 |

— = not available, ha = hectare, km = kilometer, no. = number, t = ton.

Note: Flood Damage Rehabilitation: Breakdown of works is about \$1.9 million.

Source: Operations Evaluation Mission.

FINANCIAL PERFORMANCE OF KHULNA CITY CORPORATION AND POURASHAVAS

A. Financial Data

1. The project completion report reviewed four aspects of the financial performance of Khulna City Corporation (KCC) and the pourashavas: (i) growth of tax collections, (ii) revenues compared with the appraisal targets, (iii) tax collection efficiency, and (iv) financial management and control measures contained in the financial and institutional operation action plans prepared at appraisal. Each of these was reexamined.

2. Financial data for KCC and the pourashavas from FY1994 to FY2003 are shown in Figure A3.1 and Tables A3.2–A3.7, including summary financial ratios for the towns. An analysis of the financial figures and those projected at appraisal is shown in Table A3.8 for KCC and each pourashava.

B. Analysis of Financial Performance

3. The two main sources of funds for local governments are their own revenues and government grants. For KCC, government grants account for more than half of the total revenues. For the pourashavas, the proportion normally is much lower. Major own source revenues include property-based taxes, business taxes,¹ market fees, and rentals. Property-based taxes, covering property holdings, street lighting, conservancy rates, and water supply charges, account for about 40–60% of own source revenues.

C. Growth of Tax Collections

4. Data collected by the Operations Evaluation Mission shows steady growth in own source revenues for most towns since FY2000. Dinajpur was the exception, showing a real decline mainly due to negative growth in business taxes and high collections in the base year.² In most towns, total own source revenues for FY2001 and FY2002 grew in real terms, as did property-based tax revenues. However, growth in property-based taxes fell in FY2003, except for in Dinajpur and Khulna. Annual growth rates in own source revenues and property-based taxes were higher from FY2000 to FY2003 than from FY1994 to FY2000 in Khulna, Kurigram, and Moulvibazar, but lower in Dinajpur,³ Habiganj,⁴ and Panchagarh.⁵ Own source revenues now account for about 60% of revenues in Habiganj and Panchagarh, and more than 75% in Dinajpur, Kurigram, and Moulvibazar. In Khulna, own source revenues account for about 44% of the total.

5. From FY1994 to FY2003, KCC and the pourashavas showed real growth in own source revenues.⁶ Growth was moderate in Dinajpur (5.1%), Khulna (7.4%), Kurigram (7.2%), Moulvibazar (9.0% per year), and Panchagarh (2.6%). Habiganj (16.2%) showed significantly faster growth. Dinajpur, Kurigram, and Khulna registered similar real growth rates in property-based tax revenues over that period, while Moulvibazar showed even swifter growth (14.5%).

¹ These taxes cover business and trade license fees, vehicle fees, ferry and ghat fees, and water supply charges.

² The collections of own source revenues for FY2000, recorded at Tk19.5 million, appear “abnormal” in relation to past and future statistics. This may be an overestimate, since the trend from FY2001 to FY2003 is upward.

³ The collections of property-based taxes for FY2000, recorded at Tk9.2 million, appear high and may be an overestimate.

⁴ A 37% increase occurred in FY2000, increasing the base. However, there has been a slight decrease in property-based tax collection since FY2001.

⁵ FY2003 figures show a significant decline over the previous year.

⁶ Average annual inflation from FY1994 to FY2003 was about 5%.

However, real growth rates for property-based tax revenues were lower in Panchagarh⁷ and Habiganj.⁸ Own source revenues now approximate or exceed expenditures on salaries and allowances and operation and maintenance in all towns, except for Kurigram.

D. Revenues Compared with Appraisal Targets

6. Appraisal projections were made from FY1993 to FY2003, and only with the inclusion of actual figures instead of budgets for the last year do the figures differ from the project completion report. Since national government grants support development initiatives, the focus of this evaluation was on own source revenues. Overall, the projections of own source revenues were optimistic. In Khulna, revenues were only 33% of appraisal projections, while in the pourashavas the figures ranged from 56% to 62%. In general, property-based rates as well as market fees and rentals were overestimated, while business taxes were underestimated.

7. The appraisal forecasts did not account for the difficulties that local governments have in increasing the tax base and improving collections in low-income countries, which were the main reasons the projections were too optimistic.

E. Collection Efficiency

8. The Local Government Engineering Department provided more recent figures for FY2001 to FY2003 that showed collection rates below 33% in Dinajpur, Khulna, Kurigram, and Moulvibazar. In Habiganj, the collection efficiency was more than 40%, while in Panchagarh it was over 50%. Collection rates are worsening in Dinajpur, Habiganj, and Khulna, though Kurigram, Moulvibazar, and Panchagarh have shown improvements. Average collection rates for current dues range from 37% in Dinajpur to 56% in Khulna over the same period. Improvements were seen in Dinajpur, Kurigram, Moulvibazar, and Panchagarh. However, collection rates declined in Habiganj and Khulna.

F. Institutional and Financial Action Plan

9. The institutional and financial action plan prepared at appraisal included measures to improve local revenue mobilization with time-bound annual growth targets based on improvements in collections of current dues and arrears, reassessment of property values, tax mapping, and better cost recovery practices. Targets for holding tax collection efficiency were set for FY1994 to FY1999, when collection rates were expected to reach 85%. During the early years of the plan, some improvements were evident as a result of higher tax collections, particularly of business taxes. However, the collection targets were not met.

10. Property tax collection was expected to increase to 85% in all pourashavas, and to 80% in Khulna. Local governments reported that coverage fell well below these targets, quoting with figures of about 60%.

11. The pourashavas and KCC increased property-based tax rates during or after project completion. The tax rates are either at or near the maximum allowed by the Government. Table A3.1 compares the current rates levied for property-based taxes with those before the Project.

⁷ At 3.4% per year, this represents a decline in real terms.

⁸ Real growth was recorded over the period at 5.2% per year.

Table A3.1: Property-Based Tax Rates by Project Towns

| Property-Based Tax | Rate | | | | | | | | | | | |
|--------------------|--------------------|-----------------------|----------|----------|----------|----------|------------|----------|----------|----------|-------------|-------------------|
| | Khulna | | Dinajpur | | Kurigram | | Panchagarh | | Habiganj | | Moulvibazar | |
| | Start ^a | Cur-rent ^b | Start | Cur-rent | Start | Cur-rent | Start | Cur-rent | Start | Cur-rent | Start | Cur-rent |
| Holdings Tax | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 5.5% | 7.0% | 7.0% | 7.0% ^c |
| Conservancy Rate | 4.0% | 6.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 5.5% | 7.0% | 4.0% | 5.0% |
| Lighting/Fire Rate | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 2.0% | 3.0% | 3.0% | 3.0% |
| Water Supply | 4.0% | 4.0% | 6.0% | 6.0% | — | — | 3.0% | 3.0% | 2.0% | 10% | — | — |

— = not available.

^a FY1994 to FY1996 for KCC and the pourashavas.

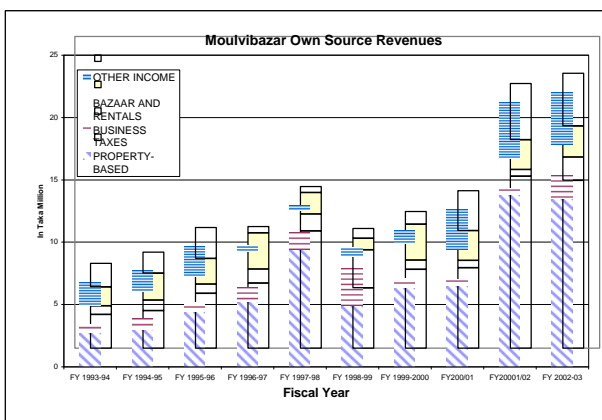
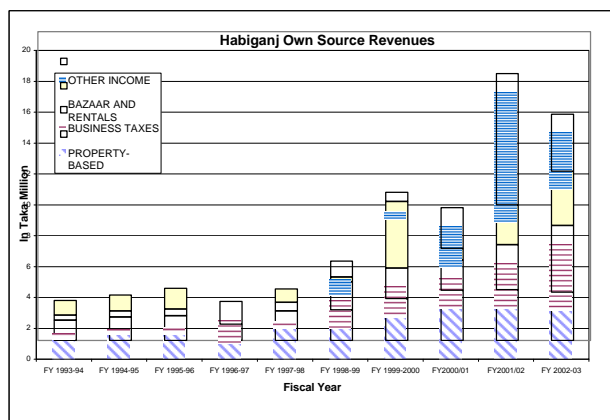
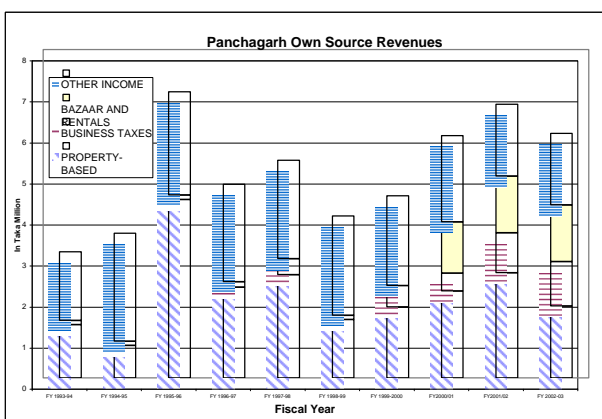
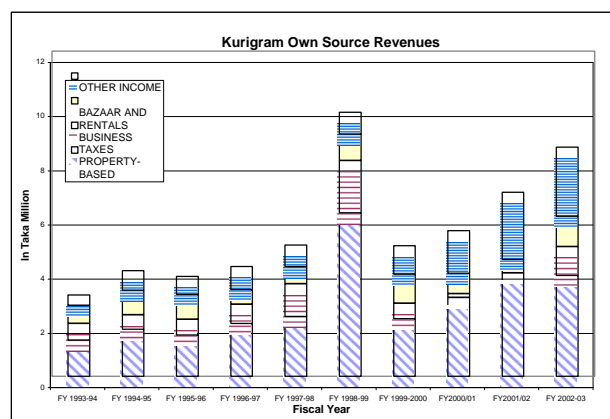
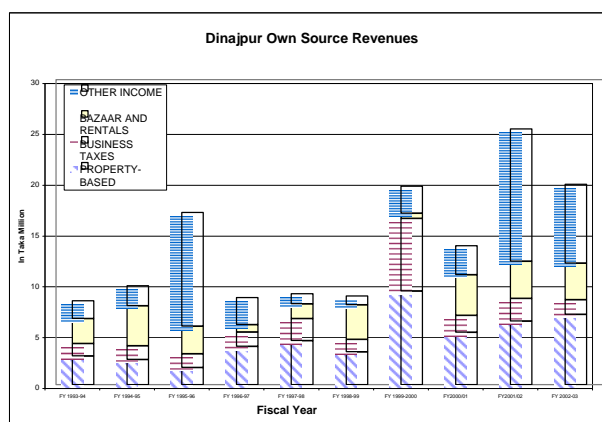
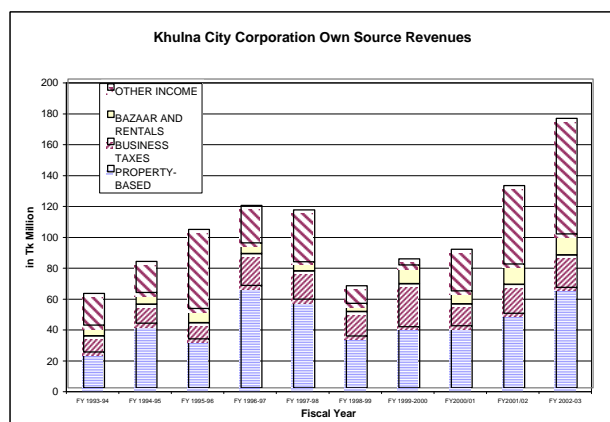
^b From FY2003 for all.

^c A 1% surcharge has been added to the holding tax rate to cover operation and maintenance of the flood control facilities.

Source: Operations Evaluation Mission.

12. The properties in Khulna were last reassessed in FY1989. Proposals to reassess properties are currently being discussed. In the pourashavas, reassessment has taken place every 5 years, in accordance with national regulations. Each chief executive or chairman indicated that reassessments would be undertaken again in FY2006. However, increases in assessment levels in the past have not been substantial due to perceived affordability problems among poor residents and the many appeals that arise.

Figure A3.1: Khulna City Corporation and Pourashavas Own Source Revenues



Source: Operations Evaluation Mission.

Table A3.2: Khulna Financial Performance

(Tk million)

| Current Prices | | FY1993-94 | FY1994-95 | FY1995-96 | FY1996-97 | FY1997-98 | FY1998-99 | FY1999-2000 | FY2000-01 | FY2001-02 | FY2002-03 | Ave. AGR (%) FY 1993/94- 1999/2000 | Ave. AGR (%) FY1999/2000- 2002/03 | Ave. AGR (%) FY 1993/94- 2002/03 |
|---|---------|---------------|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|---------------|---------------|--|---|--|
| Revenue from Own Sources | | | | | | | | | | | | | | |
| Property-Based | | | | | | | | | | | | | | |
| Property Valuation (holdings) | Current | 5.24 | 5.27 | 6.42 | 13.90 | 11.77 | 6.54 | 8.27 | 8.60 | 8.39 | 11.58 | 7.9 | 11.9 | 9.2 |
| | Arrears | 4.29 | 9.12 | 4.44 | 9.27 | 7.95 | 5.20 | 5.51 | 6.26 | 8.25 | 10.99 | 4.3 | 25.9 | 11.0 |
| Lighting and Fire Rates | Current | 2.17 | 2.32 | 2.81 | 5.96 | 5.04 | 2.80 | 3.54 | 3.17 | 3.60 | 4.96 | 8.5 | 11.9 | 9.6 |
| | Arrears | 1.77 | 3.85 | 2.00 | 3.97 | 4.54 | 2.23 | 2.36 | 2.70 | 3.40 | 4.81 | 4.9 | 26.8 | 11.7 |
| Conservancy Rate | Current | 2.17 | 4.83 | 5.61 | 11.91 | 10.01 | 5.61 | 7.09 | 6.20 | 7.17 | 9.90 | 21.8 | 11.8 | 18.4 |
| | Arrears | 1.77 | 7.86 | 3.82 | 7.94 | 6.71 | 4.46 | 4.72 | 5.40 | 6.96 | 9.57 | 17.7 | 26.5 | 20.6 |
| Water Supply-Property Based | Current | 3.02 | 3.27 | 3.71 | 8.01 | 6.73 | 3.74 | 4.72 | 4.13 | 5.51 | 6.62 | 7.7 | 11.9 | 9.1 |
| | Arrears | 2.53 | 5.06 | 2.59 | 5.23 | 4.42 | 2.87 | 3.15 | 3.60 | 4.85 | 6.42 | 3.7 | 26.8 | 10.9 |
| Total Property-Based | | 22.97 | 41.57 | 31.40 | 66.17 | 57.17 | 33.45 | 39.37 | 40.06 | 48.13 | 64.85 | 9.4 | 18.1 | 12.2 |
| Business Taxes | | | | | | | | | | | | | | |
| Business and Trade Licenses Fees | | 3.56 | 4.00 | 3.92 | 10.38 | 6.87 | 4.58 | 4.28 | 4.98 | 8.34 | 8.10 | 3.1 | 23.7 | 9.6 |
| Vehicle Fees | | 1.24 | 1.25 | 0.07 | 2.00 | 2.47 | 2.51 | 7.17 | 1.77 | 1.67 | 1.80 | 34.0 | (36.9) | 4.3 |
| Ferry and Ghat Fees | | 0.25 | 0.20 | 0.28 | 0.08 | 0.07 | 0.08 | — | 0.14 | 0.44 | 0.75 | — | — | 12.9 |
| Water Supply Fees (including monthly charges) | | 5.55 | 7.11 | 6.45 | 8.22 | 9.12 | 8.67 | 16.49 | 7.40 | 8.32 | 10.60 | 19.9 | (13.7) | 7.4 |
| Total Business Taxes | | 10.60 | 12.57 | 10.72 | 20.67 | 18.54 | 15.84 | 27.94 | 14.29 | 18.77 | 21.25 | 17.5 | (8.7) | 8.0 |
| Bazaar and Rentals | | | | | | | | | | | | | | |
| Market Fees | | 2.70 | 3.15 | 2.93 | 4.13 | 2.64 | 3.11 | 11.50 | 5.50 | 9.70 | 10.50 | 27.3 | (3.0) | 16.3 |
| Own Property, Sales, and Lease Rentals | | 4.15 | 4.25 | 6.07 | 2.75 | 3.01 | 2.12 | 0.60 | 2.83 | 3.30 | 2.90 | (27.5) | 69.1 | (3.9) |
| Total Bazaar and Rentals | | 6.85 | 7.40 | 9.00 | 6.88 | 5.65 | 5.22 | 12.10 | 8.33 | 13.00 | 13.40 | 9.9 | 3.5 | 7.7 |
| Other Income | | | | | | | | | | | | | | |
| Fines | | 0.24 | 0.26 | 0.22 | 0.28 | 0.06 | — | — | 0.01 | 0.12 | 0.01 | — | — | — |
| Interest of Investments | | 1.72 | 2.03 | 3.65 | 9.53 | 3.84 | 1.10 | 1.45 | 5.91 | 6.23 | 10.50 | (2.8) | 93.3 | 22.3 |
| Project Income-Low Cost Sanitation | | | | | | | | | | | | | | |
| Miscellaneous Other Revenues | | 18.70 | 18.02 | 47.59 | 14.53 | 29.89 | 10.45 | 2.74 | 21.20 | 44.79 | 64.50 | (27.4) | 186.6 | 14.7 |
| Total Other Income | | 20.66 | 20.32 | 51.46 | 24.34 | 33.79 | 11.54 | 4.19 | 27.12 | 51.14 | 75.01 | (23.3) | 161.5 | 15.4 |
| Total Income from Own Sources | | 61.07 | 81.85 | 102.58 | 118.05 | 115.15 | 66.06 | 83.60 | 89.80 | 131.04 | 174.51 | 5.4 | 27.8 | 12.4 |
| Government Grants | | | | | | | | | | | | | | |
| Salary and Octroi Compensation Grants | | | | | | | | | 3.50 | 3.50 | 3.40 | — | — | — |
| Development | | 160.00 | 220.00 | 234.85 | 185.00 | 154.04 | 144.50 | 160.40 | 159.40 | 215.00 | 219.00 | 0.0 | 10.9 | 3.5 |
| Other Capital Grants | | 92.61 | 54.00 | 54.22 | 227.63 | 56.05 | 6.00 | 8.50 | | | | (32.8) | — | — |
| Total Government Grants | | 252.61 | 274.00 | 289.07 | 412.63 | 210.09 | 150.50 | 168.90 | 162.90 | 218.50 | 222.40 | (6.5) | 9.6 | (1.4) |
| Total Revenues | | 313.68 | 355.85 | 391.65 | 530.68 | 325.24 | 216.56 | 252.50 | 252.70 | 349.54 | 396.91 | (3.6) | 16.3 | 2.6 |
| Expenditure Estimates | | | | | | | | | | | | | | |
| Salaries and Allowances | | 56.73 | 60.45 | 63.98 | 70.51 | 76.91 | 86.97 | 91.18 | 109.30 | 103.05 | 115.30 | 8.2 | 8.1 | 8.2 |
| Operation and Maintenance (O&M) | | | | | | | | | | | | | | |
| Operating Costs | | 12.10 | 15.94 | 20.95 | 22.95 | 29.04 | 20.42 | 22.88 | 9.89 | 14.08 | 46.39 | 11.2 | 26.6 | 16.1 |
| Maintenance Costs | | | | | | | | | | | | — | — | — |
| Total O&M Costs | | 12.10 | 15.94 | 20.95 | 22.95 | 29.04 | 20.42 | 22.88 | 9.89 | 14.08 | 46.39 | 11.2 | 26.6 | 16.1 |
| Capital Development | | 248.60 | 270.00 | 286.12 | 223.33 | 235.62 | 239.94 | 257.59 | 298.10 | 215.00 | 163.00 | 0.6 | (14.1) | (4.6) |
| Development O&M-Project | | | | | | | | | | | | — | — | — |
| Total Expenditure | | 317.43 | 346.39 | 371.05 | 316.78 | 341.57 | 347.32 | 371.65 | 417.29 | 332.13 | 324.69 | 2.7 | (4.4) | 0.3 |
| Balance in Year | | (3.75) | 9.46 | 20.61 | 213.90 | (16.33) | (130.76) | (119.15) | (164.59) | 17.41 | 72.22 | | | |
| Ratios (%) | | | | | | | | | | | | | | |
| Local Revenues/Total Revenues | | 19.5 | 23.0 | 26.2 | 22.2 | 35.4 | 30.5 | 33.1 | 35.5 | 37.5 | 44.0 | 27.1 | 39.0 | 30.7 |
| Grants/Total Revenues | | 80.5 | 77.0 | 73.8 | 77.8 | 64.6 | 69.5 | 66.9 | 64.5 | 62.5 | 56.0 | 72.9 | 61.0 | 69.3 |
| Property Based/Own Revenues | | 37.6 | 50.8 | 30.6 | 56.1 | 49.6 | 50.6 | 47.1 | 44.6 | 36.7 | 37.2 | 46.1 | 39.5 | 44.1 |
| Property Based/Total Revenues | | 7.3 | 11.7 | 8.0 | 12.5 | 17.6 | 15.4 | 15.6 | 15.9 | 13.8 | 16.3 | 12.6 | 15.3 | 13.4 |
| Expenditures/Total Revenues | | 101.2 | 97.3 | 94.7 | 59.7 | 105.0 | 160.4 | 147.2 | 165.1 | 95.0 | 81.8 | 109.4 | 114.0 | 110.8 |
| Own Revenues/Total Revenues | | 19.5 | 23.0 | 26.2 | 22.2 | 35.4 | 30.5 | 33.1 | 35.5 | 37.5 | 44.0 | 27.1 | 39.0 | 30.7 |
| Own Revenues/Total Expenditures | | 19.2 | 23.6 | 27.6 | 37.3 | 33.7 | 19.0 | 22.5 | 21.5 | 39.5 | 53.7 | 26.1 | 38.2 | 29.8 |
| Own Revenues/Salaries, Allowances, and O&M | | 88.7 | 107.1 | 120.8 | 126.3 | 108.7 | 61.5 | 73.3 | 75.3 | 111.9 | 107.9 | 98.1 | 98.4 | 98.2 |

— = not available, AGR = annual growth rate, Ave. = average.

Note: Octroi means a levy on the import to or export from a city of various goods and commodities.

Source: Operations Evaluation Mission.

Table A3.3: Dinajpur Financial Performance

(Tk million)

| Current Prices | | FY1993-94 | FY1994-95 | FY1995-96 | FY1996-97 | FY1997-98 | FY1998-99 | FY1999-2000 | FY2000-01 | FY2001-02 | FY2002-03 | Ave. AGR (%) FY 1993/94- 1999/2000 | Ave. AGR (%) FY1999/2000- 2002/03 | Ave. AGR (%) FY 1993/94- 2002/03 |
|---|---------|--------------|----------------|--------------|---------------|----------------|---------------|--------------|---------------|--------------|--------------|--|---|--|
| Revenue from Own Sources | | | | | | | | | | | | | | |
| Property-Based | | | | | | | | | | | | | | |
| Property Valuation (holdings) | Current | 0.38 | 0.41 | 0.21 | 0.49 | 0.48 | 0.36 | 1.01 | 0.59 | 1.10 | 1.37 | 17.6 | 10.6 | 15.2 |
| | Arrears | 0.46 | 0.32 | 0.38 | 0.65 | 0.83 | 0.61 | 1.68 | 0.84 | 0.92 | 1.38 | 24.3 | (6.3) | 13.1 |
| Lighting and Fire Rates | Current | 0.17 | 0.23 | 0.10 | 0.30 | 0.21 | 0.15 | 0.43 | 0.28 | 0.47 | 0.59 | 16.9 | 10.8 | 14.8 |
| | Arrears | 0.21 | 0.14 | 0.12 | 0.29 | 0.31 | 0.27 | 0.79 | 0.46 | 0.62 | 0.74 | 24.5 | (2.0) | 15.0 |
| Conservancy Rate | Current | 0.39 | 0.38 | 0.23 | 0.42 | 0.48 | 0.35 | 1.01 | 0.57 | 1.07 | 1.08 | 17.1 | 2.2 | 11.9 |
| | Arrears | 0.49 | 0.34 | 0.28 | 0.67 | 0.83 | 0.64 | 1.83 | 1.02 | 0.99 | 1.33 | 24.4 | (10.2) | 11.6 |
| Water Supply-Property Based | Current | 0.34 | 0.35 | 0.16 | 0.38 | 0.46 | 0.29 | 0.87 | 0.73 | 0.46 | 0.23 | 17.1 | (35.7) | (4.1) |
| | Arrears | 0.37 | 0.27 | 0.21 | 0.56 | 0.71 | 0.53 | 1.58 | 0.65 | 0.61 | 0.18 | 27.3 | (51.5) | (7.7) |
| Total Property-Based | | 2.81 | 2.45 | 1.68 | 3.75 | 4.30 | 3.20 | 9.20 | 5.14 | 6.24 | 6.90 | 21.8 | (9.1) | 10.5 |
| Business Taxes | | | | | | | | | | | | | | |
| Business and Trade Licenses Fees | | 0.73 | 0.73 | 0.66 | 0.82 | 1.05 | 0.65 | 3.29 | 0.47 | 0.19 | 0.85 | 28.6 | (36.3) | 1.8 |
| Vehicle Fees | | 0.25 | 0.34 | 0.49 | 0.41 | 0.92 | 0.30 | 2.69 | 0.31 | 0.36 | 0.58 | 48.6 | (40.1) | 9.8 |
| Ferry and Ghat Fees | | 0.02 | 0.02 | 0.02 | 0.01 | 0.03 | 0.03 | 1.15 | 0.01 | 0.03 | 0.01 | 96.4 | (79.4) | (7.4) |
| Water Supply Fees (including monthly charges) | | 0.21 | 0.27 | 0.17 | 0.18 | 0.19 | 0.25 | — | 0.88 | 1.65 | — | — | — | — |
| Total Business Taxes | | 1.21 | 1.35 | 1.34 | 1.42 | 2.19 | 1.23 | 7.13 | 1.67 | 2.23 | 1.44 | 34.4 | (41.3) | 2.0 |
| Bazaar and Rentals | | | | | | | | | | | | | | |
| Market Fees | | 1.99 | 3.12 | 2.66 | 0.58 | 1.41 | 3.10 | 0.49 | 3.78 | 3.49 | 2.67 | (20.7) | 75.6 | 3.3 |
| Own Property, Sales, and Lease Rentals | | 0.46 | 0.84 | 0.04 | 0.14 | 0.03 | 0.30 | 0.03 | 0.20 | 0.16 | 0.91 | (38.1) | 227.1 | 7.8 |
| Total Bazaar and Rentals | | 2.45 | 3.96 | 2.70 | 0.72 | 1.44 | 3.41 | 0.52 | 3.98 | 3.65 | 3.58 | (22.8) | 90.4 | 4.3 |
| Other Income | | | | | | | | | | | | | | |
| Fines | | 0.02 | 0.01 | 0.02 | 0.05 | 0.04 | 0.05 | 0.43 | 0.04 | 0.05 | 0.06 | 74.9 | (48.1) | 16.7 |
| Interest of Investments | | 0.00 | 0.07 | 0.22 | 0.20 | 0.10 | 0.10 | — | — | — | — | — | — | — |
| Project Income-Low Cost Sanitation | | | | | | | | | | | | | | |
| Miscellaneous Other Revenues | | 1.77 | 1.87 | 11.00 | 2.42 | 0.87 | 0.73 | 2.22 | 0.14 | — | — | 3.9 | (100.0) | (100.0) |
| Total Other Income | | 1.79 | 1.96 | 11.23 | 2.67 | 1.00 | 0.88 | 2.65 | 2.87 | 13.03 | 7.78 | 6.8 | 43.2 | 17.8 |
| Total Income from Own Sources | | 8.26 | 9.71 | 16.95 | 8.55 | 8.93 | 8.71 | 19.50 | 13.66 | 25.15 | 19.70 | 15.4 | 0.3 | 10.1 |
| Government Grants | | | | | | | | | | | | | | |
| Salary and Octroi Compensation Grants | | 0.52 | 0.59 | 0.52 | 0.59 | 0.60 | 0.52 | 0.53 | 1.10 | 0.94 | 0.93 | 0.2 | 20.6 | 6.6 |
| Development | | 13.80 | 12.02 | 11.63 | 8.43 | 5.73 | 6.00 | 6.23 | 6.50 | 4.60 | 3.00 | (12.4) | (21.6) | (15.6) |
| Other Capital Grants | | 15.15 | 10.24 | 9.91 | 22.54 | 0.60 | — | — | — | — | 1.47 | (100.0) | — | (22.8) |
| Total Government Grants | | 29.47 | 22.85 | 22.06 | 31.55 | 6.93 | 6.52 | 6.76 | 7.60 | 5.54 | 5.40 | (21.8) | (7.2) | (17.2) |
| Total Revenues | | 37.73 | 32.56 | 39.00 | 40.10 | 15.86 | 15.23 | 26.26 | 21.26 | 30.69 | 25.10 | (5.9) | (1.5) | (4.4) |
| Expenditure Estimates | | | | | | | | | | | | | | |
| Salaries and Allowances | | 7.93 | 7.83 | 7.70 | 7.85 | 5.79 | 9.38 | 9.44 | 10.74 | 10.21 | 9.16 | 2.9 | (1.0) | 1.6 |
| Operation and Maintenance (O&M) | | | | | | | | | | | | | | |
| Operating Costs | | 1.80 | 14.32 | 3.56 | 2.50 | 5.64 | 2.82 | 3.73 | 3.05 | 2.79 | 3.32 | 12.9 | (3.8) | 7.0 |
| Maintenance Costs | | 1.00 | — | 3.50 | 1.61 | 3.90 | 1.21 | 2.60 | 2.19 | 2.26 | 1.49 | 17.3 | (16.9) | 4.5 |
| Total O&M Costs | | 2.80 | 14.32 | 7.06 | 4.11 | 9.54 | 4.03 | 6.33 | 5.24 | 5.05 | 4.81 | 14.5 | (8.7) | 6.2 |
| Capital Development | | 20.95 | 22.14 | 20.58 | 35.25 | 15.61 | 4.42 | 6.50 | 7.75 | 11.60 | 0.44 | (17.7) | (59.2) | (34.9) |
| Development O&M-Project | | | | | | | | | | | | | | |
| Total Expenditure | | 31.68 | 44.28 | 35.34 | 47.20 | 30.93 | 17.84 | 22.26 | 23.73 | 26.86 | 14.41 | (5.7) | (13.5) | (8.4) |
| Balance in Year | | 6.04 | (11.72) | 3.66 | (7.10) | (15.07) | (2.60) | 4.00 | (2.47) | 3.83 | 10.69 | — | — | — |
| Ratios (%) | | | | | | | | | | | | | | |
| Local Revenues/Total Revenues | | 21.9 | 29.8 | 43.5 | 21.3 | 56.3 | 57.2 | 74.3 | 64.3 | 81.9 | 78.5 | 43.5 | 74.9 | 52.9 |
| Grants/Total Revenues | | 78.1 | 70.2 | 56.5 | 78.7 | 43.7 | 42.8 | 25.7 | 35.7 | 18.1 | 21.5 | 56.5 | 25.1 | 47.1 |
| Property Based/Own Revenues | | 34.1 | 25.2 | 9.9 | 43.8 | 48.1 | 36.8 | 47.2 | 37.6 | 24.8 | 35.0 | 35.0 | 32.5 | 34.3 |
| Property Based/Total Revenues | | 7.5 | 7.5 | 4.3 | 9.3 | 27.1 | 21.0 | 35.0 | 24.2 | 20.3 | 27.5 | 16.0 | 24.0 | 18.4 |
| Expenditures/Total Revenues | | 84.0 | 136.0 | 90.6 | 117.7 | 195.0 | 117.1 | 84.8 | 111.6 | 87.5 | 57.4 | 117.9 | 85.5 | 108.2 |
| Own Revenues/Total Revenues | | 21.9 | 29.8 | 43.5 | 21.3 | 56.3 | 57.2 | 74.3 | 64.3 | 81.9 | 78.5 | 43.5 | 74.9 | 52.9 |
| Own Revenues/Total Expenditures | | 26.1 | 21.9 | 48.0 | 18.1 | 28.9 | 48.8 | 87.6 | 57.6 | 93.6 | 136.7 | 39.9 | 96.0 | 56.7 |
| Own Revenues/Salaries, Allowances, and O&M | | 76.9 | 43.9 | 114.8 | 71.5 | 58.3 | 64.9 | 123.7 | 85.5 | 164.8 | 141.0 | 79.2 | 130.4 | 94.5 |

— = not available, AGR = annual growth rate, Ave. = average.

Note: Octroi means a levy on the import to or export from a city of various goods and commodities.

Source: Operations Evaluation Mission.

Table A3.4 Kurigram Financial Performance
(Tk million)

| Current Prices | | FY1993-94 | FY1994-95 | FY1995-96 | FY1996-97 | FY1997-98 | FY1998-99 | FY1999-2000 | FY2000-01 | FY2001-02 | FY2002-03 | Ave. AGR (%) FY 1993/94- 1999/2000 | Ave. AGR (%) FY1999/2000- 2002/03 | Ave. AGR (%) FY 1993/94- 2002/03 |
|---|---------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|---------------|--------------|---------------|--|---|--|
| Revenue from Own Sources | | | | | | | | | | | | | | |
| Property-Based | | | | | | | | | | | | | | |
| Property Valuation (holdings) | Current | 0.34 | 0.38 | 0.52 | 0.46 | 0.55 | 1.06 | 0.51 | — | — | — | 7.3 | — | — |
| | Arrears | 0.30 | 0.47 | 0.22 | 0.53 | 0.41 | 1.69 | 0.33 | 1.38 | 1.36 | 1.24 | 4.6 | 13.9 | 7.6 |
| Lighting and Fire Rates | Current | 0.09 | 0.12 | 0.15 | 0.14 | 0.17 | 0.39 | 0.24 | — | — | — | 17.2 | — | — |
| | Arrears | 0.12 | 0.17 | 0.09 | 0.17 | 0.21 | 0.75 | 0.18 | 0.39 | 0.54 | 0.55 | 12.4 | 9.1 | 11.3 |
| Conservancy Rate | Current | 0.20 | 0.23 | 0.33 | 0.28 | 0.48 | 0.81 | 0.53 | — | — | — | 17.5 | — | — |
| | Arrears | 0.27 | 0.36 | 0.20 | 0.36 | 0.38 | 1.32 | 0.32 | 0.73 | 1.26 | 1.20 | 10.3 | 12.2 | 10.9 |
| Water Supply-Property Based | Current | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | Arrears | — | — | — | — | — | — | — | 0.41 | 0.66 | 0.72 | — | — | — |
| Total Property Based | | 1.32 | 1.73 | 1.51 | 1.94 | 2.20 | 6.02 | 2.11 | 2.91 | 3.82 | 3.71 | 8.1 | 20.7 | 12.1 |
| Business Taxes | | | | | | | | | | | | | | |
| Business and Trade Licenses Fees | | 0.12 | 0.11 | 0.12 | 0.22 | 0.14 | 0.55 | 0.16 | 0.09 | 0.09 | 0.88 | 5.1 | 76.5 | 24.9 |
| Vehicle Fees | | 0.12 | 0.12 | 0.12 | 0.13 | 0.14 | 0.13 | 0.10 | 0.05 | 0.04 | 0.19 | (2.5) | 24.3 | 5.7 |
| Ferry and Ghat Fees | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Water Supply Fees (including monthly charges) | | 0.40 | 0.32 | 0.36 | 0.37 | 0.94 | 1.27 | 0.32 | — | — | — | (3.5) | (100.0) | (100.0) |
| Total Business Taxes | | 0.63 | 0.55 | 0.59 | 0.72 | 1.22 | 1.94 | 0.58 | 0.14 | 0.13 | 1.07 | (1.4) | 22.6 | 6.0 |
| Bazaar and Rentals | | | | | | | | | | | | | | |
| Market Fees | | 0.30 | 0.25 | 0.38 | 0.16 | 0.09 | 0.87 | 0.29 | 0.66 | 0.31 | 1.09 | (0.6) | 55.7 | 15.5 |
| Own Property, Sales, and Lease Rentals | | 0.36 | 0.64 | 0.53 | 0.37 | 0.53 | 0.09 | 0.78 | 0.08 | 0.04 | 0.02 | 14.0 | (70.5) | (27.4) |
| Total Bazaar and Rentals | | 0.65 | 0.89 | 0.91 | 0.53 | 0.62 | 0.96 | 1.07 | 0.74 | 0.35 | 1.11 | 8.5 | 1.3 | 6.1 |
| Other Income | | | | | | | | | | | | | | |
| Fines | | | | | | | | | | | | | | |
| Interest of Investments | | | | | | | | | | | | | | |
| Project Income-Low Cost Sanitation | | | | | | | | | | | | | | |
| Miscellaneous Other Revenues | | 0.40 | 0.74 | 0.67 | 0.86 | 0.80 | 0.83 | 1.06 | — | — | — | 17.8 | (100.0) | (100.0) |
| Total Other Income | | 0.40 | 0.74 | 0.67 | 0.86 | 0.80 | 0.83 | 1.06 | 1.58 | 2.49 | 2.57 | 17.8 | 34.2 | 23.0 |
| Total Income from Own Sources | | 3.01 | 3.90 | 3.68 | 4.05 | 4.84 | 9.75 | 4.82 | 5.37 | 6.79 | 8.46 | 8.2 | 20.6 | 12.2 |
| Government Grants | | | | | | | | | | | | | | |
| Salary and Octroi Compensation Grants | | 0.04 | 0.05 | 0.04 | 0.04 | 0.04 | — | — | 0.34 | 0.26 | 0.15 | (100.0) | — | 14.6 |
| Development | | 9.10 | 7.00 | 7.60 | 5.40 | 6.40 | 6.74 | 5.50 | 5.00 | 3.50 | 1.50 | (8.0) | (35.2) | (18.2) |
| Other Capital Grants | | 5.21 | 1.50 | 3.84 | 4.30 | 0.50 | 0.30 | 0.15 | 0.02 | 0.05 | 0.02 | (44.9) | (48.5) | (46.1) |
| Total Government Grants | | 14.36 | 8.55 | 11.47 | 9.74 | 6.94 | 7.04 | 5.65 | 5.36 | 3.81 | 1.67 | (14.4) | (33.4) | (21.3) |
| Total Revenues | | 17.36 | 12.45 | 15.16 | 13.78 | 11.78 | 16.79 | 10.47 | 10.73 | 10.60 | 10.13 | (8.1) | (1.1) | (5.8) |
| Expenditure Estimates | | | | | | | | | | | | | | |
| Salaries and Allowances | | 1.61 | 1.89 | 2.02 | 2.11 | 2.55 | 3.18 | 3.07 | 3.82 | 3.76 | 4.31 | 11.4 | 12.0 | 11.6 |
| Operation and Maintenance (O&M) | | | | | | | | | | | | | | |
| Operating Costs | | 0.70 | 2.85 | 1.29 | 0.53 | 1.33 | 1.26 | 0.81 | 0.95 | 0.86 | 1.81 | 2.4 | 30.7 | 11.1 |
| Maintenance Costs | | 0.65 | 2.91 | 1.11 | 0.42 | 1.48 | 1.38 | 0.30 | 0.01 | 0.07 | 0.19 | (11.9) | (14.4) | (12.7) |
| Total O&M Costs | | 1.35 | 5.76 | 2.40 | 0.96 | 2.81 | 2.64 | 1.11 | 0.96 | 0.93 | 6.31 | (3.2) | 78.3 | 18.7 |
| Capital Development | | 12.30 | 3.87 | 12.05 | 7.92 | 8.02 | 6.20 | 5.00 | 8.27 | 5.64 | 3.32 | (13.9) | (12.8) | (13.5) |
| Development O&M-Project | | | | | | | | | 0.04 | 0.56 | 0.91 | — | — | — |
| Total Expenditure | | 15.25 | 11.52 | 16.47 | 10.99 | 13.37 | 12.02 | 9.18 | 13.05 | 10.33 | 13.94 | (8.1) | 14.9 | (1.0) |
| Balance in Year | | 2.11 | 0.93 | (1.31) | 2.79 | (1.60) | 4.76 | 1.29 | (2.32) | 0.27 | (3.81) | — | — | — |
| Ratios (%) | | | | | | | | | | | | | | |
| Local Revenues/Total Revenues | | 17.3 | 31.3 | 24.3 | 29.4 | 41.1 | 58.1 | 46.1 | 50.0 | 64.1 | 83.5 | 35.4 | 65.9 | 44.5 |
| Grants/Total Revenues | | 82.7 | 68.7 | 75.7 | 70.6 | 58.9 | 41.9 | 53.9 | 50.0 | 35.9 | 16.5 | 64.6 | 34.1 | 55.5 |
| Property Based/Own Revenues | | 44.0 | 44.3 | 40.9 | 47.9 | 45.3 | 61.8 | 43.8 | 54.2 | 56.3 | 43.9 | 46.9 | 51.4 | 48.2 |
| Property Based/Total Revenues | | 7.6 | 13.9 | 9.9 | 14.1 | 18.6 | 35.9 | 20.2 | 27.1 | 36.0 | 36.6 | 17.2 | 33.3 | 22.0 |
| Expenditures/Total Revenues | | 87.8 | 92.6 | 108.7 | 79.7 | 113.6 | 71.6 | 87.7 | 121.6 | 97.5 | 137.6 | 91.7 | 118.9 | 99.8 |
| Own Revenues/Total Revenues | | 17.3 | 31.3 | 24.3 | 29.4 | 41.1 | 58.1 | 46.1 | 50.0 | 64.1 | 83.5 | 35.4 | 65.9 | 44.5 |
| Own Revenues/Total Expenditures | | 19.7 | 33.8 | 22.4 | 36.8 | 36.2 | 81.1 | 52.5 | 41.1 | 65.7 | 60.7 | 40.4 | 55.9 | 45.0 |
| Own Revenues/Salaries, Allowances, and O&M | | 101.7 | 50.9 | 83.4 | 131.9 | 90.4 | 167.5 | 115.4 | 112.3 | 144.8 | 79.7 | 105.9 | 112.3 | 107.8 |

— = not available, AGR = annual growth rate, Ave. = average.

Note: Octroi means a levy on the import to or export from a city of various goods and commodities.

Source: Operations Evaluation Mission.

Table A3.5: Panchagarh Financial Performance

(Tk million)

| Current Prices | | FY 1993-94 | FY 1994-95 | FY 1995-96 | FY 1996-97 | FY 1997-98 | FY 1998-99 | FY 1999-2000 | FY2000-01 | FY2001-02 | FY2002-03 | Ave. AGR (%) FY 1993/94- 1999/2000 | Ave. AGR (%) FY1999/2000-2 002/03 | Ave. AGR (%) FY 1993/94- 2002/03 |
|---|---------|---------------|---------------|--------------|--------------|----------------|--------------|---------------|--------------|--------------|--------------|--|---|--|
| Revenue from Own Sources | | | | | | | | | | | | | | |
| Property-Based | | | | | | | | | | | | | | |
| Property Valuation (holdings) | Current | 0.18 | 0.10 | 0.62 | 0.36 | 0.62 | 0.33 | 0.17 | 0.28 | 0.42 | 0.41 | (1.0) | 35.4 | 9.9 |
| | Arrears | 0.36 | 0.23 | 1.16 | 0.64 | 0.41 | 0.35 | 0.53 | 0.63 | 0.53 | 0.28 | 6.7 | (19.1) | (2.7) |
| Lighting and Fire Rates | Current | 0.08 | 0.10 | 0.29 | 0.15 | 0.27 | 0.07 | 0.08 | 0.07 | 0.53 | 0.22 | 0.2 | 41.3 | 12.4 |
| | Arrears | 0.15 | 0.04 | 0.50 | 0.22 | 0.18 | 0.16 | 0.23 | 0.29 | 0.16 | 0.12 | 7.1 | (19.7) | (2.7) |
| Conservancy Rate | Current | 0.18 | 0.10 | 0.62 | 0.34 | 0.62 | 0.13 | 0.18 | 0.16 | 0.35 | 0.44 | 0.5 | 34.7 | 10.8 |
| | Arrears | 0.36 | 0.23 | 1.16 | 0.51 | 0.41 | 0.38 | 0.54 | 0.68 | 0.57 | 0.22 | 7.1 | (25.8) | (5.3) |
| Water Supply-Property Based | Current | — | — | — | — | — | — | — | — | — | 0.01 | — | — | — |
| | Arrears | — | — | — | — | — | — | — | — | — | 0.05 | — | — | — |
| Total Property-Based | | 1.30 | 0.78 | 4.34 | 2.20 | 2.51 | 1.42 | 1.72 | 2.11 | 2.56 | 1.75 | 4.8 | 0.5 | 3.4 |
| Business Taxes | | | | | | | | | | | | | | |
| Business and Trade Licenses Fees | | 0.10 | 0.09 | 0.10 | 0.13 | 0.37 | 0.10 | 0.52 | 0.25 | 0.23 | 0.17 | 31.8 | (31.1) | 6.2 |
| Vehicle Fees | | 0.00 | 0.01 | 0.01 | 0.01 | 0.02 | — | — | — | — | — | — | — | — |
| Ferry and Ghat Fees | | — | — | — | — | — | — | — | 0.01 | 0.13 | 0.06 | — | — | — |
| Water Supply Fees (including monthly charges) | | — | — | — | — | — | — | — | 0.18 | 0.61 | 0.85 | — | — | — |
| Total Business Taxes | | 0.10 | 0.10 | 0.11 | 0.13 | 0.39 | 0.10 | 0.52 | 0.44 | 0.97 | 1.08 | 31.1 | 27.7 | 30.0 |
| Bazaar and Rentals | | | | | | | | | | | | | | |
| Market Fees | | — | — | — | — | — | — | — | 1.25 | 1.38 | 1.38 | — | — | — |
| Own Property, Sales, and Lease Rentals | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total Bazaar and Rentals | | — | — | — | — | — | — | — | 1.25 | 1.38 | 1.38 | — | — | — |
| Other Income | | | | | | | | | | | | | | |
| Fines | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Interest of Investments | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Project Income-Low Cost Sanitation | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Miscellaneous Other Revenues | | 1.67 | 2.64 | 2.52 | 2.38 | 2.40 | 2.42 | 2.20 | — | — | — | 4.6 | — | — |
| Total Other Income | | 1.67 | 2.64 | 2.52 | 2.38 | 2.40 | 2.42 | 2.20 | 2.10 | 1.76 | 1.75 | 4.6 | (7.3) | 0.5 |
| Total Income from Own Sources | | 3.07 | 3.53 | 6.97 | 4.72 | 5.30 | 3.94 | 4.44 | 5.90 | 6.67 | 5.96 | 6.3 | 10.3 | 7.6 |
| Government Grants | | | | | | | | | | | | | | |
| Salary and Octroi Compensation Grants | | 0.04 | 0.06 | 0.04 | 0.04 | 0.04 | — | — | 0.28 | 0.20 | 0.19 | — | — | 17.6 |
| Development | | 3.60 | 0.70 | 7.60 | 5.48 | 4.64 | 5.00 | 5.12 | 5.00 | 4.30 | 4.00 | 6.0 | (7.9) | 1.2 |
| Other Capital Grants | | 5.82 | 5.44 | 11.64 | 12.74 | 1.86 | 1.33 | 1.40 | 0.50 | 0.50 | 0.10 | (21.1) | (58.5) | (36.3) |
| Total Government Grants | | 9.46 | 6.20 | 19.28 | 18.26 | 6.53 | 6.33 | 6.52 | 5.78 | 5.00 | 4.29 | (6.0) | (13.0) | (8.4) |
| Total Revenues | | 12.53 | 9.72 | 26.25 | 22.97 | 11.84 | 10.27 | 10.96 | 11.68 | 11.67 | 10.25 | (2.2) | (2.2) | (2.2) |
| Expenditure Estimates | | | | | | | | | | | | | | |
| Salaries and Allowances | | 1.41 | 1.25 | 1.63 | 1.71 | 2.06 | 2.62 | 2.71 | 2.82 | 3.06 | 2.49 | 11.6 | (2.8) | 6.6 |
| Operation and Maintenance (O&M) | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Operating Costs | | 9.63 | 4.81 | 3.06 | 5.06 | 2.02 | 4.09 | 5.54 | 2.05 | 2.58 | 1.57 | (8.8) | (34.3) | (18.3) |
| Maintenance Costs | | 1.34 | 5.40 | 1.83 | 3.51 | 1.30 | 0.06 | 4.64 | 0.82 | 0.64 | 0.74 | 23.0 | (45.8) | (6.4) |
| Total O&M Costs | | 10.97 | 10.21 | 4.89 | 8.57 | 3.32 | 4.14 | 10.18 | 5.69 | 3.22 | 2.31 | (1.2) | (39.0) | (15.9) |
| Capital Development | | 4.29 | 6.07 | 14.51 | 10.42 | 23.04 | 2.71 | 3.80 | 5.23 | 4.30 | 5.76 | (2.0) | 14.9 | 3.3 |
| Development O&M-Project | | — | — | — | — | — | — | — | — | — | 0.79 | — | — | — |
| Total Expenditure | | 16.66 | 17.53 | 21.02 | 20.70 | 28.42 | 9.47 | 16.69 | 10.92 | 10.58 | 10.58 | 0.0 | (14.1) | (4.9) |
| Balance in Year | | (4.13) | (7.80) | 5.22 | 2.28 | (16.59) | 0.80 | (5.73) | 0.50 | 1.05 | 1.05 | — | — | — |
| Ratios (%) | | | | | | | | | | | | | | |
| Local Revenues/Total Revenues | | 24.5 | 36.3 | 26.5 | 20.5 | 44.8 | 38.4 | 40.5 | 50.5 | 57.2 | 58.1 | 33.1 | 55.3 | 39.7 |
| Grants/Total Revenues | | 75.5 | 63.7 | 73.5 | 79.5 | 55.2 | 61.6 | 59.5 | 49.5 | 42.8 | 41.9 | 66.9 | 44.7 | 60.3 |
| Property Based/Own Revenues | | 42.2 | 22.2 | 62.4 | 46.7 | 47.4 | 35.9 | 38.8 | 35.8 | 38.4 | 29.4 | 42.2 | 34.5 | 39.9 |
| Property Based/Total Revenues | | 10.3 | 8.1 | 16.6 | 9.6 | 21.2 | 13.8 | 15.7 | 18.1 | 21.9 | 17.1 | 13.6 | 19.0 | 15.2 |
| Expenditures/Total Revenues | | 132.9 | 180.3 | 80.1 | 90.1 | 240.1 | 92.2 | 152.3 | 93.5 | 90.7 | 103.2 | 138.3 | 95.8 | 125.5 |
| Own Revenues/Total Revenues | | 24.5 | 36.3 | 26.5 | 20.5 | 44.8 | 38.4 | 40.5 | 50.5 | 57.2 | 58.1 | 33.1 | 55.3 | 39.7 |
| Own Revenues/Total Expenditures | | 18.4 | 20.1 | 33.1 | 22.8 | 18.7 | 41.6 | 26.6 | 54.0 | 63.0 | 56.3 | 25.9 | 57.8 | 35.5 |
| Own Revenues/Salaries, Allowances, and O&M | | 24.8 | 30.8 | 106.9 | 45.9 | 98.6 | 58.3 | 34.4 | 69.3 | 106.3 | 124.2 | 57.1 | 99.9 | 70.0 |

— = not available, AGR = annual growth rate, Ave. = average.

Note: Octroi means a levy on the import to or export from a city of various goods and commodities.

Source: Operations Evaluation Mission.

Table A3.6: Habiganj Financial Performance

(Tk million)

| Current Prices | | FY1993-94 | FY1994-95 | FY1995-96 | FY1996-97 | FY1997-98 | FY1998-99 | FY1999-2000 | FY2000-01 | FY2001-02 | FY2002-03 | Ave. AGR (%) FY 1993/94- 1999/2000 | Ave. AGR (%) FY1999/2000- 2002/03 | Ave. AGR (%) FY 1993/94- 2002/03 |
|---|---------|----------------|----------------|---------------|----------------|----------------|---------------|---------------|--------------|--------------|---------------|--|---|--|
| Revenue from Own Sources | | | | | | | | | | | | | | |
| Property-Based | | | | | | | | | | | | | | |
| Property Valuation (holdings) | Current | 0.22 | 0.26 | 0.27 | 0.14 | 0.38 | 0.24 | 0.48 | — | — | — | 13.5 | — | — |
| | Arrears | 0.23 | 0.27 | 0.30 | 0.18 | 0.29 | 0.50 | 0.51 | 1.21 | 1.17 | 1.13 | 13.8 | 4.6 | 10.7 |
| Lighting and Fire Rates | Current | 0.10 | 0.11 | 0.12 | 0.09 | 0.17 | 0.09 | 0.17 | — | — | — | 10.4 | — | — |
| | Arrears | 0.10 | 0.11 | 0.12 | 0.11 | 0.13 | 0.19 | 0.19 | 0.44 | 0.45 | 0.43 | 10.9 | 5.7 | 9.1 |
| Conservancy Rate | Current | 0.22 | 0.26 | 0.27 | 0.14 | 0.38 | 0.23 | 0.48 | — | — | — | 13.6 | — | — |
| | Arrears | 0.23 | 0.27 | 0.30 | 0.18 | 0.29 | 0.47 | 0.51 | 1.19 | 1.20 | 1.13 | 13.8 | 4.6 | 10.7 |
| Water Supply-Property Based | Current | 0.10 | 0.11 | 0.11 | 0.09 | 0.15 | 0.09 | 0.17 | — | — | — | 10.4 | — | — |
| | Arrears | 0.10 | 0.11 | 0.13 | 0.11 | 0.13 | 0.19 | 0.19 | 0.40 | 0.45 | 0.43 | 10.9 | 5.7 | 9.1 |
| Total Property Based | | 1.30 | 1.51 | 1.60 | 1.03 | 1.91 | 1.98 | 2.70 | 3.24 | 3.27 | 3.12 | 13.0 | 4.9 | 10.2 |
| Business Taxes | | | | | | | | | | | | | | |
| Business and Trade Licenses Fees | | 0.20 | 0.22 | 0.24 | 0.24 | 0.31 | 0.13 | 0.18 | 0.06 | 0.11 | 0.77 | (1.4) | 61.7 | 16.3 |
| Vehicle Fees | | 0.14 | 0.18 | 0.19 | 0.18 | 0.24 | 0.13 | 0.22 | 0.14 | 0.38 | 0.40 | 7.4 | 22.1 | 12.1 |
| Ferry and Ghat Fees | | — | — | — | — | — | 0.02 | 0.02 | 0.01 | 0.01 | 0.20 | — | 115.4 | — |
| Water Supply Fees (including monthly charges) | | — | — | — | 1.08 | — | 1.54 | 1.55 | 1.76 | 2.42 | 2.96 | — | 24.0 | — |
| Total Business Taxes | | 0.34 | 0.40 | 0.42 | 1.50 | 0.55 | 1.82 | 1.98 | 1.97 | 2.92 | 4.33 | 34.0 | 29.9 | 32.6 |
| Bazaar and Rentals | | | | | | | | | | | | | | |
| Market Fees | | 0.95 | 1.05 | 1.35 | — | 0.82 | 0.04 | 3.00 | 0.28 | 2.38 | 3.40 | 21.1 | 4.3 | 15.2 |
| Own Property, Sales, and Lease Rentals | | — | — | — | — | 0.05 | 0.26 | 1.32 | 0.45 | 0.19 | 0.10 | — | (57.6) | — |
| Total Bazaar and Rentals | | 0.95 | 1.05 | 1.35 | — | 0.87 | 0.30 | 4.31 | 0.73 | 2.57 | 3.50 | 28.7 | (6.7) | 15.6 |
| Other Income | | | | | | | | | | | | | | |
| Fines | | — | — | — | — | — | — | — | — | — | 0.01 | — | — | — |
| Interest of Investments | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Project Income-Low Cost Sanitation | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Miscellaneous Other Revenues | | — | — | — | — | — | 1.05 | 0.61 | 2.67 | 8.52 | 3.70 | — | 82.9 | — |
| Total Other Income | | — | — | — | — | — | 1.05 | 0.61 | 2.67 | 8.52 | 3.71 | — | 83.0 | — |
| Total Income from Own Sources | | 2.59 | 2.95 | 3.37 | 2.53 | 3.33 | 5.14 | 9.60 | 8.61 | 17.28 | 14.66 | 24.4 | 15.2 | 21.2 |
| Government Grants | | | | | | | | | | | | | | |
| Salary and Octroi Compensation | | 0.04 | 0.06 | 0.04 | 0.04 | 0.04 | — | — | 0.48 | 0.23 | 0.53 | (100.0) | — | (4.2) |
| Development | | 3.60 | 0.70 | 7.60 | 5.48 | 4.64 | 5.00 | 5.12 | 7.00 | 5.00 | 7.50 | 6.0 | 13.6 | 8.5 |
| Other Capital Grants | | 5.82 | 5.44 | 11.64 | 12.74 | 1.86 | 1.33 | 1.40 | 6.00 | 0.60 | — | (21.1) | (100.0) | (100.0) |
| Total Government Grants | | 9.46 | 6.20 | 19.28 | 18.26 | 6.53 | 6.33 | 6.52 | 13.48 | 5.83 | 8.03 | (6.0) | 7.2 | (1.8) |
| Total Revenues | | 12.05 | 9.15 | 22.65 | 20.79 | 9.86 | 11.47 | 16.12 | 22.09 | 23.11 | 22.69 | 5.0 | 12.1 | 7.3 |
| Expenditure Estimates | | | | | | | | | | | | | | |
| Salaries and Allowances | | 1.41 | 1.25 | 1.63 | 1.71 | 2.06 | 2.62 | 2.71 | 5.10 | 6.29 | 8.21 | 11.6 | 44.7 | 21.7 |
| Operation and Maintenance (O&M) | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Operating Costs | | 6.28 | 1.63 | 2.11 | 2.76 | 2.64 | 2.96 | 3.20 | 2.81 | 3.79 | 1.45 | (10.6) | (23.2) | (15.0) |
| Maintenance Costs | | 2.01 | 2.11 | 2.21 | 2.42 | 2.51 | 2.41 | 2.81 | 0.84 | 1.01 | 1.52 | 5.8 | (18.5) | (3.0) |
| Total O&M Costs | | 8.29 | 3.74 | 4.32 | 5.18 | 5.15 | 5.37 | 6.01 | 3.65 | 4.80 | 2.97 | (5.2) | (21.0) | (10.8) |
| Capital Development | | 16.07 | 17.53 | 20.10 | 29.46 | 18.46 | 7.03 | 9.00 | 7.19 | 6.98 | 12.30 | (9.2) | 11.0 | (2.9) |
| Development O&M-Project | | — | — | — | — | — | — | — | 0.77 | 0.48 | 1.17 | — | — | — |
| Total Expenditure | | 25.76 | 22.53 | 26.04 | 36.35 | 25.66 | 15.02 | 17.72 | 15.94 | 18.07 | 23.48 | (6.0) | 9.8 | (1.0) |
| Balance in Year | | (13.71) | (13.38) | (3.40) | (15.57) | (15.80) | (3.56) | (1.60) | 6.15 | 5.04 | (0.79) | — | — | — |
| Ratios (%) | | | | | | | | | | | | | | |
| Local Revenues/Total Revenues | | 21.5 | 32.3 | 14.9 | 12.2 | 33.8 | 44.8 | 59.5 | 39.0 | 74.8 | 64.6 | 31.3 | 59.5 | 39.7 |
| Grants/Total Revenues | | 78.5 | 67.7 | 85.1 | 87.8 | 66.2 | 55.2 | 40.5 | 61.0 | 25.2 | 35.4 | 68.7 | 40.5 | 60.3 |
| Property Based/Own Revenues | | 50.2 | 51.0 | 47.4 | 40.7 | 57.5 | 38.4 | 28.1 | 37.6 | 18.9 | 21.3 | 44.8 | 25.9 | 39.1 |
| Property Based/Total Revenues | | 10.8 | 16.5 | 7.1 | 4.9 | 19.4 | 17.2 | 16.8 | 14.7 | 14.1 | 13.7 | 13.2 | 14.2 | 13.5 |
| Expenditures/Total Revenues | | 213.7 | 246.2 | 115.0 | 174.9 | 260.2 | 131.0 | 109.9 | 72.2 | 78.2 | 103.5 | 178.7 | 84.6 | 150.5 |
| Own Revenues/Total Revenues | | 21.5 | 32.3 | 14.9 | 12.2 | 33.8 | 44.8 | 59.5 | 39.0 | 74.8 | 64.6 | 31.3 | 59.5 | 39.7 |
| Own Revenues/Total Expenditures | | 10.1 | 13.1 | 12.9 | 7.0 | 13.0 | 34.2 | 54.2 | 54.0 | 95.6 | 62.4 | 20.6 | 70.7 | 35.6 |
| Own Revenues/Salaries, Allowances, and O&M | | 26.7 | 59.2 | 56.7 | 36.6 | 46.2 | 64.3 | 110.0 | 98.4 | 155.8 | 131.1 | 57.1 | 128.5 | 78.5 |

— = not available, AGR = annual growth rate, Ave. = average.

Note: Octroi means a levy on the import to or export from a city of various goods and commodities.

Source: Operations Evaluation Mission.

Table A3.7: Moulvibazar Financial Performance

(Tk million)

| Current Prices | | FY 1993–94 | FY 1994–95 | FY 1995–96 | FY 1996–97 | FY 1997–98 | FY 1998–99 | FY 1999–2000 | FY2000–01 | FY2001–02 | FY2002–03 | Ave. AGR (%) FY 1993/94– 1999/2000 | Ave. AGR (%) FY1999/2000– 2002/03 | Ave. AGR (%) FY 1993/94– 2002/03 |
|---|---------|---------------|--------------|--------------|---------------|----------------|---------------|--------------|--------------|---------------|---------------|--|---|--|
| Revenue from Own Sources | | | | | | | | | | | | | | |
| Property-Based | | | | | | | | | | | | | | |
| Property Valuation (holdings) | Current | 0.26 | 0.38 | 0.19 | 0.39 | 1.49 | 0.63 | 0.66 | 0.89 | 1.27 | 1.48 | 16.9 | 31.1 | 21.5 |
| | Arrears | 1.15 | 1.29 | 2.23 | 2.32 | 2.92 | 1.38 | 1.80 | 1.40 | 4.47 | 3.89 | 7.8 | 29.3 | 14.5 |
| Lighting and Fire Rates | Current | 0.11 | 0.16 | 0.08 | 0.17 | 0.57 | 0.25 | 0.27 | 0.47 | 0.91 | 1.03 | 17.3 | 55.5 | 28.9 |
| | Arrears | 0.49 | 0.53 | 0.83 | 0.80 | 1.21 | 0.61 | 0.76 | 0.60 | 1.91 | 1.64 | 7.6 | 29.2 | 14.3 |
| Conservancy Rate | Current | 0.12 | 0.15 | 0.11 | 0.25 | 0.76 | 0.35 | 0.37 | 0.38 | 0.71 | 0.62 | 20.5 | 18.7 | 19.9 |
| | Arrears | 0.58 | 0.50 | 0.94 | 1.02 | 1.57 | 0.80 | 1.01 | 0.79 | 2.39 | 2.37 | 9.9 | 32.8 | 17.0 |
| Water Supply-Property Based | Current | — | — | — | 0.26 | 0.78 | 0.63 | 1.10 | 1.18 | 1.29 | 1.39 | — | 8.0 | — |
| | Arrears | — | — | — | — | 0.10 | 0.20 | 0.33 | 0.72 | 0.84 | 1.03 | — | 46.3 | — |
| Total Property-Based | | 2.70 | 3.00 | 4.38 | 5.20 | 9.40 | 4.84 | 6.31 | 6.43 | 13.79 | 13.45 | 15.2 | 28.7 | 19.5 |
| Business Taxes | | | | | | | | | | | | | | |
| Business and Trade Licenses Fees | | 0.49 | 0.59 | 0.55 | 0.84 | 0.89 | 0.84 | 0.66 | 0.39 | 0.15 | 1.22 | 5.0 | 23.0 | 10.7 |
| Vehicle Fees | | 0.19 | 0.25 | 0.17 | 0.21 | 0.42 | 0.15 | 0.11 | 0.16 | 0.20 | 0.13 | (8.7) | 6.7 | (3.8) |
| Ferry and Ghat Fees | | 0.02 | 0.02 | 0.03 | 0.10 | 0.03 | 2.05 | — | 0.05 | 0.17 | 0.32 | — | — | 35.3 |
| Water Supply Fees (including monthly charges) | | — | — | — | — | — | — | — | — | 0.00 | 0.21 | — | — | — |
| Total Business Taxes | | 0.70 | 0.86 | 0.75 | 1.14 | 1.34 | 3.05 | 0.76 | 0.60 | 0.52 | 1.88 | 1.5 | 35.1 | 11.7 |
| Bazaar and Rentals | | | | | | | | | | | | | | |
| Market Fees | | 1.22 | 1.22 | 1.54 | 0.56 | 1.03 | 0.89 | 2.05 | 2.35 | 2.37 | 2.47 | 9.0 | 6.4 | 8.1 |
| Own Property, Sales, and Lease Rentals | | 0.29 | 0.93 | 0.51 | 2.33 | 0.69 | 0.05 | 0.81 | 0.03 | 0.04 | 0.02 | 18.7 | (70.9) | (25.7) |
| Total Bazaar and Rentals | | 1.51 | 2.15 | 2.04 | 2.89 | 1.73 | 0.93 | 2.87 | 2.38 | 2.41 | 2.49 | 11.2 | (4.6) | 5.7 |
| Other Income | | | | | | | | | | | | | | |
| Fines | | 0.03 | 0.02 | — | 0.02 | 0.03 | 0.05 | — | — | — | 0.01 | — | — | — |
| Interest of Investments | | 0.00 | — | — | — | 0.01 | — | — | — | — | — | — | — | — |
| Project Income-Low Cost Sanitation | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Miscellaneous Other Revenues/Constrn Fees | | 1.86 | 1.67 | 2.50 | 0.51 | 0.46 | 0.73 | 1.02 | 3.22 | 4.50 | 4.21 | (9.6) | 60.5 | 9.5 |
| Total Other Income | | 1.89 | 1.68 | 2.50 | 0.52 | 0.50 | 0.77 | 1.02 | 3.22 | 4.50 | 4.22 | (9.8) | 60.6 | 9.3 |
| Total Income from Own Sources | | 6.80 | 7.69 | 9.68 | 9.75 | 12.97 | 9.59 | 10.95 | 12.63 | 21.22 | 22.04 | 8.3 | 26.3 | 14.0 |
| Government Grants | | | | | | | | | | | | | | |
| Salary and Octroi Compensation | | 0.20 | 0.04 | 0.09 | 0.04 | 0.04 | — | — | 1.43 | 0.36 | 0.27 | (100.0) | — | 3.7 |
| Development | | 11.10 | 10.50 | 9.60 | 10.48 | 7.64 | 6.50 | 6.72 | 7.00 | 9.50 | 6.50 | (8.0) | (1.1) | (5.8) |
| Other Capital Grants | | 2.00 | 19.37 | 7.62 | 0.70 | 0.62 | 13.69 | 13.82 | — | 0.09 | — | 38.0 | (100.0) | (100.0) |
| Total Government Grants | | 13.29 | 29.91 | 17.32 | 11.22 | 8.29 | 20.19 | 20.54 | 8.43 | 9.95 | 6.77 | 7.5 | (30.9) | (7.2) |
| Total Revenues | | 20.09 | 37.60 | 27.00 | 20.98 | 21.26 | 29.78 | 31.50 | 21.06 | 31.17 | 28.81 | 7.8 | (2.9) | 4.1 |
| Expenditure Estimates | | | | | | | | | | | | | | |
| Salaries and Allowances | | 1.88 | 2.49 | 2.53 | 2.49 | 2.83 | 4.71 | 4.81 | 6.13 | 6.98 | 7.11 | 17.0 | 13.9 | 15.9 |
| Operation and Maintenance (O&M) | | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Operating Costs | | 3.21 | 4.32 | 14.26 | 8.09 | 9.72 | 2.41 | 4.55 | 3.74 | 3.06 | 8.09 | 6.0 | 21.1 | 10.8 |
| Maintenance Costs | | 1.34 | 2.63 | 2.81 | 3.80 | 8.50 | 2.62 | 2.73 | 0.32 | 0.12 | 0.54 | 12.6 | (41.7) | (9.6) |
| Total O&M Costs | | 4.55 | 6.95 | 17.07 | 11.90 | 18.22 | 5.03 | 7.28 | 4.06 | 10.16 | 15.74 | 8.2 | 29.3 | 14.8 |
| Capital Development | | 13.83 | 19.77 | 1.97 | 14.43 | 21.34 | 22.55 | 10.98 | 3.93 | 19.67 | 10.98 | (3.8) | 0.0 | (2.5) |
| Development O&M-Project | | — | — | — | — | — | — | — | 0.08 | 0.23 | 2.64 | — | — | — |
| Total Expenditure | | 20.25 | 29.21 | 21.56 | 28.81 | 42.38 | 32.29 | 23.07 | 14.12 | 36.81 | 33.83 | 2.2 | 13.6 | 5.9 |
| Balance in Year | | (0.16) | 8.39 | 5.43 | (7.83) | (21.13) | (2.51) | 8.43 | 6.94 | (5.64) | (5.02) | — | — | — |
| Ratios (%) | | | | | | | | | | | | | | |
| Local Revenues/Total Revenues | | 33.8 | 20.4 | 35.8 | 46.5 | 61.0 | 32.2 | 34.8 | 60.0 | 68.1 | 76.5 | 37.8 | 68.2 | 46.9 |
| Grants/Total Revenues | | 66.2 | 79.6 | 64.2 | 53.5 | 39.0 | 67.8 | 65.2 | 40.0 | 31.9 | 23.5 | 62.2 | 31.8 | 53.1 |
| Property Based/Own Revenues | | 39.7 | 39.0 | 45.3 | 53.5 | 72.5 | 50.5 | 57.6 | 50.9 | 65.0 | 61.0 | 51.1 | 59.0 | 53.5 |
| Property Based/Total Revenues | | 13.4 | 8.0 | 16.2 | 24.8 | 44.2 | 16.2 | 20.0 | 30.5 | 44.2 | 46.7 | 20.4 | 40.5 | 26.4 |
| Expenditures/Total Revenues | | 100.8 | 77.7 | 79.9 | 137.3 | 199.4 | 108.4 | 73.3 | 67.0 | 118.1 | 117.4 | 111.0 | 100.9 | 107.9 |
| Own Revenues/Total Revenues | | 33.8 | 20.4 | 35.8 | 46.5 | 61.0 | 32.2 | 34.8 | 60.0 | 68.1 | 76.5 | 37.8 | 68.2 | 46.9 |
| Own Revenues/Total Expenditures | | 33.6 | 26.3 | 44.9 | 33.9 | 30.6 | 29.7 | 47.5 | 89.4 | 57.6 | 65.1 | 35.2 | 70.7 | 45.9 |
| Own Revenues/Salaries, Allowances, and O&M | | 105.8 | 81.5 | 49.4 | 67.8 | 61.6 | 98.4 | 90.6 | 123.9 | 123.8 | 96.5 | 79.3 | 114.7 | 89.9 |

— = not available, AGR = annual growth rate, Ave. = average.

Note: Octroi means a levy on the import to or export from a city of various goods and commodities.

Source: Operations Evaluation Mission.

Table A3.8: Summary of Actual vs. Appraisal Targets for Own Source Revenue Collections

| Project Town | FY1993–94 | FY1994–95 | FY1995–96 | FY1996–97 | FY1997–98 | FY1998–99 | FY1999–2000 | FY2002–03 | Average |
|---|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------|
| Khulna | | | | | | | | | |
| Actual Collections | | | | | | | | | |
| Property-Based | 22.97 | 41.57 | 31.40 | 66.17 | 57.17 | 33.45 | 39.37 | 40.06 | |
| Business Taxes | 10.60 | 12.57 | 10.72 | 20.67 | 18.54 | 15.84 | 27.94 | 14.29 | |
| Bazaar and Rentals | 6.85 | 7.40 | 9.00 | 6.88 | 5.65 | 5.22 | 12.10 | 8.33 | |
| Other Income | 20.66 | 20.32 | 51.46 | 24.34 | 33.79 | 11.54 | 4.19 | 27.12 | |
| Total Own Source Revenues | 61.07 | 81.85 | 102.58 | 118.05 | 115.15 | 66.06 | 83.60 | 89.80 | |
| Appraisal Targets | | | | | | | | | |
| Property-Based | 59.55 | 63.12 | 66.91 | 70.92 | 75.18 | 79.69 | 84.47 | 89.54 | |
| Business Taxes | 8.46 | 8.96 | 9.50 | 10.07 | 10.67 | 11.32 | 11.99 | 12.71 | |
| Bazaar and Rentals | 7.81 | 8.27 | 8.77 | 90.12 | 95.53 | 101.26 | 107.34 | 113.78 | |
| Other Income | 22.10 | 23.43 | 24.83 | 26.32 | 27.90 | 29.58 | 31.35 | 33.23 | |
| Total Own Source Revenues | 97.92 | 103.78 | 110.01 | 197.43 | 209.28 | 221.85 | 235.15 | 249.26 | |
| Actual Collections as a % of Appraisal Targets | | | | | | | | | |
| Property-Based | 39% | 66% | 47% | 93% | 76% | 42% | 47% | 45% | 57% |
| Business Taxes | 125% | 140% | 113% | 205% | 174% | 140% | 233% | 112% | 155% |
| Bazaar and Rentals | 88% | 89% | 103% | 8% | 6% | 5% | 11% | 7% | 40% |
| Other Income | 93% | 87% | 207% | 92% | 121% | 39% | 13% | 82% | 92% |
| Total Own Source Revenues | 62% | 79% | 93% | 60% | 55% | 30% | 36% | 36% | 56% |
| Panchagarh | | | | | | | | | |
| Actual Collections | | | | | | | | | |
| Property-Based | 1.30 | 0.78 | 4.34 | 2.20 | 2.51 | 1.42 | 1.72 | 2.11 | |
| Business Taxes | 0.10 | 0.10 | 0.11 | 0.13 | 0.39 | 0.10 | 0.52 | 0.44 | |
| Bazaar and Rentals | — | — | — | — | — | — | — | 1.25 | |
| Other Income | 1.67 | 2.64 | 2.52 | 2.38 | 2.40 | 2.42 | 2.20 | 2.10 | |
| Total Own Source Revenues | 3.07 | 3.53 | 6.97 | 4.72 | 5.30 | 3.94 | 4.44 | 5.90 | |
| Appraisal Targets | | | | | | | | | |
| Property-Based | 2.63 | 3.42 | 4.45 | 5.33 | 5.87 | 6.45 | 6.84 | 7.25 | |
| Business Taxes | 0.19 | 0.20 | 0.22 | 0.23 | 0.24 | 0.26 | 0.27 | 0.29 | |
| Bazaar and Rentals | 1.71 | 1.81 | 1.92 | 2.04 | 2.16 | 2.29 | 2.42 | 2.57 | |
| Other Income | 0.25 | 0.27 | 0.28 | 0.30 | 0.32 | 0.34 | 0.36 | 0.38 | |
| Total Own Source Revenues | 4.78 | 5.70 | 6.87 | 7.90 | 8.59 | 9.34 | 9.89 | 10.49 | |
| Actual Collections as a % of Appraisal Targets | | | | | | | | | |
| Property-Based | 49% | 23% | 98% | 41% | 43% | 22% | 25% | 29% | 41% |
| Business Taxes | 54% | 51% | 48% | 58% | 163% | 40% | 192% | 152% | 95% |
| Bazaar and Rentals | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 49% | 6% |
| Other Income | 670% | 979% | 899% | 793% | 750% | 713% | 610% | 553% | 746% |
| Total Own Source Revenues | 64% | 62% | 101% | 60% | 62% | 42% | 45% | 56% | 62% |
| Kurigram | | | | | | | | | |
| Actual Collections | | | | | | | | | |
| Property-Based | 1.32 | 1.73 | 1.51 | 1.94 | 2.20 | 6.02 | 2.11 | 2.91 | |
| Business Taxes | 0.63 | 0.55 | 0.59 | 0.72 | 1.22 | 1.94 | 0.58 | 0.14 | |
| Bazaar and Rentals | 0.65 | 0.89 | 0.91 | 0.53 | 0.62 | 0.96 | 1.07 | 0.74 | |
| Other Income | 0.40 | 0.74 | 0.67 | 0.86 | 0.80 | 0.83 | 1.06 | 1.58 | |
| Total Own Source Revenues | 3.01 | 3.90 | 3.68 | 4.05 | 4.84 | 9.75 | 4.82 | 5.37 | |
| Appraisal Targets | | | | | | | | | |
| Property-Based | 3.01 | 3.92 | 4.31 | 4.74 | 5.21 | 5.52 | 5.85 | 6.21 | |
| Business Taxes | 0.40 | 0.42 | 0.44 | 0.47 | 0.50 | 0.53 | 0.56 | 0.60 | |
| Bazaar and Rentals | 0.96 | 1.02 | 1.08 | 1.15 | 1.22 | 1.29 | 1.36 | 1.44 | |
| Other Income | 1.20 | 1.27 | 1.35 | 1.43 | 1.51 | 1.60 | 1.70 | 1.80 | |
| Total Own Source Revenues | 5.57 | 6.63 | 7.18 | 7.79 | 8.44 | 8.94 | 9.47 | 10.05 | |
| Actual Collections as a % of Appraisal Targets | | | | | | | | | |
| Property-Based | 44% | 44% | 35% | 41% | 42% | 109% | 36% | 47% | 50% |
| Business Taxes | 158% | 130% | 135% | 154% | 244% | 366% | 104% | 23% | 164% |
| Bazaar and Rentals | 68% | 87% | 84% | 46% | 51% | 74% | 78% | 51% | 68% |
| Other Income | 33% | 58% | 50% | 60% | 53% | 52% | 63% | 88% | 57% |
| Total Own Source Revenues | 54% | 59% | 51% | 52% | 57% | 109% | 51% | 53% | 61% |

— = not available.

Note: All revenues are in Tk million.

Source: Operations Evaluation Mission.

Table A3.8: Summary of Actual vs. Appraisal Targets for Own Source Revenue Collections — *Continued*

| Project Town | FY1993–94 | FY1994–95 | FY1995–96 | FY1996–97 | FY1997–98 | FY1998–99 | FY1999–2000 | FY2002–03 | Average |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| Dinajpur | | | | | | | | | |
| Actual Collections | | | | | | | | | |
| Property-Based | 2.81 | 2.45 | 1.68 | 3.75 | 4.30 | 3.20 | 9.20 | 5.14 | |
| Business Taxes | 1.21 | 1.35 | 1.34 | 1.42 | 2.19 | 1.23 | 7.13 | 1.67 | |
| Bazaar and Rentals | 2.45 | 3.96 | 2.70 | 0.72 | 1.44 | 3.41 | 0.52 | 3.98 | |
| Other Income | 1.79 | 1.96 | 11.23 | 2.67 | 1.00 | 0.88 | 2.65 | 2.87 | |
| Total Own Source Revenues | 8.26 | 9.71 | 16.95 | 8.55 | 8.93 | 8.71 | 19.50 | 13.66 | |
| Appraisal Targets | | | | | | | | | |
| Property-Based | 7.69 | 8.34 | 10.08 | 10.95 | 11.61 | 12.31 | 13.04 | 13.83 | |
| Business Taxes | 1.36 | 1.44 | 1.52 | 1.61 | 1.71 | 1.81 | 1.92 | 2.04 | |
| Bazaar and Rentals | 4.25 | 4.50 | 4.77 | 5.06 | 5.36 | 5.68 | 6.02 | 6.39 | |
| Other Income | 2.52 | 2.67 | 2.83 | 3.00 | 3.18 | 3.37 | 3.57 | 3.78 | |
| Total Own Source Revenues | 15.82 | 16.95 | 19.20 | 20.62 | 21.86 | 23.17 | 24.55 | 26.04 | |
| Actual Collections as a % of Appraisal Targets | | | | | | | | | |
| Property-Based | 37% | 29% | 17% | 34% | 37% | 26% | 71% | 37% | 36% |
| Business Taxes | 89% | 94% | 88% | 88% | 128% | 68% | 372% | 82% | 126% |
| Bazaar and Rentals | 58% | 88% | 57% | 14% | 27% | 60% | 9% | 62% | 47% |
| Other Income | 71% | 73% | 397% | 89% | 32% | 26% | 74% | 76% | 105% |
| Total Own Source Revenues | 52% | 57% | 88% | 41% | 41% | 38% | 79% | 52% | 56% |
| Habiganj | | | | | | | | | |
| Actual Collections | | | | | | | | | |
| Property-Based | 1.30 | 1.51 | 1.60 | 1.03 | 1.91 | 1.98 | 2.70 | 3.24 | |
| Business Taxes | 0.34 | 0.40 | 0.42 | 1.50 | 0.55 | 1.82 | 1.98 | 1.97 | |
| Bazaar and Rentals | 0.95 | 1.05 | 1.35 | — | 0.87 | 0.30 | 4.31 | 0.73 | |
| Other Income | — | — | — | — | — | 1.05 | 0.61 | 2.67 | |
| Total Own Source Revenues | 2.59 | 2.95 | 3.37 | 2.53 | 3.33 | 5.14 | 9.60 | 8.61 | |
| Appraisal Targets | | | | | | | | | |
| Property-Based | 2.42 | 2.89 | 3.49 | 3.79 | 4.11 | 4.36 | 4.62 | 4.90 | |
| Business Taxes | 0.42 | 0.45 | 0.47 | 0.50 | 0.53 | 0.56 | 0.60 | 0.63 | |
| Bazaar and Rentals | 4.27 | 4.53 | 4.80 | 9.38 | 10.04 | 10.64 | 11.28 | 11.96 | |
| Other Income | 1.19 | 1.27 | 1.34 | 1.42 | 1.51 | 1.60 | 1.69 | 1.80 | |
| Total Own Source Revenues | 8.30 | 9.14 | 10.10 | 15.09 | 16.19 | 17.16 | 18.19 | 19.29 | |
| Actual Collections as a % of Appraisal Targets | | | | | | | | | |
| Property-Based | 54% | 52% | 46% | 27% | 47% | 45% | 58% | 66% | 49% |
| Business Taxes | 81% | 89% | 90% | 300% | 103% | 325% | 329% | 313% | 204% |
| Bazaar and Rentals | 22% | 23% | 28% | 0% | 9% | 3% | 38% | 6% | 16% |
| Other Income | 0% | 0% | 0% | 0% | 0% | 65% | 36% | 148% | 31% |
| Total Own Source Revenues | 31% | 32% | 33% | 17% | 21% | 30% | 53% | 45% | 33% |
| Moulvibazar | | | | | | | | | |
| Actual Collections | | | | | | | | | |
| Property-Based | 2.70 | 3.00 | 4.38 | 5.20 | 9.40 | 4.84 | 6.31 | 6.43 | |
| Business Taxes | 0.70 | 0.86 | 0.75 | 1.14 | 1.34 | 3.05 | 0.76 | 0.60 | |
| Bazaar and Rentals | 1.51 | 2.15 | 2.04 | 2.89 | 1.73 | 0.93 | 2.87 | 2.38 | |
| Other Income | 1.89 | 1.68 | 2.50 | 0.52 | 0.50 | 0.77 | 1.02 | 3.22 | |
| Total Own Source Revenues | 6.80 | 7.69 | 9.68 | 9.75 | 12.97 | 9.59 | 10.95 | 12.63 | |
| Appraisal Targets | | | | | | | | | |
| Property-Based | 8.56 | 9.33 | 9.60 | 9.90 | 10.19 | 10.50 | 10.82 | 11.14 | |
| Business Taxes | 1.38 | 1.46 | 1.55 | 1.64 | 1.74 | 1.84 | 1.95 | 2.07 | |
| Bazaar and Rentals | 2.04 | 2.17 | 2.30 | 2.44 | 2.49 | 2.73 | 2.89 | 3.07 | |
| Other Income | 1.50 | 1.59 | 1.69 | 1.79 | 1.90 | 2.01 | 2.13 | 2.26 | |
| Total Own Source Revenues | 13.48 | 14.55 | 15.14 | 15.77 | 16.32 | 17.08 | 17.79 | 18.54 | |
| Actual Collections as a % of Appraisal Targets | | | | | | | | | |
| Property-Based | 32% | 32% | 46% | 53% | 92% | 46% | 58% | 58% | 52% |
| Business Taxes | 50% | 59% | 48% | 70% | 77% | 165% | 39% | 29% | 67% |
| Bazaar and Rentals | 74% | 99% | 89% | 118% | 69% | 34% | 99% | 78% | 83% |
| Other Income | 126% | 106% | 148% | 29% | 26% | 39% | 48% | 142% | 83% |
| Total Own Source Revenues | 50% | 53% | 64% | 62% | 79% | 56% | 62% | 68% | 62% |

— = not available.

Note: All revenues are in Tk million.

Source: Operations Evaluation Mission.

FINANCIAL ANALYSIS

A. General Assumptions and Methodology

1. The financial reevaluation was undertaken for the solid waste management (SWM) component only. The sanitation component was not financially reevaluated since its revenues were small and insufficient to cover the costs.¹ Instead, sanitation was included in the economic reevaluation of the slum improvement component, since most of the facilities were constructed within upgraded slum sites.

2. The reevaluation was based on data in the project completion report (PCR), but updated where possible to include figures up to FY2003. The Operations Evaluation Mission validated past financial data with the Local Government Engineering Department, Khulna City Corporation (KCC), and the poura shavas.

3. The financial rate of return (FIRR) of the SWM component was computed using the evaluation methodology adopted in the PCR and at appraisal. FIRRs were compared with the PCR and appraisal estimates. Costs and revenues were converted to 2003 constant prices, and the FIRRs were compared to the weighted average cost of capital (WACC) computed according to the share of the Asian Development Bank loan and Government of Bangladesh funding.² Following the assumption in the PCR and at appraisal, a 20-year operating life of the facilities was assumed. Replacement costs for the solid waste trucks and pushcarts were included after 10 years, although such estimates were not included at appraisal or in the PCR reevaluation.

B. Revenue Projections

4. The formula for projecting revenues for the SWM component is as follows:

$$\text{REV} = (\text{CONSERV}_1 \times \text{PERSWM}_1) - (\text{CONSERV}_0 \times \text{PERSWM}_0)$$

Where:

REV = Revenue

CONSERV = Conservancy taxes

PERSWM = Percent of conservancy taxes spent on SWM

1 = With project

0 = Without project

5. KCC and the pourashavas collected conservancy taxes, and a percentage was allocated for SWM activities. In KCC and the pourashavas, the incremental amount allocated for SWM after the Project was about 10% of the conservancy tax collection. This was assumed to be constant throughout the projection period for KCC and the pourashavas since no commitment to increase the proportion allocated was forthcoming. Conservancy tax revenues were projected on the basis of a 5% real increase each year (covering new

¹ Cost recovery for the sanitation component was based on beneficiaries paying Tk500 for a pit latrine and nominal charges for the operation and maintenance of public toilets collected by nongovernment organizations set up to manage the facilities. These revenues were insufficient to cover the capital investment costs.

² The WACC was computed to be 2.6%, based on the cost of the Asian Development Bank money assumed to be 6% per year (1% service charge, plus 5% guarantee and foreign exchange risk); the cost of government funds to be 85% per year, representing the average 90-day Treasury Bill Rate from 1995 to 1998; the major disbursement period of the Project; and an average annual inflation rate of 4.0%.

properties and increased revenues), with a 15% increase every 5 years to reflect the regular revaluation of property.

C. Evaluation Results

6. The results of the financial reevaluation are summarized in Table A4.1, which compares the estimates with those at appraisal and the PCR. The computations were based on the achieved targets of the Project and their costs, which reflected changes in output³ including the additional development of disposal sites.

7. Positive FIRR were computed for Habiganj (4.6%) and Moulvibazar (5.3%), both of which exceeded the WACC of 2.6%. The investments in Habiganj and Moulvibazar were lower than for the other towns, and the resulting operation and maintenance requirements were less. Negative returns were computed for Dinajpur, Khulna, Kurigram, and Panchagarh, where more substantial investments were required and operation and maintenance costs were much higher. A significant proportion of the conservancy rate would have to be allocated for SWM to achieve positive returns in these towns. The negative FIRRs resulted from (i) conservancy rates being much lower than projected, (ii) direct household charges for SWM not materializing⁴ in the pourashavas, (iii) replacement costs not being included in the earlier analysis, and (iv) small increases in investment costs.

8. The reevaluation shows that the SWM component is not viable in KCC and three pourashavas under the present cost-recovery arrangements. The engineering sections of KCC and the pourashavas are responsible for SWM collections, transport, and disposal. A portion of the revenues from the conservancy taxes should cover SWM costs, but the analysis shows that the amounts allocated are insufficient.

9. Nevertheless, the handcarts procured are used well within the low-income communities, resulting in increased collections. The dump trucks and storage bins in strategic locations have increased the efficiency of solid waste collection, reducing indiscriminate disposal in drains, on the streets, and on vacant land. With the exception of Khulna, however, the dump sites are not well used. Designed without appropriate environmental controls, they will have a negative impact upon surrounding land.

³ The changes in outputs included 904 storage bins against 915 at appraisal and 22 collection trucks against 15 at appraisal. The 135 pushcarts procured were the same at appraisal.

⁴ Although about Tk20 per month is levied by nongovernment organizations on households in some communities in Khulna, the revenues do not go to KCC. Instead, they cover the cost of transporting garbage from residential premises to bins, outside the areas served, for collection by the city. The charges are not directly project related and the revenues were not included in the analysis for the Khulna SWM component.

Table A4.1: Financial Internal Rate of Return and Sensitivity Analysis

| Component | Option | Khulna | | | Dinajpur | | | Kurigram | | | Panchagarh | | | Habiganj | | | Moulvibazar | | |
|------------|----------------------------------|-----------|------|----------|-----------|------|----------|-----------|------|----------|------------|------|----------|-----------|------|--------|-------------|------|--------|
| | | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual |
| Solid | Base Case | 20.0 | 18.8 | negative | 14.7 | 15.0 | negative | 13.3 | 13.9 | negative | 17.0 | 18.2 | negative | 14.3 | 16.0 | 4.6 | 26.1 | 15.9 | 5.3 |
| Waste | +10% in Capital Costs | 18.1 | 18.1 | negative | 13.1 | 14.5 | negative | 11.9 | 13.2 | negative | 17.5 | 17.5 | negative | 13.0 | 15.3 | 3.7 | 24.1 | 15.4 | 4.4 |
| Management | -10% in Revenues | 16.7 | 17.9 | negative | 10.2 | 14.3 | negative | 9.1 | 13.0 | negative | 11.6 | 17.4 | negative | 10.0 | 15.0 | 3.1 | 21.2 | 15.3 | 3.5 |
| | +10% in O&M Costs | 18.8 | 18.7 | negative | 12.0 | 14.9 | negative | 10.7 | 13.7 | negative | 13.9 | 18.1 | negative | 11.6 | 15.8 | 4.2 | 10.5 | 15.8 | 4.6 |
| | Revenues Delayed 1 Year | 12.8 | 14.1 | negative | 6.7 | 6.7 | negative | 6.2 | 9.4 | negative | 7.8 | 13.3 | negative | 7.1 | 11.3 | 4.1 | 16.1 | 10.9 | 4.6 |
| | Costs Increased Revenues Delayed | 10.4 | 13.4 | negative | 3.2 | 9.7 | negative | 2.9 | 8.6 | negative | 3.9 | 12.8 | negative | 3.7 | 10.6 | 2.9 | 12.8 | 10.4 | 3.2 |

O&M = operation and maintenance, PCR = project completion report.

Source: Operations Evaluation Mission.

ECONOMIC ANALYSIS

A. General Assumptions and Methodology

1. The economic reevaluation was undertaken for slum upgrading, and flood control and drainage components. Much of the data used for the reevaluation came from the project completion report (PCR) submitted by the Government of Bangladesh. This data was validated and expanded during the Operations Evaluation Mission (OEM). All costs were based on those used for the PCR, and amended where more up to date information was available. Benefits were based on those available from the PCR, but they were supplemented with additional data obtained from field trips to Khulna and the participating pourashavas.

2. Economic internal rates of return (EIRRs) were computed for the flood protection and drainage component as one project and for slum improvement and sanitation as another integrated project. The evaluation methodology used for the flood protection and drainage component differed from that used in the PCR, where increases in land values were considered economic benefits. Since land value increases are inappropriate estimators of economic benefits, the potential savings from reduced physical damage to flood-prone properties in the towns was used instead.

3. The estimated costs and benefits were valued at their economic prices using the domestic price numeraire in 2003 prices. To convert financial costs to economic costs, estimated taxes and duties were excluded¹ and the shadow price adjustment factors used were foreign costs 1.1, unskilled labor 0.7, skilled labor 0.9, and local materials 1.0. These factors were based on those used for similar projects. Operation and maintenance costs were included, and these were based on the figures contained in the Government's PCR, which were verified and amended during the OEM.

B. Benefit Projections

1. Flood Protection and Drainage

4. The formula for projecting benefits for the flood protection and drainage component is:

$$BEN = (LAP \times FCDA \times FF_0) - (LAP \times FCDA \times FF_1)$$

Where:

BEN = Total benefits

LAP = Land area protected by the flood protection and drainage works

FCDA = Value of the damage to property and infrastructure per flood

FF = Frequency of flooding

1 = With project

0 = Without project

and:

¹ A figure of 20% of the local costs was used for the economic analysis in the PCR. This was considered high, so 15% was used in the reevaluation.

$$\text{LAP} = (\text{HT} / \text{CR} / \text{TR} / \text{AVP} / \text{COV} / \text{RMV}) \times (1 + (\text{AFNPA})) / \text{AREA} \times \text{DPPV} \times \text{DTP}$$

Where:

| | |
|-------|---|
| HT | = Holding tax collected, the current portion (actual figures) |
| CR | = Tax collection rate (30% to 55%) |
| TR | = Holding tax rate (7%) |
| AVP | = Assessed value as % of annual rental value for tax purposes (20%) |
| COV | = Tax coverage (50% to 80%) |
| RMC | = Ratio of taxable value to market value (50% to 80%) |
| AFNPA | = Factor to account for nonproperty assets affected (10% of value) |
| AREA | = Area of city or pourashava |
| DPPV | = Damage as a % of property value (20%) |
| DTP | = Proportion of savings directly attributable to the project (90%). |

5. Evidence from the towns where substantial investments were made in businesses and homes demonstrated that the risk of flooding has been reduced. Property values have increased with the assurance that flooding had decreased. During the major floods of 1998 and later years, the towns sustained much less damage than in the past.

6. Indicative computations of the value of properties within the Khulna City Corporation and the participating pourashavas were made from estimates of the holding tax base, taking into account the property values assumed for the PCR and knowledge gained from the OEM. The PCR of the Government also contained some estimates of flood damage to infrastructure prior to the Project. Property values and infrastructure damage estimates were apportioned to the areas protected by the flood control and drainage works.² Based on the frequency of flooding before and after the Project,³ estimates of damage avoided were computed.

7. Health benefits from the decrease in waterborne diseases as a result of less stagnant water were not quantified.

2. Slum Improvement and Sanitation

8. The formula for projecting benefits for the slum improvement and sanitation component is:

$$\text{BEN} = (\text{HRENTAL} \times \text{HHs})_1 - (\text{HRENTAL} \times \text{HHs})_0$$

Where:

BEN = Total benefits

² As established for the PCR and confirmed by the Bangladesh Water Development Board.

³ From the before and after project surveys under the project benefit monitoring and evaluation and presented in the Government's post-project evaluation report.

| | |
|---------|--|
| HRENTAL | = Rental value of houses |
| HHs | = Households |
| 1 | = With slum upgrading and sanitation improvements |
| 0 | = Without slum upgrading and sanitation improvements |

9. The measure of benefit used at appraisal and for the PCR was the increase in house rental values. The PCR followed the appraisal methodology and assumed house rentals were equivalent to 20% of income. Base rental figures from the PCR were used for the reevaluation. In the PCR, the average rent was assumed to have increased by 25% after the improvements. Evidence from the recent beneficiary survey and from the field visits to the towns suggests that this is higher, so a figure of 30% was used. Lower figures of annual rental increases of properties were used for the reevaluation.⁴

C. Evaluation Results

10. The results of the economic reevaluation are summarized in Table A5.1 and compared with the estimates at appraisal and those verified in the PCR. The computations were based on the achieved targets of the Project⁵ and the costs, which reflected the changes in output, including the addition of the sanitation costs to the slum improvement component.

11. The targets for flood protection and drainage were met, and most items exceeded the appraisal estimates. Additional works were completed under the flood damage rehabilitation project. The results of the reevaluation are somewhat different from those at appraisal and in the PCR. The change in methodology—from using land value increases to savings from reduced physical damage as a measure of benefit—and adjustments to the cost estimates based on more up to date information accounted for the differences.

12. All EIRRs were positive and exceeded the economic opportunity cost of capital (EOCC) of 12%. In Habiganj (28%), Khulna (25%), and Panchagarh (14%), the EIRRs were lower than those at appraisal and the PCR. The EIRR in Dinajpur (36%) was little changed from the PCR, while in Kurigram (17%) and Moulvibazar (40%) the returns were higher. The EIRRs, which were based on conservative assumptions regarding the damage avoided, are probably low. The change in methodology accounts for the different results from the PCR and appraisal estimates.

13. In addition to savings from the protection of property, the Project produced significant health and environmental improvements. The incidence of waterborne diseases has decreased, residents can reach their places of work and schools more easily during the wet season, and there is less waterlogging within residential and commercial areas.

14. Slum improvement achieved 98% the appraisal target for households. However, the sanitation component achieved less than expected due to lower demand for pit latrines.⁶ Slum improvements were well supported within the communities and transformed areas of neglect into formal settlements.

⁴ The PCR had much higher figures ranging from 10% per year in Khulna to 25% per annum in Habiganj, which were considered excessive. This analysis has adopted the assumption that growth in rental values would parallel that of gross domestic product, at 5% per year in real terms.

⁵ Except for portions of the drainage component of part B, including (i) rehabilitation and cleaning of existing drains; and (ii) bridges, culverts, and road crossings. These were just over half of the appraisal targets overall and well below the targets in Dinajpur, Khulna, and Panchagarh.

⁶ Most beneficiaries did not like the single-pit latrine design and preferred the twin-pit solution. Consequently, only 919 of the proposed 22,320 single-pit latrines were built.

15. Under the reevaluation of the slum improvement component, EIRRs exceed the EOCC in all towns. Habiganj and Khulna, with base case EIRRs of 12%, were marginally above the EOCC. The return for Habiganj, where rental values and household incomes are lower than other towns, was similar to that at appraisal, though lower than at the PCR reevaluation. For Khulna, where the very poor areas were upgraded, the reevaluated EIRR was below the appraisal and PCR figures. In Dinajpur, the reevaluated EIRR of 16% also was lower than at appraisal and at the PCR. The 22% EIRR in Panchagarh was marginally below that at the PCR, while in Moulvibazar the 23% return was above the appraisal and PCR figures. The changes were largely the result of (i) the inclusion of sanitation costs; (ii) lower assumed rates of rental increases, which were conservatively estimated to parallel real increases in gross domestic product at about 5% per year; and (iii) updating the number of beneficiary households within the project sites.

Table A5.1: Economic Internal Rate of Return and Sensitivity Analysis

| Component | Option | Khulna | | | Dinajpur | | | Kurigram | | | Panchagarh | | | Habiganj | | | Moulvibazar | | |
|---------------------------------|----------------------------------|-----------|------|--------|-----------|------|--------|-----------|------|--------|------------|------|--------|-----------|------|--------|-------------|------|--------|
| | | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual | Appraisal | PCR | Actual |
| Flood Protection and Drainage | Base Case | 32.8 | 37.6 | 25.3 | 46.0 | 37.1 | 36.3 | 14.3 | 15.1 | 17.1 | 28.7 | 29.2 | 13.7 | 44.4 | 41.8 | 27.9 | 28.5 | 28.6 | 39.6 |
| | +10% in Capital Costs | 29.7 | 31.7 | 23.4 | 40.9 | 31.4 | 33.2 | 11.9 | 13.4 | 15.7 | 25.3 | 26.1 | 12.5 | 31.1 | 38.4 | 25.6 | 23.1 | 25.3 | 36.1 |
| | -10% in Benefits | 29.3 | 31.0 | 23.1 | 32.5 | 30.9 | 32.7 | 11.5 | 13.2 | 15.5 | 24.9 | 25.7 | 12.3 | 29.3 | 37.9 | 25.2 | 22.4 | 24.8 | 35.6 |
| | +10% in O&M Costs | 32.7 | 37.4 | 25.3 | 45.9 | 37.0 | 36.2 | 14.1 | 15.1 | 17.0 | 28.0 | 29.1 | 13.6 | 44.1 | 41.7 | 27.8 | 27.8 | 28.4 | 39.4 |
| | Revenues Delayed 1 Year | 25.7 | 29.5 | 21.3 | 32.5 | 29.3 | 28.3 | 11.3 | 10.8 | 15.0 | 22.1 | 22.7 | 12.2 | 19.4 | 31.5 | 22.9 | 19.0 | 16.7 | 30.3 |
| | Costs Increased Benefits Delayed | 23.6 | 24.7 | 19.8 | 29.7 | 24.6 | 26.2 | 9.5 | 9.2 | 13.9 | 21.2 | 19.9 | 11.0 | 13.4 | 29.0 | 21.2 | 17.3 | 14.7 | 28.0 |
| Slum Improvement and Sanitation | Base Case | 18.7 | 19.1 | 12.1 | 18.7 | 18.1 | 16.0 | — | — | — | 13.7 | 22.8 | 21.9 | 12.3 | 19.3 | 12.0 | 14.7 | 16.2 | 22.6 |
| | +10% in Capital Costs | 16.9 | 17.9 | 11.0 | 16.9 | 17.1 | 14.6 | — | — | — | 12.5 | 21.5 | 20.1 | 11.1 | 18.2 | 10.9 | 13.4 | 15.1 | 20.8 |
| | -10% in Benefits | 16.5 | 17.7 | 10.7 | 16.5 | 16.9 | 14.4 | — | — | — | 12.2 | 21.3 | 19.8 | 10.9 | 18.0 | 10.7 | 13.1 | 14.8 | 20.5 |
| | +10% in O&M Costs | 18.5 | 19.0 | 12.0 | 18.5 | 18.1 | 15.9 | — | — | — | 13.6 | 22.8 | 21.8 | 12.1 | 19.3 | 11.9 | 14.6 | 16.1 | 22.5 |
| | Revenues Delayed 1 Year | 15.6 | 14.4 | 10.7 | 15.6 | 14.0 | 14.0 | — | — | — | 12.0 | 18.3 | 18.6 | 10.8 | 15.0 | 10.7 | 12.8 | 12.0 | 19.1 |
| | Costs Increased Benefits Delayed | 14.1 | 13.3 | 9.7 | 14.1 | 12.9 | 12.8 | — | — | — | 10.6 | 17.1 | 17.2 | 9.8 | 13.9 | 9.6 | 11.4 | 10.8 | 17.7 |

— = not calculated, O&M = operation and maintenance, PCR = project completion report.

Source: Operations Evaluation Mission.

PROJECT IMPACTS ON LOCAL HOUSEHOLDS

| Item | Khulna | Dinajpur | Kurigram | Panchagarh | Habiganj | Moulvibazar |
|---|---------------------------------|---|---|------------|-------------|-------------|
| 1. Households affected by floods since 2000 | 15% with no serious damage | 0% | One family each affected in 2002 and 2003 | 0% | 30% in 2001 | 0% |
| 2. Reduction of waterborne diseases – number/(%) | 27 (49%) | 38 (95%) | 38 (95%) | 40 (100%) | 44 (100%) | 39 (98%) |
| 3. Improved living environment – number/(%) | 28 (51%) | 38 (95%) | 25 (63%) | — | 44 (100%) | 33 (83%) |
| 4. Relief from waterlogging – number/(%) | 36 (65%) | 35 (88%) | 40 (100%) | 40 (100%) | 23 (52%) | 37 (93%) |
| 5. Improvements in dwellings – number/(%) | 15 (27%) | 10 (25%) | 9 (23%) | 3 (8%) | — | 8 (20%) |
| 6. Increase in land price in the last 3 years in locality | Tk50,000 per bigha ^a | Tk5,000–40,000 per bigha, Rent increase of Tk500–600 (per month) | 20–40% (increase from Tk12,500 per bigha in 1999 to Tk26,500 per bigha in 2002) | 50–100% | 40–120% | 20–80% |
| 7. Comfort from sanitary latrine – number/(%) | 24 (44%) | 40 (100%) | 10 (25%) | 16 (40%) | 22 (50%) | 35 (88%) |
| Note: | | | | | | |
| Number of respondents | 55 | 40 | 40 | 40 | 44 | 40 |
| Number of persons in respondent's household | 262 | — | 261 | 188 | 380 | 227 |
| Occupation of respondent | | | | | | |
| Business – number/(%) | 23 (42%) | 18 (45%) | 12 (30%) | 12 (30%) | 16 (36%) | 22 (55%) |
| Services – number/(%) | 22 (40%) | 6 (15%) | 7 (18%) | 8 (20%) | 7 (16%) | 10 (25%) |

— = not available.

^a Bigha is a measure of land varying from a third of an acre to an acre.

Source: Operations Evaluation Mission.