INTEGRATING GENDER INTO WORLD BANK FINANCED TRANSPORT PROGRAMS

CASE STUDY

BANGLADESH

DHAKA URBAN TRANSPORT PROJECT

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EXECUTIVE SUMMARY

The study was prepared as a part of ten case studies of a study title d "Integrating Gender into World Bank Financed Transport Programs". A review of the national constitution, social and legal framework suggests that there is an enabling environment that promotes gender equality. For example, Bangladesh has ratified the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) but with some reservations. Moreover, the constitution affirms the equality of all persons in several provisions. There is also a National Action Plan (NAP) on 16 line ministries, but the Ministry of Communication is not included and hence women's transport needs are not addressed. Of the 49 focal points, there is one in the Ministry of Communication. Not only is gender mainstreaming an "added" responsibility for these focal points, but also they are transferred often and so it makes gender mainstreaming difficult.

This study found that there is a disconnection between the gender enabling environment and the transport sector. Neither the Ministry of Women's and Children Affairs (MOWCA), the lead ministry for gender mainstreaming, nor the focal point in the Ministry of Communication was consulted when the National Land Transport Policy was being drafted. This policy does not address the needs of urban and rural women and has failed to translate into the national commitments. One third of local government officials are women who, as ward commissioners, could be involved in monitoring implementation of transport projects. However, there is a need to clearly define the role of women ward commissioners.

An enabling environment at the macro level will not be sufficient to mainstream gender into the transport sector. Monitoring and evaluation indicators need to be developed for transport sector projects as well as for the PRSP of Bangladesh. The focal point in the Ministry of Communication could be entrusted to monitor gender outcomes.

At the project level analysis, the research on "Dhaka Urban Transport Project (DUTP)" tries to describe experiences around project preparation and design as well as actual implementation and gender outcomes. The development of Dhaka Urban Transport Project (DUTP) emerged as a result of recommendations from studies conducted under the Planning Commission and UNDP, "Greater Dhaka Integrated Transport" study (DITS1994) that clearly included gender as quite an important component in a working paper "Mobility of Women". There were also a series of World Bankfunded preparation projects such as the "Gender Dimensions in Transport in the Dhaka Metropolitan Area" (NUK 1997). However, when the World Bank implemented the Dhaka Urban Transport Project (DUTP), there was no gender component in it. Despite the identification of gender as an issue in the project preparation stages within the DITS study, this research shows that the implementation measures that were funded completely failed to address any gender issues identified in project preparation. Instead they concentrate on the traditional elements of urban transport planning: that of developing road infrastructure, constructing flyovers, developing bus terminals and bus routes and improving traffic flow management at intersections and across the road network. The project appraisal report had identified absence of a well-scheduled bus system, poor accessibility due to overcrowding and inadequate sidewalk and pedestrian facilities as main problems for women. But only pedestrian facilities were included as a minor component of the project.

Despite the loss of gender issues from the project, it was funded and is still ongoing. The gender study (NUK 1997) carried out under the preparatory phase of DUTP project was not disseminated among the stakeholders. Most of the stakeholders concluded that women, especially garment workers benefited to some extent from pedestrian facilities provided under the project.

More importantly, in the midterm review the project has been restructured on a series of integrated corridor improvements, based on a network of non-motorized transport free routes in six corridors. This would have an adverse impact on middle-class women as they are the main users of rickshaw, and they preferred riskshaw due to door to door services. A social assessment study was conducted to explore the possibility of providing dedicated rickshaw lanes on the corridors, where feasible. The commuters suggested provision for adequate buses and ensure facilities like frequent stoppage, shades at bus stops and clearing of footpaths as some of the measures to be undertaken. Specific recommendation for women was the introduction of "buses for women" at peak time. Although three CBOs were formed, they never met after the assessment due to lack of budget. Discussion with members of the CBOs suggests that their views were not incorporated in the project. Participation was used to "sell" to the community decisions that were already made. The stakeholders interviewed in this research suggested that integration of rickshaw is needed and elimination is not possible.

The first condition of the World Bank was to introduce premium bus services, defined as: express with limited stops, sitting only, air conditioned using new buses or less than four years old buses. Sitting services, ticket counter and queuing has brought discipline. This proved to be women friendly and about 10% of commuters are women on AC buses. Now, the non-ac buses have replicated these services. The user survey suggests that these sitting service buses are not affordable for many women. Mostly the middle class has benefited from these services. Although poor accessibility for women to the existing bus system due to overcrowding has been identified as a problem by the project, but this is yet to be addressed. The private operators were not willing to provide "women only bus" as it is not profitable. Moreover, the BRTC noted that culturally women do not travel alone, and so they have to run these buses at a loss.

This study showed the gendered outcome of the impact of NMT free road. The study identified that the impact differed by location, due to rickshaw crossing and alternate roads. The relatively more accessible area (Shamoli to Science museum) had a large concentration of upper middle class residence, and institutions such as hospitals, schools and shopping centres. But the area from Gabtoli to Shamoli is less accessible and had a high concentration of residence of lower middle class and urban poor. The operators and users of NMT were more adversely affected in the less accessible area. Women and children faced difficulty to travel to school, work and hospitals. Hence, geographic targeting is needed.

Due to NMT restrictions, the observed changes by the users and operators were:

Reduction of road congestion
 Better traffic management
 Reduction in road accidents to some extent
 Inadequate response from the private sector to meet the demand for bus
 Improvement in pedestrian facilities to some extent
 Poor condition of street lights
 Reduction of congestion at bus terminals

their tra	ore men than women users reported improvements. The impact study on users suggests that avelling time has increased. Moreover, it had impact on travel mode. Women's experience of vice was as follows:
	Information about the journey is lacking Overcrowding Lack of personal security Bad behaviors of drivers and conductors Long wait and long lines Fare and ticketing not women friendly
They su	uggested:
	"women and family bus" frequent bus services frequent stoppage female bus conductors 25% reserved seat for women in local buses safe and affordable shades for waiting and sitting places police at bus stops two-door bus gender training to operators skill training to drivers
The sur	rvey and FGD with operators showed that:
	Rickshaw operators income declined 25-50% Livelihood changed, less food, women and children have to work. Lanes are crowded They lost school passengers. Vans operators lost freight from bus terminak
They su	uggested:
_ _ _ _	Friday as a restriction free day One-way road in less accessible areas, shamoli to gabtoli Crossing from Asad gate to Farm gate Allow rickshaws only on Road No. 8 bridge between 7-9 am and 12-2 and 4-6 pm. Restriction on demonstration road should be from 7am to 7 pm.

The experience of this study would be useful for routes which will be made NMT-free.

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ACRONYMS AND ABBREVIATIONS

BBS Bangladesh Bureau of Statistics

BRTC Bangladesh Road Transport Corporation
BRTA Bangladesh Road Transport Authority
BTF Bangladesh Transport Foundation
CBO Community Based Organisation

CEDAW Convention on the Elimination of All Forms of Discrimination Against

Women

CIDA Canadian International Development Agency

DCC Dhaka City Corporation

DITS Dhaka Integrated Transport Survey

DMP Dhaka Metropolitan Police
DMA Dhaka Metropolitan Area
DOE Department of Environment

DSM Design Supervision and Monitoring
DTCB Dhaka Transport Coordination Board
DUTP Dhaka Urban Transport Project

FFYP Fifth Five Year Plan
FGD Focus Group Discussions

FIDIC Federation International des Ingenieurs Conseils

GEM Gender Empowerment Measure
GOB Government of Bangladesh
ICB International Competitive Bidding

IDA International Development Association

I-PSRP Interim Poverty Strategic Reduction Strategy Paper

MWCA Ministry of Women and Children's Affairs

MOC Ministry of Communication

NAP National Action Plan

NCB National Competitive Bidding
NGO Non Government Organisation
NMT Non Motorized Transport

NP National Policy for Women's Advancement

NRSC National Road Safety Corporation

NUK Nari Uddug Kendro

PAD Project Appraisal Document

PFA Platform For Action

PCC Public Consultative Committee

PLAGE Policy and Leadership Advocacy for Gender Equality

RHD Road and Highways Department

RMG Ready Made Garments

RTMF Road and Transport Maintenance Fund

TED Traffic Engineering Division
WAGE Women and Gender Equality

WB World Bank

WID Women in Development

1. INTRODUCTION

1.1 BACKGROUND OF THE PROJECT

Dhaka, the capital city of Bangladesh, has a population exceeding 10 million. With a growth rate of about 8 per cent per year, it is expected to be the seventh largest city in the world by 2015 (Nagari 2001). Rapid population increase over the past decade has resulted in its transport services becoming no longer able to respond to the travel needs of its residents. This demand has not been matched by sufficient investment in transport infrastructure, services and management. Traffic and public transport conditions in Dhaka have seriously deteriorated, characterized by daily traffic jams, traffic congestion, long delays and high incidence of road accidents. The Dhaka Urban Transport Project (DUTP) is the first intervention for urban transport in Bangladesh. It originated from the recommendations of a study called Greater Dhaka Integrated Transport Study (DITS, 1994). The Project has begun in March 1999 and is expected to be completed by the 2004. The total cost of the Project was USD 234 million, of which IDA funded USD 177 million by loan. The objectives of the project were to:

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

The transport problems in DMA are multi-faceted and massive and needed a phased program spread over several years. This project focused on the first phase to deal with the most pressing constraints, including building up an institutional framework and a policy environment that envisages active private sector and community involvement

The Greater Dhaka Transport Planning Coordination Board (now called Dhaka Transport Coordination Board, DTCB)) was expected to serve as a model for metropolitan transportation planning and coordination in Bangladesh. The urban poor would particularly benefit from improved bus service, better pedestrian facilities and support for non-motorized transport (NMT), which employs a large number of poor operators. The major components of the Project were:

- *Infrastructure development:* Including new construction, rehabilitation of existing infrastructure, particularly roads, traffic management measures and other facilities.
- Equipment support: Provide project agencies responsible for transport sector management and operations with necessary equipment, computers accessories and vehicles to strengthen their technical and institutional capacity in the long term and for immediate project implementation and supervision support.
- *Institutional strengthening and capacity building*: Providing institutional support including strengthening traffic management, project supervision and management. Financial management, environment management, performance monitoring through training consultants' services and equipment.
- Land acquisition and resettlement: Developing a policy framework for addressing unavoidable negative impacts and a Resettlement Action Plan (RAP). Detailing the implementation mechanism for assisting affected people with compensation, relocation,

livelihood assistance and other support mechanisms in accord with the Operational Directives of the World Bank and in agreement with the Government of Bangladesh (GoB).

The midterm review (World Bank, 2002) notes that the Project has contributed to gradual improvement in the capacity for urban transport management within DTCB, DCC, DMP and to some extent, BRTA. The midterm review found that project performance continues to be rated unsatisfactory. Three years after World Bank Board approval, only about 30% of the credit has been committed and 16% disbursed. Development impact was negligible. During the midterm review, GoB and the World Bank agreed to restructure the project, based on implementation experience to date, to achieve tangible development outcomes. The restructured project has an estimated cost of USD 140 million, including IDA assistance of USD 107 million and refocuses remaining investments on a series of integrated corridor improvements, based on a network of non-motorized transport free routes. The development objectives were to:

- improve transport access and mobility for Dhaka Metropolitan Area Residents;
- reduce the risks of traffic accidents and transport related health hazards.
- start addressing long-term transport planning, coordination and institutional issues in DMA.

The main infrastructure components of the Project include:

- Traffic management including 20 intersections and adjacent roads, traffic flow improvement, parking facilities and provision of areas where access to motorized vehicles will be restricted;
- 40 km of new footpaths along major arterial roads and foot bridges at 12 locations
- 20 km of arterial road improvement;
- parking facilities at Motijheel and Dilkhusa;
- bus lanes and lay-bys;
- rehabilitation of three inter-district bus terminals at Saidabad, Mohakhali and Gabtoli;
- NMT network improvements;
- Construction of flyover at Mohakhali /1
- Flood Damage rehabilitation of roads and drainage

Dhaka traffic uses a multi modal transport system that includes walking to work and motorized and non-motorized movement. After pedestrians, the rickshaw is the second largest mode of transport in the city. There are several, widely varying estimates of the number of rickshaws; those licensed number around 80,000 and 43,000 more are likely to be licensed and to those can safely be added 300,000 operating illegally. Rickshaws not only dominate the transport system of Dhaka city, they are also a major source of employment in both the rickshaw pulling operation and in related ancillary industries. Without a well-organized scheduled bus system or any other mass transit system, Dhaka city presently depends largely on rickshaws in the city. Therefore, the popular view is that the city's transport system could be improved by replacing cycle rickshaws with a motorized

¹The flyover at Jatrabari has been dropped.

system. Development of other less expensive and faster mass transit modes such as good bus services is found to be a better market-based alternative for limiting the proliferation of rickshaws than an outright ban. It is towards this end that, under the DUTP, certain main corridors in the city are proposed to be made non-motorized-transport-free under an integrated transport system. However, rickshaws will continue to have a positive role as feeder services to the bus system and as localized transport in non-arterial roads that form about 90% of the city's road network.

1.2. OBJECTIVE OF THE CASE STUDIES

This case study was to evaluate DUTP, as one of the ten case studies as part of a study called "Integrating Gender into the World Bank Financed Transport Programs" commissioned by the World Bank. This Project was chosen as an example of a country with supportive national gender policy and unsupportive transport sector policy. The objective of this study is to:

- identify how gender dimensions are included in the preparation of the project;
- document what has been the experience of implementation;
- identify the outcomes; and
- identify lessons learnt in respect of gender inclusion and where appropriate suggest good practices.

1.3 CASE STUDY METHODOLOGY

Both qualitative and quantitative methodology have been used in this study to have a comprehensive picture from a gender point in every phase of the project including planning/designing, implementation, and impacts and outcomes. Relevant literature including national women's development policy, national action plan for the advancement of women, CEDAW documents, the Constitution and I-PRSP has been reviewed to develop a macro context and to asses the degree of enabling environment for integrating gender in the urban transport sector. The land transport policy, the project proposal, midterm review, various reports of DITS and other studies were reviewed to understand the level of integration of gender in the Project.

To capture all the gender dimensions of the intervention within the time and resources available to the study, a portion of the project area has been selected purportedly as the study area for in-depth investigation to assess the gendered outcomes of the intervention. Quantitative survey and FGD were used simultaneously among the users and operators in the study area, which was confined to MIRPUR Road Demonstration Corridor Project (Gabtoli to Azimpur). This was chosen because the restructured DUTP focuses remaining investments on a series of integrated corridor improvements based on a network of non-motorized-transport-free routes. Mirpur road corridor (13-km stretch between Gabtali and Azimpur) is to be developed as an NMT-free demonstration project followed by five more corridors in phases. These will include not only physical improvements to the pavement, street lighting, footpaths and intersections but also complementary management measures such as restrictions on NMT, improved enforcement, linked signals and increased frequencies and improved facilities for buses.

As the whole area from Gabtoli to Azimpur has not been covered yet, the study concentrated in the area from Gabtoli to Science laboratory road /². After extensive discussion with users, this road was divided in two sections: Shamoli to Science Laboratory had accessible secondary roads and rickshaw crossings while Gabtoli to Shamoli did not have accessible secondary roads or rickshaw crossings. The non-accessible area had a large concentration of residence of lower middle class and urban poor. The accessible area had a large concentration of residence of upper middle class and institutions such as schools / universities, clinics, hospitals and shopping centers.

The sample of the non-accessible area was drawn mainly from location survey of households. In the accessible area, the survey was conducted in institutions such as schools / universities, clinics, hospitals and shopping centers in the affected area. Most of the groups consisted of five individuals. In total 79 men and 151 women users were interviewed (Table 1). A questionnaire was designed to capture the demographic characteristics of the respondents, transport cost and household income, purpose, mode and peak time of travel and preferred mode. Opinion was sought in the focus group discussions on changes in this route of indicators such as congestion, traffic management, private bus service, road accidents, waiting time for buses, behavior of drivers / conductors and facilities at bus terminals. Focus group discussion was also done on the problems faced by women in commuting, problems of NMT restrictions and suggestions for alternatives. About 50 per cent of the users were residents of non-accessible area. The survey also included 47 operators, mostly from non-accessible area.

Table 1: Sample respondents of affected users

Type of Respondent	Female	Male
Housewives	68	-
Employed persons	37	44
Students	27	23
Garment workers	19	7
Small traders	-	5
Total	151	79

To understand how the Project's design and implementation with attention to differences between men and women, interviews were carried out with the relevant stakeholders from the government, donors and the private sector including all relevant institutions of DUTP, women's representatives and NMT (rickshaw, van) and bus owners' associations across the demonstration road. A total of 36

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²On paper, NMT-free road is from technical to Russell Square, but actually it is already implemented from Gabtoli to Kalabagan. This is due to the demand from the police and bus and trucks plying this route.

key informants were interviewed of which half were government personnel and the rest from the private sector including transport bodies and gender and development NGOs. These interviews were mostly open-ended with some leading questions on the impact of NMT-free roads. The purpose of the interviews was also to inform policy makers of the transport issues and problems faced by users and operators.

The social institution of "Purdah" (seclusion of women from men) defines separate places for men and women in Bangladesh. Middle-class women face greater restriction than those from poorer families. But, as women participate more in the labor force and undertake education this culture has been changing. Moreover, men and women have different transport needs based on their different roles within the household and society. Hence a gender-aware transport system would increase women's mobility.

2. ENABLING ENVIRONMENT AND MACRO CONTEXT

The enabling environment is the key policy element for influencing gender integration in transport. The degree to which gender is integrated into transport interventions and the impact they will have depends significantly on the wider context in which they are planned and implemented.

2.1 POLITICAL COMMITMENT

Political commitment is essential in creating a strong supportive environment for gender mainstreaming. The development vision of Bangladesh is to establish gender equalities in every sphere of life by addressing gender gaps and mainstreaming women's development. This is guided by the principles of the Constitution, the National Policy for Women's Advancement and the National Action Plan (NAP) for implementation of the Beijing Platform for Action (PFA). The NAP has identified 16 ministries and divisions as having impact on women's development but the Ministry of Communication is not included and hence women's transport needs are not addressed.

The Constitution of Bangladesh provides for formal equality of men and women. Women are entitled to the same fundamental rights as men. Article 10 ensures participation of women in all spheres of national life. Article 27 lays down that all citizens are equal before the law and are entitled to equal protection from it. Article 28 (1) requires that the state not discriminate against any citizen on grounds only of religion, race, caste, sex or place of birth. Article 28 (2) emphasizes that women have equal rights in all spheres of the state and of public life. Article 29 (1) states that there shall be equality of opportunity in employment, while 29 (2) provides protection against discrimination. Article 29 (3) provides for special provision. Article 65 (3) provides for reserved seats for women in parliament and Article 9 promotes special representation of women in local government.

The level of political commitment is also assessed by the commitment to globally agreed principles. Bangladesh endorsed the Beijing Platform for Action without reservation. The formulation and approval of the National Policy for Women's Advancement (NP) in 1997 and the National Action Plan (NAP) are noteworthy institutional measures for implementation of the Beijing Platform for Action. Bangladesh ratified CEDAW in 1984 with some reservations.

2.2 GENDER EQUALITY IN MACRO POLICIES

Women are considered a target group in all the Five Year Plans. In the Fifth Five Year Plan (FFYP) the gender objective is to integrate women's development into the macro-framework and to reduce gender disparity in all sectors by integration of women in mainstream development efforts. One objective was to provide transport facilities to support women's employment. Although gender issues have been identified as the core development issue in the I-PRSP, it does not address gender gaps comprehensively. There is scope for integrating gender in strategies and monitoring indicators. On transport issues, the I-PRSP $\hat{\beta}$ indicates that affirmative measures such as safe transport

³ See page 48 in MOF (2003)

facilities will be initiated for sustaining and supporting women's employment. Both FFYP and I-PRSP address transport issues for facilitating women's employment but neither addresses transport as a facilitator of capability, security and empowerment.

There is increasing awareness of the need to integrate gender concerns into sector- specific policy frameworks. The Education Policy's goal statement mentions that education at all levels would help to remove gender biases. It has a separate chapter on women's education and various short- and long-term measures have been suggested to improve women's education status. The National Water Policy objective statement includes: "To ensure the availability of water to all elements of society including the poor and underprivileged, and to take into account the particular needs of women and children". The Health and Population Sector Strategy includes a gender perspective and outlines the need for making service delivery gender-sensitive, pro-poor and client-focused. This strategy also seeks to ensure adequate representation of women in supervisory and management positions in the health system.

2.3 WOMEN IN DECISION-MAKING LEVELS

Women's voting rights were established long ago but their participation in the political process has been negligible. At present, both the prime minister and the leader of the opposition are women. In 2000, 48.5% of voters were women. There are 300 seats in the national parliament, of which 30 were reserved for women till 2001. A new bill on reserved seats is yet to come. In the 2001 election, seven women were directly elected, increasing the representation of women to 37 seats.

There is a big gap in the number of men and women in the civil services. In 2000, there were two secretaries, five joint secretaries, five deputy secretaries and 335 assistant secretaries. At the bottom of the hierarchy of bureaucrats, the number of assistant secretaries has increased due to the effect of the government's quota of 10 per cent. Women are now being employed in the police service, judiciary service and even in the armed forces.

In the urban municipalities, one third of the seats are reserved for women. For the first time, Dhaka City Corporation elected 19 female ward commissioners (elected by male commissioners) for reserved seats in 1994. To promote women's participation in urban local government, the Pourashava Ordinance and City Corporation Ordinance have been introduced, reserving one third of the available local seats for women to be directly elected in 1998. This amendment is a milestone in the history of Bangladesh local level elections. The responsibilities of the ward commissioners are well defined in the government gazette, but there are no definite responsibilities for women ward commissioners. Thus, the status of women ward commissioners has been undermined. Every political party has a women's wing to encourage women to get involved in politics. NGOs, women organizations and civil society organizations are also active in this regard.

2.4 LEGISLATIVE AND ADMINISTRATIVE FRAMEWORK

Some of the number of laws providing for special rights for women and reflect the state's resolve for elimination of discrimination against women are:

- The Muslim Family Law Ordinance of 1961 and its amendment in 1986 regulate personal aspects like inheritance of property, marriage and divorce and guardianship and custody of children.
- The Dowry Prohibition Act of 1980 (and Amendment in 1986) has made the custom of dowry an offence, punishable by fine and imprisonment.
- The Family Court Ordinance of 1995 has served women by establishing family courts at the district and the thana levels. This deals with cases relating to marriage, conjugal rights, dower and custody of children.
- The Child Marriage and Divorce Registration Act of 1974 provides for raising the legal age of marriage for both males and females and for punishment for anyone marrying before that age.
- The Prevention of Women and Child repression Act 2000.

Although there are legal provisions, inadequacy of enforcement prevents women from always enjoying their rights. The gap between having rights and enjoying them arises partly due to lack of knowledge of men and women about their rights and partly due to lack of commitment of relevant agencies. Some of these laws need to be reformed. Despite these laws, early marriage, trafficking, acid throwing and oppression and abuse of girk are continuing realities.

The Ministry of Women and Children's Affairs is the lead agency for women's development. Some major steps include establishment and strengthening of national women machinery such as: National Council for Women's Development, the Parliamentary Standing Committee for MWCA, Women's Development Implementation and Evaluation Committee and WID focal points mechanisms. There are 49 WID focal points and associated with focal points in the ministries.

2.5 GENDER DISAGGREGATED DATA AND TRAINING

The lack of equal opportunities for women to participate in economic and political life is assessed partly by the gender empowerment measure (GEM), estimated for 102 countries in 1999. Bangladesh was ranked at 83, above its neighbors India (95) and Pakistan (100) (UNDP: HDR 1999).

The Bangladesh Bureau of Statistics collects gender-disaggregated data in its surveys. Various indicators have shown improvement in women's status since 1995. The labor force participation rate of women was 18.1% in 1995 and 22.8% in 2000. The urban participation rate increased from 20.5% to 25.6% over this period. The literacy rate of women (15+ years) has increased from 34.2% in 1995 to 48% in 1999. Life expectancy at birth was 58.9 and 58.0 years respectively for men and women in 1995 and it increased to 60.7 and 60.5 years in 1998 respectively. Maternal mortality has decreased from 4.4 per thousand in 1995 to 3.2 per thousand in 2000.

Gender training is conducted in many government and non-government organizations, national institute for local government for ward commissioners and government officials. Many other institutes provide gender training. Much research has been conducted on women's problems in urban life such as housing, employment, health, education and safety. Gender issues have a priority in much development work. Different organizations arrange seminars, workshops and research on gender issues. There is a PLAGE (Policy Leadership and Advocacy for Gender Equality) project, funded by CIDA, which supports MWCA in organizing consultation meetings at various levels. The

donors also have a women and gender equality (WAGE) local consultative Group (LCG). Integrating women in projects is an essential part of all projects to be approved by the Planning Commission.

2.6 TRANSPORT SECTOR IN THE BUDGET

The transport sector has a significant budget allocation. For the fiscal year 2001/02, about 20% of the total development budget was allocated to the transport sector. Studies have shown that during the FFYP period 1997/98 - 2001/02, there were few gender-sensitive programs: only 1.4% of the total development budget for transport was allocated for such programs in 1997/98 and this increased to only 3% in 2001/02 (Paul-Majumder 2002).

3. INSTITUTIONAL ANALYSIS

3.1 TRANSPORT POLICY AND DUTP

The National Land Transport Policy was drafted in January 2003 with foreign assistance, especially from the UK's Department for International Development (DFID). Although the NAP states clearly that all sectoral policies must address gender, this issue has not been adequately addressed in the transport policy. A number of workshops were held on the policy, but there was no participation of MWCA, which is the lead ministry to ensure gender equality. One of its responsibilities is to ensure that all sectoral policies address gender equality. Discussion with MWCA suggests that it has not been consulted at all during drafting of the policy. There is an institutional mechanism to link MWCA with the Ministry of Communication - the WID focal point - which should be activated. Some ways of integrating gender equality in the transport policy are provided in Appendix 1.

GoB has prepared the policy with the aim of creating a more efficient transport system for passengers and freight, by road and railway. Several policy objectives could promote gender equality, such as: safe and reliable transport, environmentally sustainable transport and a government role in ensuring transport is provided for social needs. It is noteworthy that the policy promotes the role of transport users, both male and female, to help government focus the policy better. One strategic objective for land transport is to provide special consideration to the needs of Dhaka, where the large population is forced to endure traffic jams and fumes, while those who wish to use public transport receive inadequate services and those who wish to walk or use non-motorized transport face polluted and unsafe routes. Policy objectives and targets are provided to frame a multi-mode transport strategy for the capital. The policy fails to address that explicit measures are needed to allow both men and women to have transport developed for them.

In the policies for Dhaka it is mentioned that:

- Government will regulate some public transport fares; it will intervene to protect the
 poorest sectors of the traveling public and will develop mechanisms for reimbursing
 operators.
- Transport services should be provided by mainly the private sector and the role of
 government is to ensure that transport infrastructure and services are provided in ways
 which meet the public interests with proper standards of safety, fairness, efficiency and
 environmental responsibility.
- Government has a role in securing transport provision for social needs; it will welcome initiatives from the private sector to provide such services. Public sector providers may also continue to play such a role.
- Government will strengthen the transport planning and implementation process in Dhaka through the Ministry of Communication.
- Government intends to introduce a range of effective measures to improve public transport, reduce congestion and improve the environment.

Transport in Dhaka is dominated by walking, followed by rickshaw. The vehicle mix contributes to congestion. Transport policy for Dhaka aims for an appropriate vehicle mix on normal working days. Some of the intentions of the policy that greatly overlap with that of DUTP, are to:

- give priority to pedestrians by promoting walking as a safe mode of transport;
- promote integration between pedestrians and other modes of transport;
- make facilities friendly, safe and accessible for pedestrians;
- continue a progressive ban on use of rickshaws on major arterial roads;
- reduce the number of trips made by rickshaw by half over the next 10 years;
- ensure that all auto-rickshaws in Dhaka are powered by 4-stroke CNG or petrol engine and banning use of two-stroke engine three-wheelers;
- encourage the use of auto-rickshaw as a feeder mode to buses;
- increase the bus fleet to 5,000 operating buses by 2012;
- replace tempos and mini-buses by conventional buses;
- implement bus-only lanes on main roads;
- introduce route tendering;
- develop a comprehensive traffic management plan for the Dhaka City;
- introduce new technologies for traffic control;
- adopt a priority program for better pedestrian and crossing facilities;
- incorporate safety measures in road and traffic management, especially for vulnerable road users;
- strengthen the role of DTCB as a co-coordinating agency, with powers with respect to policy planning and certain implementation functions; and
- give DTCB responsibility for securing a safe, efficient and modern network of bus routes to serve passengers' demands adequately, through a system of route franchising to be developed by DUTP.

3.2 INSTITUTIONAL SETTING OF DUTP

The various institutions and their responsibilities are shown in Table 2. No central agency was responsible for formulation of urban public transportation policy and coordination in project planning and implementation. Hence, DTCB was established under the DUTP project.

3.2.1 DTCB

DTCB, established under the DTCB Act of 2001, provided support under the Project to evolve gradually (largely through experience gained during the project period) into a permanent coordinating body for transport planning, policy and management under the DMS – where several key players (DCC, DMP, RHD, BRTC, DOE) under various different ministries are already directly involved in implementing urban transport functions. Performance of DUTP to date, according to the mid-term review, amply demonstrates that the DTCB (under the MOC) lacks the necessary authority to play this role effectively.

Table 2: Major Trans port Agencies

Agency	Responsibilities
Planning Commission	Transport policy formulation
Ministry of Communication (MOC)	Transport policy formulation and administration
RAJUK	Preparation of structure plan and development control of Dhaka metropolitan area
	Development of roads in the Dhaka Metropolitan area.
DCC	Maintenance of roads in Dhaka city
	Licensing of rickshaws in Dhaka City
	Development of roads within the Dhaka metropolitan area
Bangladesh Road Transport	Vehicle registration in Bangladesh
Authority (BRTA)	Licensing of public transportation in Bangladesh (excluding rickshaw)
	Issuance of "route permit" to each bus in Bangladesh.
Bangladesh Road Transport Corporation (BRTC)	Bus operation
Dhaka metropolitan Police (DMP)	Traffic control in Dhaka metropolitan area
Road and Highways Dept (RHD)	Construction of national road, regional roads and feeder roads in Bangladesh
Department of Environment (DOE)	Concerned with environmental standards
PERTOBANGLA (RPGCL)	Supply of natural gas to users

3.2.2 Dhaka City Corporation (DCC)

A critical element in the overall development of the institutional capacity of the transport sector in Dhaka city is strengthening the Traffic Engineering Division (TED) of the DCC, which was formed in June 2000 as a key component in the implementation strategy for DUTP. TED should concentrate initially on management of the existing road network, involving activities such as: intersection design, parking control, traffic signal design and operation, road-side management (e.g.

control of encroachment, materials or waste storage) pedestrian facilities, road safety, on-street facilities for buses, road signs and markings. The initial intervention focuses on the main arterial network (about 120km) with the objective of implementing the proposed NMT-free strategy to allow efficient and effective operation of bus services on roads throughout the city. DCC has already established the Road and Transport Maintenance Fund (RTMF) and is in the process of channeling its allocation for routine and periodic maintenance work through it. A maintenance management committee has been formed with representative from TED and field zones. DCC is developing a road management maintenance system for which TA and equipment support would be provided under the project.

3.2.3 Bangladesh Road Transport Authority

BRTA is legally responsible for controlling and regulating road transport, including public transport, for the whole country. Its charter focuses on the driver and the vehicle. BRTA constitutes and controls the Regional Transport Committees (RTC) that license public transport routes. The Project is providing computer hardware / software to strengthen BRTA's regulatory functions. The Project is assisting BRTA build capacity through computerization of its vehicle registration system and support for environment monitoring of gross polluters. The bus study has proposed creation of a capable public transport planning and regulatory agency under BTRA. BRTA maintains data by gender on female and male licenses issued. For 1999-2002, 256,405 males and 4,766 women were given laminated plastic drivers' licenses. Women mostly drive light vehicles and men dominate heavy vehicles, motor cycles, three-wheelers and trucks.

3.2.4 Dhaka Metropolitan Police (DMP)

Effective traffic enforcement is one of the key elements for the success of the Project. However, the absence of a clearly designated project focal point within DMP, high staff turnover, weak coordination and implementation of traffic enforcement measures have all constrained improvement in traffic flows over the infrastructure provided by the Project. DMP has been provided training and considerable traffic enforcement equipment by the Project. DMP has requested additional traffic enforcement equipment, to enable it to manage fully traffic on the integrated corridors being improved by the Project.

3.2.5 Roads and Highways Department (RHD)

RHD was entrusted with construction of the Jatrabari and Mohakhali flyovers; the latter has been dropped from the Project. DCC's weak implementation performance to date has led to responsibility for implementing the remaining large (ICB) works (estimated at USD 39 million) originally included in the DCC portfolio being shifted to RHD – an agency with a more credible track record and experience in handling large FIDIC based international contracts.

4. GENDER ISSUES IN PROJECT DESIGN AND IMPLEMENTATION

4.1 DESIGN AND IMPLEMENTATION: REVIEW OF DOCUMENTS

4.1.1 Insights from the Project Appraisal Document (World Bank 1998)

The main issues in the urban sector of Bangladesh as identified in the project appraisal document (PAD) are the following: (i) rapid increase in urban population; (ii) extremely poor condition of infrastructure and services, (iii) weak local government institutions; (iv) poor revenue base and inadequate cost recovery; (v) overlapping responsibilities and poor coordination by different government ministries and municipal agencies; and (vi) lack of stakeholder participation and adequate consultative processes. However, gender-specific transport issues in Dhaka have not always been taken into consideration in the PAD.

Differences in Gender Travel Patterns not Considered

The PAD noted that, in many respects, the distribution of modal choices in Dhaka is unique among cities of comparable size in the Asia region. Walking to work and NMT are the major components of the travel pattern. The PAD notes the following: almost 60% of the 8.5 million weekday person trips are by walking; 19.2% use manually pedaled cycle-rickshaws; 1.4% use the auto-rickshaw (motorized three wheelers); 9.2% travel by bus; 3.1% by private car; and the remaining 7.7%, by various other modes. The share of buses is 30.6% of passenger kilometers traveled and those of cycle-rickshaw and walking 21.7% and 17.7% respectively. The high dependence on walking and cycle-rickshaw is a symptom of inefficient and ineffective transport systems and operations. The dominance of slow human pedaled cycle rickshaws, which are non-polluting and employ a large number of poor, but add to traffic congestion (especially on main arterial roads), constitutes a major social issue related to traffic management in Dhaka. However, the PAD has not considered the travel pattern by gender.

Gender as an Element in Principal Problems and Issues

Of the nine problems and issues identified for Dhaka, two have addressed gender issues: (i) absence of a good scheduled bus system (or other mass transport), most buses being old, overcrowded and generally inaccessible to women passengers; and (ii) poor accessibility for women to existing bus services due to overcrowding and inadequate sidewalks and pedestrian facilities which constrain poor garment workers who walk to work in large numbers.

Gender in Strategies to Meet the Problems

Although the urban transport strategy for Dhaka includes a number of concrete issues, it largely failed to focus on differential impacts on men and women. Gender issues have not been mainstreamed in the strategies to meet the specific problems of women in the sector.

Of the 14 strategies, only one with a gender-specific component has been found, stated that: it would address "the transport needs of specific vulnerable groups such as women, garment workers, and the poor." In addition, tariff reform as part of DUTP preparation which allowed market-based tariff setting by bus operators in DMA who bring better quality "premium" services (sitting only,

limited stop), has already attracted new, improved bus operating companies. The PAD further notes that participatory processes for improving bus services for the poor and women have also been agreed.

Gender Integration in the Participatory Mechanism during Preparation

All key stakeholders were consulted extensively during project preparation. The Project had taken considerable efforts to mainstream social issues and concerns within the overall context of preparation from a very early stage. Eight Public Consultative Committee (PCC) meetings and a series of workshops and consultative meetings were held with various stakeholders including women's groups. A number of demand assessments of affected people were carried out. A survey of rickshaw pullers' associations and users of the pilot premium bus services were carried out. A household survey to assess the specific transport constraints of poor women in Dhaka City was carried out by a local NGO, Nari Uddug Kendro (NUK), in March 1997. A review of the study is given in Appendix 2. The survey was followed by a participation workshop with university students, garment workers and other working women, all of whom face major transport constraints. Discussion with NUK suggests that was no follow-up to the workshop.

Participatory Mechanisms during Implementation

To facilitate public consultation in project preparation and implementation, the Government has set up a Public Consultative Committee (PCC), under the chairmanship of DCC Mayor and with representatives from key project agencies, NGOs and the private sector. The participatory process worked well during project preparation. In implementation, zone-level consultative committees were to be established, to ensure adequate public involvement and feedback at a more socialized level NGOs would facilitate the working of these committees. It is not clear to what extent women would be consulted and how they would participate in the PCC.

4.1.2 Insights from the Mid-term Review (World Bank 2002)

The Project has been restructured to focus remaining investments on a series of integrated corridor improvements, based on a network of NMT-free routes. At the request of the World Bank, DTCB has formed a working committee with representation from all concerned agencies to plan and monitor the progress of the demonstration corridor and the additional corridors agreed during the MTR mission. The World Bank stressed that the provision of additional public transport services, development of alternative NMT routes, consultation with affected groups and a public awareness campaign should be an integral part of the corridor development proposals. Separate local contracts should be arranged for the consultations and media exposure. Specific facilities should be allowed for NMT to cross the designated NMT-free corridors and to travel along the corridors (in segregated NMT-only lanes) where required and where space permits.

Public Awareness Campaign

The MTR considered it essential that a public awareness campaign was mounted in advance of implementation; consultations should be held with affected groups (e.g. traffic police, rickshaw owners and operators, bus operators, rickshaw and bus passengers) and their views taken into account in the design of the scheme.

Need for a Social Assessment Study

The MTR shows that the Mirpur road corridor (13 km stretch between Gabtali and Azimpur) is to be developed as an NMT-free demonstration project followed by five more corridors in phases. A socially acceptable strategy would be to remove the rickshaw and provide an adequate and high standard of bus services. The social assessment should ensure the participation of all road users, local communities, shop owners/ traders and owner/ operators of the transport system (including rickshaw pullers, bus and truck drivers and small vehicle operators) and the implementing agencies including DCC and DMP. The assessment should explore the possibility of providing dedicated rickshaw lanes on the corridors, where feasible. From the findings of the social assessment, a strategy should be developed defining the process (including identification of affected people) to be adopted and the measures to mitigate any adverse impacts as a result of project intervention. Mitigation measures may include training facilities and access to institutional credit for alternate livelihoods, engagement in traffic regulation and in project construction works. The strategy should assess the public bus transport needs of commuters and the arrangements to provide them. From the strategy, a plan should be prepared to meet the needs of the road users while converting the proposed corridors as NMT-free. The study "Mirpur Road Demonstration Corridor Project: Social Assessment and Public Awareness Campaign" conducted by Bangladesh Transport Foundation in 2002 is reviewed in Appendix 3.

4.2 DESIGN AND IMPLEMENTATION: STAKEHOLDER PERCEPTIONS

One of the main problems faced during interviews with government officials was that there has been a high turnover rate of staff in all the concerned institutes. As this project started in 1999, it was possible to know only what has been implemented. Moreover, except the first project director, government officials were not aware of the gender needs assessment study which was undertaken in 1997.

Almost all of the key informants who were interviewed stated that the gender issue has not been mainstreamed in the design of the project and consequently there has been no direct gender issue to be considered in implementing the project. Government officials and donors, interviewed as key informants, agreed that DUTP intended to have specific differential outcomes for males and females in the case of pedestrian facilities. Construction and development of footpaths for pedestrians and ensuring streetlights on roads helped secure women's mobility, especially for low-income commuters including female garment workers. They emphasized positive externalities of the intervention on women in terms of creating an enabling environment for sitting bus services. All stakeholders opined that integration of rickshaws in the transport of Dhaka is needed and elimination is not possible. The users suggested that secondary routes for rickshaw are needed. The main concern is to get to the city center as fast as possible. The stakeholders' discussion suggested that both men and women would benefit from: (i) improved traffic flow – which has been achieved in the demonstration road; (ii) improved public transport in the corridor; and (iii) pilot route franchising.

4.2.1 Gaps from DITS to DUTP

The development of DUTP emerged as a result of recommendations from studies conducted under the Planning Commission and UNDP, "Greater Dhaka Integrated Transport" study (DITS, 1994) that clearly included gender as an important component in a working paper "Mobility of Women".

There was a series of World Bank-funded preparation studies such as "Gender Dimensions in Transport in the Dhaka Metropolitan Area" (NUK 1997). However, when DUTP was established, it had no gender component.

The study on "Mobility of Women" under DITS recognizes that women in Dhaka City are caught between conflicting pressures: traditional and religious values urge them to stay at home and refrain from contact with male strangers, while increasing economic hardship and export-led industrialization and intervention by government and NGOs are forcing women to seek work and receive education. GoB has taken several steps to encourage participation of women in economic and educational activities: 15% of positions in the public sector are reserved for women and education of girls was to up to class VIII in 1991. The success of these policies greatly depends upon women's ability to access these opportunities. The rise of the ready-made garment industries has provided formal sector employment to women in Dhaka and Chittagong cities, as women are a docile and largely non-unionized workforce. Transport is a male dominated sector and women's mobility remains a cause for concern.

The main efforts of DUTP were to develop infrastructure, roads, construct fly-overs, bus terminals and bus routes, improve congestion at intersection, provide pedestrian facilities and improve traffic management. The transport modeling done was not based on separate needs of women. The "Mobility of women" study is reviewed in Appendix 4.

Discussion with DTCB suggests that DUTP has ignored the social aspect of DITS. The gender study (NUK 1997) done during the preparation of DUTP was not disseminated among different stakeholders. Most stakeholders stated that women, especially garment workers, benefited from pedestrian facilities provided by the project.

4.2.2 Premium Buses are Women-friendly

Acting on recommendation of the DITS (1994) study, GoB requested the World Bank to assist in financing DUTP. The first condition was to introduce premium bus services. Premium bus services are defined by the Bangladesh Gazette of October 12, 1996 as follows: Express with limited stops, sitting only, air conditioned (AC), using new buses or less than four year old buses. Fares were regulated by BRTA; the World Bank laid a condition to deregulate fares. Premium buses were introduced in 1997 by Metro Bus Company and soon replicated by Nirapad. Both Metro and Nirapad are now operating without route permits, as their buses are more than four years old. Discussion with DTCB suggests that the regulation needs to change, to 8-10 years old buses. Sitting service, ticket counter and queuing have brought discipline. Discussion with one premium operator suggests that it was assumed that there would be limited demand for this bus by middle class women, as women "culturally" socialize near home. Once the high quality service was provided it proved to be very popular for middle class women. Those who did not previously travel much due to very poor service were now traveling by bus. There has been a modal shift from car to bus. Women feel safe to travel and as it is high-priced, the travelers are upper middle class people. About 10% of travelers are working women. These quality buses have created new employment for men who do ticketing. Recently, non-AC buses are replicating AC buses. While this is sustainable urban transport, as people are willing to move to a better service, these non-AC buses should be regulated. There is a modal shift from rickshaw to these non-AC sitting service buses. In these sitting service buses, there has been no demand for reserved seats for women. The premium bus operator suggested that 25% of seats can be reserved for women. The user survey suggests that even the non-AC seating service buses are not affordable for many women.

The premium operator opined that it is becoming difficult to sustain such AC buses. Fuel prices have increased but the bus fare has not. In the beginning, fuel cost was 20% of daily sales and now it is 40% and the buses are running below cost. Non-AC sitting buses are competing with them. There is demand for AC buses in summer mostly. Otherwise, users go for non-AC sitting services. BTRC buses, such as Volvos, are competing by low fares in comfort. The premium operator argues that the strategy of low fares is increasing the liabilities of BRTC.

4.2.3 Employment of Women

The Project Proforma (PP) mentions that there is scope for women laborers to take part in construction work (PP, p8), but this was not implemented. "No women labor shall be employed within the limits of a cantonment", according to Federation International des Ingenieurs conseils (FIDIC) contractors' rules. This rule is followed in all World Bank projects. The RHD as well as the private sector such as the contractors and the DSM stated this. FIDIC specifies the conditions of contract of work of civil engineering construction for international competitive bidding (ICB). They opined that women are not employed because the constructions are massive mechanized and machines are used to crush stones. There is no scope for women in mechanical construction at night and women do not have the skill of masonry. Even in the construction of footpaths, poor women did not work. They bring children with them and so are not preferred by the contractors. It was suggested that women engineers could participate in design and planning. Similar reasoning was also provided by DCC who is responsible for national competitive bidding (NCB), where the FIDIC rule does not apply.

4.2.4 Women's Participation in Design and Implementation

Stakeholder interviews suggested that the Bank promoted participatory methods during preparation of DUTP and before the demonstration road became NMT-free, but that these could not be sustained in implementation. The NGO NUK participated in preparation but was not included in any committees. None of the stakeholders could say when the last meeting of the PCC was held. The PCC that was re-constituted in April 2003 had one women's organization. Other women's organizations, researchers and NGOs working with women in the committee need to be included.

An NGO carried out the participatory approach during the demonstration road. The approach had formed three CBOs but they did not meet after the awareness campaign. This is probably because DTCB did not have knowledge of participatory approaches, or the staff. of DTCB mentioned that there was no scope in the project for further consultation with the CBOs. In the case of the demonstration road, the CBOs were formed only for raising awareness and not to provide feedback into the project. Hence, participation was used to "sell" to the community decisions which have already been made. Participation was not intended to empower the community to take control of the project selection and design. The survey of users, operators and women ward commissioners suggests that users did not participate in workshops but associations of operators and ward commissioners did. They said that their views were not incorporated in the demonstration project design. The DMP and the women ward commissioners noted that there was a demand to have rickshaw crossings from Asad gate to Farm gate and to have a separate lane for rickshaws, but these

were not incorporated in the design. The World Bank should monitor that the views expressed in workshops are incorporated in the demonstration project design.

A participatory approach does not by itself guarantee that all gender-specific concerns are addressed. Quotas could be introduced in such committees. A parallel consultative group could be set up by MWCA and its views would be taken during consultation.

4.2.5 Gaps in Providing Accessible Bus Service for Women

Although poor accessibility for women to the existing bus service, caused by overcrowding, was identified as a problem by the project, it has not yet been addressed. Inadequate sidewalks and pedestrian facilities that constrain poor garment workers who walk to work in large number have been addressed to some extent. Although participatory processes for improving bus services for the poor and the women have been agreed upon, this has not been implemented.

Accessibility for women to the existing bus service could be achieved by (i) providing "women only" buses; (ii) reserving seats for women; and (iii) expanding sitting only buses. Discussions with the bus association and operators suggest that the private sector will not provide "women only" buses as they are not profitable. All stakeholders suggested that it is the responsibility of BRTC to provide such services.

Discussions with BRTC showed that it had provided "women only" buses since the early 1980s. However, such services were withdrawn several times due to limited numbers of passengers. In 1997 BRTC started "women only" buses for students and working women. Buses for the ready made garment workers started in 1998 on an initiative of the Chairman of BRTC. In 2001 BNP took an initiative for "women only" buses for its 100 days program. There are now six "women only" buses. The Chairman discussed the problems of "women only" buses with women activists from Mahila Parishad and Ain-o- halish-kendro and representatives from girls' colleges. BRTC noted that women do not travel in these buses and the buses make losses, because "culturally" women usually do not travel alone as they feel insecure; they usually have a male escort.

4.2.6 Road safety

The Project has addressed the issue of road safety by (i) providing training to both public and private service providers on the importance of safety on the roads; (ii) rehabilitating and expanding foot paths; (iii) providing foot bridges; (iv) providing necessary items or equipments to DMP. Studies have shown that nearly 50% of hospital beds are occupied by road accident victims (TRL and Silcock 2000). One study noted that pedestrians suffer a high accident rate and account for over 60% of all road traffic accident fatalities reported in Dhaka (NUK 2000). A World Bank report (NUK 2000) notes that the "Community Safety Project" has addressed the safety issue.

The Project will computerize data on road safety and the road safety cell and monitor pollution. BRTA data is disaggregated by gender for licenses and road accidents. BRTA noted that when information on passengers will be collected for men and women. The program used now cannot disaggregate by gender, although the information is entered by gender. BRTA wanted a program that can analyze data by gender. There is a road safety cell under BRTA which has 40 registered points to collect data by gender. In 2001 about 24% of pedestrians killed were children under the age of 15 years. Of these, 39% were girls. This cell was created under the RRMP III Project assisted

by the World Bank. There is a national road safety council (NRSC). BRTA opined that all World Bank-supported projects on roads require impact on gender. Discussions with the road safety cell suggest that it will start road safety awareness campaign using video and booklets. There is underreporting of non-fatal accidents. Training was needed for the police department to collect data. Road safety will be introduced in the police course curriculum. Software upgrading was needed for the road safety cell. It was suggested by DMP that a traffic research cell was needed.

Although the Project has taken road safety into consideration, it does not address the issue sufficiently. The DSM consultants noted that the underpasses were dropped from the Project as it they were considered insecure for both men and women. It was noted by the contractors that footbridges were a problem for women as the design was not friendly to them. Users also reported this and that crossover bridges involve arduous detours and are unsafe as they are potential grounds for theft.

4.2.7 Implementation problems

The demonstration road was implemented faster than planned. The road is supposed to be rickshaw-free from Russel Square to Technical, but DMP implemented it from Kalabagan to Gabtoli. At Gabtoli there is a bus terminal. Hence the shocks are likely to be absorbed by users, small operators and small enterprises.

As the private sector might not respond, BRTC was supposed to provide 35 additional buses on the demonstration route, but it has 20 additional buses on this road. BRTC claims that there are not have enough passengers and so it is not viable. Private sector operators felt that BRTC is competing with them. The result is that users have no access to buses. The user survey suggests that BRTC provided more buses on the demonstration road for only a week.

The Project's mitigation program for rickshaw pullers has not yet started. The BTF recommended other government projects to address the adverse impact on rickshaw pullers, but this will shift the burden from self-employment in the transport sector to government. The ward commissioner and rickshaw pullers' association stated that, although they had demanded separate lanes from Gabtoli to Shamoli, there are no dedicated rickshaw lanes on the corridor (except one near Shamoli). They also demanded rickshaw crossing from Asad gate to Farmgate but this was not implemented.

4.2.8 Gaps in the World Bank Web Site Paper and Implementation

The paper in the World Bank web site (NUK 2000) had cited that:

- The Project initiated gender-sensitive training to service providers.
- The Project funded international travel to India for service providers to learn from its successful gender/passenger-friendly transport system.
- A working committee is formed under DUTP to monitor gender and social issues related to
 the Project. The committee included representatives from the project unit, BRTA, private
 transport service providers, NGOs, women and male community members. The committee
 would meet quarterly to discuss the status of women in transport and document both the
 efforts and the process undertaken to respond to the needs of women in the urban transport
 sub sector.

Discussions with government officials and the author (NUK) suggest that the above were not part of DUTP. It is not clear why these were mentioned in the World Bank paper. It was also noted by DTCB that minibuses such as Maxi and Duranta are not a part of DUTP.

5. GENDER OUTCOMES: IMPACT OF NMT FREE ROADS

5.1 DEMONSTRATION PROJECT: MIRPUR CORRIDOR

This section analyzes the difference in outcomes for men and women of interventions in DUTP. It focuses on the "demonstration project" in Mirpur corridor, the basic theme of which was to demonstrate the benefits of a system approach to traffic improvement, including physical works as part of an advanced works program, improved management system and implementation, separation of slow- and fast-moving traffic, improvements to infrastructure (e.g., bus stoppages, bus bays, bus passengers shed), intersection improvement, development work in parking plans, traffic signs, road user behavior and training for police. The dominance of slow human-pedaled cycle rickshaws, which are non-polluting and employ a large number of poor but add to traffic congestion, especially on arterial roads, constitutes a major social issue for traffic management in Dhaka.

The indicators to assess the impact of the first demonstration corridor (World Bank 2002) were:

- change in traffic flow;
- improvement of traffic safety, especially for pedestrian;
- improvement of public transport services;
- reduction in motor vehicle pollution in DMA; and
- progress in integrating transport planning and management in DMA

These indicators can be easily monitored. No indicators to show the impact on the living standards of men and women were included.

However, the World Bank (2002) recognizes some social aspects such as:

- NMT makes a very substantial contribution to transport in Dhaka with cycle rickshaws making over half of all mechanized (i.e., non pedestrian) trips in the urban area;
- cycle rickshaws are the preferred mode of transport for a significant portion of Dhaka's middle class, with particularly high usage by women;
- travel by rickshaw is not cheap (compared to buses) but offers considerable advantages in convenience, safety (although not always), flexibility and the ability to carry goods to or from markets:
- most NMT trips are short (e.g. to/ from schools, markets, feeders to main roads), but a significant portion travels on main roads (or find it convenient to do so); and
- restriction of NMT will lead some current users to divert to buses (increasingly so if bus service is enhanced) but many will choose to remain with the rickshaw.

Assessment of the impact on both the passenger and rickshaw puller will have two major aspects: road users who require an alternate, adequate and dependable public transport system; and rickshaw owners/ pullers whose earnings will decline and some of whom might lose their jobs. It is important to assess the impacts of making a corridor NMT-free on road users and rickshaw pullers, identify their problems and recommend suitable ameliorative measures.

5.2 PERCEPTIONS OF USERS AND OPERATORS

A survey and FGDs were done with 79 men and 151 women users, including housewives, employed women and men, female and male students, female and male garment workers and small traders. Interviews were conducted with 47 operators, 27 were rickshaw/van pullers and 20 bus drivers/conductors. The operators were all men. Discussions with users and operators suggest that the demonstration route is successful as congestion has reduced and traffic flow has improved but all social issues have not been addressed.

5.2.1 Transport-gender Linkages by Location

It was found that users are a group diverse in incomes and location with widely differing travel needs. The demonstration route is from Gabtoli to Azimpur. But it has been implemented partly from Gabtoli to Russel Square in the first phase. Russel square to Azimpur will soon be NMT-free soon. The study concentrated in the area from Gabtoli to Science laboratory road /*. Between Science laboratory and Shamoli there are three rickshaw crossings which, along with connected secondary roads, provide good accessibility. There are no rickshaw crossings across the Mirpur road nor are there secondary connected roads between Shamoli and Gabtoli. The accessible area has a large concentration of residence of upper middle class and institutions such as schools, hospitals and shopping centers. The non-accessible area had a large concentration of residence of lower middle class and urban poor on this route. At the end of the route is the Gabtoli bus terminal, the gateway of the city for northern and part of south and southwestern Bangladesh. Incoming travelers with bulk commodities now have big trouble reaching their destination in the city center. Hence the users and operators were more adversely affected in the non-accessible area than the accessible area. It is difficult for women and children to travel from the inaccessible area to the accessible for commuting to school, work and hospitals. Geographical targeting is therefore needed.

5.2.2 Observed changes in the route

The restriction on NMT was imposed on 20 December 2002. Users and operators were keen to express their views:

- Road congestion has been reduced on this route, according to 61% of the women and 81% of the men interviewed, due to rickshaws removed from the road and better traffic management. There has been improvement in the intersections and traffic signals are automatic. On the contrary, 60% of the operators believed that road congestion had increased.
- About half the respondents reported that better traffic management was due to better performance by police who were imposing high fines on this route, deterring drivers from breaking traffic rules. The police strictly enforce movement restriction on NMT from 7 a.m. to 10 p.m. Many operators (66%) felt that traffic management had improved.

⁴ On paper, the NMT-free road is from Technical to Russell Square, but actually it is already implemented from Gabtoli to Kalabagan. This is due to the demand from the police and bus and trucks plying on this road.

- About 47% of the women and 68% of the men thought that road accidents had been reduced by restrictions on rickshaws. Prior to the road being NMT-free, about 10% of women and men had had rickshaw accidents. About 20% of the men and women stated that pedestrian accidents have increased as MT speed has increased. This is more so in the inaccessible area where there are few stop lights. About half the operators felt that road accidents have been reduced.
- The response from private bus services to NMT restriction has generally improved but the number of buses is inadequate to meet passengers' needs. There has been an increase in congestion in buses, expressed by 36% women and 53% men. About one third of operators reported that congestion in buses has increased.
- Pedestrian facilities (e.g., foot paths) have improved according to 50% of the women and 82% of the men. This improvement has led many men to walk short distances.
- Condition of streetlights has not improved much.
- Users and operators at the Gabtoli bus terminal noted that congestion has been reduced by the efforts of DCC, police, bus and truck owners and drivers' associations. Most counters have moved to the city center and women feel secure to travel from within the city. The mosque committee suggested to the bus association to keep community police; this has ensured proper parking and security. Bus owners have withdrawn "call boys" from the terminal and this has benefited women passengers who were previously harassed. The road has been widened and traffic management has improved. The waiting room is inconveniently situated and women usually wait in the bus. Waiting rooms and toilets should be near the ticket counter. It is difficult to commute with goods to and from the terminal since restrictions on NMT have been imposed. The terminal should be well lighted.

More men than women users reported improvement, perhaps because men are more mobile. Except the Gabtoli terminal, most of the changes relate to the demonstration project.

5.3 IMPACT ON USERS

The plight of the users has been depicted in a recent article in a daily newspaper as shown in Box 1.

5.3.1 Impact on Travel Mode

The restriction on NMT, to be successful, needs suitable bus services and/or convenient alternative routes for the use of NMT. Otherwise, users will face inconvenience in commuting.

Bus: Journey is Interrupted

Due to rickshaws being off-road, some users have changed their travel mode to bus (local and mini bus). Many housewives and employed women are now forced to use local buses for the first time to travel from the inaccessible to the accessible area. These middle class women are "breaking the cultural barrier" of female seclusion due to which women do not travel in crowded buses. About 70% of women bus users reported that they are new users of buses. To use buses, they have to change mode rickshaw-bus and walk. Women have to walk long distances to stands and to wait long times for buses. Due to rickshaw being off-road, they cannot

Box 1: What Would Women Do?

"The other day, in a desperate attempt to go to my workplace in time, I had to resort to riding the local buses. But to my astonishment, I was told off by the busboy at the gate, he shouted, "mahila seat naai....." (there is no seat for women). It was in the morning, and after an hour or so desperately looking for a CNG scooter, I decided to opt for the bus. I am a makeup artist, and I need to go to different places every morning to serve my clients. But after the government enforced the regulation that put a stop to plying of rickshaws and two-stroke scooters in Mirpur road, everyday I go through an ordeal looking for transport. I live in Shaymoli, most of the buses that ply in the Mirpur Road are private minibuses. And these buses refuse to take women passengers during rush hour. I have seen our male counterparts taking up the seats reserved for women. Often when there is no shortage of male passengers then the buswalahs (bus operators) simply avoid women. Only the government can change this scenario, as they are the one who decided to withdraw rickshaws and two stroke scooters from the road. We must have a decent government owned transportation system."

Shahana Akhter, Shaymoli

Source: The Daily Star Weekend Magazine, <u>Dhaka</u>

Diary, Dhaka, June 6, 2003

travel door-to-door and cannot choose routes. Too many interchanges are inconvenient for passengers and increase travel time and cost.

There is no premium bus on this route, but the Metro link (Box 2) non-AC bus started plying just prior to the NMT restriction. Women consider it safe and secure to travel by this bus. The long queue for the "metro link" suggests that more buses such as ATCL and Sino-Dipon Gas (two door bus) should run on this route. Women prefer this bus as the helpers do not stand on the door while they come down from the bus and because it is sitting service, queuing and advance ticketing. The NMT-free road has led to female passengers increasing. But women complained that stops are infrequent. The bus is not affordable for many low-income families and for short-distance travel. It would be affordable for women to avail this service if half-fare was charged for short distances.

Most middle class women prefer conventional buses to minibuses, as they have to squeeze with

men to sit in the latter. Lower-income women prefer minibuses as seats are available and there is no crowding. Minibus operators give priority to women passengers.

There are BRTC "women-only" buses on this route, but services are infrequent and schedules are not maintained. Most of the passengers are university students and employees. Housewives and school students cannot avail themselves of this service as it is not provided in their peak hours. Most women are not aware of this service, its timing and stops.

Rickshaw: Detour Journey

The many women still traveling by rickshaw in the accessible area have longer journeys as rickshaws operate off-road.

Box 2: Metro Link "Non-Ac sitting service"

This bus service started just prior to the implementation of NMT free road. This is considered to be the most women friendly bus. They have 40 buses. It is a non-Ac, advance ticketing and queuing service. There is no reserved seat for women. Men and women are treated as passengers. It has stoppage between Mirpur and Azimpur. The numbers of passengers from each stoppage are: 20-7-5-5-3 for up town and 10-9-8-7-4-2 for down town. The fare is a flat rate of Tk.6. There are frequent buses, every five minutes. They do not stand at the stop for more than a minute. Although this is a sitting service, but during peak hours the passengers want to avail the bus by standing. Only 5-10 persons stand during peak hours. But women are never taken as standing passengers. About 20 percent of the passengers are women. The peak hour for womer traveling with children for school is between 7-8.30 am. The peak hour is from 7-11.30am in the morning and 3-4.30 pm in the evening, Information about the route can be obtained from the ticket counter and hence attracts passengers. Many have moved on to this bus from Rickshaw and mainly middle class travel in this bus. They have introduced a ticket package: 18 ticket for Tk 100 to be used in 18 days. The passenger saves Tk.8 and also does not have to stand in the line to buy ticket daily. The operators feel that separate bus of women is not profitable for the private sector. The government operator BRTC can provide this service.

Travel time and cost have increased. The secondary lanes are not paved properly and have potholes and journeys are uncomfortable. The lanes do not have adequate streetlights, making journeys unsafe – with rickshaws confined in the lanes, mugging has increased. More rickshaw crossings (e.g., at road no. 4, road no. 8 at Dhanmandi and from Asad gate to Farmgate) would reduce detours. Some roads should be MT-free, such as the bridge in road 8 at Dhanmandi, for peak school hours. Rickshaws make some journeys early in the morning and late at night because of the restrictions. Rickshaw pullers prefer female passengers as they do not hassle with fares and can be charged more. Rickshaw was the preferred mode for 40% of users, for convenience.

Difficult to Travel Short Distance

Most rickshaw travel before the restriction was short-distance. Now, fares for short distance rickshaw travel have increased. Buses do not have frequent stops so men and women cannot travel short distances. CNGs do not want to go short distances, due to shortage of gas – they have to spend 3-4 hours for filling gas and so they charge the passengers Tk.5-10 more. The number of gas stations should be increased. Buses must have frequent stops.

Walking: Time -consuming Mode

Pedestrian facilities have been constructed to improve access for women and the poor. Women walking to work are mostly RMG workers. More men and women now have to walk short distances. This is a very time consuming mode. Most women who traveled in rickshaws did not

have the habit of walking. Although the facilities have improved, problems of dirty footpaths crowded with hawkers and harassment by street boys remains. Fines should be imposed on those who occupy the sidewalk. About 40% of women reported getting a deliberate push by men while walking. About half of the garment workers and students faced harassment by local touts while walking. Walking in the evening was considered to be unsafe by both men and women.

Women and girls do not use crossover bridges, as they are inconvenient and unsafe. They do not like the design, as it is not women-friendly. Often women with children or who are pregnant, sick or elderly cannot climb many stairs. It is considered to be a detour and time-consuming. Women usually cross the road by jay walking due to lack of zebra crossings. Women preferred zebra crossings to foot over bridges. Both commuters and police should accept that pedestrians have the first right to cross the road. If police are posted at zebra crossings, pedestrian accidents will be reduced.

5.3.2 Impact on mobility

The mobility of women in Dhaka has increased. Housewives were found to "chain trips". Women traveled for work (32%), education (16%), market (5%), to escort children to school (18%), visit hospitals (7%) and for recreation (12%). Men traveled for work (65%), education (9%), market (6%), to escort children to school (6%), to visit hospital (5%) and for recreation (24%). Transport needs vary by gender: men traveled more for work and recreation than women, while women traveled more to escort children to school. Moreover, visits to markets and hospitals and for recreation were rarely made.

Travel Made Everyday

Commute to Employment

The labor force participation increased in the 1990s. With the growth of the ready-made garment industry located in Dhaka and Chittagong and the increase in education of women, their labor force participation has increased. Women tend to choose jobs closer to their home. About 63% of women garment workers were found to walk to work (on average, 3 kilometers) and 36% to avail buses. The case study shows the problem they face while commuting. Other employed women used rickshaw (45%) or bus (40%) to commute to work. Men used mostly buses (56%), rickshaws (25%) and walking (24%).

Case Study of a Garment Worker

Nadira. Age 18. Education up to the SSC level. Has been in Dhaka for 2 years. She is unmarried and works as an operator in a garments factory earning Tk 3000 per month. Her transport expense was Tk 60 per month. She used the bus to get to work, leaving at 7:30 a.m. and returning by walking at 10 p.m. every day. She travels 3 km a day. She would like to travel in a smaller vehicle – like a minibus (maxi, duranta) – and pay Tk 4 per day so that she can get dropped off in front of her workplace. According to her, the crowding inside the bus has increased; road accidents have increased as drivers drive faster; traffic management has improved; there are longer waits for the bus; and the behavior of the driver has deteriorated. She finds it difficult to get on a crowded bus, as more people commute using the bus now. Now often she has to walk to work. The helpers often touch the girls inappropriately as they alight from the bus. She has to walk back at night, as there are no buses available. The trucks drive around at high speeds, and the helpers throw stones at the girls walking by. While walking back in groups, the girls are

harassed by local touts. Although the footpaths are cleaner than they were, the lanes from the main road are not paved and the streetlights do not work. She often is unable to get on a bus, and has to walk to work – which causes her to be late, and she has to pay late fines. The waiting time for buses has increased from ten minutes to twenty-five minutes. She also has to remain standing on the bus itself due to lack of seating space. Women-only buses are infrequent on this route. It is difficult to get a sack of rice (one that would last the month) from the market and so she has to purchase smaller amounts. She thinks rickshaws should be allowed on the main roads on Friday and rickshaw lanes should be established. She also thinks more buses should operate on this route.

Commute to Schools and Colleges

Various programs were undertaken in the 1990s to increase female enrollment in primary and secondary school. The gender gap in education has narrowed significantly and increased women's need for transport. In the urban areas most children go to school, but there are no school buses. Poor parents send their children to primary school near their home. Middle class parents send their children to better government and private schools. Children of the middle class commuted to school mainly by rickshaw. Lack of rickshaws has forced women and children to change their transport habits. The life cycle also affects travel behavior. Mothers usually accompany children to school due to lack of school buses - most are aged 30-35 and now avail local buses/rickshaws to take children to school. It is difficult for children to cross streets and get on buses and they find it very difficult to walk with their school bags. Hence, bus stops and zebra crossings should be provided in front of schools on this route.

Lack of transport and its cost and commuting time lead mothers usually to wait in school grounds or on the roadside to take children home. This has produced a positive externality such as social capital. In this networking they discuss various problems that women face. Good transport for children will help women by reducing their transport needs. This will release their "time" (three to four hours) to perform their multiple roles productively and to do some paid work. Restrictions on rickshaws have increased commuting times for mothers and hence constraint their time for other activities. About 5% of children were reported to have changed schools. It is very difficult to enroll in good schools. Good school should be available in all locations and not concentrated in one area.

Carrying Goods to Small Enterprises

The NMT restriction was intended for rickshaws only, but has also been imposed on vans, which are used to carry goods. The restriction has adversely affected small enterprises in the inaccessible area that have to detour to bring goods from wholesale markets. Otherwise, they have to share a pickup with a big enterprise. Their transport cost has risen, thus increasing prices of goods in local stores. In one case, a small businessman bought a bicycle to bring goods for his local shop. The seller brought goods worth Tk 25,000 everyday on the bike. Although his transport cost has reduced by Tk 30 per day, his labor has increased by one hour and he has to face the risk of accident.

Travel which is Curtailed

Mainly those living in the inaccessible area from Shamoli to Gabtoli face these problems.

Visits to markets

It is a responsibility of men to buy groceries. They used to buy rice in bags for the month, but now they have to purchase it in small amounts, as it is difficult to carry. Most of the vegetables are now brought from mobile vendors. Men now have to purchase their daily necessities from corner stores. This has increased household expenses. It was suggested that Friday should be a restriction-free day so that weekly marketing can be done.

Women who have small home-based businesses find it very difficult to carry goods in brown paper bags on a bus and crossing the road with bags is another problem. These women preferred to have a separate rickshaw lane to travel to markets.

Visits to Hospitals

Most residents of inaccessible areas cannot go to Shamoli where most of the hospitals (Sharwardy, Shushu, Pongu) are located. Many older women are delaying their treatment. It has become extremely difficult to travel with sick children or adults in a bus. There must be rickshaw crossings at Sarwardi and all hospitals should have linked roads.

Visiting Relatives

Very few men and women were found to visit relatives, due to lack of transport in evenings. Hence, visitors have to wait until 10 p.m. to return home by rickshaw. Recreational visits were also being curtailed.

The users wanted Friday to be a restriction-free day so that they can go to market and make recreational visits by rickshaw. A one-way rickshaw lane was needed from Shamoli to Gabloti to increase women's mobility. A crossing from Asad gate to Farmgate was also needed.

5.3.3 Women's Experience with Bus Services

Information about Services is Lacking

The focus group discussion suggests that women traveling for the first time by bus are ignorant about what public transport offers. It is very difficult for a newcomer to know when and where the bus travels. Operators assume that this is common knowledge. Information on routes should be available in bus stands and on the side of the bus. Sitting bus services should use media such as TV and newspapers to create awareness. As there are no fixed bus stops sheds, this information can be obtained from only passengers and operators.

Overcrowding

Crowding is one of the main problems in commuting by local bus. It makes people feel left behind. For those on overcrowded buses, getting a seat is a problem, especially if they are traveling with children and/or carrying shopping. Women have to push their way into crowded buses and travel standing.

Personal Security

Women are concerned mainly with crime and personal security while they travel. The majority of the mugging victims are women. Pedestrians and women traveling on rickshaws on secondary roads face mugging. Women walking quite commonly face harassment on the street by young boys. Women, more than men, are afraid to travel after dark. Older women were found to be more afraid than younger women to travel after dark. Although most women consider commuting by bus to be safer than walking or taking a rickshaw, they feel unsafe on crowded buses. Overcrowding provides opportunities for sexual harassment, especially of young girls. As the garment workers return home late, they are forced to walk as buses are not available; they travel in groups that provide personal security.

Behavior of Drivers and Conductors

The sitting service buses have friendly and caring behavior. Drivers usually bring the bus to a complete stop while boarding. The behavior of the driver and conductor of local buses is not women-friendly. Women's needs are not considered — they have to board and get down from running buses. The local buses are not interested in taking women passengers as they are slow movers, have more security problems and take more space. Most buses have 3 to 5 seats reserved for women but often men take them, demanding "equal rights" to them. Neither the driver nor the conductor makes an attempt to make the seats available for women. Often the conductor announces "no women seats available" to avoid taking women passengers. Now that more women are riding buses, conductors commonly put a hand on the back of a woman while she is alighting from the bus.

Driving standards were another factor in passenger safety. Drivers compete with each other and drive recklessly, increasing the risk of accidents. Drivers and conductors need training on road regulations and gender awareness to change their attitudes to women.

Long Wait and Long Lines

As there has been an increase in passengers, women wait long for buses. Even for the sitting service ("metro link"), there is a long queue and waits of 20-25 minutes. This is a problem on rainy and hot days. There is a need for more buses plying more frequently.

Fares and Ticketing

Bus fares have increased. Local buses sell tickets on the bus, but conductors commonly do not want to give change to women, who thus prefer the advance-ticketing system. The FGD suggested that, to overcome these problems, "women-only buses" could be provided. It was also noted that it has become customary for women to travel with a male escort. Hence "women and family" bus was suggested to be a better option. In such a bus women could travel alone or with a male escort. Men could not travel alone on such buses. This service was needed from Gabtoli to Azimpur, Gabtoli to Farmgate and from Farmgate to Azimpur. There should be frequent bus services (every 10 minutes) and frequent stops. BRTC, which is getting 95 Volvos, could start a pilot "women and family" bus on this route. The women preferred to have a male driver and a female bus conductor. All local buses should have 25% of seats reserved for women. The drivers and conductors need gender-awareness training.

5.4 IMPACT ON RICKSHAW AND VAN PULLERS

Although the restriction on using roads was meant to be for rickshaws, it was also imposed on vans. Both rickshaw and van pullers are being adversely affected, more in the inaccessible area. Areas such as Dar-us-salam have no connecting, road other than the arterial road and is the worst affected. Most of the rickshaw/van pullers opined that:

- The restriction was up to Technical, but it was extended to Gabtoli without proper measures.
- With a rickshaw/van the livelihoods of the driver and his family, owner, technician, house owner and license holder are involved. Both are an integral part of the transport system of urban areas for carrying goods and people.
- Rickshaw pullers have to start at 6 a.m. and finish at 10 p.m. Previously, they could come home for lunch at 2 p.m. and change shift. The owners now have to come to the accessible area to change shift.
- The restriction has reduced incomes of rickshaw pullers by 25-50%. Most had four months' house rent yet to be paid. House owners thus suffer as their tenants leave without paying rent. As a result of decline in income, the wives reported that they have halved the quantity of rice and cannot eat meat and fish. These women have started new activities such as going to the market and working in garment making or housemaids. Children are lacking food and are put to work. Many of them face treatment problems due to lack of income.
- There are now jams in the lanes and competition for passengers. It takes more time to reach a destination as the roads are winding. At some places there are no subsidiary roads. The rickshaw pullers have lost most of the school passengers. Rickshaw pullers used to bring rice bags for Tk 60-70 for five bags. Small business cannot bring their goods in rickshaws and vans and their operators have lost these trips.
- The vans have lost their use as carrier of fruits, sarees, lungi and chicken from Gabtoli. Now the van drivers have to go to Gabtoli at 2 a.m. and return by 6 a.m. from Gabtoli. They carry the goods from Gabtoli to Fakirapool, New market and Kawran bazaar. Their life style has changed as they must go at night to get longer trips. Some van drivers were employed on salary to transport goods. One such driver reported that now he has to take head loads from Dar-us-salam to Shamoli to load his van and keep the job. He is now on the verge of losing his job.
- Without vans there are problems for people to buy furniture and to shift residence.
- The owners of vans noted that 50% are idle and so they are selling off the vans. The rickshaw owners reported idle rickshaws.
- Police have become more disciplined and the number of cases has increased. Police are
 vigilant and stop those who move during the restriction; the police do not let them, go even
 if bribed.
- Many rickshaw/van drivers are shifting to construction work. Some have gone back to their villages.

The rickshaw/van pullers suggested that:

Friday should be restriction-free to benefit small businesses and furniture shops.

- A one-way road is needed from Gabtoli to Shamoli, with a crossing at Gabtoli.
- Crossings are needed to go from Asad gate to Farm Gate thru Manik Mia Avenue. On road
 no. 8 bridge at Dhanmandi, only rickshaws should be allowed between 7-9 a.m. and 12-2
 and 4-6 p.m. Road 3 and Road 8 has been closed. Crossing should be allowed at road no.4
 and road no. 8 should be opened. There must be a crossing at Sarwardi hospital. New
 market must have NMT lanes.
- The restriction on the demonstration road should be from 7 a.m. to 7 p.m.

5.5 PERCEPTION OF KEY INFORMANTS

As a result of inadequate gender-sensitive planning, design and implementation of DUTP, outcomes at sex-disaggregated level would be expected to be minor. As shown in Chapter 4, officials of government and donors who were interviewed as key informants agreed that DUTP intended to have specific differential outcomes on males and females in the case of pedestrian facilities. Construction and development of footpaths for pedestrians helped secure women's mobility, especially for low-income commuters including female garment workers. In the case of other interventions, DUTC was expecting a very general impact that would ease traffic mobility, reduce congestion and improve traffic control and the city transport system on the whole. However, some unintended benefits are going to women through the project's intervention, as positive externalities. DUTP provided an enabling environment both for the private sector and a public corporation (BRTC) to operate more sitting bus services at a competitive price, which contributed very positively to the women commuters.

It is noteworthy that some key informants, including DUTP and the private sector believe that, although traffic congestion has been reduced in the demonstration road by making it NMT-free, it produced a negative impact on women, especially in low and middle income groups, who find it extremely difficult to get on local over-crowded buses in peak hours (see Appendix 5). This is also applicable when women commuters travel for shorter distances (e.g. to and from children's school, shopping and kitchen markets, short distance neighborhoods, relative's house). However, many respondents justify the approach of NMT-free roads as a speedy, congestion-free transport system, but also underscore the importance of rickshaws in the daily livelihood of Dhaka people. Some identified rickshaws as an unsafe mode from the perspective of accidents and other safety issues. It is reported that some female rickshaw owners have been negatively affected by the ban on rickshaw operation on the demonstration road.

When the opinions of users and operators were discussed with the key informants, they supported some specific points to engender the urban transport project in Dhaka City. Users in the survey suggested that "women and family" buses would solve the cultural problem and could be run profitably. The proposal of "women and family" buses was accepted by all stakeholders. Introduction of "women and family" buses in the demonstration route was suggested. Discussion with stakeholders suggested that:

- If the service provided is not continuous, it is not viable. The number of buses must increase. More frequent buses are needed for women there should be a bus every ten minutes.
- It must be safe and affordable.
- There must be sheds for waiting and sitting.

- Police in the bus stops should be increased, although this will not solve the insecurity problem between bus stops and residences.
- There should be women conductors.
- Women should use front doors and men back doors of buses.

The private sector operators were unwilling to provide buses for women, which they considered would be unprofitable. They suggested that BRTC provide such services. The user survey also suggested that the service should be provided by BRTC. The World Bank opines that "women and family" buses should be provided by the private sector. The route permit should make it compulsory to provide 20% of buses for women.

BRTC was willing to provide buses for garment workers, provided routes and peak hours are given to it. The garment exporters association, BGMEA, was requested to provide such route needs. The peak hours for garment workers are from 6.30-8.00 a.m. and from 5.30-9.30 p.m. A public-private partnership can be expected to provide transport for the garment workers.

Discussions with the Ministry of Communication and BRTC revealed that they have proposed reservation of seats for women in some buses. The stakeholders suggested that 25% of seats could be reserved for women in regular buses. The private sector operators have already introduced "sitting only", non-AC buses which are women-friendly, but these are not affordable for many women.

All the stakeholders agreed that Friday should be restriction-free. However, consensus was not arrived for providing separate lanes for rickshaws and more rickshaw crossings. More discussion is needed in this regard. The private operators' association agrees that behavior and skills training should be provided to drivers and conductors, as does the women's group. MWCA, the WID focal point of the Ministry of Communication, the BRTA Road Safety Cell and women ward commissioners of DCC should be included in the Public Consultative Committee.

A recent proposal of the World Bank, as reported in a daily newspaper, is to make six major routes of the city rickshaw-free, in three phases. The routes are: the whole of Mirpur Road (Russel Square to Azimpur), Science Laboratory crossing to press club by December 2003, Technical crossing of Mirpur road to Kochuketh via Mirpur section 2 by July 2004 and the other three routes, Rokeya Sarani, Pragati Sarani, (Khilkhet to Mouchak crossing), and Bangla Motor to Rajarbagh by December 2004. However, DMP proposed that World Bank give more time, as the livelihoods of rickshaw pullers will be affected and commuters will face problems. More city buses will need to be added to the existing fleet. The experience of this study would be useful to integrate gender in NMT- free routes. Appendix 4 summarizes the outcome issues.

6. CONCLUSION AND LESSONS LEARNT

6.1 SUMMARY AND RECOMMENDATIONS

- Bangladesh has a supportive and enabling environment for integrating gender. Both the
 FFYP and I-PRSP address transport issues for facilitating women's employment. Transport
 as a facilitator of capability, safety, security and empowerment should be addressed in these
 documents.
- The land transport policy is not gender-aware. MWCA is the lead agency for women's development. MWCA and the WID focal point of the Ministry of Communication should provide inputs to the land transport policy.
- The history of projects needs to be carefully maintained. Constant changes of staff make it difficult to establish the history.
- The different ways by which the Project addresses the needs and interest of potential women beneficiaries are:
 - o Influence of the World Bank, as a condition for financing DUTP, to introduce "premium bus" services that are gender-friendly as they have queuing, advance ticketing and sitting service. These have been replicated by non-AC buses, which should be regulated. The premium bus service is not now suitable for short journeys, as they have limited stops. Frequent stops and differential fares for short distance, instead of a flat rate, are needed.
 - O As walking was identified as the most common form of commuting by low-income people, improvement of pedestrian facilities has benefited women, especially garment workers, to some extent. The problems of dirty footpaths and hawkers occupying them still need to be addressed.
 - O Strengthening the capacity of DMP to ensure safety on the road has benefited women.
- Different participatory mechanisms in project preparation and implementation were:
 - O Public Consultative Committee (PCC) meetings were held with various stakeholders, including women's group, in the preparatory stage.
 - o The PCC was not effective during implementation. MWCA, WID focal points, road safety cells and the women ward commissioners should be included in the PCC.
 - O A gender needs study was undertaken by the World Bank and a workshop was held, but it was not widely disseminated among stakeholders and there was no follow-up.
 - O A social assessment and public awareness campaign was conducted prior to implementing the Mirpur road demonstration project. Three CBOs were constituted but they did not meet after the awareness programme. Women ward commissioners participated in the CBOs. Participation was used to "sell" to the community decisions that were already made. Participation was not intended to empower the community to take control of the project's design. There was demand for having

separate rickshaw lanes and to have rickshaw crossing from Farm gate to Asad gate. These were not incorporated in the design.

- A participatory approach does not by itself guarantee that all gender-specific concerns have been addressed. Quotas could be introduced in such committees. A parallel consultative group could be set up by MWCA for its views to be considered in consultations.
- Gaps from DITS to DUTP were the main cause of not mainstreaming gender in DUTP.
- Although poor accessibility for women to the existing bus service due to overcrowding has been identified as a problem by the Project, it is yet to be addressed.
- Discussion with stakeholders suggests that the Project did not have some components that the World Bank web site has suggested, including:
 - Attempts to address gender bias among the transport providers by providing gender sensitive training to providers.
 - o Funding travel to India for service providers to observe successfully implemented gender-sensitive transport systems.
 - O A working committee during implementation to monitor progress in gender and social related issues.
- The FIDIC contracting rules do not allow women to work as laborers within the limits of a
 cantonment area. Women have not been employed, even outside the cantonment area, due
 to gender stereotypes such as women cannot work at night and they do not have the skill for
 mechanical work.
- There are no gender-disaggregated indicators in the Project. Thus there are no monitoring mechanisms.
- Software upgrading is needed for Road Safety Cells as well as for BRTA to maintain gender-disaggregated data.
- Dhaka city has only 8 percent roads. Efforts should be taken to widen the roads through legal action against encroachers.
- The demonstration road is successful in reducing congestion, improving traffic flow and traffic management. But not all the social aspects have been addressed. Neither adequate alternative transport nor separate lanes for rickshaws have been provided.
- The demonstration road was implemented faster than planned and before adequate preparations were made. Users, small operators and small enterprises had to absorb the shocks from it.
- Users and operators have been more adversely affected in the nonaccessible area (Shamoli to Gabtoli) than in the accessible area. Many middle-class women are forced to use local buses due to lack of alternative transport. This had led to too many interchanges and has increased travel time and cost.
- There should be fixed bus stops with sheds and seats in the waiting area. The bus routes should be displayed in all bus stops and on the sides of buses. Leaflets about the route and charges should be made available at bus counters.
- It is difficult to travel short distance. CNGs are preferred for short distance as they provide door-to-door travel. More gas stations should be set up as the CNGs spend 34 hours for filling with gas. Buses should have frequent stops that are close to one another and

- especially near schools, hospitals and markets. Rickshaw fares for short travel distances have increased.
- Streetlights provide security for traveling. The conditions of the streetlights are deplorable and should be improved. There are no definite responsibilities for women ward commissioners. Road cleaning and streetlights responsibilities could be given to them. This would empower the women ward commissioner.
- The restriction on rickshaws has adversely affected schooling of children. School buses should receive greater priority in the development of a thoroughly adequate public bus service. Government should consider waiving or reducing import duties for school vehicles. Good transport provision for children will help women by reducing their transport needs. This will release their time to perform other multiple roles and paid work.
- The NMT restriction has increased the transport cost of carrying goods for small enterprises.
- Middle class women, who mostly use rickshaws, have been adversely affected. Society's perceptions are changing: more middle class women are traveling in local buses. The transport services provided are congested and women have to compete for the limited space. Women face various problems while commuting in local buses, of mainly crowding and insecurity. To overcome these problems:
 - o "Women only" buses could be provided. BRTC experience shows that "women only" buses do not work, as it is customary for women not to travel alone. Focus group discussion with women suggested that "women and family" buses could be provided, where women could travel alone or with an escort. There should be frequent buses with frequent stops. BRTC should provide such buses as the private sector was not willing.
 - O There are 35 reserved seats in each bus, but men usually occupy them. There should be 25% reserved seats for women in all buses.
 - O The number of "sitting service" buses in all routes should be increased, as they are women-friendly.
 - o Two-door buses should be encouraged.
- Women face harassment while traveling. Drivers and conductors of local buses behave badly. The operators need gender awareness training and proper driving rules.
- Road safety is a problem for children under the age of 15. Public awareness is needed for pedestrian crossing and drivers need counseling and education by the police.
- Gas stations should have both male and female toilets
- As women travel with a male escort, separate waiting rooms are not needed at the bus terminals, but separate toilets are needed. The waiting rooms should be located near the counters.
- Much travel has been curtailed/ detoured due to the restriction on NMT. To overcome these problems:
 - o Friday should be a restriction-free day to assist people to go to market and visits relatives.

- o The NMT restriction should be from 7am to 7pm, so that visits to doctors can be made.
- O There should be a separate rickshaw one-way lane between Shamoli and Gabtoli, with a crossing at Gabtoli to increase mobility.
- O More rickshaw crossings are needed: at Dhanmandi Rd.4, Rd.8, Asad gate, Sarwardi hospital and Gabtoli. The Rd.8 Bridge should be for rickshaws only at peak hours as motorized transport has alternative routes.
- Women-friendly steps could include locating bus stops near schools, colleges and hospitals, with zebra crossings.
- Women consider foot over bridges to be arduous detours and unsafe as they are potential
 grounds for theft. They prefer zebra crossings to foot over bridges. Frequent zebra crossings
 with traffic signals are needed on the Shamoli to Gabtoli route, to reduce pedestrian
 accidents.
- Rickshaws not only dominate the transport system of Dhaka but also provide a major source of employment. The NMT restrictions on rickshaws/van pullers have reduced operators' incomes by 25-50%.
- About 63% of garment workers walk to work. Bus services could be provided to them through a public-private partnership between BRTC and BGMEA.
- The NMT restrictions mean rickshaws have to travel in lanes that often have potholes and lack streetlights. Hence female users often face harassment by street boys and mugging. These lanes should be paved and streetlights should be provided.
- DTCB was established under this project for coordination. Better coordination among key stakeholders is needed.

6.2 LESSONS LEARNT

- All data should be kept by gender (M/F) as is done for road accidents.
- Addressing women's needs through more frequent buses, frequent stops and sitting service, queuing and advance ticketing can mainstream gender.
- A gender needs assessment study should be done and its recommendations should be included in the design and implementation of the Project.
- Public Consultative Committees should be formed during preparatory and implementation stages, not only to "sell" the project but also to bring about changes in its design.
- Adequate preparation should be taken before implementing projects.

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APPENDIX 1: GENDER EQUALITY IN THE BANGLADESH NATIONAL LAND TRANSPORT POLICY DRAFT DOCUMENT

Comments

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INTRODUCTION

The development of a National Land Transport Policy for Bangladesh is to be welcomed. It sets out a coherent and comprehensive policy framework for the future development of land transport in the country. Its recognition of the important role that land transport plays in not only the economic but social development of the country is to be applauded. In addition, its focus on setting out steps to translate policy into implementable measures is key.

However, if one is to look at the document with a view to its promotion of gender equality and the positive role transport has to play in that, it could be argued, that it suffers from several shortcomings. The most notable being the gap in understanding between specifying social objectives, such as poverty reduction and appreciating what detailed transport objectives and measures are needed to promote meeting these wider objectives. Many of the laudable social development objectives established within this document may not be achieved as the transport objectives are either not targeted enough or indeed may work counter to the desired objectives.

The document also suffers from a belief that many planning, consultation and involvement processes are gender-neutral, which, one can argue, is often not the case. The document would benefit from recognising this and from ensuring that explicit measures are put in place to allow men and women to have transport developed equally for them.

To aid the policy development process I have made some detailed comments on a number of the policy measures set out in the document and suggestions of where they may be improved to enhance the promotion of gender equality. These comments are set out below.

DETAILED COMMENTS

SECTION 1: POLICY DEVELOPMENT

I feel that the policy dialogue should involve a wider range of actors, at least at the central government level. For example, if this transport policy has meeting social objectives as a serious aim then social partners, such as the Ministry of Women and Children's Affairs, should be involved from the outset. Furthermore, if such a policy seeks to be pro-poor it would benefit from the involvement of stakeholders, outside the transport sector, who have knowledge and expertise of

poverty alleviation. Whilst this may be difficult to implement due to lack of interaction between transport and poverty alleviation expertise, the extra effort will prove worthwhile for the quality of the policy dialogue and the transport policy that ensues.

SECTION 2: NATURE OF LAND TRANSPORT POLICY

It is to be welcomed that the land transport policy aims to 'serve the overriding priorities of the country: economic development and poverty reduction'. However, it must be remembered that transport's role in society is not benign, or neutral. In fact un-directed transport investment is increasingly being shown to be of greater benefit to wealthy sections of society and often to be of more benefit to men than women. Transport can only contribute to poverty reduction by having clear policies and implementable measures that target the needs of poor communities.

SECTION 3: POLICY OBJECTIVES

Objective 3 'Serve the expanding economy, to help foster economic growth and to underpin continued human development'

Whilst this is to be welcome, it should be clear that micro-businesses and SME's need transport and may require a different range of transport options than traditionally assumed such as non-motorised carts and freight-carrying cycle-rickshaws and auto-rickshaws and that these should also be promoted.

Objective 4. 'Safe and reliable transport'

This objective is to be particularly welcome as women often bear the brunt of unsafe transport systems, through the loss of or injury to children and through financial burden that the loss or injury to a male income generators (or in the case of children future income generators) places on their need to generate income and the burden that care and nursing of those injured places on their own ability to earn. However, I feel that personal security should also be added to this section, as women's mobility is often constrained or curtailed by a fear of personal attack and sexual harassment.

Objective 5. 'Development of appraisal criteria to ensure that Government funds are spent wisely for the public benefit and to meet economic and social objectives'

I would welcome a re-direction of transport appraisal in this context towards meeting economic and social objectives. It should be remembered that in order to benefit women, any new direction in appraisal would need to allow social impact assessments to be incorporated and would need to facilitate a move away from, for example, traditional household level analysis common in transport planning, to allow for clear analysis of the impact of investments on *intra*-household' resource allocation to be incorporated. It is increasingly being recognised that household level analysis may show positive benefits from transport investments, but because equal distribution of resources across the household cannot always be assumed, this masks negative impacts on certain members, often women, within the household who may have less time or resource due to a transport intervention.

I would also welcome the acknowledgement of the need to strengthen government capabilities in the area of appraising transport investment to ensure compliance with social priorities. Perhaps some of the social partners, such as the Ministry of Women and Children's Affairs, may have some capability that could be used or built upon.

Objective 6. 'Transport must be economically and environmentally sustainable'.

This objective is to be welcomed. However, the inclusion in the document of a text box that highlights the key role of social sustainability and fairness in sustainability in the transport sector is interesting, as to achieve this particular element of sustainability may require more explicit targeted interventions than is reflected in this policy document. For example, equity in transport would need to ensure transport equity between men and women and as such targeted interventions missing from this document would need to be implemented to ensure that.

Objective 9. 'The rail and public transport networks must be efficient and as integrated as possible'.

The objective of integration within the transport system is to be welcomed. Women, more than men, are likely to combine several activities into one journey, or undertake trip chains, and so for women's journeys, even more than for men, integration between modes and even different journey stages within modes, is key. However, the description of modes that need to be integrated should reflect the variety of modes being used for different purposes and as such may include taxis, autorickshaws, cycle rickshaws and other forms of non-motorised passenger and freight transport as well as conventional large public transport vehicles.

Objective 11. 'Changes of the way Government and citizens think about how they use transport are important to securing a higher quality of life and improved standards'.

This is to be welcomed as women particularly, would benefit significantly from a change in emphasis towards safer pedestrian facilities, greater safety and customer care standards amongst transport operators and a concentration on maintaining mixed land-use patterns that meet with women's pattern of shorter trip making and promote the use of sustainable modes.

Objective 15. 'The government's role in securing transport provision for social need'

The recognition of the need to support some public transport services for social need is to be welcomed. However, perhaps there is a need for Government to think about a more pro-active stance in the identifying social needs, targeting transport provision to meet needs identified and encouraging operators to fill transport gaps that exist. To passively rely on private operators coming forward to seek Government such support may mean that the transport needs of the vulnerable members of society such as low-income women in some rural areas, may continue to be ignored as, it could be argued, they often are at present.

SECTION 4: STRATEGIC AND INTEGRATED POLICY ISSUES

Issue 3. Promoting the role of transport users

The emphasis on the voice of users in transport policy is a significant contribution. However, it is often the case that the voice of women users is traditionally ignored in such dialogue. Therefore, I would encourage an emphasis of gender equality in the policy of involving users and a pro-active approach to ensuring women's voices are heard when implementing such user involvement. Here again this is something that other social partners, particularly the Ministry of Women and Children's Affairs, may able to help the transport sector in working towards.

Issue 7. Create policy awareness and greater participation in policy development

I welcome the emphasis placed on raising a debate in Bangladesh about transport policy. However, greater participation in the transport policy debate should be two-way process. While using a variety of media to inform users about policy is necessary, there should also be effective mechanisms for users, particularly women, to inform the development of policy.

Issue 8. Promote improved employment conditions

The transport sector is often a male-dominated employment area. There is a need to significantly increase the employment of women in the transport sector and policy should reflect this. Significant progress is being made in Bangladesh through innovative projects around labour-based road construction methods as well notable levels of women employed within public-sector transport policy and planning. This progress should be extended to all other areas of the sector. Therefore, women should feature more significantly amongst public transport operators and owners as well amongst senior transport professionals in policy-making bodies. This aim could be supported by putting in place measures that actively encourage, train and support women workers in this sector.

Issue 11. Increased access to transport services in rural areas

I welcome the promotion of an integrated approach to transport as part of rural development, building on success of this approach in parts of Bangladesh. However, women's transport needs need to be clearly stated within this approach, they need to be able to access NMT ownership and to have credit facilities to purchase such means of transport. Women's voice also needs to be clearly incorporated into the consultation and involvement processes around the development of integrated solutions. It is not reasonable to merely assume that community consultation will equally reflect men and women's need.

Issue 12. To integrate transport policy, planning and appraisal across modes.

The desire to enhance the planning and appraisal capability within central government is to be welcomed. However, in enhancing this capability it is necessary also to reflect the desire of the national land transport policy to develop transport that meets social objectives. In order to facilitate this, the planning capability needs to have social assessment skills available. In particular, in order to meet equally the transport needs of men and women, gender analysis and assessment skills need to be available in this enhanced planning capability, through the use of gender specialists. The social partners and social development ministries such as the Ministry of Women and Children's Affairs will be well placed to advise on the development of such capability.

Jeff Turner TRL 2/6/03

APPENDIX 2: REVIEW OF "GENDER DIMENSIONS IN TRANSPORT IN DHAKA METROPOLITAN AREA"

This study, as a part of the preparation of DUTP, was conducted by Nari Uddug Kendro (NUK) in March 1997. From 1,496 households, 3,056 females and 3,203 males were interviewed. The objective of the study was to assess the needs and priorities of men and women commuters in Dhaka city. Some findings were:

- about 51% of women and 75% of men commuted everyday;
- transport expenditure was 8.8% of the total income;
- walking was the most common mode of transport 39% of men and women commuted by walking;
- 35% of women and 25% of men used rickshaws;
- public bus was used by only 6.1 percent men and 2.4 percent women
- about 11% of the sampled population had had an accident;
- about 45% of housewives commuted for shopping, accompanying children to and from school, seeing a doctor and visiting relatives; and
- of those women who walk to work, 80% of production workers, 71.8% of garment workers and 66.7% of service workers used this mode.

The problems faced by female commuters were:

- affordability, accessibility and security (the major problems);
- female commuters were exposed to harassment;
- footpaths were dirty and crowded; and
- transport providers preferred male passengers because of to slow movement of women.

The study suggested that:

- legal and social reforms are needed to give equal rights to women;
- about 48% women suggested separate buses for women;
- the premium metro bus service should be affordable and increased;
- buses with two doors are needed; and
- footpaths should be improved.

APPENDIX 3: REVIEW OF THE STUDY ON "MIRPUR ROAD DEMONSTRATION CORRIDOR PROJECT: SOCIAL ASSESSMENT AND PUBLIC AWARENESS CAMPAIGN" (BTF 2002)

The Bangladesh Transport Foundation (BTF) was engaged to carry out the social assessment and the public awareness campaign. Leaflets and posters were distributed and media were used for the awareness campaign. Three consultative meetings were held, at different locations. At the end of each meeting a "Local Road Management Assistance Committee" was formed. Exclusives meeting were held with rickshaw pullers and their associations. The private bus operators committed to increasing the number of buses on this road. BRTC was to provide 35-50 additional buses.

A total of 1,050 respondents were surveyed. More than 50% of the passengers of rickshaw pullers were found to be students from the middle class who preferred rickshaws because they give door-to-door service. Women enjoyed the privacy in rickshaws. Rickshaws are used mostly for short journeys. It was estimated that the rickshaw pullers would lose not more than 25% of their income. The rickshaw pullers wanted separate rickshaw lanes on the corridor. Small business owners demanded the use of motorized vans. BTF suggested that the adversely affected rickshaw pullers could be included in the Urban Community Development Project of the Department of Social Service, Asharayaon project and be provided micro credit.

An excessive number of rickshaws, undisciplined parking, poor driving skill, non-enforcement of signals, occupation of footpaths and manpower shortages were some of the enforcement problems. The people were ready to accept withdrawal of NMT provided proper arrangements were made to provide adequate buses and ensure facilities such as frequent stops, shades at bus stops, clear footpaths and footbridges. The rickshaw pullers were ready to cooperate provided more crossing points were made on the corridor and NMT were allowed at specified times. A specific recommendation for women was the introduction of "buses for women" at peak time.

APPENDIX 4: REVIEW OF MOBILITY OF WOMEN (DITS 1993)

The DITS Home Interview Survey of 24,636 females and 25,622 males provided an opportunity to analyze the travel patterns of women to see how they differed from that of men, identified inequalities and determined how mobility could be increased.

The main findings are:

- A large majority of women do not travel; 64% of women and 18% of men did not travel the preceding day. Hence, three out of four non-travelers are female.
- Travel decreases over the age of 15 and 8 out of 10 women in every household income class stay at home.
- Females who do travel make an average of 2.21 trips, while the males make 2.76. Only 10% of traveling women took more than two trip compared to over 23% of all men (traveling and non-traveling).
- Female travelers are more literate and better educated than non-travelers. About 67% of female travelers were students and 71% of female non-travelers were housewives.
- Most of the female trips (61%) were for the purpose of education. For men, 50% were for work but only 12.5% of women's trips were for work.
- The major modes of travel were 67% walking and 21% rickshaw for female trips while that of males were 64% and 15% respectively. Use of public buses was over 8% for men and 4.5% for women. Women between the ages of 15 and 29 use rickshaw for 30% of their trips and men 18%.
- Income had minor effect on the amount of travel conducted by both men and women. Until monthly income increased to above Tk. 30,000, only females in the highest income category have a higher trip rate than the poorest females.
- More (25%) of the poor women made trips for work than of rich women (10%).
- A modal switch for women occurred after monthly income of Tk 5,000, when walk trips declined and rickshaw use rapidly increased.
- The use of public buses was low for low income groups; the number of car passengers rose significantly with income.
- The average trip time was 18.2 minutes for women and 24.3 minutes for men.
- Women's average trip fare was slightly higher than that of men due to their higher use of rickshaws and as more men use buses.
- The reason for walk and use of rickshaws were mainly convenience. Other reasons were cheapness, no alternative, safety, availability, cultural factors and segregation.
- Of women asked to give opinions on the present transport system, 49% claimed it needed separate transport for women.

The study has identified inequalities in women's travel patterns. Only 35% of women travel and they travel shorter distances than men. Women choose less desirable modes, (walking, high priced rickshaws and auto rickshaws) more than men. The study recommended that:

- BRTA should form a committee with representatives from the transport industries and the
 Ministry of Women's Affairs to address the issue of women's mobility. The bodywork
 design of buses, with regards to the positioning of the entrance/ exit, should be such that
 seats can be reserved for women.
- Double decker buses should be introduced as they provide segregated travel for female passengers. With a front entrance, center exit and center staircase layout the double-decker bus's interior is divided into four separate "compartments" The rear of the lower deck behind the center exit is an isolated area which could be reserved for women. At least 16 seats could be reserved for women.
- Similarly, women travelers will be assisted if the front entrance and center exit layout is adopted for single decker buses.
- If separate transport is to be provided then tempos should be considered rather than buses as they can be more easily filled.
- Introduction of "premium buses" should be considered, as they could offer higher quality of service for both men and women. This would give an opportunity to switch from rickshaw and auto rickshaw which have higher fares.
- As most travel by female consists of young girls going to school, school buses should receive greater priority pending the development of a thoroughly adequate public bus service. Economies of scale can be achieved if local schools work together to minimize duplication of services. Government should consider waiving or reducing import duties for school vehicles.
- Employers should be required to provide them transport where women work night shifts in large numbers,.

APPENDIX 5: GENDERED OUTCOMES OF DUTP: KEY INTERVIEWERS RESPONSES

Level	Stakeholders	Impacts/Outcomes	Supports/ Suggests
Macro-	DUTP-DTCB	Congestion have reduced and increased mobility	Rickshaws may be allowed during the holidays
stakeholde rs		 Female RMG workers benefited much from pedestrian facilities as they usually walk Housewives/homemakers, working women affected negatively due to ban on Rickshaw in the Demonstration road, as they cannot make a convenient choice. Private entrepreneurship encouraged by creating an enabling environment for them that introduced more non-ac seating buses, which are found gender friendly. Traffic flow has been increased in the demo road which would affect both men and women significantly No women in fly over project except for an interpreter and a foreign engineer. Sitting service and premium are women friendly 	 A women and family bus may be introduced Bus route franchising (which is in process) would help women DUTP should have addressed the poor and women. Public awareness is needed for pedestrian crossing, drivers need counseling and education of police is needed. Traffic rule awareness is needed.
	DUTP-RHD	Gender blind construction work. Women can't work at night and the work needs heavy mechanical and highly skilled labor which women in BD normally do not possess. They have low productivity. However, few women work during preparatory works of construction and maintenance in terms of pure unskilled work like cleaning.	Separate toilet facilities for women in the petrol pumps/gas stations to be ensured
	DUTP-DCC	Women as beneficiary of road and footpath improvement particularly the garments workers Lack of coordination among the relevant stakeholders, particularly the utility service providers on road in Dhaka city exacerbate sufferings of women	 Project Steering committee has no women member because women are not in those posts in the relevant ministries to be incorporated in the committee as per rule. Zebra crossing will slow down MT Better coordination is needed among DCC, DUTP and utility service providers during their development and maintenance work on road

DUTP-BRTA	 Development of gender desegregated database through computerization has been started for licenses Standard services would be ensured through bus route franchising that would benefit women 	Information will be collected at sex disaggregated level on commuters/travelers in different modes. Need program for gender disaggregated data base
DUTP-DMP, RTC	Congestion has reduced and as a result of faster traffic mobility, accidents have increased to some extent on the demonstration road NMT free transport operation produced some negative impact on women commuters who travel for shorter distance including hospitals, schools etc.	Representations from ordinary road users and NGOs should be included in the Regional Transport Committee (RTC) Rickshaws are very difficult to manage, even in separate lanes Drivers are not trained properly Zebra crossing are needed
DUTP-Design consultants (DSM)	 From security concerns, underpasses were dropped from the project. Due to removal of rickshaw, women have to walk long distances, school children and their accompanied women partners (mother or other women) have affected negatively as Rickshaw was a door to door service Footpaths has increased mobility of women 	 Bus stops should be sensitive to the location of children's schools Safe crossing to be ensured through zebra/red light signals in front of schools, hospitals etc. School buses need to be introduced Private non Ac seating bus to be increased Gender aware training to be provided to the operators, attitude to women has to be changed Women and family bus could be introduced
DUTP- Contractors	Almost no scope for women in construction work for many reasons including they can't work at night and the work needs heavy mechanical and highly skilled labor that women in BD normally possess. They have low productivity as well. Footbridges sometimes create odd problems for women in Sarees	 It is quite logical to make the road NMT free to get benefit in the long run although it affects people particularly the women in the short run. Zebra crossing is women friendly Women engineers can work in design and planning

	DUTP-Ministry of Communication (MOC)	 No visible direct measure in mainstreaming gender issues in DUTP, consequently no direct differential impact on women. But BRTC has its own women only bus services regardless to DUTP, and the women issue has been well taken by BRTC in its operation. Women only bus not sustainable as women usually do not travel alone Outcome is yet to be monitored from a gender point 	 More sitting buses to be introduced More reservation of seats in the buses for women Bus for female garment workers may be operated by BRTC if specified routes and hours are provided. More frequent buses are needed for women Women and family bus can be introduced
	World Bank	 Women have benefited from footpath facilities Schooling has been affected. Each location should have schools Accident on demonstration road has decreased. Improved traffic management and road safety will affect women 	 Two door bus are women friendly Women and family bus should be provided by the private sector through route permit regulations The Regional Transport Commitee (RTC) should be reorganized to be effective. Women's group should be included in consultation The LGED rickshaw with gear should be introduced as it reduces efforts
Level	Stakeholders	Impacts/Outcomes	Supports/ Suggests
Govt. Non- DUTP Stakehold ers	MWCA	 Not informed about the DUTP well Not consulted by the project authority 	 Providing sufficient street lights Develop bus terminal/stoppage and improve service delivery considering women and security issues, particularly for the elderly women Women and family bus can be introduced Clean toilets on transports, terminals, on roads, gas stations should be ensured Gender mainstreaming project of MWCA in the planning commission can help sensitize projects from a gender point. Better coordination to be ensured among line ministries including communication, local government

	Women Ward Commissioner- DCC	Congestion reduced Low/middle income group women are affected negatively for ban on rickshaw on the demonstration road particularly for traveling short distances for example to and from school, market, neighborhood and relative's house	 Local waste management could be done by the women Ward Commissioners Street light complaint can be managed by the women Ward Commissioners Separate rickshaw lane to be introduced from Gabtali to Shamoli Gender sensitive behavior and skill training of operators are needed Women & family bus service from Beauty cinema to Farmgate and also to Azimpur maternity clinic.
	BRTA-Road Safety	 Accident data by gender is being collected and stored using electronic software, although there has been a time lag in getting updated data. Accident on demonstration road has been increased/decreased is yet to be assessed. 	 Training to be provided to the police to collect data properly and send the data timely Up-gradation of software is needed Underreporting of accidents Undertake Road Safety Campaign with video and leaflets Road safety will be introduced in police course
	MOC, WID focal	No specific gender outcome is intended	Reviewing and monitoring of PP and PCP should be gender sensitive
Private Sector	BGMEA	Not known about the impacts of the project	 More Street Lights to be provided Lane development and Police Patrol services to be carried out in the lanes after dark Police Boxes can also be established in the garments factory concentrated areas including Mirpur, Rampura, Tejgaon and Mohakhali Route tracking of women garments workers is needed to provide bus services for them.

Transport Owners Association	 Introduction of NMT free (Rickshaw off) road reduced accident, mugging on demonstration road also decreased. As such no direct gendered outcome All are treated as passengers equally 	 Women and men are treated equally as passengers and so will benefit it services increase Private sector cannot provide women and family bus, as it will not be profitable. BRTC can provide women and family bus Community police may be engaged at the intersections Behavior and skill training of operators is needed Roads should be widened All road works including improvement, maintenance roads and of utility service providers should be completed in a body within 15 days in a year. Sitting service are women friendly
Premium Bus Owners	 Sitting buses are gender friendly, including the AC premium buses which was a pre-condition for DUTP. It is mainly private sector response to the market. Women do not participate in transport related workshops 	 More buses to be introduced Infrastructure development including parking space is needed 24% seats can be reserved for women Bus lanes/bays will benefit women Government should provide women only bus
Rickshaw, Van Owners Association	 Women rickshaw owners have also been affected by the ban on rickshaw on Mirpur Road. Middle class women fall in a crisis by not getting an alternative within their limits after ban on rickshaw Decline in income of rickshaw/van pullers Have to carry goods at night and hence adversely affected Households have reduced food consumptions and hence women and children are affected 	Women and family bus can be introduced Separate rickshaw lane from Gabtali to Shamoli in the demonstration road need to be introduced with direct participation from the owner, operators to ease rickshaw movement and traffic control and also prevent congestion that occurs due to rickshaw through proper monitoring and supervision on road. NMT could be allowed on Friday afternoon. More crossing are needed
Women development NGO (NUK)	Advance ticketing, queuing for seating bus services are women friendly	Women drivers to be trained Women entrepreneurship in transport sector can be encouraged

Activists	•	Short distance commuters are in problem after withdrawal of rickshaw from Mirpur	•	More buses to be introduced esp. sitting buses, frequent buses
		Road	•	Parallel road for rickshaw is needed
	•	Low income group are also affected		Reserved seats for women in all bus
			•	Increase police in bus stop
			•	Bus should have women conductors

APPENDIX 6: QUESTIONNAIRE

INTEGRATING GENDER IN URBAN TRANSPORT PROJECT

Household information

SL.	NAME	AGE	EDU	YEARS IN DHAKA	MARITAL STATUS	HH MEMBER	STUDENTS	RESIDENCE LOCATION
1								
2								
3								
4								
5								

Marital status> 1. unmarried 2. currently marries and living with spouse; 3. currently married and living away from spouse; 4. separated; 5. divorced 6. widow

SL. NO.	OCCUPATION	SECTOR	ECONOMIC STATUS	HH TRANS. EXPENSES	OWN TRANSP ORT	HH INC.	OWN INC.
1							
2							
3							
4							
5							

Economic status: 1. employer 2. self employed 3. employee 4. day labor 5. unpaid worker

Mode of transport used yesterday

SL. NO.	MODE	ROUTE	REAS ON	NO OF TRIPS	PEAK MOR	PEAK EVEN	KM /DAY	TK/ DAY
1								
2								
3								
4								
5								

Reason for travel: 1/2. work place 3/4. school/college/university 5/6. market 7/8. children schooling 9/10. health center 11/12. visits recreation 13/14 other.

Road accident last two years in Dhaka city

SL. NO.	MODE	ROUTE/CROSSING	WHOSE FAULT	TYPE OF ACCIDENT
1				
2				
3				
4				
5				

Mode code: 1. walking 2. CNG 3. rickshaw 4. bus 5. premium bus 6. maxi/durunto 7. taxi cab 8. own car 9. office car 10 bicycle 11 motor cycle 12. others.

Preferred mode

ID CODE	MODE *	ROUTE	PEAK MOR	PEAK EVEN	KM	тк
1						
2						
3						
4						
5						

Mode code: 1. walking 2. CNG 3. rickshaw 4. bus 5. premium bus 6. maxi/durunto 7. taxi cab 8. own car 9. office car 10 bicycle 11 motor cycle 12. other.

SL. NO.	REASON OF PREFERRED MODE
1	
2	
3	
4	
5	

FOCUS GROUP DISCUSSIONS

Perception during last two years

Criteria	1 (worse)	2 (bad)	3 (same)	4 (better)	5 (best)
road congestion					
congestion inside the bus					
road accident					
private bus service					
public bus service					
traffic management					
waiting time for bus					
foot path facilities					
street lights					
women's security					
women's mobility					
behavior of driver					
behavior of male passengers					
facilities at the bus terminal					

Problems faced by women

(tallies)

cultural/social	
harassment by local touts	social change
harassment by police	awareness programme
Snatching of purse	improve crime prevention
getting a push deliberately	social awareness
Kidnapping	more police on road
Institutional	
traffic Jam	better traffic management
	better signals
	rickshaw off road
	wider road
	fly over
	no parking on street
	one way street
	fast running bus
no pedestrian crossing	zebra crossing
	over bridge—problems security
digging of road and foot path	better coordination
lack of foot path	provide foot path
foot path cannot be used	ensure clean foot path
high fare of transport	regulate fare

narrow seats	better bus
no seats available in bus	more buses
no separate queue	separate queue
no school/college bus	more school bus
no fixed bus timing	fixed bus timing
no frequent stops	frequent stop in one km
crowded bus	seating arrangement
	separate bus for women
bus do not stop completely for getting down	driver awareness
bus has one door and narrow door	two door bus
helper stand on the door	helper awareness
seat left of the driver are too hot	reserved seats behind driver
no transport at work	employer should provide transport

INTERVENTIONS	BENEFITS FOR WOMEN	PROBLEMS FOR WOMEN	SUGGESTIONS FOR WOMEN
Rickshaw off road			
foot path			
seating services			
women only bus			

Interventions	Financial implication for women
Rickshaw off road	
foot path	
root paur	
seating services	
women only bus	
women only bus	

Is there a best practice for women in the transport sector list and tally		
	3	
Interventions	Is this sustainable	
Rickshaw off road		
foot path		
seating services		
seating services		
women only bus		
Was there a consultatio	n about this intervention?	
Paginning of the project	t Y / N / DK	
Beginning of the project Y / N / DK		

Suggestions	

APPENDIX 7: STAKEHOLDERS INTERVIEWS: KEY QUESTIONS FOR THE CASE STUDIES

1. What were the origins and objectives of the intervention?

What was the rationale for the intervention? i.e. WHY was the project initiated?

Who were the intended beneficiaries?

- 2. How does the intervention relate to:
 - the national gender policy framework
 - the national transport policy framework
 - Financial implications
- 3. What are the gendered financial implications of the intervention?
 - national budget level
 - project level
 - beneficiary level
- 4. What are the specific gender-related objectives?

How visible are gender-related issues within the project?

- 5. What are the prevalent gender stereotypes?
- 6. How was the intervention designed and how was it intended to operate?
 - 6.1 Who participated in the design?
 - 6.2 How did women and men participate?
 - 6.3 What were the institutional arrangements for participation?
- 7. What were the gender specific elements of the intervention?
 - the gender-specific institutional elements?
 - the gender-specific organisational elements?
 - the gender-specific financial elements?

8. What are the opinions of the different stakeholders on how the intervention operates and its impact on women and men?

What roles do governments. NGOs and the private sector play in the operation of the intervention?

What is the impact of the political processes on the intervention?

9. What are the gender-sensitive performance indicators used to monitor the intervention?

What are the processes used to monitor/evaluate?

Was a gender impact study undertaken and what were its detailed findings?

Have participative processes been adopted in the monitoring and in the impact studies?

Who participated in the processes?

- 10. What factors affected the interventions gendered outcomes?
 - socio-cultural
 - institutional/organisational
 - financial

How sustainable is the gendered impact of

- the intervention itself
- the impacts of the intervention?