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**PROJECT PERFORMANCE ASSESSMENT REPORT**

**BANGLADESH**

**DHAKA URBAN TRANSPORT PROJECT**

**(CREDIT 3163-BD)**

**April 4, 2007**

*Sector: Thematic and Global Evaluation Division  
Independent Evaluation Group (World Bank)*

## Currency Equivalents (annual averages)

Currency Unit = Bangladeshi Taka (BDT)

1996	US\$1.00	BDT41.90
1997	US\$1.00	BDT44.01
1998	US\$1.00	BDT47.05
1999	US\$1.00	BDT49.19
2000	US\$1.00	BDT52.34
2001	US\$1.00	BDT56.77
2002	US\$1.00	BDT59.63
2003	US\$1.00	BDT60.06
2004	US\$1.00	BDT60.88
2005	US\$1.00	BDT64.65

## Abbreviations and Acronyms

AQMP	Air Quality Management Project
BOT	Build, Operate and Transfer
BRTA	Bangladesh Road Transport Authority
DCC	Dhaka City Corporation
DITS	Dhaka Integrated Transport Study
DMA	Dhaka Metropolitan Area
DMP	Dhaka Metropolitan Police
DOE	Department of Environment
DSM	Design, Supervision and Monitoring
DTCB	Dhaka Transport Coordination Board
DUTP	Dhaka Urban Transport Project
ERR	Economic Rate of Return
GDTPCB	Greater Dhaka Transport Planning and Coordination Board
GOB	Government of Bangladesh
ICB	International Competitive Bidding
ICR	Implementation Completion Report
IDA	International Development Association
IEG	Independent Evaluation Group
LCB	Local Competitive Bidding
MOC	Ministry of Communications
MTR	Mid-Term Review
NMT	Non Motorized Transport
PCE	Passenger Car Equivalent
PIU	Project Implementation Unit
PM	Particulate Matter
PPAR	Project Performance Assessment Report
RAJUK	Capital City Development Authority
RTMF	Road and Traffic Maintenance Fund
RHD	Roads and Highways Division (of MOC)
SAR	Staff Appraisal Report
STP	Strategic Transport Planning (Study)
UNDP	United Nations Development Program

**Fiscal Year** July 1 – June 30

Director-General, Independent Evaluation	:	Mr. Vinod Thomas
Director, Independent Evaluation Group (World Bank)	:	Mr. Ajay Chhibber
Manager, Sector, Thematic and Global Evaluation	:	Mr. Alain Barbu
Task Manager	:	Mr. Peter Freeman

**IEGWB Mission: Enhancing development effectiveness through excellence and independence in evaluation.**

### **About this Report**

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEGWB annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by IEGWB. To prepare PPARs, IEGWB staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader IEGWB studies.

Each PPAR is subject to a peer review process and IEGWB management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

### **About the IEGWB Rating System**

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**Relevance of Objectives:** The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

**Efficacy:** The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

**Efficiency:** The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

**Sustainability:** The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

**Institutional Development Impact:** The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

**Outcome:** The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.



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This report was prepared by Peter Freeman and Thomas Kennedy, who assessed the project in May/June 2006. Romyne Pereira provided administrative support. The field mission left before the new harmonized evaluation criteria were introduced.



## Principal Ratings

	<i>ICR*</i>	<i>ES*</i>	<i>PPAR</i>
Outcome	Satisfactory	Moderately Unsatisfactory	Moderately Unsatisfactory
Sustainability	Likely	Non-evaluable	Likely
Institutional Development Impact	Modest	Modest	Modest
Bank Performance	Satisfactory	Unsatisfactory	Unsatisfactory
Borrower Performance	Unsatisfactory	Unsatisfactory	Unsatisfactory

\* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The Evaluation Summary (ES) is an intermediate IEGWB product that seeks to independently verify the findings of the ICR.

## Key Staff Responsible

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	Thampil Pankaj	Frannie Humplick	Fredrick Temple
Completion	Navaid Qureshi	Guang Chen	Christine Wallich





## **Preface**

This is the Project Performance Assessment Report (PPAR) prepared by the Independent Evaluation Group (IEG) for *the Dhaka Urban Transport Project* (Credit 3163-BD). The IDA credit to the Government of Bangladesh was approved by the Board of Directors on January 19, 1999, in the amount of US\$177.0 million. The total project cost was US\$234.2 million, with US\$57.2 million to be contributed by the Government of Bangladesh. The project was significantly restructured at the Mid-Term Review, but Board approval was not formally requested; the revised total project cost was US\$140.3 million of which US\$107.5 million was to be financed by IDA and the balance cancelled. The project became effective six months after credit approval and project closing was June 30, 2005, one year later than originally planned. US\$83.9 million was eventually cancelled from the credit.

The project was selected for assessment to better understand the reasons for the many implementation difficulties and because the ratings of the ICR and ICR review differed in some critical areas. Since there are likely to be many more urban transport projects in large Asian cities it is important to learn from this evaluation how to improve project design and identify key criteria for success.

IEG prepared this report based on an examination of the relevant Staff Appraisal Report, Implementation Completion Report, legal agreements, project files and archives, as well as other relevant reports, memoranda, and working papers. Discussions were also held with Bank staff in both Washington D.C. and in Bangladesh. An IEG field mission visited Bangladesh in May/June 2006, conducted site visits, and discussed both the project and the effectiveness of Bank assistance with relevant officials and stakeholders. The mission appreciates the courtesies and attention given by these interlocutors as well as the support provided by the Bank's office in Dhaka.

Following standard IEG procedures, copies of the draft PPAR was sent to government officials and agencies for their review but none were received.



## Summary

The *Dhaka Urban Transport Project* (DUTP) was approved by the Bank on January 19, 1999 and closed on June 30, 2005, one year later than planned. Several important components of the project were dropped from the project at the Mid-Term Review (MTR) after very slow progress with implementation. The project was the Bank's first urban transport operation in Bangladesh and was intended to address the most severe transport problems in Metropolitan Area of Dhaka.

The rather broad *objectives* as stated at appraisal for the DUTP were:

- To improve urban transport infrastructure and services in the Dhaka Metropolitan Area (DMA) in an economically and environmentally sustainable manner; and
- To strengthen the institutional and policy framework and address long-term transport planning and coordination issues in the DMA.

The main *components* comprised numerous sub-components, but included:

- Road improvements, traffic management measures, bus lanes and bus terminals, pedestrian facilities, provisions for non-motorized traffic (NMT), grade separated interchanges and flood damage rehabilitation;
- Vehicles and equipment support;
- Institutional strengthening and capacity building, policy support and studies;
- Land acquisition and resettlement. There were also air quality improvement works in the project which were undertaken in coordination with another IDA financed project, the Dhaka Air Quality Management Project.

During the first 30 months the project suffered major implementation problems and only 16 percent of the credit was disbursed. The main issues were the lack of a timely appointment of an Executive Director to lead the Dhaka Transport Coordination Board (DTCB) established to coordinate this and subsequent urban transport projects, poor oversight, inadequate counterpart funds and inadequate attention to covenants especially relating to satisfactory compliance with agreed environmental management and resettlement action plans. There were also problems attributable to poor project design such as overly complex implementation arrangements, inadequate institutional strengthening measures and too many sub-components, resulting in an unsatisfactory project quality at entry. The MTR resulted in a reassessment of the original scope of the project on the basis of the contribution of each component to the project development objectives, and the probability of implementation within the remaining period. The scope of works was reduced substantially, corresponding to a 40 percent reduction in the project's estimated cost.

The outcome of the project is rated **moderately unsatisfactory**. The two development objectives of the project were modestly and negligibly achieved,

respectively. Traffic management measures including 68 new signalized intersections were implemented, which together with various infrastructural improvements did partially relieve traffic in the Dhaka central area. Public transport utilization improved and vehicle emissions and road accidents were reduced. However, some infrastructure sub-projects did not significantly alleviate the traffic congestion in their vicinity as planned, and average traffic speed did not increase to the target levels envisaged. Nearly half of the project sub-components were cancelled at MTR, reducing the efficiency of the overall project and deferring some improvements to a future date. The weak implementation capacity of the DTCB persisted, and there was no appropriate plan to enhance the limited institutional and financial capacity of the Dhaka City Corporation (DCC) which is important for the allocation of maintenance funds, financial control and accountability. Moreover, the leadership of DTCB changed frequently during implementation and the organization had no administrative or financial authority over the implementing agencies (DCC and the Roads and Highways Division), leaving DTCB relatively powerless to exercise its coordinating role. Under these circumstances the decision to establish DTCB without adequate support may have been unwise.

Institutional development impact is rated **modest**. While staff of each implementing and coordinating agency was trained under the project, the direct positive impact of this training on the project results is unclear. One of the goals of the project was to strengthen the DTCB to enable this organization to take the lead in future transport planning in Dhaka - but the role of DTCB actually diminished after the MTR.

Sustainability is rated **likely**. The maintenance of the traffic signals is presently being undertaken by the contractor during the three year period following installation and is likely to be extended. DCC routes its entire road maintenance allocation (from Treasury) through a dedicated account with proper financial controls and reporting procedures. Moreover, the existing Road and Traffic Maintenance Fund is expected to be replaced by a National Road Fund to become operational in 2007.

Bank performance is rated **unsatisfactory**. The project design was too complex considering this was the first Bank urban transport project in Bangladesh and the problems that resulted from establishing a myriad of implementing agencies and a weak coordinating body were clearly identified in the SAR. Cognizant of these advance warning signs, the project design should have included fewer sub-components, focusing on the most critical elements that could be completed even within a weak implementation environment. The development objectives of the project were also too broad and the indicators difficult to monitor satisfactorily.

Borrower performance is rated **unsatisfactory**. Many commitments were made during both preparation and implementation after extensive discussions with the Bank, but procedural delays and an apparent inability to overcome administrative hurdles in a timely manner eventually caused severe slippage of the project. Examples include the tardy establishment of the DTCB, which was delayed because of the lack of enabling legislation, the failure to appoint an Executive Director and other key staff for DTCB, as well as delays in the preparation of the Resettlement Action Plan due to difficulties in getting access to land related data from the appropriate agencies. The adverse social impact of the employment displacement of rickshaw pullers as a result of designating

Non Motorized Transport-free corridors resulted in a public outcry and could have been better managed. The mitigation measures eventually implemented were too late to stem the unfavorable public reaction. The main lessons learned as a result of the project are:

- Where institutional capacity is known to be weak, as in the Dhaka Metropolitan Area, it is important to ensure that the enabling legislation for the executing agencies is enacted, lines of responsibility are clearly defined and key staff appointments are made. These steps could be either an objective of the project or conditions to be met prior to project effectiveness; the exact mix would have to be customized according to the specific circumstances prevailing in the project.
- It is also important that project design is not overly complex when serious institutional weaknesses are evident. In an environment with weak institutional capacity, it is unrealistic to expect a new organization to take on project implementation responsibility in addition to other functions.
- In the Dhaka Urban Transport project the banning of rickshaws from certain intersections and corridors had a negative impact on rickshaw drivers and some users. It is important in projects with potentially negative social impacts, to ensure timely communication with those affected, by making them aware of likely project impacts and proposed social protection measures. In the Dhaka case the risks were identified, but the implementation of the mitigation measures was delayed.
- In the Dhaka Urban Transport project, outcome was measured against the original objectives, indicators and scope because the project was not formally restructured. It is important when a major re-scoping of a project is carried out, that all parties (including the Board) are made aware of any changes in scope, direction and performance benchmarks.

Vinod Thomas  
Director-General  
Evaluation



## 1. Background

1.1 Vehicle and population growth in the Dhaka urban area have increased dramatically in recent years, causing enormous pressure on the capacity of existing urban infrastructure, leading to an inefficient transport system and the need for significant infrastructural and institutional improvements. According to Bank data<sup>1</sup> the annual growth rate of Bangladesh's population was 1.8 percent per year between 1998 and 2005 but Dhaka's population has increased at an astonishing average annual rate of 9.1 percent since 1999, slightly higher than anticipated at appraisal (see Annex B, Table B2). This discrepancy in growth rates due to unprecedented urbanization was verified by IEG; it has necessitated a strategy for the city authorities of identifying and funding the most immediate urban priority issues. Future economic growth depends to a large extent upon the competitiveness of the country's main industrial and commercial centers and Dhaka, the capital city, plays a key role. Accordingly, improvements to the efficiency of urban infrastructure and services are a high government priority.

1.2 Key factors affecting the urban sector in Bangladesh are: (a) the very rapid percentage increase in urban population; (b) the generally poor condition or lack of infrastructure and services, with substantial amounts of deferred maintenance and maintenance performed at a low level; (c) weak institutions at the local government level, with inadequate capacity for planning and implementing projects and for managing municipal services and finances; (d) a low revenue base with inadequate cost recovery; (e) overlapping and poor coordination among different ministries and municipal agencies; (f) natural disasters, especially flooding, and (g) lack of stakeholder participation and adequate consultative processes.

1.3 Although the Government of Bangladesh has conducted many studies aimed at evolving a rationale strategy in urban planning, in some cases with Bank funding, the roots of the *Dhaka Urban Transport Project* (DUTP) originate in a study, funded under the United Nations Development Program (UNDP), known as the *Dhaka Integrated Transport Study*<sup>2</sup> (DITS). This study, supported by the Bank, described the transport environment in Dhaka as chaotic with chronic traffic congestion, lack of traffic management, conflict of jurisdictions and poor coordination among agencies. The demand for more public transport could not be met by the existing bus fleet of 1,400 buses, the city's 2,200 km of roads were not properly maintained and over 15,000 premature deaths were attributed to diseases related to air pollution. It recommended an immediate action plan calling for the establishment of a more effective organization structure to coordinate the traffic management and engineering activities of the various agencies and to provide a more effective means of regulating public transport services.

1.4 With regard to the bus industry, DITS called for the encouragement of the formation of a small number of large operators rather than continuing with the large number of very small operators. In regard to non-motorized transport (NMT), and rickshaws in particular, it

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1. Bangladesh at a Glance; May 10, 2006

2. Greater Dhaka Metropolitan Area Integrated Transport Study; PPK Consultants Pty Ltd, Australia; November 1994.

commented that the need was evident for the introduction of measures to separate slow-moving vehicles from motorized traffic, either on a separate carriageway or by means of physical separation from motorized traffic by using barriers. For infrastructure improvements, the report proposed traffic engineering improvements at intersections with network importance as well at sites between intersections that caused localized traffic congestion. A suggested network of routes for non-motorized vehicles was also recommended. Thus DITS at an early stage identified many of the problem areas within Dhaka and proved to be prophetic regarding the implementation difficulties that emerged during the DUTP.

## 2. The Project

### PROJECT OBJECTIVES

2.1 This project was IDA's first urban transport operation in Bangladesh and was intended as the initial phase of a program to address the most urgent transport problems in the Dhaka Metropolitan Area (DMA); other phases were to be detailed later. It had two primary objectives:

- To improve urban transport infrastructure and services in the DMA in an economically and environmentally sustainable manner; and
- To strengthen the institutional and policy framework and address long-term transport planning and coordination issues in the DMA.

2.2 The development objectives were not formally changed during project implementation and were somewhat broad as framed. Indicators were drawn up to measure progress towards these objectives, but the project's failure early-on to show satisfactory implementation progress led to a significant project restructuring at the Mid-Term Review (MTR) in February, 2002. Several project components were cancelled, amounting to over 40 percent of the original project cost. This implied that the extent of the achievement of the project objectives as originally envisaged, and as measured by the chosen indicators, would not be possible.

### PROJECT COMPONENTS

The project components were selected on the basis that they were the highest priorities for urban transport in Dhaka; costs at appraisal and completion are contained in Table 1. They fall into four main categories and contain many sub-components:

*i) Infrastructure Development:* Traffic management measures and system improvements, including the separation of motorized and non-motorized traffic; road improvements; bus lanes and lay-bys; rehabilitation of bus terminals; pedestrian facility improvements; non-motorized network improvements; grade separated interchanges; and flood damage rehabilitation of roads including improved drainage.



*ii) Equipment Support:* Equipment, computers/accessories and vehicles to strengthen the technical and institutional capacity of (a) Dhaka City Corporation; (b) Dhaka Metropolitan Police; and (c) Bangladesh Road Transport Authority, and to facilitate immediate project implementation and supervision support.

*iii) Institutional Strengthening and Capacity Building and policy support:* Institutional support through consultancy services, including the establishment, development and training of technical management, project supervision, financial management, environmental management and performance monitoring for each of the implementing agencies. This support comprised specific modules covering project preparation and implementation support; financial management services as well as institutional development and training. Provision was also made for undertaking a 20 year Transport Plan for the DMA and feasibility study for a follow-up project to the current DUTP, as well as for a feasibility study for the Dhaka ring road.

*iv) Land Acquisition and Resettlement:* As a result of the construction of new flyovers, intersections and pedestrian access improvements, there was a need for land acquisition and resettlement. The Project financed 90 percent of community benefits as well as 90 percent of the administrative costs of the resettlement program. The Government of Bangladesh (GOB) agreed to finance 100 percent of the compensation for land acquisition and income restitution to directly affected people.

**Table 1: Dhaka Urban Transport Project Cost by Component (US\$ millions)**

Component	Appraisal Estimate		Actual Cost		Percentage of Appraisal (%)	
	IDA	Gov	IDA	Gov	IDA	Gov
Infrastructure development	133.60	44.60	71.20	23.75	53.3	53.3
Equipment support	8.10	2.80	3.83	0.66	47.3	23.6
Institutional strengthening & policy support	34.00	0.40	14.86	0.24	43.7	60.0
Land acquisition & resettlement	1.30	9.40	0.28	4.60	21.5	48.9
Miscellaneous	0	0	0.30	5.11	-	-
<b>Total</b>	<b>177.00</b>	<b>57.20</b>	<b>90.47</b>	<b>34.36</b>	<b>51.1</b>	<b>60.1</b>

*Source:* PAD, ICR and SAR The difference between the US\$90.47 actual amount disbursed by component from the IDA loan and the US\$89.46 shown as total amount disbursed in the Bank's Operations report is due to variations in the conversion of SDR rate during the course of the project.

## **IMPLEMENTATION AND DESIGN ISSUES**

2.3 Implementation responsibilities of this complex project were to be shared among several government organizations, with overall coordination and project management the responsibility of the Ministry of Communications (MOC) through the Project Coordination Unit (PCU) of the then newly-created (1999) Greater Dhaka Transport Planning and Coordination Board (GDTPCB). The functions of GDTPCB were subsequently transferred to the Dhaka Transport Coordination Board (DTCB) established during 2001. Design, Supervision and Monitoring (DSM) consultants funded under the project were to be attached to the DTCB, the Dhaka City Corporation (DCC); the Roads and Highways Division (RHD) of the MOC; the Bangladesh Road Transport Authority (BRTA); the Dhaka Metropolitan

Police (DMP); the Capital City Development Authority (RAJUK); and the Department of Energy (DOE). Each of these implementing organizations established Project Implementation Units further complicating coordination. However, the DSM consultants worked directly with the DTCCB and until MTR, had little direct contact with the other implementing agencies. The enabling legislation for DTCCB was only enacted two years after the project began and this also delayed the appointment of key staff including the Executive Director. There was slow and inefficient progress in arranging land acquisition and utility relocations. Bad coordination between the implementing agencies resulted in the frequent trenching and patching of newly completed construction.

2.4 The issue of whether to create a new institution for the coordination of the project or to utilize an existing organization was raised during the design stage in the Dhaka Urban Transport Project Concept Document (PCD; 1997). *“The institutional arrangements for the project appear to be unnecessarily complex and the justification for our insistence on establishing a new unit (GDTPCA/PICU/PPU) with the structure described in the draft PCD is not clear to me. For example, why is it not preferable to establish the planning and analysis functions as a part of the existing metropolitan/regional planning office (RUJAK) and assign the implementation responsibilities within the current structure of DCC?”* In retrospect, this might have been a more workable alternative, but the IEG mission considers the crux of the problem in respect of the “weakness of DTCCB” was the fact that the organization had little administrative or financial leverage with the implementing agencies. It is probable that either organizational alternative could have worked, provided its leadership had been strong, knowledgeable, committed, and capable of persuading the implementing agencies to cooperate. The lack of leadership of DTCCB was exemplified by frequent changes in Executive Directorship once the organization had been established implying a lack of commitment to ensuring DTCCB could act as it was intended to.

2.5 A further difficulty was a government requirement that the project director in RHD for Internationally Competitive Bidding (ICB) components had to be the “engineer” of the project; similarly, the project director of DCC, not the team leader of the consultants, had responsibility for Local Competitive Bidding (LCB) components. This created a difficult environment for the DSM Consultant, who was able to act only as the “engineer’s representative”, with the “engineer” role of the project vested with a politically appointed individual with much less technical knowledge. There were frequent differences of opinion between the “engineer” and the “engineer’s representative”, and this resulted in very inefficient implementation. While there is no strict international rule that the consultant must be designated as the “engineer”, in circumstances where the implementing agency is demonstrably weak, the preferred method is rather for the consultant to be the “engineer”. The Bank argued for this arrangement in this project, but the GOB insisted on its prerogative that the function of the engineer should remain with the implementing agencies.

2.6 The continuous changing of specifications to designs that were supposedly “final” was a constant problem until relatively late in the project<sup>3</sup>. This issue was highlighted in an IDA

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3. This was a serious issue and the team leader of the DSM consultants expressed this to the Bank *“The design of virtually every intersection was changed; we always struggled with the lack of clear-cut authority regarding final approval of designs. Nobody was really in charge, a decision was never final; there was always*

Supervision Mission Aide Memoir dated June 30, 2003<sup>4</sup> and nearly a year after MTR, progress on the project continued to be unsatisfactory<sup>5</sup>; not until June 2003, was positive progress becoming evident.<sup>6</sup>

2.7 This positive trend continued and by January 2004 all construction contracts had been awarded, but there still remained concern about the ability of some of the contractors to complete the work by the project completion date. At that stage none of the ongoing contracts were complete, and the Strategic Transport Planning Study (STP) had yet to be awarded. The STP should have commenced in September 2003; IDA's no objection had been received, but the award of the contract had still to be approved by government. At this point, it was realized that the June 30, 2004 project completion date would have to be extended. In the event, the STP had to be re-bid three times, each time with different components.

2.8 The supervision mission further recommended that the improvement of the bus terminals be dropped as DCC had yet to appoint private sector operators/managers as requested by IDA. Private sector operators notwithstanding were appointed during late 2003 for each of the three bus terminals improved under the project. Performance of these managers was generally unsatisfactory.

## QUALITY AT ENTRY

2.9 The project design—or at least the institutional arrangements—was complicated, with several implementing agencies in an environment described in the SAR as comprising weak institutional arrangements for planning, coordination and management of transport services. The project design in IEG's view should preferably have been developed with a simpler implementation plan, incorporating fewer sub-components, the establishment of one agency with sufficient authority to exercise overall leadership in the project, and a limitation of the

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*interference from ministers, members of parliament, commissioners, police sergeants, shopkeepers, DTCCB officials, etc.*" The engineer of the project should make the final decision on design; this constant interference was a serious obstacle to successful completion of the project.

4. *"The supervision mission noted with concern the continuing practice of changing contract scope and design, after contract award, particularly on DCC implemented contracts."* One particular incident that prompted the mission to take this position was the need for an additional 100-200 percent funding in excess of the contract value for improvements on the Airport Road Improvement Corridor. The mission made it clear that a variation on this scale was unacceptable.

5. IDA Supervision Mission Aide Memoir December 13, 2002. *"Despite restructuring, project performance continues to be unsatisfactory. The award of large contracts continues to involve significant delays. Poor pace of progress on physical improvements...risks extending the construction period beyond the June 30, 2004 credit closing date....The main challenge is the implementation of concrete actions over the short to medium term that will translate this into specific development impact on the ground."*

6. IDA Supervision Mission Aide Memoire June 30, 2003. *"Project implementation has improved significantly since the November 2 mission. The borrower has taken important steps towards achievement of the project's development objectives..... Most civil works contracts stand awarded, and 48 percent of the works have been implemented."*

project sub-components to those most critical to achieve the quite broad project development objectives.

2.10 With regard to *monitoring and evaluation* of the project many of the performance indicators included in the original project design summary were too general to measure properly. For example, performance indicators included “*living and working environment in greater Dhaka area to be improved*” and “*average speed by motorized vehicles to be increased from 15 km/hr to 30 km/hr by the end of the project*”. It would be very difficult to monitor the former, while the latter indicator does not specify the locations where these speed increases were to take place!

2.11 The IEG mission also considers (and DTCB and DCC agreed) that the target of doubling average traffic speed over a five year period was in any case unrealistic with the extraordinary kind of traffic growth that Dhaka is experiencing. In addition, after the non-motorized vehicles were removed from selected corridors, the number of buses and minibuses increased dramatically which reduced the impact of relieving traffic congestion that the exclusion of NMT was supposed to achieve.

2.12 It was recognized prior to project implementation that DCC was an agency with very limited institutional capacity; in spite of this, the DCC was assigned responsibility to implement 70 percent of the project works. The new organization, DTCB, lacked sufficient authority and leadership, but was assigned the responsibility for project coordination. An example of the type of problem that later occurred is typified in the case of the Mohakhali Flyover where the delayed installation of 21 shock transmission units and non-compliance with contract specifications was a significant delaying factor that could have been averted with decisive implementing agency action. Quality at entry was therefore *unsatisfactory*.

#### **RESTRUCTURING AT MID-TERM REVIEW**

2.13 During the period after project inception, it became clear that the rate of implementation progress was unacceptable<sup>7</sup>. By Mid-Term Review 30 months after the project became effective only 16 percent of the credit had been disbursed against an expectation of between 40 and 50 percent. At MTR the IDA supervision team and Dhaka Transport Coordination Board (DTCB) reassessed the original scope of the project, on the basis of:

- The contribution of each component to the project development objectives; and
- The probability of implementation within the remaining period.

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7. In the back-to-office report of the Bank’s team leader in July 2000 there were warning signs: “*The implementation of civil work components is progressing well, though with some initial delays. Disbursements are below the target; the Advanced Works Program is delayed (for example, progress on four projects is 50 percent of disbursements compared with the target of 95 percent) and some of the environment and resettlement actions remain to be fulfilled. However, the mission is particularly concerned about progress in the institutional and policy reform components. The GDTPCB has not been very effective in performing the planning, coordination and advisory role.*”

It was clear that the main reason for lack of progress was the absence of borrower commitment. The Country Director for Bangladesh in a letter to the Secretary for the Roads and Railways Division of the Ministry of Communications, dated February 28, 2002, expressed extreme concern that project performance continued to be unsatisfactory. The letter went on to spell out essential actions to salvage the project which had suffered from *inter alia* a lack of leadership, lack of adequate counterpart funds and inadequate attention to covenants. The letter emphasized the need for the early appointment of an effective Executive Director of DTCB, close oversight by the restructured project steering committee, the establishment of a project implementation cell within the DMP aimed at improving enforcement by traffic police, modification of the financing plan to ensure timely provision of counterpart financing, transfer of implementation responsibility from DCC to RHD, satisfactory compliance with safeguards and covenants and significant progress towards improving sustainability. In addition the scope of works was reduced to 60 percent of the original scope, and the project duration was extended by a year. Given that there was a newly elected government which was keen to make a difference and the fact that the relevant legislation for DTCB had been enacted, the decision to proceed with a scaled-down project rather than cancelling it was rational.

2.14 But some large sub-components were now excluded from the project. The primary items dropped were the Jatrabari flyover, the NMT underpass, the BRTA emission laboratory, and equipment for the DOE. Only 41.5 km of the flood-damaged roads were now to be rehabilitated under the project. The remaining 159 km were, however, eventually rehabilitated by the government, using its own or alternative funds. The impact of these changes to the cost of the project components is shown in Table 2:

**Table 2: Impact of MTR Restructuring (US\$ millions)**

Component	Before MTR		After MTR		Impact of Reduction	
	IDA	Gov	IDA	Gov	IDA	Gov
Infrastructure development	133.6	44.6	71.2	23.75	-47%	-47%
Equipment	8.1	2.8	3.83	0.66	-53%	-76%
<i>Source: as table 1</i>						

2.15 Probably the most significant of the sub-components dropped were the Jatrabari flyover and the NMT underpasses. The Jatrabari flyover was intended as a critical element of the DUTP. The NMT underpasses were also needed to separate the rickshaws from motorized traffic. However, the designs were considered impractical by both the DSM consultants and the DCC. Serious traffic problems at the locations of both the proposed Jatrabari and the existing Mohakhali flyovers still persist. The IEG mission considers that the design of at least one of these flyovers should have been appropriately completed and fully implemented under the project. Although the Mohakhali flyover was constructed its design failed to fully resolve the *in situ* congestion issues.

2.16 The project also incorporated traffic management measures and system improvements at critical locations in the urban network. There were 20 intersections identified for such improvements, with an additional 10 to be identified and improved during project

implementation. At MTR, this work was consolidated and repackaged into arterial corridor improvement projects, a procedure that in IEG's view worked well.

2.17 Despite these significant changes in project scope and related outcome targets, the project objectives were not formally revised through an amendment approved by the Board. Hence, this evaluation was conducted against the original appraisal performance indicators and development objectives<sup>8</sup>.

### 3. Results

***Objective 1: To improve urban transport infrastructure and services in Dhaka Metropolitan Area) in an economically and environmentally sensitive manner. Modestly Achieved***

3.1 *Improved Infrastructure:* Due to poor implementation progress during the first half of the project, some of the main infrastructure works were dropped at the MTR; by project closing, only 53 percent of the originally planned infrastructure improvements had been implemented. Project elements that were dropped included the Jatrabari flyover, the NMT transport underpasses, an emissions laboratory and other equipment. There were supposed to be 200 km of flood-damaged roads rehabilitated, but only 41.5 km of these roads were completed under the project.

3.2 The Mohakhali flyover was eventually completed despite issues concerning delays in implementation and non-compliance with contract specifications by the contractor; it also did not fully resolve the traffic congestion problems in its vicinity. Three bus terminals were also rehabilitated and ongoing management was contracted to the private sector; however two of these facilities are currently in a deplorable condition and operate contrary to the procedures agreed. Further infrastructure completed included main road and intersection improvements, side walks, footbridges, and corridor improvements (see par. 4.3 for more details).

3.3 *Improved Services:* There were also some positive service improvements. A total of 68 intersections were signalized, which increased the average speed of buses in central Dhaka from 15 km/h to 22km/h<sup>9</sup>, although not to the extent targeted at appraisal (30 km/h). In addition, based on vehicle and passenger counts performed in 2000 and 2005, the reduction in the usage of rickshaws (in conjunction with a related project on air quality management)<sup>10</sup> and increasing use of buses in the city (this project), reduced traffic congestion in the city through more efficient utilization of passengers per vehicle<sup>11</sup>. The data shown in Table 3 below demonstrates both the reduction in numbers of vehicles and the improved efficiency in

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8. The region commented that if a formal project restructuring had taken place, the new evaluation guidelines would have called for the evaluation to be made against both the original and revised objectives and indicators and resulted in a much more positive assessment since most of the revised indicators were met or exceeded.

9. It is unclear whether these figures applied during peak periods or were daily averages.

10. The relationship between the two projects (Urban Transport and Air Quality Management) is not made clear. There were development indicators and conditions relating to rickshaws and related infrastructure improvements in the Urban Transport project, but the implementation of the reduction in rickshaws was not part of the Air Quality Management project.

11. See Table B1, Annex B for traffic composition and growth details.

conveying passengers. The IEG mission considers, however, these the PCE values used probably under-reflect the congestion effects that rickshaws impose on the general traffic flow. While their size is small, they seriously constrain the free flow of traffic in the city because of slow acceleration and low speed. The program to eliminate rickshaws from Dhaka's streets could even be intensified.

**Table 3: Passenger Car Equivalent (PCE), Vehicle and Passenger Counts in Dhaka**

PCE		Vehicles		Passengers	
2000	2005	2000	2005	2000	2005
1,592,512	1,602,612	1,641,647	1,444,679	7,856,389	10,227,774
-	+0.63%	-	-12.0%	-	+30.0%

*Source:* Impact Assessment of DUTP "After Project" DSM Consultants, February, 2006 (DSM Consultants consisted of seven firms: DHV Consultants, the Netherlands; Japan Overseas Co. Ltd; Finnroad Oy; Operation Research Group, India; SARM Associates, Bangladesh; Desh Upodesh Ltd., Bangladesh; and DevConsultants, Bangladesh).

3.4 Diverse equipment and vehicles were provided to the relevant authorities including computers, software, patrol vehicles, towing vehicles, motorcycles, wheel clamps and other miscellaneous items. However, the project design sometimes lacked focus on exactly how all these items would contribute to the project development objectives. The advantages of the installation of a computerized vehicle registration and driver licensing system, however, were clear. The process of land acquisition, resettlement and relocation of utilities associated with the infrastructure improvements was an extremely slow and inefficient process, but the goal was finally achieved.

***Objective 2: To strengthen the institutional and policy framework and address long – term transport planning and coordination issues in DMA. Negligibly Achieved***

3.5 The training programs were "off the shelf" and superficial. They were not specifically designed to address the weak implementation capacity of DTCB, the core agency to coordinate all transport planning in the DMA. There was also no appropriate plan to enhance the limited institutional and financial capacity of DCC. The lack of suitable implementation arrangements was also the major cause of implementation slippage in the first years of the project leading to the restructuring in 2002. In the SAR there was to be at least 75 percent of the DMP trained in traffic control by 2001. By the end of the project, only 20 percent of the police force was given this training.

3.6 Moreover, the leadership of DTCB changed frequently during implementation and the organization had no administrative or financial authority over the implementing agencies (DCC and RDH), leaving DTCB powerless to exercise its coordinating role. Following MTR, the role of DTCB in the project was reduced, as the DSM consultants dealt directly with the implementing agencies making the coordinating role of the DTCB almost redundant and reinforcing the notion that DTCB was not the best choice for the project agency function.

3.7 The preparation of the STP began only in April, 2004, two months before the original closing date of the project. The proposal was first put out to bidders in 2001, but due to

continuing changes required in the plan's components, had to be re-bid twice. As a result of the reduced time frame, the STP was denied the comprehensive evaluation and consultative process that should have occurred; its completion required a separate funding arrangement after the closing date of the DUTP. As of mid-2006, nearly a year after completion, the government had yet to officially approve the study results and begin with implementation of follow-up projects.

## 4. Ratings

### RELEVANCE

4.1 Relevance of the project is considered *high*. The objectives of the project, though broad, are relevant to the Bank's Country Assistance Strategy (CAS) to Bangladesh. Some of the critical strategic priorities of the CAS include institutional development, promotion of a competitive private sector; improvement of public sector management and provision of better public services for society. The CAS aims to improve the investment climate by providing support to sector governance reforms and investments in infrastructure projects including transport especially in Dhaka.

### EFFICACY

4.2 The efficacy of the project is rated *modest*. Construction of the Mohakhali flyover was completed, and the facility has provided some separation of traffic movements. However, in retrospect, IEG considers that it would have been preferable to have made a thorough traffic engineering evaluation of the junction and included all measures necessary to make the intersection a free-flowing facility. The simple construction of an overpass did not solve the traffic congestion problems of the interchange. The Jatrabari flyover was dropped at MTR<sup>12</sup>.

4.3 At appraisal physical output indicators in addition to the two flyovers included 60 km of main road improvements, 30 intersection improvements, 40 km of sidewalks, 10 pedestrian footbridges, and 67 km of other road improvements including non-motorized transport lanes. On completion the achievements were 64 km of main road improvements, 27 intersection improvements (and 68 intersections with new traffic lights installed), 40 km of side walks, 12 footbridges, and 31.3 km of corridor improvements.

4.4 In the SAR, one of the performance indicators was that the average speed of motorized vehicles was to have increased from 15 km/hr to 30 km/hr by the end of the project. In the event 22 km/hr was achieved but this figure was derived from the STP model which took an overall (average) value of the entire DMA. A study conducted under DUTP by a local

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12. The project as first designed was a simple 500 meter bridge, but it was evident that it would also have been incapable of resolving the local congestion problems and so was redesigned, but the delay would have meant implementation continuing well beyond the target date for project completion, which was unacceptable to the Bank; the government has since announced that the bridge will be constructed as a future Build, Operate and Transfer (BOT) facility, but at the time of preparation of this report, such a BOT venture had yet to materialize.



consultant during July-October, 2005<sup>13</sup>, used household interviews from 1,628 households based on passengers traveling through the NMT-free corridor, where higher speeds were attained. Another reason for the lower than expected average speed is attributed by DUTP to the growth of the mini-bus population (making frequent stops) coupled with the lack of dedicated bus lanes and lay byes.

4.5 Regarding environmental aspects of the project, IEG confirmed that the importation of two-stroke three-wheelers and reconditioned buses was banned as of January 1, 2003<sup>14</sup>. Testing of air quality before and after removal of these vehicles showed significant improvement in the occurrence of particulate matter and hydrocarbons. This was a positive outcome of the related Air Quality Management Project (AQMP); the DUPT objectives refer to the improvement of urban transport infrastructure and services *in an environmentally sustainable manner*. Covenants were also included in the DUPT credit agreement relating to this matter. Annual testing of vehicles was included as part of the DUTP, but the IEG mission was informed that such testing was only carried out once (between February and March 2005) when 191 diesel vehicles were tested at six locations. The number of accidents in the DMA was reduced; fatal accidents declined by 11 percent and serious accidents by 68 percent with an overall reduction in all accidents of 45 percent. At least some of the credit for this must go to the DUTP because in the three months after the NMT conversion of the Mirpur Road there was an 85 percent decrease in total accidents on it and a 33 percent reduction in fatal accidents.

4.6 A controversial outcome of the project concerned the social effects of eliminating rickshaws from some intersections and corridors. There should have been three arterials where NMT would have been eliminated, but, as a result of negative public reaction, only one such route (Mirpur Road) was designated<sup>15</sup>. The considerable social and political fallout from their elimination was unforeseen and did have some negative impact. This problem was compounded when sub-components were dropped that would have provided NMT access to existing/new infrastructure. These significant corridor travel time reductions were, however, not confirmed by the DSM (Design, Supervision and Monitoring) Consultants. In a report by DSM<sup>16</sup> it was shown that the average speed in the Mirpur road corridor increased from 19.2 km/hr to 19.9 km/hr between 2000 and 2005<sup>17</sup>.

4.7 Three existing bus terminals were rehabilitated under the project (Saidabad, Mohakhali and Gabtoli). While the infrastructure work appears to have been satisfactory, the condition of two of the three terminals remains unsatisfactory as maintenance is not being performed and the functioning of the terminals is not in accordance with project specifications. Each of the three bus stations rehabilitated under the project is managed, however, by private sector entities, as specified in the SAR. A positive result was that by the end of the project, a total of

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13. *Impact Assessment of NMT Restrictions on the Mirpur – Azimpur Road*; The Good Earth; SodevConsult; November 2005

14. According to the SAR they should have been banned by July 1, 2001.

15. Since project completion the other two routes have been completed.

16. *Impact Assessment of DUTP "After Project"*; DSM Consultants; February 2006

17. See Tables B3-B5, Annex B.

2,500 buses were supposed to have been privately owned in the DMA. As of 2005, 4,121 were actually privately owned, while the remaining 350 were the property of BTRC; this target was thus successfully achieved.

4.8 The project design also called for the setting-up of premium bus services along three corridors by December 1999, and an additional 10 routes by August, 2002. By the end of 1999, two premium bus routes had been established, with air conditioned vehicles for sitting passengers only, but at project completion 20 additional private bus companies had also established premium routes and three privately owned and constructed bus depots had been established.

4.9 Lastly, the project design stated that there should be a bus route operated on a franchise basis, but this proposal encountered opposition within the MOC, where the proposal has been stalled for more than a year. The reason for the delay was due to the fact that there are many operators with just a few buses, so franchising to a single operator is impractical. To have included this indicator in the view of the IEG mission was premature; a first step should have been a restructuring of the bus industry in Dhaka, followed by bus franchising. This process was clearly described in DITS, completed five years prior to starting the DUTP.

#### **EFFICIENCY**

4.10 Overall efficiency of the project was *modest*. The average Economic Rate of Return (ERR) of 27 percent at appraisal was based on 52 percent of the project cost (US\$122.6 million), while the ICR calculation showed a 29 percent ERR based on only 44 percent of project cost (US\$104.3 million) as some projects were dropped or reduced in size at MTR. Two methods of economic analysis were used at both appraisal and completion. The first method involved network modeling and the second comprised a detailed economic analysis of each of the major physical sub-components, which were then aggregated.

4.11 At appraisal a network-based travel demand model was used, but the completion estimation was based on the urban transport planning model developed for the STP study. In both models the “with” and “without project” cases were simulated. Many assumptions were made in the modeling, but the detailed data and results are not given in the ICR.

4.12 This evaluation, therefore, could only assess the analyses both individually and in aggregate for the physical sub-components which were not dropped from the project. The average ERR at appraisal for the consolidated projects was 27 percent and 29 percent at completion based mainly on vehicle operating and time cost savings which is satisfactory, but a level of doubt concerning the veracity of the data exists as elsewhere it is reported that the average traffic speed expected at appraisal was not attained because there was an extraordinary growth both in the total vehicle population and especially in the number of some types of vehicle such as minibuses. It is also not clear whether the speeds and traffic flows pertain to the whole day or peak periods. Some sub-components were also delivered later than had been planned, affecting the benefit stream.

4.13 Several other aspects of the project contributed to the modest efficiency rating. For example, the failure to construct the Jatrabari flyover meant that the high cost of the

congestion occurring at that intersection is going to continue. The Mohakhali flyover was constructed, but has also only partially resolved the congestion problem in the vicinity. The quality of some of the rehabilitation works also suggests lower project benefits because of higher maintenance costs, though such impacts are difficult to quantify. Moreover, while the quality of the rehabilitation of bus stations was reasonable, the standard of maintenance of these facilities has been very poor. Because the equipment supplied under the project was reduced by 45 percent it is presumed that the identified users such as the traffic police were also not able to function at the level originally intended.

4.14 The assessment for the flood damage rehabilitation used the traditional approach of estimating incremental capital cost savings of rehabilitating the flood damaged roads and calculating vehicle operating cost and time cost savings due to road improvements. However, only 20 percent of such rehabilitation was carried out which means that the high costs to the users prevailed until the government funded the remainder in a separate project.

### **OVERALL OUTCOME**

4.15 Taking into account the rating of the achievement of the project's two (original) development objectives as modest and negligible respectively, as well as the ratings for relevance, efficacy and efficiency, the overall rating for the outcome of the project is *moderately unsatisfactory*<sup>18</sup>. At least forty percent of the project cost was cancelled at MTR and the quality of some of the completed works was below standard. In the case of the Mohakhali flyover, the project as designed did not fix the congestion problem it was supposed to alleviate.

### **INSTITUTIONAL DEVELOPMENT IMPACT**

4.16 One of the goals of the project was to strengthen the DTCCB to enable this organization to take the lead in future transport planning coordination in Dhaka, but the role of DTCCB actually diminished after the project's MTR. The institutional development impact of the project therefore is rated as *modest*. This is covered by the earlier assessment of objective two which also notes that the newly created DTCCB was a poor choice for the project agency function because of its weak capacity and the lack of an appropriate supporting regulatory framework at the time.

4.17 Despite a slow process, the mission did not reveal any serious land acquisition or resettlement issues during the project. The only difficulties with resettlement were related to delays in awarding contracts for civil works at the Mohakhali flyover.

### **SUSTAINABILITY**

4.18 IEG considers the sustainability of the project to be **likely**, based on an assessment of the resilience of the benefits.

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18. See earlier footnote (8).

4.19 The maintenance of the traffic signals is presently being undertaken by the contractor for the three year period following installation and the current thinking among DCC is to prepare a new tender for maintenance of signals after the maintenance period of the contractor ends. DCC would like its technical staff to continue with training for signals maintenance, in order to enhance their supervisory capabilities. The IEG mission concurs with this approach.

4.20 Satisfactory funding of the maintenance for roads, bridges and traffic signals, depends on the successful operation of the Road and Traffic Maintenance Fund (RTMF). DCC has committed to route its entire road maintenance allocation through a dedicated account with the setting up of proper financial controls and reporting procedures. This was finally approved by the Ministry of Local Government and Regional Development and Communities in June 2005 after a long period of non compliance with the related legal covenant. However, it will be an interim measure as a National Road Fund is expected to be launched in 2007, replacing the existing arrangement. While DTCB remains weak there is an opportunity to strengthen its role in transport planning and coordination following recommendations made in the STP.

#### **BANK PERFORMANCE**

4.21 Performance of the Bank was *unsatisfactory*. There were significant shortcomings during identification, preparation, and appraisal of the project which set the project up for failure, while the development objectives of the project were also very broad and difficult to evaluate. The project design was too complex considering this was the first IDA urban transport project in Bangladesh and the problems that resulted from establishing a myriad of implementing agencies and a weak coordinating body were clearly identified in the SAR as well as in the DITP, completed some five years before the DUTP was initiated. Cognizant of these advance warning signs, the project design should have included fewer sub-components, focusing on the most critical elements that could be completed even within a weak implementation environment. Upon successful completion, follow-up projects could incorporate additional elements, as the agencies became more familiar with Bank procedures and implementing capacity improved.

4.22 Another shortcoming of the Bank's performance was the failure to formalize the changes to the project design at the MTR which included changed performance indicators. Over 40 percent of the project cost was also dropped —this was a major restructuring of the project, and although necessary, should have been formalized by the Board. In the MTR it was stated that although the original development objectives remained valid they needed to be reformulated as they were too broad. The MTR actually drew up revised objectives with a sharper focus on development outcomes and these were agreed with the borrower, but they were never approved by the Executive Board of Directors. Because this authorization did not happen the project was reviewed in terms of the original objectives and performance indicators, not those revised at the MTR.

## **BORROWER PERFORMANCE**

4.23 The performance of the borrower was *unsatisfactory*. Many commitments were made during both preparation and implementation after extensive discussions with the Bank, but procedural delays and an apparent inability to overcome administrative hurdles in a timely manner eventually caused severe slippage of the project. Examples include the establishment of the DTCB, the appointment of the Executive Director and other key staff, as well as delays in the preparation of the Resettlement Action Plan due to difficulties in getting access to land related data from the appropriate agencies.

4.24 The Executive Director of DTCB (as well as its predecessor the GDTPCB) was replaced frequently. Moreover, the DTCB was weak as a coordinating body because it lacked any formal administrative or financial leverage over the implementing agencies. There was no incentive for the DCC or RHD to cooperate with DTCB. The “engineer” of the project was in the DCC (for ICB work) and within RHD (for LCB projects), leaving these organizations with final authority.

4.25 The removal of two-stroke three-wheelers from Dhaka in conjunction with the AQMP was an important achievement by the government. However, the adverse public reaction and social impact of employment displacement of rickshaw pullers as a result of designating NMT-free corridors should have been better handled. The mitigation measures eventually implemented were too late to stem the unfavorable public reaction to the concept of NMT-free corridors, thus reducing the benefits that were to be achieved.

## **5. Lessons Learned**

5.1 The main lessons learned as a result of the Dhaka Urban Transport Project are:

- Where institutional capacity is known to be weak, as in the Dhaka Metropolitan Area, it is important to ensure that the enabling legislation for the executing agencies is enacted, lines of responsibility are clearly defined and key staff appointments are made. These steps could be either an objective of the project or conditions to be met prior to project effectiveness; the exact mix would have to be customized according to the specific circumstances prevailing in the project.
- It is also important that project design is not overly complex when serious institutional weaknesses are evident. In an environment with weak institutional capacity, it is unrealistic to expect a new organization to take on project implementation responsibility in addition to other functions.
- In the Dhaka Urban Transport project the banning of rickshaws from certain intersections and corridors had a negative impact on rickshaw drivers and some users. It is important in projects with potentially negative social impacts, to ensure timely communication with those affected, by making them aware of likely project impacts and proposed social protection measures. In the Dhaka case the risks were identified, but the implementation of the mitigation measures was delayed.

- In the Dhaka Urban Transport project, outcome was measured against the original objectives, indicators and scope because the project was not formally restructured. It is important when a major re-scoping of a project is carried out, that all parties (including the Board) are made aware of any changes in scope, direction and performance benchmarks.

## Annex A. Basic Data Sheet

### DHAKA URBAN TRANSPORT (CR. 3163-BD)

#### Key Project Data *(amounts in US\$ million)*

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as % of appraisal estimate</i>
Total project costs	234.20	124.90	53.1
Loan amount	177.00	93.10	52.6
Cancellation	-	83.90	-

#### Project Dates

	<i>Original</i>	<i>Actual</i>
Departure of Appraisal Mission	06/24/1998	06/24/1998
Board approval	01/19/1999	01/19/1999
Signing	02/17/1999	02/17/1999
Effectiveness	05/18/1999	06/16/1999
Closing date	06/30/2004	06/30/2005

#### Staff Inputs *(staff weeks)*

	<i>Actual/Latest Estimate</i>	
	<i>N° Staff weeks</i>	<i>US\$('000)</i>
Identification/Preparation	158.40	635.54
Appraisal/Negotiation	70.40	135.16
Supervision	435.85	788.60
ICR	11.47	32.45
Total	676.12	1,591.75

## Mission Data

	<i>Date (month/year)</i>	<i>No. of persons</i>	<i>Specializations represented</i>	<i>Performance rating</i>	
				<i>Impl. Progress</i>	<i>Dev. Objective</i>
Identification/ Preparation	09/07/1997	6	Mission Leader (1); Transp, Safety & Traffic Engr. (1); Financial Management Spec. (1); Inst. Dev. Spec. (1); Transp. Engr. (1); Transp. Mgmt. Spec. (1).		
	07/18/1996	5	Mission Leader (1); Transp. Engr. (1); Public Sector Spec. (1); Sr. Transp. Eng. (1); Sr. Comm. Offer. (1).		
	03/13/1997	11	Mission Leader (1); Transp., Safety & Traffic Engrs. (3); Financial Management Spec. (1); Procurement Spec. (1); Sr. Sr. Urban Spec. (1); Public Transport/Policy Spec. (1) ; Traffic Mgmt. Spec. (1) ; Inst. Dev. Spec. (1); Sr. Operations Offr. (1).		
Appraisal/ Negotiation	03/11/1998	13	Mission Leader (1); Engr. & Procurement (1); Transp & Inst. Spl (1); Transp Spl (1); Transp Engr (1); Env Spl (1); Resettlement (1); Disbursement Spl (1); Financial Management Spl (1)		
	07/15/1998	15	Mission Leader (1); Engr. & Procurement (1); Transp & Inst. Spl (1); Transp Spl (1); Trans Engr (1); Env. Spl (1); Resettlement (1); Procurement Spl (1); Disbursement Spl (1); Financial Management Spl (1)		
Supervision	03/17/1999	13	Mission Leader (1); Sr. Transport Engr. (1); Procurement Spec (1); Urban Planning/Soc. Env. Spec. (1); Gender Spec. (1); Soc. Scientist (1); Economic Analyst (1); Operations Offr. (1); Transport Engr. (1); Resettlement Spec. (1); Disbursement Offr. (2) Financial Mgmt. Spec. (1)		
	06/30/1999	7	Mission Leader (1); Proj. Coordinator/Economic Analyst (1); Engr. (1); Disbursement Offr. (1); Proc. Spec. (1); Financial Mgmt. Spec. (1); Social Assessment (1)	U	S
	12/15/1999	15	Mission Leader (1); Procurement Spec. (1); Urban Planning, Social & Env. Spec. (1); Economic Analyst (1); Transport Planner (1); Environment Spec. (1); Soc. Scientist (2); Economic Analyst (1); Engr. (1); Resettlement (1); Disbursement Offr. (2); Financial Mgmt. (2);		
	07/12/2000	8	Institutional Dev. (1); Highway Engr. (1); Civil Engr. (1);	S	S

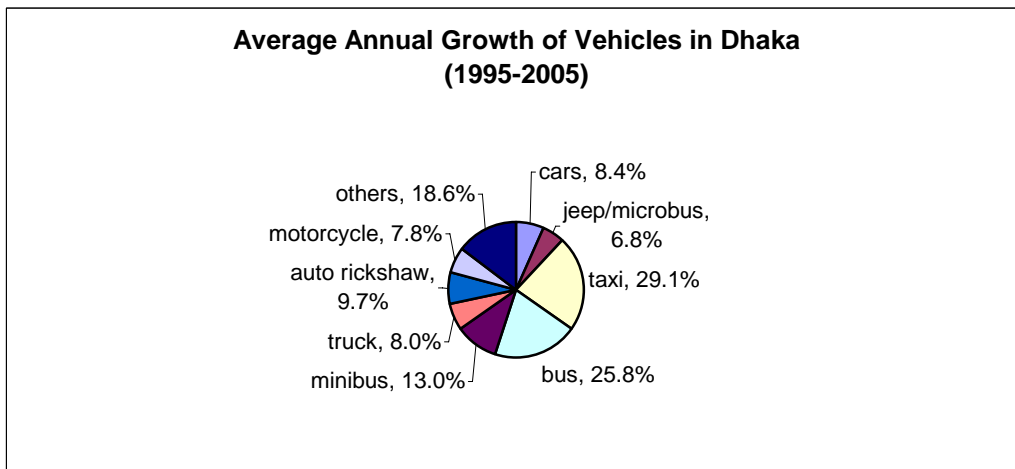
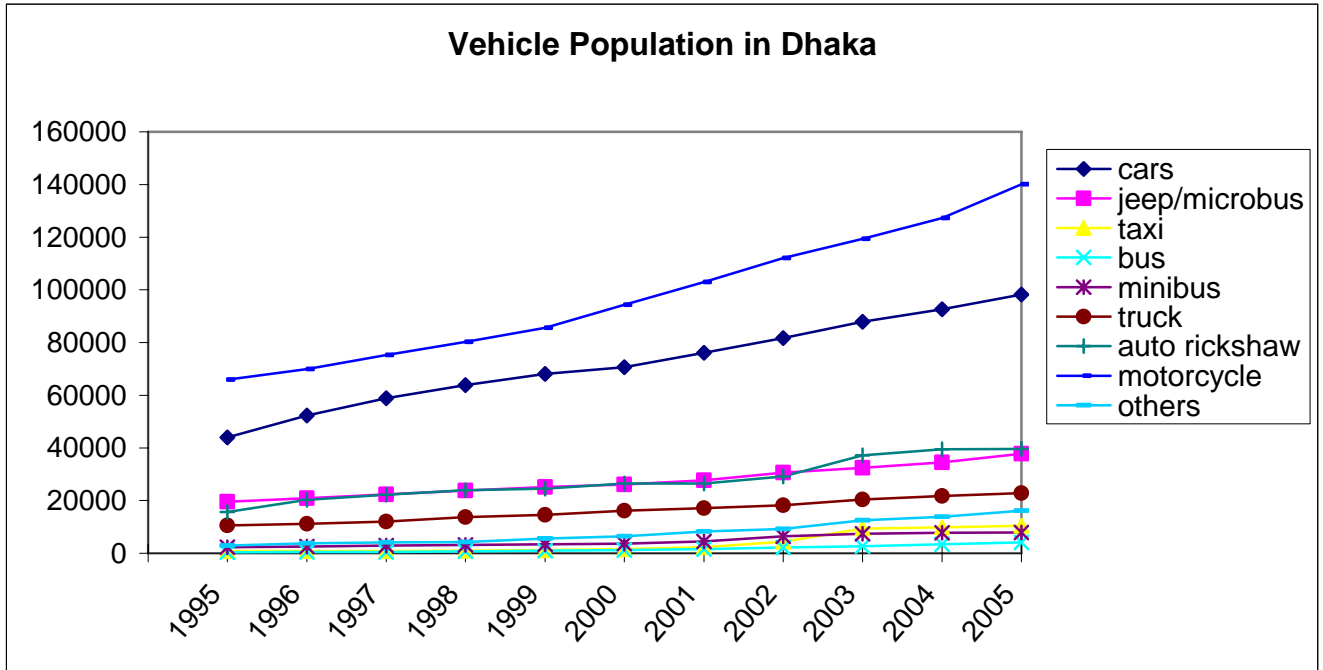


<i>Date (month/year)</i>	<i>No. of persons</i>	<i>Specializations represented</i>	<i>Performance rating</i>	
			<i>Impl. Progress</i>	<i>Dev. Objective</i>
06/06/2001	8	Transport Engr. (1); Transport. Econ. (1); Resettlement (1); Procurement (1)	S	S
05/30/2002	10	Transport Engineer (1); Urban Transport Spec. (1); Sr. Transport Engineer (1); Highway Engineer (1); Social Scientist (1); Financial Management (1); Procurement Specialist (1); Disbursement Specialist (1)	U	U
12/03/2002	10	Mission Leader (1); Transport Engineer (1); Implementation Spec. (1); Office Admin. (1); Sociologist (1); Procurement Spec. (1); Financial Mgt Spec. (1); Disbursement Spec. (1); Traffic Eng. (Consult) (1); Env. Spec (Consultant) (1)	U	S
06/26/2003	9	Task Leader (1); Transport Engineer (2); Office Administrator (1); Sociologist (1); Procurement Specialist (1); Financial Managements (1); Disbursement (1); Traffic Engineer (1); Environmental Specialist (1)	S	S
01/13/2004	9	Team Leader (1); Transport Engineer (1); Office Administrator (1); Sociologist (1); Social Scientist (1); Environmental Specialist (1); Procurement Specialist (1); Financial Mgmt Special (1); Traffic Engineer (1); Environmental S(1)	S	S
07/14/2004	13	Task Team Leader (1); Transport Engineer (1); Traffic Engineer (1); Transport Economist (1); Transport Specialist (1); FM Specialist (1); Sociologist (1); Environmental Specialist (1); Procurement Specialist (1); Project Analyst (1); Office Administrator (1); Social Protection Spec (1); Disbursement Spec (1)	S	S
03/03/2005	12	Task Team Leader (1); Transport Engineer (1); Traffic Engineer (1); Transport Economist (1); Transport Specialist (1); FM Specialist (1); Sociologist (1); Environmental Specialist (1); Procurement Specialist (1); Project Analyst (1); Office	U	U

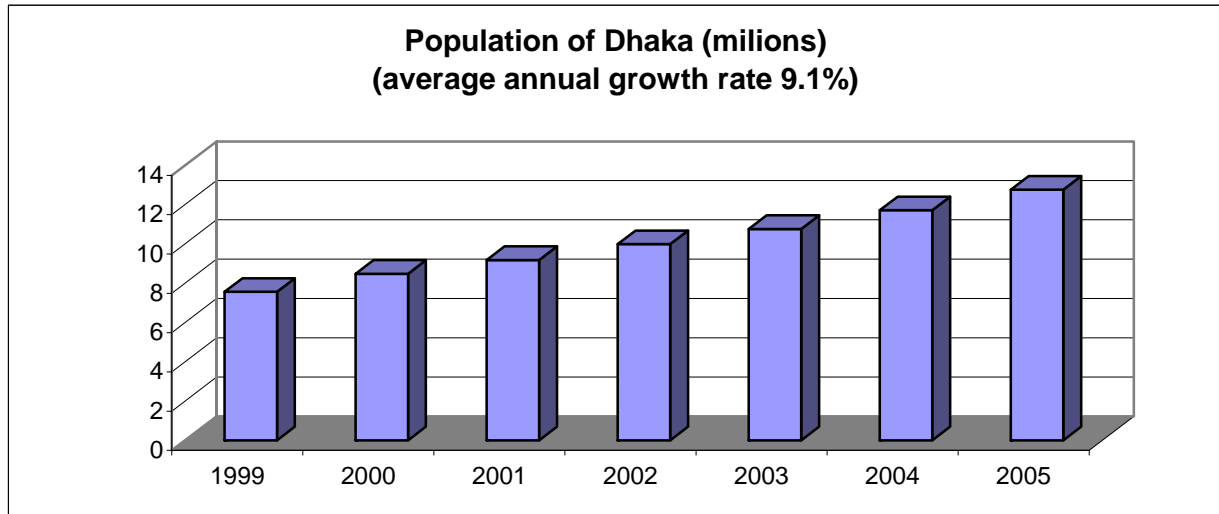
	<i>Date (month/year)</i>	<i>No. of persons</i>	<i>Specializations represented</i>	<i>Performance rating</i>	
				<i>Impl. Progress</i>	<i>Dev. Objective</i>
	09/18/2005	3	Administrator (1); Social Protection Spec. (1) Transport Economist (1); Transport Engineer (1); Project Analyst (1)	S	S
ICR	10/27/2005	4	Task Team Leader (1); Transport Engineer (1); Project Analyst (1); Social Protection Spec (1)	S	S

## Annex B. Country Data

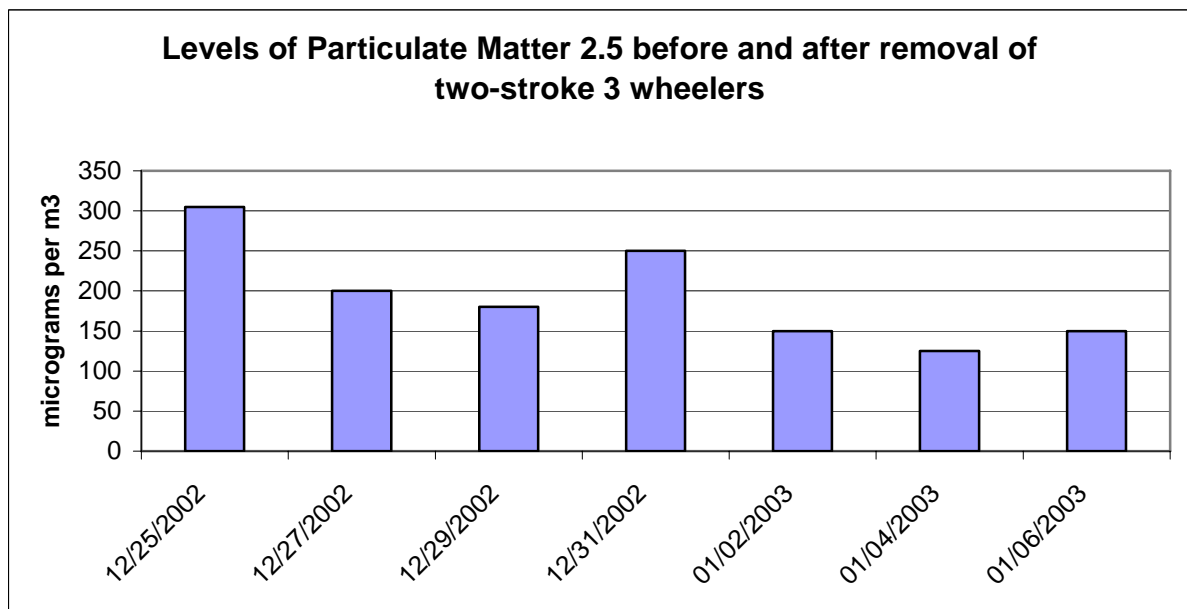
**Table B1 Vehicle Population in Dhaka (1995-2005)**

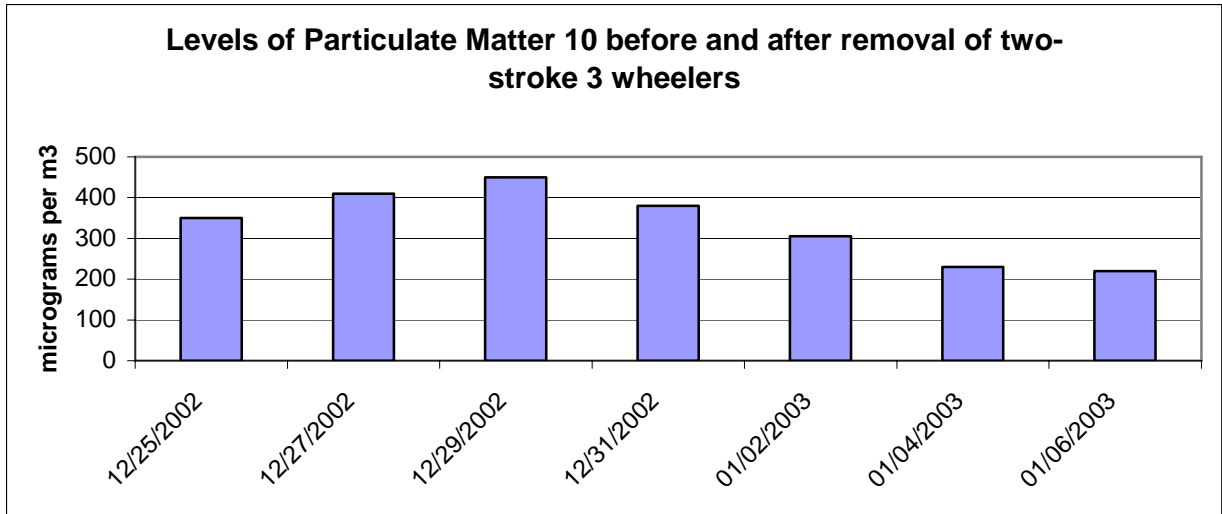


Source: BRTA, Dhaka

**Table B2 Population in Dhaka**

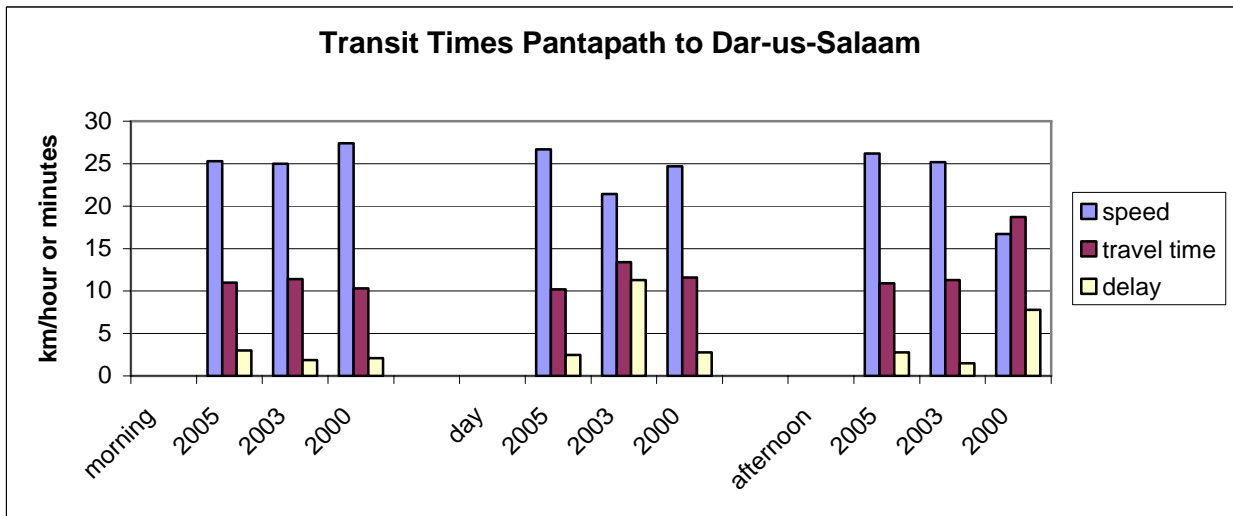
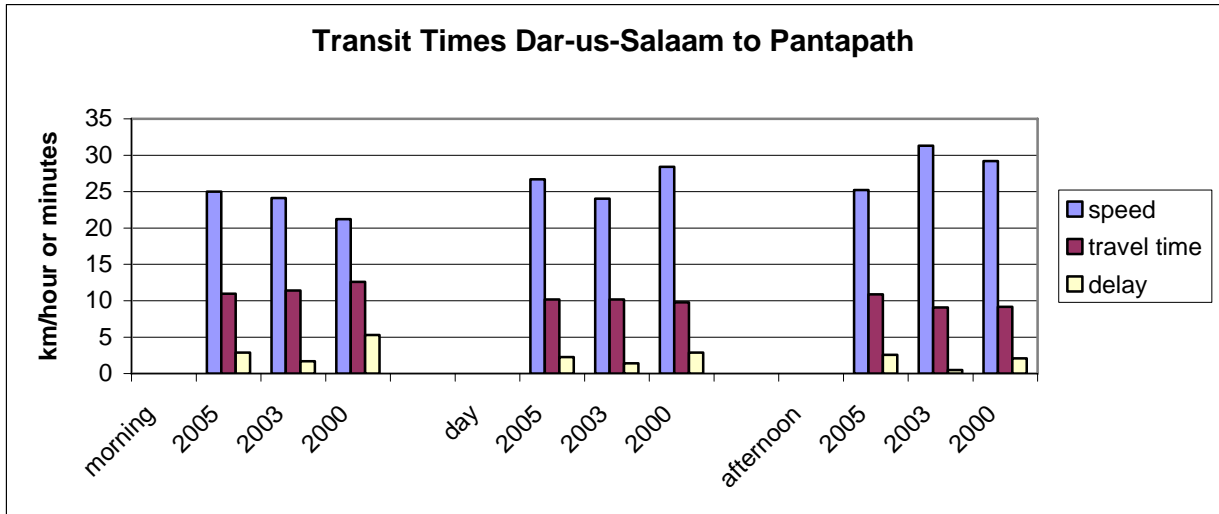
Source: DSM Consultants Impact Assessment of DUTP; DHV Consultants & Associates; February 2006

**Table B3 Reduction in Pollutants in Dhaka**



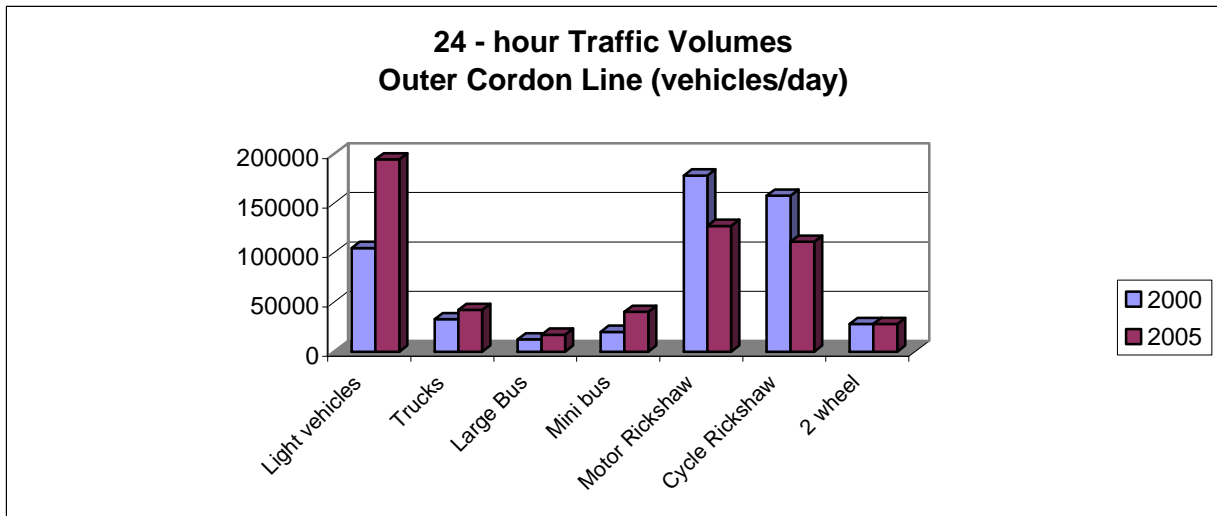
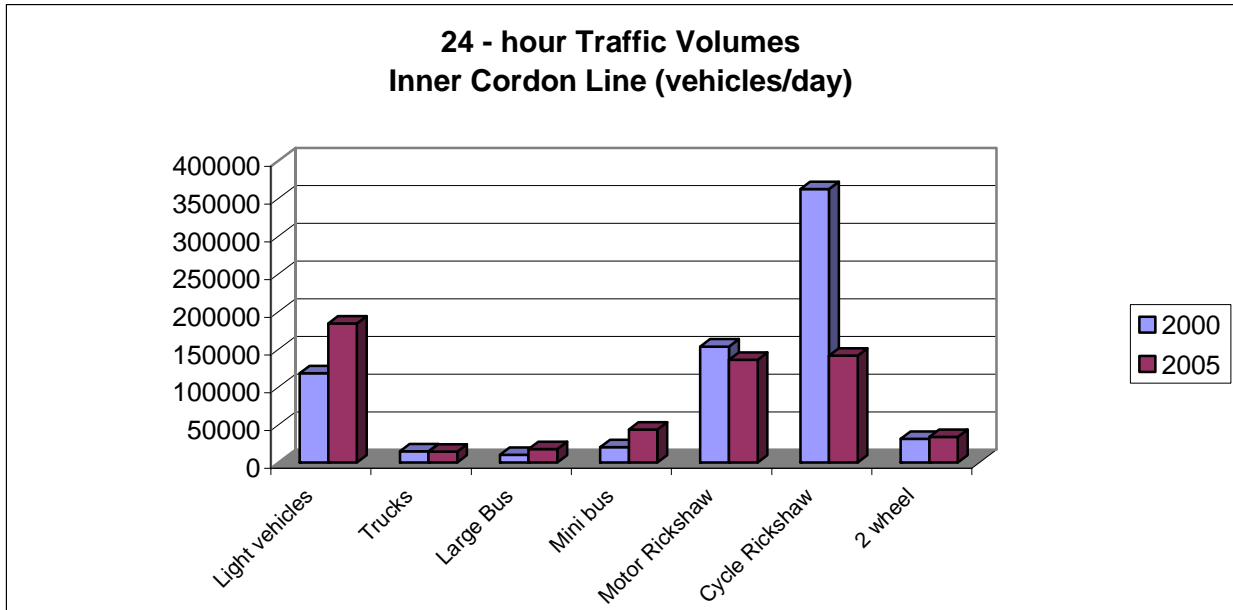
*Source:* Impact of Removal of Baby Taxis on Air Quality in Dhaka; (M. Khaliqzaman, World Bank); February 2003

**Table B4 Transit Times/Speed in Mirpur NMT Corridor**



Source: DSM Consultants Impact Assessment of DUTP; DHV Consultants & Associates; February 2006

**Table B5 Traffic Volumes in Dhaka**



Source: DSM Consultants Impact Assessment of DUTP; DHV Consultants & Associates; February 2006