

ASIAN DEVELOPMENT BANK

TAR:BAN 26427

TECHNICAL ASSISTANCE

TO THE

PEOPLE'S REPUBLIC OF BANGLADESH

FOR PREPARING THE

SECONDARY TOWNS INTEGRATED FLOOD PROTECTION II PROJECT

November 2002

CURRENCY EQUIVALENTS

(as of 15 November 2002)

Currency Unit	–	taka (Tk)
Tk1.00	=	\$0.01728
\$1.00	=	Tk57.85

ABBREVIATIONS

ADB	–	Asian Development Bank
BWDB	–	Bangladesh Water Development Board
EA	–	Executing Agency
EIA	–	environmental impact assessment
FAP	–	Flood Action Plan
GDP	–	gross domestic product
IEE	–	initial environmental examination
LGED	–	Local Government Engineering Department
NGO	–	nongovernment organization
O&M	–	operation and maintenance
RP	–	resettlement plan
STIFPP	–	Secondary Towns Integrated Flood Protection Project
TA	–	technical assistance
TOR	–	terms of reference
UGIAP	–	urban governance improvement action program
UGIIP	–	Urban Governance and Infrastructure Improvement Project
UMSU	–	Urban Management Support Unit

NOTES

- (i) The fiscal year (FY) of the Government ends on 30 June.
- (ii) In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The devastating floods of 1987 and 1988 raised fears that such severe flooding was to become the norm in Bangladesh. Consequently, the Government and the international community together formulated a comprehensive program, the Flood Action Plan (FAP), to develop a sustained solution to the dangers of annual flooding. As part of its commitment to implementation of the FAP, the Asian Development Bank (ADB) provided two loans¹ for integrated flood protection in the urban centers, including Dhaka and Khulna. While ADB's intervention proved to be very effective, as evidenced during another massive flooding in 1998,² much more needs to be done to implement the recommendations of the FAP. A Fact-Finding Mission visited Bangladesh from 25 September to 3 October 2002 to prepare the second phase of the Secondary Towns Integrated Flood Protection Project (STIFPP) as committed earlier. The Mission had discussions with the Government officials, confirmed the objectives and scope of the project preparatory technical assistance (TA), and reached understanding on the consultant's terms of reference as well as the implementation arrangements.³

II. ISSUES

2. Recently, the Government of Bangladesh gave the highest national priority to poverty reduction.⁴ To achieve faster reduction in poverty, however, the economy will have to sustain a growth rate at least 7% per year for the next two decades. Given that agriculture, which is still the backbone of the national economy, can grow at most 5-6% annually, the urban sector is expected to become a source for the double-digit economic growth. In fact, although the level of urbanization in Bangladesh is still low (estimated at 23%) compared with that in other Asian economies, already over 40% of the country's gross domestic product (GDP) is derived from the urban sector, from a low of 25% in the early 1970s. The Government's Fifth Five-Year Plan (1997-2002) projected that the urban sector GDP would grow at around 14% per annum, more than twice the growth target of the national GDP.

3. Recognizing the immense potentials of the urban sector, ADB has long supported integrated development of the urban centers in Bangladesh. However, unplanned and uncontrolled urbanization in the past created tremendous pressure on basic urban infrastructure and became a source of inefficiency that limits the growth potential of the sector. Furthermore, the concentration of population and activities in a few metropolitan cities aggravated urban environmental conditions in the absence of adequate capacities to manage urban growth. Therefore ADB's strategy in the urban sector emphasizes spatially balanced infrastructure development together with institutional strengthening to improve local governance and increase the efficiency of urban management.

4. Like other areas in the country, over the years urban centers have suffered immensely from severe erosion and destruction of physical infrastructure caused by river activity and water-logging. However, the urban areas are more prone to economic and human losses due to their high population density and concentration of industrial and investments sites. The Government has been aware of the flooding and erosion problems in urban areas and several studies were undertaken as early as in the 1970s. However, no concerted major investments could be carried out mainly due to resource constraints. As a result, the urban areas, especially the secondary

¹ ADB. 1991. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Bangladesh for the Dhaka Integrated Flood Protection Project*. Manila; and ADB. 1992. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Bangladesh for the Secondary Towns Integrated Flood Protection*. Manila.

² ADB provided emergency support for flood rehabilitation: ADB. 1998. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to Bangladesh for the Flood Damage Rehabilitation Project*. Manila.

³ The Technical assistance first appeared in *ADB Business Opportunities* in June 2002.

⁴ Government entered into Poverty Partnership Agreement with ADB in April 2000 and is in the process of preparing poverty reduction strategy paper with the World Bank.

towns, have remained neglected. Before the major flood in 1988, annual allocation for providing relief to a large number of secondary towns remained at a modest level of \$1.5 million a year. This amount has increased since then, but much more is needed to protect the potentials of the urban centers from the threats of recurring floods.

5. With more than 200 river systems across the country and some 40% of its inland area under waterways, Bangladesh has a long history of flooding. Rainfall during the monsoon period brings invaluable benefits for agriculture, fishing, and navigation, but in abnormal years, it brings disaster. The floods of 1988 and 1998—which caused damage estimated at \$1.3 billion and \$1 billion, respectively—highlighted the enormity and urgency of the problem and aroused much international concern. Ultimately, wide-ranging support from multilateral and bilateral agencies at a conference in London in 1989 led to the creation of the FAP, which comprises approximately 26 components including five regional studies and numerous thematic studies covering technical, environmental, and social issues. While the FAP contributed tremendously to understanding the complex technical, ecological, social, and cultural aspects of flooding in Bangladesh, the FAP process was not free from controversy. Several domestic and external interest groups campaigned against what they saw as a preconceived bias for the engineering and physical approach embedded in the FAP process. Accordingly, the scope of the FAP studies was broadened to cover the crosscutting issues in greater depth. But even so, the legacy of controversy remained.

6. By the time of the 1998 flood, implementation of the FAP was at various stages; in some cases, impacts could be clearly seen while in others, project implementation had not reached the state where demonstrable impact could be expected. Overall, there is evidence that the FAP process yielded some positive results and reduction in flood damages. One FAP work that had a positive impact was the ADB-funded Dhaka Integrated Flood Protection Project for the western part of Dhaka.

7. Similarly, the first phase of STIFPP helped protect Khulna and five secondary towns⁵ from annual floods within a framework of integrated urban environmental management. The STIFPP tried to integrate flood protection with drainage, sanitation, solid waste management, and slum development. The various earlier studies related to flood protection of secondary towns remained largely at master planning, or at project identification/prefeasibility stage. Where elements were carried out, they were implemented by various agencies on an ad hoc basis without proper coordination. Such piecemeal efforts were generally ineffective and, in some cases, inadvertently compounded the environmental health hazards. Inadequate drainage resulted in polluted waters remaining stagnant in low-lying lands (often densely populated slum areas) for long periods. Uncoordinated collection and disposal of solid waste contributed to localized flooding due to clogged drains. Similarly, inadequate and ineffective excreta management led to high levels of exposure to waterborne pathogens during floods. A clear, urgent need thus emerged to integrate flood protection works with other infrastructure and environment improvement measures in selected high-priority secondary towns to maximize the impact.

8. Although the implementation of the STIFPP was delayed by 2 years due to unforeseen natural causes and political events, flood protection facilities constructed under it safely withstood annual flood seasons. Moreover, the monitoring and evaluation reports confirmed that total beneficiaries exceeded the targets set during project appraisal. The respondents in both slum and non slum areas cited significant direct benefits from reduced flood damage, including improved hygiene and a cleaner environment, and more efficient solid waste collection. Substantial indirect benefits included better housing, higher land values, increased daily incomes, and reduction in illness and medical costs. The STIFPP also provided significant construction employment opportunities for the local poor, and livelihood skills training for women-led community-based handicraft industries.

⁵ Dinajpur, Kurigram, Panchagarh, Habiganj, and Moulavibazar.

9. To sustain the success of the project on the engineering and physical side, it is essential that the project towns improve financial performance to meet the requirements for regular operation and maintenance. During project implementation, the performance of the project towns in fulfilling the requirements of the financial covenants was not satisfactory. The targets set in the institutional, financial, and operational action plan were often not met. The project completion report on the STIFPP strongly recommended that financial sustainability be given the highest priority in preparing the next phase.

10. In the long term, the strategy for flood protection will require further consolidation of the FAP process and its integration with the national water management plan. Following the approval of the national water policy in 1999, the Government has just finalized the national water management plan as a broad-based plan based on a participatory planning approach. Under the plan, full flood protection will be concentrated in urban areas and areas of high economic importance. But the selection of the urban areas for flood protection should be consistent with the criteria for integrated water resource management. The long-term sustainability of flood protection can only be assured when the necessary institutional reforms take place together with physical investments.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

11. The objective of the TA is to prepare a project suitable for ADB financing that will provide in selected secondary towns a relatively flood-free and secure living environment within the framework of integrated urban environmental management. A special feature of the Project will be the integration of flood protection works with drainage system improvement, solid waste disposal, and upgrading of slums in secondary towns. Sustainability of the project investments will be ensured by enhancing the operational efficiency of the Bangladesh Water Development Board (BWDB) as well as improving management and financial performance of the participating municipalities.

B. Methodology and Key Activities

12. Sixteen towns were identified under the FAP using the objective criteria involving, among other things, severity of flooding and erosion problems, existing infrastructure deficiencies that aggravate flooding problems, and the need to achieve an optimum geographic balance. However, more than 10 years have passed since the selection of these high-priority towns for follow-up investments. It is therefore opportune that the TA will update flood information on the 10 remaining towns and finalize the selection of the secondary towns to be included in phase 2. The 10 towns are Sunamganj, Rajshahi, Bhairabbazar, Gaibandha, Jamalpur, Manikganji, Kustia, Mymensing, Brahmanbaria, and Munshiganji. In addition to technical and engineering assessment, the consultants will also evaluate the willingness of the proposed project towns to undertake necessary reforms to improve their managerial and financial performance. Due to the importance attached to the long-term sustainability of the project investments, the commitment to urban governance reform will provide additional criteria for finalizing the selection of towns for the Project.

13. While the exact scope of the ensuing Project will be determined after the completion of the TA, the Project is expected to have four parts: (i) flood protection; (ii) drainage system improvement; (iii) urban environmental improvement (solid waste disposal, sanitation, and slum improvement); and (iv) capacity building and implementation assistance (including consulting services and training). In the first project, flood protection works had the highest share (48.7%) of the total physical investments, followed by drainage (45.1%) and environmental improvement (6.2%).

14. For success in preparing the Project, the key TA activities will cover the following: (i) review of the lessons learned from the first project and assessment of the policy framework for flood protection; (ii) selection of the project towns using criteria developed in the first project; (iii) collation/review of town information through socioeconomic surveys, engineering field surveys, and secondary sources; (iv) preparation of an indicative investment program (including the specific project components to meet the priority needs) for each selected town; (v) assessment of the feasibility (technical, economic, financial, social, environmental, and institutional) of the proposed investment packages; (vi) participatory workshops and stakeholder consultation; and (vii) institutional support and capacity building. A summary initial poverty and social analysis is in Appendix 1.

C. Cost and Financing

15. The total cost of the TA is estimated at \$1,130,000 equivalent, comprising foreign exchange of \$500,000 and local currency of \$630,000 equivalent. ADB will provide \$900,000 to finance the entire foreign exchange cost and \$400,000 equivalent for the local currency costs. The TA will be initially financed as a grant by the ADB's TA funding program but will be subject to reimbursement arrangements. If the technical assistance results in an ADB loan, ADB may charge against the loan, and recover from it, the portion of the initial grant that exceeds \$250,000 equivalent. The Government has given assurance that, when the TA begins, it will contribute the remaining local currency cost of \$230,000 equivalent for office accommodation, counterpart staff support, field transport, facilities for seminars and meetings, and other administrative expenses. The Government will also provide all information required for the TA activities. Details of the cost estimates and financing plan are in Appendix 2. The Government has been advised that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

16. BWDB will be Executing Agency for the TA and will be responsible for overall coordination with Local Government Engineering Department (LGED) and ADB. BWDB will also provide full administrative and technical support to the consultants for flood protection and control. As co-Executing Agency, LGED will extend all necessary administrative and technical support as required during implementation of the TA, especially for municipal infrastructure components as well as institutional strengthening of the municipalities. LGED will also be responsible for coordinating all project activities in the concerned municipalities. BWDB and LGED will provide adequate office space with sufficient communication means for the consultants. Two vehicles will be hired under the TA budget; and BWDB will provide additional transport for the counterpart staff.

17. Before fielding the consultants, the Government will establish a TA steering committee, chaired by the secretary of the Ministry of Water Resources, and consisting of senior officials of all concerned agencies (Local Government Division, LGED, BWDB, Department of Environment, Ministry of Land, Planning Commission, Economic Relations Department of Ministry of Finance, Finance Division of Ministry of Finance, Implementation Monitoring and Evaluation Division of Ministry of Planning, Ministry of Women and Children Affairs). The steering committee will meet at least three times during TA implementation to discuss the reports of the consultants after the inception, midterm, and final workshops.

18. The TA will be implemented over 7 months from April to October 2003. The consulting services for the TA total 58.5 person-months: 18.5 international and 40 domestic, excluding the inputs of a local institution that will conduct a baseline socioeconomic survey. An international firm will be engaged to organize the TA activities and produce the intermediate and final outputs for review and approval by BWDB, LGED and ADB. The international experts (with person-months in parenthesis) to be provided by the firm will include a flood control and planning engineer as team leader (7), drainage engineer (1.5), resettlement specialist (2), social development specialist (2), environmental specialist (2.5), municipal finance expert/financial

analyst (1.5), and project economist (2). The team leader will be fielded before mobilizing the main group of the consultants, to set up the TA implementation office, with support from BWDB and LGED. The team leader will assist the ADB task manager in identifying and engaging domestic individual consultants (up to 40 person-months) with expertise in flood control and planning, engineering design, drainage systems, hydraulics and roads engineering, environmental evaluation, resettlement, gender and development, municipal finance/financial analysis, economic analysis, and water resources institutional development. ADB will engage the international firm and domestic individual consultants in accordance with its *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for engaging domestic consultants. The outline terms of reference for the consultants are in Appendix 3.

19. The team leader will appoint an individual domestic deputy team leader within 4 weeks after the team leader's arrival in Bangladesh. The international firm will contract reputed local institutions to conduct extensive socioeconomic and engineering field surveys as detailed in the terms of reference.⁶ The team leader will be responsible for monitoring and supervising the performance of the domestic individual experts, and will ensure that the outputs of the domestic experts will be fully integrated in the reports of the international firm. In addition, international and domestic experts will be supported by (up to) 30 person-months of sub-professional services from technical/support staff and 20 person-months of professional services from counterpart staff. BWDB and LGED will provide two counterpart staff each, at the level of executive engineer, to work with the consultants during TA implementation. The international firm will recruit and engage the sub-professional staff. The detailed responsibilities of the international firm will be confirmed and finalized during contract negotiation to be attended by the representatives of BWDB, LGED, ADB, and the selected firm.

20. A simplified technical proposal with the quality and cost-based selection method will be used to select the international firm. The consultants' reporting requirements will include (i) an inception report within 6 weeks of TA commencement (including the review of lessons learned and the work plan); (ii) an interim report within 12 weeks of TA commencement (including field visit reports, indicative investment program for the selected towns, and project framework); (iii) a draft final report within 25 weeks (including a full feasibility study); and (iv) a final report within 30 weeks of TA commencement. During implementation, the consultants will organize three workshops in Dhaka to discuss the inception, interim, and draft final reports. A broad range of local stakeholders will be invited to the interim and the final workshops. The consultants will also organize participatory town-hall meetings in all selected towns during field visits to disseminate information on the Project and incorporate the feedback from local stakeholders in the project design. The interim workshop will include a program for gender and development to discuss gender-related issues and the gender action plan under the Project. Tripartite meetings will be held immediately after the workshops for the inception, interim, and draft final reports.

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$900,000 to the Government of Bangladesh for preparing the Secondary Towns Integrated Flood Protection II Project, and hereby reports this action to the Board. The technical assistance, initially financed as a grant, will be subject to the reimbursement arrangements set forth in *Technical Assistance Operations*⁷ and *Streamlining of Technical Assistance Operations*.⁸ If the technical assistance results in an ADB loan, ADB may charge against the loan, and recover from it, the portion of the initial grant that exceeds \$250,000 equivalent.

⁶ A national nongovernment organization (NGO) may be engaged for the socioeconomic survey.

⁷ ADB. 1997. *Technical Assistance Operations*. R51-77, 20 May. Manila.

⁸ ADB. 1988. *Streamlining of Technical Assistance Operations*. R44-88, 21 March. Manila.

SUMMARY INITIAL POVERTY AND SOCIAL ANALYSIS REPORT

A. Linkages to the Country Poverty Analysis	
Sector Identified as a National Priority in Country Poverty Analysis	Sector identified as a National Priority in Country Poverty Partnership Agreement
Yes	Yes
<p>Contribution of the sector/subsector to reduce poverty in (Bangladesh): Though modest gains have been achieved over the years in reducing poverty, in Bangladesh close to half the population still live in absolute poverty. PMS (poverty monitoring survey) data (1999) show that poverty has declined from 47.9% to 44.9% in rural areas and from 44.4% to 43.3% in the urban areas. PMS results also suggest a slight improvement in the income distribution over the 1996 and 1998 periods. The country is regularly subject to flooding, causing large-scale damage to crops, livestock, and infrastructure. Riverbank erosion is a major contributory factor to rural poverty and the resultant migration of the economically poor from the rural to the urban areas. This has translated into about 5.0% annual growth rate of the urban population. The urban-rural contrast in the nature of poverty has only very recently received attention in Government programs. Inadequate targeting of social policies for the urban poor in the past was coupled with insufficient recognition of the fact that development of secondary towns was the basis for the sustainability of rural development. Many of the secondary towns are subject to regular flooding and river erosion.</p> <p>The high urban income poverty and human poverty are the immediate and direct results of physical damage to infrastructures due to urban flooding and river erosion. Inadequate and congested internal drainage systems cause waterlogging and overflowing of sewerage and result in widespread environmental degradation. The proposed project will be instrumental in contributing significantly towards poverty reduction and environmental improvements in the selected secondary towns by providing relevant infrastructure and delivery of other services. The proposed project will also contribute to the achievements made so far by improving urban governance in secondary towns. The identification of the subsector as a national priority is within the framework of the Country Poverty Analysis and the resulting Country Poverty Partnership Agreement with Bangladesh.</p>	
B. Poverty Analysis	Proposed Classification: Poverty intervention
<p>What type of poverty analysis is needed? For proper planning, a detailed and multidimensional poverty analysis will be required. The household income and expenditure survey report does not contain detailed district-level data. Hence, the project preparatory technical assistance (PPTA) will be required to collect in depth socioeconomic and poverty-related data for each of the 10 towns. The data will include income and expenditure, demographic trends, gender issues, health, water and sanitation, child labor, and urban environment. Detailed analysis of the dynamics of poverty, at economic (income) and non-economic (nonincome) levels, the causes (real and perceived), manifestations and outcomes of poverty will be conducted. The PPTA will use the findings of this socioeconomic baseline survey for the final selection of the towns and project design. Analysis of poverty implications through a review of policies and programs and existing initiatives of the Government and other partners in development will be done. Past and existing poverty reduction strategies will be assessed to identify changes required to achieve the local poverty reduction targets. Identification of constraints and barriers (both internal and external) will be made, and possible actions for achieving project objectives will be considered.</p>	
C. Participation Process	
<p>Participatory Strategy Required: The PPTA will use participatory methods of consultation and information gathering. Using the appreciative inquiry approach and participatory and rapid assessment methods, the involvement of all the concerned stakeholders, including the disadvantaged and women, will be ensured to identify the required support and possible means to ensure their participation at all stages of the project cycle. The PPTA will identify the need for and types of special provisions required into the project design to enable full participation of women and the marginalized and or minority/indigenous people (if any come within the ambit of the proposed project). The socioeconomic</p>	

baseline survey will be conducted by an experienced local nongovernment organization (NGO)/institution. To highlight issues at micro and macro levels, the degree of poverty among women and men and the existing labor market will be assessed through consultation with stakeholders (all categories and levels). Both primary and secondary stakeholders (Government, local administration, municipalities, NGOs, citizens, aid and international agencies) along with their interests and capabilities will be assessed. By organizing a gender workshop at the central level, the PPTA will ensure women's involvement and participation in all stages of the proposed project. To ensure ownership and sustainability of the project, workshops to flag milestones of the project will be organized at the central level and at local levels in each of the 10 proposed project towns. At these workshops for information sharing, consultation, shared decision making and shared responsibility, the roles and functions of the stakeholders will be identified. Participatory planning meetings with the municipalities and relevant stakeholders (ensuring that the needs of women are given positive consideration) will be held during the PPTA implementation.

D. Potential Issues

Subject	Significant Not Significant Uncertain, None	Strategy to Address Issue	Plan Required
Resettlement	Significant	The very nature of the proposed project will necessitate land acquisition. Displacement from assets, and loss of income, livelihoods, and other resources are anticipated. The magnitude of land acquisition and displacement is unknown at this stage. The PPTA will address legal concerns to resolve both land acquisition and compensation issues. The PPTA will review technical options to avoid or minimize displacement, prepare in-depth social analysis of any displaced groups, develop mechanisms to ensure participation of affected groups in choice of compensation and rehabilitation options, with scope for monitoring and evaluation.	Resettlement plans will be developed for each subproject.
Gender	Significant	The project activities will have significant gender dimensions. Poverty reduction and improvement in the living standards (urban development, slum and drainage improvement and thereby environment improvement) etc. will require women's participation as agents and beneficiaries. Detailed gender analysis will be undertaken to identify strategies, mechanisms, and components for addressing gender concerns. The PPTA will identify measures to ensure women's participation in the design and implementation of the proposed project components, including participation in the work force and postconstruction phases (maintenance). Findings from the gender workshop will form the basis for the PPTA to develop the gender action plan and to identify ways and means to enhance the capacity of the female municipality commissioners, and citizens, and ensure their participation in implementing the project.	A gender action plan will be developed during the PPTA to systematically deliver proposed project benefits to women.

Affordability	Uncertain	Since the proposed project is within the purview of national priorities, it is assumed that the proposed project is affordable.	
Labor	Uncertain	No retrenchment of labor is anticipated. A positive impact due to increased need for labor in infrastructure development works is expected. The PPTA will identify mechanisms to create employment opportunities for the poor, ensure exclusion of child labor, and ensure strict compliance with core labor standards.	Plan will be prepared, if required, based on the findings of the PPTA.
Indigenous People	None	The presence of indigenous people in the proposed project towns is insignificant.	Need-based plan will be developed, if necessary.
Other Risks / Vulnerabilities	Uncertain	There is the risk of unforeseen events such as natural disasters, riverbank and embankment erosion (the town may be affected even before the proposed project activities are undertaken). Incidences of trafficking in women and children and seasonal migration will also have to be considered by the PPTA. Weak institutional capability of the municipality may delay project implementation.	Based on the socio-economic survey (SES), if needed, a detailed action plan outlining mitigation strategies will be developed. The PPTA will develop capacity-building and monitoring plans.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
A. Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	370	0	320
ii. Domestic Consultants	0	160	160
b. International Travel	60	0	60
2. Office Equipment ^b	0	15	15
3. Studies and Surveys	0	75	75
4. Training and Workshops	0	20	20
5. Miscellaneous TA Administration Costs			
a. Subprofessional technical staff	0	20	20
b. Vehicles and Domestic Transport	0	25	25
c. Office Management	0	15	15
6. Contract Negotiations	8	0	8
7. Contingencies	62	70	132
Subtotal (A)	500	400	900
B. Government Financing			
1. Office Accommodation and Utilities	0	35	35
2. Counterpart Staff Remuneration	0	85	85
3. Data Gathering	0	45	45
4. Workshop Venues	0	20	20
5. Other Logistical Support	0	45	45
Subtotal (B)	0	230	230
Total	500	630	1,130

^a Financed by ADB's TA funding program.

^b Computers and other office equipment will be purchased by the consultant in accordance with ADB's *Guidelines for Procurement*. The equipment will be handed over to the BWDB upon completion of the TA.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE

A. Review of Lessons Learned and Preparation of Work Plan (6 weeks)

1. The international team leader and the domestic deputy team leader will perform the following tasks before the main group of international and domestic consultants is mobilized.
2. **Lessons Learned.** Prepare a comprehensive stand-alone report (at least 20 pages including the field visit report as appendix) on the lessons learned from the Secondary Towns Integrated Flood Protection Project (STIFPP); visit at least three of six municipalities covered in the first project and discuss with all concerned (Bangladesh Water Development Board [BWDB], Local Government Engineering Department [LGED], municipalities, local stakeholders) various aspects of the project design, implementation arrangements, sustainability of the investment, operation and maintenance (O&M) activities, etc; review the final report of the project preparatory technical assistance (PPTA) consultants, the Asian Development Bank's (ADB's) loan documents, back-to-office reports of ADB's review missions, project completion report, benefit monitoring and evaluation report, and other relevant information. In the report, assess the performance of the first project in each town and consolidate the experiences of all six towns.
3. **Data on Flood and Related Sectors.** Collect and review essential data relating to (i) the Government's policies, laws and regulations, guidelines, and plans concerning water resources management and flood protection, including 1999 National Water Policy, 1999 National Policy for Safe Water Supply and Sanitation, draft Water Code, 2000 Guidelines for Participatory Water Management, Flood Action Plan (FAP), draft National Water Management Plan, among others; (ii) feasibility studies carried out to protect secondary towns from flooding during the 1990s; and (iii) information on the involvement of external agencies in flood protection and urban development (past, ongoing, as well as planned projects). Examine the strategies and policies of BWDB to protect secondary towns from floods (including FAP), review the criteria set by BWDB to determine investment priorities, and recommend changes in the priorities introduced in the Government's FAP.
4. **Urban Governance Improvement Action Program (UGIAP).** Review the implementation arrangements for UGIAP under ADB's Urban Governance and Infrastructure Improvement Project (UGIIP)¹ to apply the same approach to the Project in terms of capacity building and institutional strengthening; carry out close consultation with the Urban Management Wing of LGED to coordinate the activities for local governance reform under the Project with the initiatives under the UGIIP.
5. **Work Plan.** Prepare a detailed inception report covering the detailed work plan, approach, and methodologies to be used in preparing the feasibility study, including individual consultant inputs and logistic plans for office space, communication, transport, secretarial support, and accommodation requirements. Thoroughly review ADB's policies on social safety guards (as detailed in *Handbook on Poverty and Social Analysis*), environmental protection, and poverty reduction and reflect these requirements in the work plan. With ADB approval, assist in selecting and engaging domestic individual consultants required for the TA, following ADB's guidelines for recruiting individual consultants.

¹ For ADB Board approval in November 2002.

6. **Inception Workshop and FAP Review.** Prepare and organize an inception workshop to discuss the inception report, and revise the report based on the comments received. The workshop will include a half-day program to review the experience of the FAP exercises in general and urban flood protection in particular to incorporate the lessons learned in the project design. The program will be attended by relevant government agencies, external sources, and in country experts renowned for water resources management and flood control.

B. Selection of Towns, Data Collection, and Preparation of Indicative Investment Program (6 weeks)

7. **Selection of Towns.** In consultation with ADB and the Executing Agencies, finalize the selection of the project towns based on the objective selection criteria developed in the first project. Review the criteria and update the information, including the size and functions of the towns; severity and frequency of flooding; severity of soil erosion, drainage, and solid waste management problems; availability of prior studies and essential data; costs of flood protection works envisaged in order of magnitude; prima facie technical feasibility of protecting the town; and prima facie cost-effectiveness or viability of necessary works. If required, assess the eligibility of other towns based on the same criteria. The total number of towns under the Project will not exceed nine.

8. **Socioeconomic Survey.** Once the selection is confirmed by ADB and the Government, engage a local institution (or nongovernment organization [NGO]) to conduct a socioeconomic survey of the selected towns; collect baseline data on income and expenditures, demographic trends, gender issues, health, welfare, sanitation and urban environmental situations, and other related social circumstances; and analyze poverty incidence in each town, including the projected growth in the incidence of urban poverty, and describe the nature and characteristics of poverty in selected towns. In the survey, assess the attitude of local people about the embankment and potential adverse socioeconomic impact of the new flood control measures.

9. **Town Information.** Assess and collect essential data relating to the selected towns, (i) topographic maps, aerial photographs, and related drawings; (ii) soil, logical and geographic data; (iii) population, land use, and regional development plans; (iv) existing road networks; (v) hydrological and hydraulic conditions; (vi) existing flood control and storm water drainage facilities; (vii) past floods and flood damages; and (viii) other related data and information. Assess the need for additional data to undertake a full feasibility study.

10. **Data on Infrastructure and Municipal Services Delivery.** Collect and assess data covering the towns' assets (e.g., infrastructure system, land uses, economic infrastructure, residential, and other superstructure and essential planning data). Pay particular attention to the levels of environmental infrastructure in the selected towns (drainage, solid waste management, slum improvement); and evaluate the quality of municipal service delivery and the levels of O&M capabilities (budget, staff, and equipment)

11. **Investment Program and Project Framework.** In the context of flood and related environmental systems, prepare a medium-term action plan for flood protection (embankment, bank protection, river training, etc.), drainage systems improvements, improvement of flood-prone slums and squatter areas, solid waste management and sanitation. Based on such action plan, draft preferred packages for each town before undertaking a full feasibility study; in particular, study and recommend to what extent the various flood protection and related components need to be integrated and implemented simultaneously and to what extent these components can be implemented later under separate packages. Also prepare a draft project

framework to facilitate conceptualization of the design of the project, monitoring of project implementation, and evaluation of project benefits and impacts; and identify a distinct opportunity for utilizing financing from the Japan Poverty Reduction Fund.

12. **Workshop for Midterm Review.** Prepare a draft midterm report and organize a review workshop to be attended by all stakeholders to discuss the draft report. While organizing the workshop, include a full-day program for gender and development to be attended by female commissioners, municipal officials, and staff of LGED and BWDB.

C. Detailed Feasibility Study (13 weeks)

13. Assess the feasibility of the proposed Project for investment decision, including preliminary design and cost estimates, and evaluate in terms of technical, economic, financial, social, and environmental aspects based on the investment framework in the progress report; propose options for institutional and financial arrangements for implementation, operation and management of project components and the Project as a whole and, from these, make recommendations for the most appropriate arrangements for the Project. Assess the planning and management capabilities of Government agencies concerned and make specific recommendations for support in this respect; and assess the need for expert advisory (consultancy) services during project implementation and prepare the terms of reference for such services.

14. **Project Design.** Prepare a preliminary/outline engineering design of the proposed project components, and detailed cost estimates in ADB's format using the COSTAB software; include the costs for consulting services (for detailed design, implementation of the Project, and institutional support), studies and training programs, interest charges on loan financing, physical and price contingencies at rates used by ADB. Examine flow of funds under the Project and examine the requirements for and availability of counterpart fund. Propose procurement modes and packages based on cost-effective bid packages.

15. **Field Survey.** Conduct field surveys including (i) field reconnaissance, (ii) supplemental topographic surveys for preparing accurate base maps, (iii) longitudinal and cross-sectional surveys for drainage channels and rivers, (iv) supplemental geotechnical surveys for proposed major flood control and drainage facilities, (v) flood and flood drainage surveys, and (vi) water quality tests.

16. **Implementation Arrangements.** Assess the options for implementation arrangements in respect of financial, accounting, technical and managerial capabilities of the EAs and the municipalities and recommend appropriate measures to facilitate project implementation, including staffing and training of staff of project implementation units, supervision of construction works, monitoring and reporting of the subprojects, and provision of consulting services during implementation. Propose appropriate financial, accounting, and managerial arrangements for proper O&M of all project facilities and estimate the costs and manpower requirements. Propose cost recovery mechanisms (including necessary institutional arrangements) through taxes, user charges, and innovative land management techniques (e.g., advance land acquisition, land readjustment) for O&M and recovery of initial investments. Prepare an implementation schedule for detailed engineering, tendering, and construction of project components. Identify the requirements for key advance actions to avoid the delay in implementation. Develop a project performance management system (PPMS) and establish the baseline data from information that will be collected during the feasibility study surveys.

17. **Capacity Building and Institutional Strengthening.** Review the ongoing and planned reform programs for BWDB and prepare a list of recommendations for inclusion in the loan covenants to ensure that O&M requirements for the completed project facilities will be fully met through increased efficiency of BWDB. Consult with other sources (such as the Netherlands and World Bank) in recommending reform measures that are specifically targeted at improving O&M of the flood facilities maintained by BWDB. In consultation with social experts on the team, recommend specific measures to ensure the participation of local beneficiaries (especially those staying near embankment and the urban poor) in regular O&M activities of BWDB. After reviewing the terms of reference and business plan of the Urban Management Support Unit (UMSU) of LGED, develop a clear interface through which the project municipalities will receive adequate training from UMSU; estimate the budget requirements capacity building and training. Develop the UGIAP to be adopted by the participating municipalities, and design incentive (and penalty) systems to reward good performance in implementing the UGIAP; and organize workshops to be attended by municipal chairpersons, ward commissioners, and officials to incorporate their inputs in designing the UGIAP.

18. **Financial and Economic Analyses.** (i) Review past and present financial performance of the selected towns; (ii) prepare financial projections for operations 10 years after project completion; (iii) compute relevant financial indicators of each town to assess its financial viability; (iv) review cost-recovery policies and user charges in each town; (v) assess the affordability of current services and the ability to increase the user charges in the short and medium term, giving special attention to the potential impact on low-income households and marginal business activities, and develop specific measures to reduce the impact of the increase in user charges where necessary; (vi) evaluate the need for subsidies to ensure affordability to the poor; (vii) quantify the subsidy element and identify the targets of the subsidy; (viii) examine feasible cost-recovery approaches to ensure full O&M and sustainability of the initial investments; (ix) carry out least-cost analysis (LCA) of alternatives to meet the project's goal, consider alternatives well beyond the current proposal, and include alternatives that are not directly related to the currently envisioned project; (x) estimate the financial internal rates of return (FIRR), economic internal rates of return (EIRR) for the various components, as relevant, following ADB's guidelines (estimate economic benefits in terms of changes in property values, damages avoided, or the value of developed land as the case may be; identify and quantify external costs and/or benefits where possible); (xi) carry out sensitivity analyses, including the computation of sensitivity indicators and switching values; and (xii) study and recommend mechanisms for initial contributions from the beneficiaries as well as the local and central governments for financing a reasonable share (i.e., 30% in the case of Bangladesh) of investment costs for urban infrastructure and services. In conducting economic and financial analyses, refer to ADB's *Framework for the Economic and Financial Appraisal of Urban Development Sector Projects* as well as ADB's *Guidelines for the Economic Analysis of Projects*.

19. **Environmental Assessment.** Prepare an initial environmental evaluation (IEE) or environmental impact assessment (EIA) for each town, and a summary IEE (or EIA) for the whole project in accordance with ADB's environmental guidelines; address the impacts on urban social infrastructure services during project implementation, construction, and operation; and formulate environmental management plans (EMPs) for the proposed project.

20. **Poverty and Social Analysis.** Following ADB's guidelines in the *Handbook on Poverty and Social Analysis*, conduct detailed poverty and social analysis as required; in particular, conduct gender analysis, and identify constraints on women's participation in project design, O&M, and training; review the gender action plan (GAP) developed under ADB's UGIIP and

incorporate the implementation of GAP in the Project; on the basis of the socioeconomic survey, assess the socioeconomic benefits of the Project as well as its possible negative impact, and prepare an overall framework for people's participation in project preparation, implementation, and post-project O&M activities.

21. **Land Acquisition and Resettlement.** Based on the identified subproject design in each town, prepare an appropriate resettlement plan (RP) in accordance with ADB's *Policy on Involuntary Resettlement and Handbook on Resettlement*, including the following; (i) review and assess the key policies, laws, and guidelines regarding land acquisition, resettlement and compensation; (ii) identify and enumerate the people likely to be affected through a census/survey/interview and asset inventory that identifies all types of loss, and consult the affected persons to ascertain their preference for relocation, compensation, and livelihood restoration, with an establishment of an entitlement cutoff date supplementing the records with video taping (if necessary); estimate the requirements for financial resources and validate the amount with resources available from the national and state governments; (iii) identify and establish options for relocating housing and other structures, including measures required to assist with transfer and establish new sites, options to restore or enhance livelihoods, and mechanisms for redressing grievances; and (iv) specify the main responsibilities for approving, implementing, managing, financing and monitoring the RP, capacity-building programs as required, implementation schedule, financial plan including resettlement budget, annual financing plan, and plan for internal and external monitoring and evaluation of the RP.

22. **Implementation Assistance.** Estimate requirements of the Project to improve skills in engineering, planning, project management and other essential disciplines and, based on existing availability, recommend additional recruitment/upgrading of skills and expertise; assess the institutional strengths and weakness of the EA/IAs and recommend strengthening of institutional capabilities through organizational changes, new implementation arrangements, staff recruitment and training, and utilize domestic and international consultants for specialized requirements.

23. **Final Workshop.** Prepare a draft final report and organize a final workshop in close consultation with BWDB, LGED, and ADB.

D. Reports

24. The consultant will prepare and submit the following reports for review and approval by BWDB, LGED and ADB: (i) An inception report within 6 weeks after the start of the study, reviewing the lessons learned from the first project and the FAP exercise, outlining the detailed work plan, and setting priorities for the national FAP. (ii) A midterm report within 12 weeks after the start of the study, comprising the Integrated Flood Protection Plan for the selected towns and proposals for priority investment components, together with preliminary analysis for the selected town, socioeconomic surveys, and the project framework. (iii) A draft final report within 25 weeks after the start of the study, present detailed findings on the feasibility of the proposed investments. (iv) A final report within 30 weeks after the start of the study, incorporating comments made by BWDB, LGED, and ADB.