

**INTEGRATING GENDER INTO WORLD BANK
FINANCED TRANSPORT PROGRAMS**

CASE STUDY

BANGLADESH

**THIRD RURAL INFRASTRUCTURE DEVELOPMENT
PROJECT (RDP 21)**

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EXECUTIVE SUMMARY

In Bangladesh road transport plays a major role in the movement of people and commodities. Rural road covers 90 percent of the total road network of the country and the Local Government Engineering Department (LGED) is responsible to develop and maintain the roads. The government of Bangladesh with the cooperation of the Department of International Development (DFID) prepared in 2003 the draft National Land Transport Policy. However this policy did not address gender issues.

With the objective to reduce poverty in addition to develop roads, since 1984 LGED has been developing other infrastructures related to rural development through various rural development projects. These projects are designed to be labor intensive to provide employment to the rural poor and with the creation in 1998 of the National Policy for the advancement of women, women are specially targeted. The Third Rural Infrastructure Project (RDP 21) is one of these projects which began to be designed in 1994, was implemented in 1998 and it is expected to be completed by the end of 2004. This project is principally funded by the Asian Development Bank (ADB) and other donors such as the International Fund for Agricultural Development (IFAD), the Swedish International Development Cooperation (SIDA) and the Overseas Economic Cooperation Fund (OECF) with a total budget of \$ 181 million. The Government of Bangladesh is to bear 23 percent of the total project cost including a contribution of 3 percent from the local governments. The project has nine components under the following four major heading: Development of the rural road network; Improvement of Growth Center Markets and Ghats; Flood-response Schemes and Participatory Development; and Institutional Development and Project Support.

The project area covers 13 districts in the northwestern and northern part of the country by covering an area of 30,000 sq. km with a population of 27 million. Gender aspects were not well addressed until the appraisal of the project but at the time of approval of the project proposal (PP) by the government (1998) gender issues were taken into account to a much greater extent. Under the initiative of gender specialists from the ADB, by mid 2001 a gender specialist was appointed for this project and a Gender Action Plan was developed to address all possible gender issues in the project.

In evaluating the Rural Development Project 21 (RDP 21), one of the case studies of the world survey on identifying best practice for the study "Integrating Gender into World Bank Financed Transport Programs" both primary and secondary data were collected and evaluated on all the components which have covered gender issues.

A gender Action Plan was prepared in order to address gender issues in major components of the RDP-21 in 2000 highlighting the objectives, targets, responsible persons/organization and time frame. In the project, a total of nine components have direct integration to women's role in different stages of scheme. These components are road maintenance and tree plantation through Labor Contracting Society (LCS) women; Women market section; Growth center market; Flood refuge; Union parishad complex; Bridge and culverts on rural roads; Submersible road, Ghat and Training.

In RDP 21 a total of 1638 destitute women have been appointed for two years as LCS member for road maintenance and tree plantation on 838 km roads and all of them received job training. These women are being encouraged to earn money from jobs as well as involving in income generating

activities (IGA) with training and forced saved capital. This opportunity has empowered them in society with some capital and has allowed them to be involved with other non traditional activities and bargain for their wage rate.

102 women market sections have been completed, 745 shops for women traders have been constructed and a total of 700 women traders have signed agreements to continue their business by themselves. These traders employed another 200 women to assist in their shops. All the traders received training on Shop Management and Trade Skills Development by two Non-Governmental Organizations (NGOs). In all constructed Women Market Sections (WMSs) installation of Hand Tube-well and separate toilets for women have been provided. About 60 women traders have representatives in “Traders Association” as well as in the “Market Management Committees” to voice their rights.

113 Growth Center Markets (GCM) have been completed and women vendors started selling products in open sheds assigned for women vendors only. This arrangement has encouraged women vendors to participate in trading as well as motivating the general traders (mostly males) of the market to accept women traders in the market and indirectly facilitating the women customers to come to the market.

Eight Flood refuges and 60 Union Parishad Complex have been constructed with separate provisions for women. In the planning, design and potential use of these structures stakeholders at different levels were consulted. These complexes have facilitated women to save their resources at the time of floods as well as voice their demands or problems to the Union Parishad (UP) members and chairmen. Women UP members are facilitated to have separate offices to serve the people specially women in their constituency.

Through this project 572 bridges and culverts on rural roads, 15 km submersible roads, 6 ghats have been constructed. Participation of women stakeholders were assured in the planning and design phase. More than one third of the labor force was women in who constructed these infrastructures. These infrastructures facilitated local women to become more active and mobile in respect of availing various social and economic opportunities locality as well as getting involved in earning through wage employment or business.

Training for the dissemination of gender and development issues and awareness raising among the LGED personnel has been organized at different levels for various periods of time. Training to beneficiaries for awareness raising as well as economic opportunities and management practice were also conducted.

The project is being designed with a long term vision by combining transport with other infrastructures and support services. Gender issues have been incorporated in the project with great importance at the request of the donors as well as in compliance with the government policy by giving great importance in empowering women through providing them with economic opportunities. Gender awareness has been increased among the officials and staffs of the implementing agencies as well as other stakeholders of different levels in the community. Community participation has been identified as part of the design and planning phase to make it sustainable and assure the optimum use of these infrastructures. The experience from this project shows that, in order to integrate gender into any transport project, multiple components need to be taken into a project in a balanced fashion.

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ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AE	Assistant Engineer
AG	Accountant General
BBS	Bangladesh Bureau of Statistics
BCRR	Bridge and Culverts on Rural Roads
BME	Benefit Monitoring and Evaluation
CDS	Center for Development Studies
CIDA	Canadian International Development Cooperation Agency
DFID	Department For International Development
DPD	Deputy Project Director
D&S	Design and Supervision
ECNEC	Executive Committee of National Economic Council
ERR	Economic Rate of Return
FFYP	Fifth Five Year Plan
FR	Flood Refuge
FRB	Feeder Road Type B
FRE	Field Resident Engineer
GAD	Gender and Development
GC	Growth Center
GCM	Growth Center Market
GOB	Government of Bangladesh
HDM	Highway Design and Maintenance
HQ	Head Quarter
IFAD	International Fund for Agricultural Development
IFRTD	International Forum for Rural Transport and Development
IGA	Income Generating Activities
LCS	Labor Contracting Society
LGED	Local Government Engineering Department
MANCPAC	Management Capability Strengthening TA
MIS	Management Information System
MLGRDC	Ministry of Local Government, Rural Development and Cooperatives
NGO	Non Government Organization
NPV	Net Present Value
OECD	Overseas Economic Cooperation Fund
PCP	Project Concept Paper
PD	Project Director

PIO	Project Implementation Office
PRSP	Poverty Reduction Strategy Paper
RDP	Rural Development Program
RHD	Roads and Highways Department
RIDP	Rural Infrastructure Development Project
RIMC	Rural Infrastructure Management Cell
RM	Road Maintenance
RMP	Rural Maintenance Program
RR	Rural Roads
SIDA	Swedish International Development Cooperation Agency
TA	Technical Assistance
TE	Thana Engineer
TP	Tree Plantation
UP	Union Parishad
UPC	Union Parishad Complex
XEN	Executive Engineer
WMC	Women Market Corner
WMS	Women Market Section

1. INTRODUCTION

1.1 BACKGROUND

Bangladesh is one of the most densely populated countries in the world with 876 persons per km² and with the vast majority of its people (77%) living in the rural areas. Women, who constitute about 49% of the total, are the most disadvantaged and vulnerable population segment. More than two thirds of the people under the poverty line are women. The Government of Bangladesh (GoB) and international assistance agencies recognize that that improved access through a better transport network is the key to economic development and poverty reduction. This is especially true for the poor living in remote communities, for whom improvement of feeder and access roads to all-weather maintainable standard is critical to establish links to markets and service centers.

The internal transport infrastructure network consists of roads, railways and inland waterways. Table 1 details the modal share of road, inland waterways and rail in freight transport, in volumes (tons) moved. The volumes of goods and passenger traffic have increased over time. Road transport plays the major role in the movement of people and cargo, carrying over 62% of all goods and 79% of passenger traffic (Table 2); the volumes moved by road are increasing. However, in terms of participation in the process of development and beneficiaries of these transport network system, women stand much behind men.

Table 1: Modal Split of Freight Transport

Year	Total Volume ('000 ton)	Railway		Road		Inland Waterways	
		Volume ('000 ton)	Percent	Volume ('000 ton)	Percent	Volume ('000 ton)	Percent
1982-83	107,442	2,998	2.8	74,158	69.0	30,286	28.2
1985-86	110,819	2,341	2.1	74,580	67.3	33,898	30.6
1990-91	127,181	2,517	2.0	81,102	63.8	43,562	34.3
1995-96	146,421	2,551	1.7	90,492	61.8	53,378	36.5
1999-2000	170,842	3,562	2.1	107,371	62.8	59,908	35.1

Source: BBS, Statistical Year Book 1994 & 2002

Table 2: Modal Split of Passenger Transport (percent)

Year	Modal Share		
	Railway	Road	Inland Waterways
1975	30	54	16
1985	20	64	16
1989	17	68	15
1993	12	75	13
2000*	10	79	11

* Estimated

Source: BBS, Statistical Year Book 1994 & 2002

A characteristic of the road transport system in Bangladesh is the co-existence of a growing mechanized vehicle fleet with a traditional, 'informal' and largely non-motorized transport sub sector. This 'informal' sub sector includes passenger rickshaws and rickshaw vans and bullock carts. The rural roads are mainly served by these informal vehicles and used by the majority of the population.

There is well defined classification, division of responsibility and set of geometric standards for the road network. National responsibility for the road network is divided between the Roads and Highways Department (RHD) of the Ministry of Communication and the Local Government Engineering Department (LGED) of the Ministry of Local Government, Rural Development and Co-operatives (MLGRDC). RHD is responsible for construction, rehabilitation, upgrading and maintenance of highways and secondary roads, a total network of more than 21,000 km (BBS 2002). LGED is responsible, in conjunction with the local government bodies, for the "rural road network" which is subdivided into four clearly defined classes - Feeder Roads Type B (FRB) and three categories of Rural Road (RR1, RR2, and RR3), a total of network of more than 190,000 km (BBS 2002). LGED is responsible for the rural road network but and other infrastructure related to rural development and other local level development under MLGRDC.

GoB, with assistance from the UK's Department for International Development (DFID), has prepared the draft National Land Transport Policy (January, 2003) with the aim of creating a more efficient transport system for passengers and freight, by road and railway. It also intends to create the conditions for safer travel, along with more environmentally sustainable transport. However, this policy has not addressed the gender issue.

With the objective of poverty reduction, GoB in 1984 adopted a strategy for Rural Development Projects. It emphasized critical aspects of the rural development processes with various elements where physical infrastructure including roads, storage and markets was given highest priority. The

strategy recognized the importance of improving rural transport and trading infrastructure and emphasized the infrastructure priorities of:

- development of all-weather FRB network to provide access to and from growth center (GC) markets;
- improving rural roads and the spanning of gaps in them, to provide rural people with better access to markets and administrative facilities; and
- improving physical facilities at GC markets to facilitate efficient trading.

The strategy has been applied through successive Five Year Plans and a series of RDP projects focusing on development of road and market physical infrastructure have subsequently been implemented in different areas by LGED with external financing support. The projects have also contributed to the third element of the strategy by providing employment for the poor through use of labor-intensive construction methods.

Initially, women's participation in the projects was negligible, the majority of the potential poor labor force being women. However, with the creation of gender awareness by GoB's preparation of the "National Action Plan for Women's Advancement" and "National Policy for the Advancement of Women" in 1998 and desire by international assistance agencies, the project implementing agency (LGED) gradually incorporated gender strategies to encourage and ensure the participation of women in the project's design and implementation. The Third Rural Infrastructure Development Project, later renamed as Rural Development Project-21 (RDP 21), the project is one example where gender-related concerns have been addressed. Gender issues were not of high importance in design but became so later and were incorporated by preparation of the Gender Action Plan (Appendix A).

It is apparent that roads and other modes of transport do not impact men and men equally. One of the central messages of the International Forum for Rural Transport and Development (IFRTD) "Balancing the Load" strategy is that the transport burdens fall disproportionately on women. Increasing attention is now being paid by development agencies to gender impacts in transport sector investments, especially the impact on rural women.

Particular conceptual problems still arise in mainstreaming the transport needs of women. For example, public transport caters for journeys to and from paid/ formal work. Many of the trips made by women are categorized conventionally and incorrectly as "nonessential" trips not associated with formal work. This single purpose and predominantly male-oriented focus leaves women with inadequate or no transportation for their "multiple" tasks which require accessing healthcare, education and rural food markets.

RDP-21 is a large rural infrastructure project undertaken for economic growth and poverty alleviation implemented by LGED. The project aims to accelerate agricultural, economic and social development in its area of influence by improving basic rural transport and supporting infrastructure sustainably, with beneficiary participation at all stages of implementation. This objective is to contribute to the government's goals of promoting economic development and reducing poverty. The project is to remove physical bottlenecks and reduce costs in rural transport and in marketing, thereby improving rural people's access to economic and social facilities and services. The principal objectives of the project are to:

- improve the communication system, facilitation of agricultural production and marketing of agricultural products by construction and reconstruction of feeder road type B including bridges/ culverts, construction/ development of markets (GCs), rural roads, jetties and ghats and their maintenance;
- assist in poverty alleviation through reduced transport costs, better marketing facilities, higher farm productivity and increased farm and off-farm employment opportunities for the rural poor in short and long terms;
- develop the communication system in dry season in haor areas by constructing pilot submersible roads;
- encourage participation of women in improved GC markets and establishment and maintenance of tree plantations on road side embankments;
- construct the flood refuge shelters by widening FRBs at certain intervals to minimize loss of property and risk of injury or loss of life due to flash flooding;
- strengthen the institutional capacity within LGED and local government for efficient maintenance of rural roads and efficient management and operation of markets and ghats;
- increase the participation of local bodies and beneficiaries in scheme selection, implementation and planning to strengthen mechanisms for sustainable maintenance of rural infrastructure; and
- restore normal levels of economic and social activity by rehabilitating 1998 flood damaged infrastructure.

The project, which started in 1998 and will be completed by the end of 2004, has a total budget of USD 181 million. ADB is providing 70% of the cost as a loan and other financial support comes from IFAD, SIDA and JBIC. GoB is bearing 23% of the total project cost, including contribution of 3% from local government. The project has nine components under four major headings:

- Development of the rural road network
 - Upgrading of feeder roads
 - Construction of bridges and culverts
- Improvement of growth center markets and ghats
 - Growth center markets
 - Ghats
- Flood-response schemes and participatory development
 - Flash flood refuges
 - Submersible roads
 - Participatory development: women's participation and community and local government participation
- Institutional development and project support
 - Institutional development
 - Project support

The project area includes 13 districts in the northwest and north of the country including Rangpur, Kurigram, Nilphamari, Gaibandha, Lalmonirhat, Dinajpur, Thakurgaon, Panchagarh, Mymensingh, Kishoreganj, Netrokona, Jamalpur and Sherpur (105 thanas); it covers an area of about 30,000 km² with a population of 27 million.

Gender aspects were not well addressed during appraisal of the project but, by the time of its approval by GoB, the coverage of gender issues had been extended to a great extent. The activities include building of women's market corners, involvement of community organizers in forming labor contracting societies with landless or destitute women for routine maintenance and tree plantation along the project roads and appointment of a sociologist to supervise and monitor all gender and related activities.

Gender issues became more important as the project proceeded, with prioritization by GoB and intervention of the Gender Specialist of ADB. By mid 2001, the Gender Specialist was appointed, and the Gender and Development (GAD) action plan, covering all possible gender issues, was developed for incorporation into the project. All nine project components now have direct integration of women's roles, in different stages of implementation. Many women found employment and improved their economic and social condition directly or indirectly through this project.

1.2 OBJECTIVES

This study is to evaluate RDP as one of ten case studies of the world-wide survey on identifying the best practices in the integration of gender into transport programs. The overall objective of the study is to assist the World Bank [and other agencies] to improve the efficiency and equality of transport policies and programs through ensuring that projects responds to the needs of both women and men. This study focuses on:

- identifying how gender dimensions are included in the preparation of the project;
- documentation the experience of implementation;
- identifying the outcomes; and
- identifying lessons learned in respect of gender inclusion and where appropriate, suggesting good practices.

2. METHODOLOGY

The project is constructing infrastructure facilities including all weather roads, bridges, culverts, submersible roads, flood refuge, ghats and women's market sections. Most of the roads, culverts and women's market sections, but few flood refuge and ghats, are completed. RDP-21 encompasses a number of different elements for integration of women's role in different stages of implementation:

- routine maintenance and tree plantations;
- women market section (WMS);
- growth center markets (GCM);
- flood refuges (FR);
- UP complex;
- bridges and culverts on rural Road (BCRR);
- submersible roads;
- ghat; and
- training.

It was decided to focus the study first, on the components that have direct integration of women and second, on other stakeholders including project beneficiaries and project management. The study comprises:

- interviews with donor representatives and project management in head offices and the field (list enclosed in the Appendix B);
- field observation;
- interview with local elected public representative including chairmen, members (men and women) of the union Parishad;
- focus group discussion with project beneficiaries including the community people along the road, contractors who have constructed the infrastructures, local transport operators and users, local women workers (those who did and did not work on the project component), local women who are not involved as wage earners but are road users, traders in the markets, on market management committees, potential ghat users and potential flood refuge users; and
- a survey of six selected roads and women market sections in six districts covering four in the north west region (Rangpur, Dinajpur, Panchagarh and Kurigram) and two in north region (Mymensingh and Jamalpur) of the country.

The leading questions for the interviews and focus group discussions are on mainly the level of involvement of women in the project, the present status of women's participation in it and scope for participation in future similar types of project, its impact on social behavior and on individual women in the locality. Special emphasis was given to the integration of women in the transport sector including participation in planning, construction, maintenance, road use, vehicle operation and use of roads for other purposes (e.g., drying crops).

Two sets of questionnaires were prepared for the survey. One was for women involved in maintaining the road and roadside plantation for each of the six roads and the other for women traders in six women's market sections in six districts. Five and three women were selected randomly as the sample of roadside workers and women in market sections respectively.

The questionnaires were designed to cover parameters on demographic and socio-economic characteristics of the respondents, the recruitment and payment pattern; job description; operating mechanism and how their activities are integrated with the transport network and the potential for future contribution.

3. INSTITUTIONAL ANALYSIS

3.1 DESIGN

ADB had financed the Rural Infrastructure Development Project (RIDP 1, later renamed as RDP 13) which started in 1988-89 and was successfully completed in December 1996. The second Rural Infrastructure Development Project (RIDP II, later renamed as RDP 18) and also supported by ADB started in 1992 and progressed well and was expected to be completed in 1999. During preparation of the Country Operational Program for Bangladesh in December 1994, GoB requested ADB to support a third rural infrastructure development project, which was subsequently included in the Bank's Country Assistance Plan. The GoB in July 1995 submitted to the Bank its own feasibility report for the project. The report was strengthened under technical assistance (TA) financed by the Bank. A Bank Fact-finding Mission visited Bangladesh in May 1997 to process the project further. That was followed by a joint Appraisal Mission of the Bank, IFAD and SIDA in July 1997, which submitted an Aide-memoire with co-financing arrangements. The financing agencies agreed and signed the loan agreement.

The Project Concept Paper (PCP) for the project was prepared on the basis of TA consultant's reports and Aide-memoires of the Loan Fact Finding Mission and Joint Loan Appraisal Mission and approved by the ECNEC in November 1997. Eventually, the project was included in GoB's Fifth Five year Plan (FFYP), to be implemented through by Local Government Engineering Department of the Ministry of Local Government, Rural Development and Cooperatives (MLGRDC).

3.2 IMPLEMENTATION

The project initiated implementation by establishing a Project Implementation Office (PIO) by LGED at Dhaka in December 1998. A Project Director (PD) and support staff were appointed or transferred from similar projects of LGED, temporarily or full-time, to implement the project. The PD is a senior graduate civil engineer, deputed from LGED, with experience of handling similar projects.

The PD is responsible for the physical infrastructure component, procurement of equipment, vehicles and goods, for management of the consultants and for financial management and reporting. As the project area is separated into two regions by the river Jamuna, there are two Deputy Project Directors (DPD) for smooth implementation and better coordination. The principal tasks of the PD are to:

- guide, coordinate, supervise control and allocate tasks to the officers and staff;
- appoint and transfer all non gazetted staff of the project;
- monitor and supervise the works of field personnel involved in implementation;
- provide technical and other assistance needed by the XENs or other personnel for proper implementation;
- liaise with the development partners and concerned agencies/ ministries for timely flow of funds and submitting reimbursement claims and be responsible for overall financial management of the project; and

- conduct monthly progress monitoring meeting with the XEN, LGED and technical assistance staff.

One DPD is posted at Mymensingh for greater Mymensingh and Jamalpur Districts and the other at Rangpur for greater Rangpur and Dinajpur Districts; both have additional staff for the project. The principal tasks of DPDs are to:

- guide, supervise, co-ordinate and monitor of all works implemented in the Districts and Thana level;
- assist the project director for implementation of project activities;
- review and monitor the progress with XENs and TE, LGED and other technical assistant consultants; and
- ensure the work of the projects is being done as per guidelines and specification.

The Executive Engineers of LGED of the project districts, responsible for implementing the physical program in the districts, report to the PD. They are provided with additional staff from the project. The principal tasks of Executive Engineers are to:

- guide, supervise, co-ordinate and allocate tasks to staff working for the project in the districts;
- prepare schemes as per annual programs/ work plans and ensure construction and maintenance of components, assisted by design and supervision consultants;
- maintain all accounts in the project, being responsible for propriety of payments and strictly adhering to the Public Works Accounts codes and responding to audits by the C & AG;
- ensure the awareness of local government bodies, before implementation, of their duty to maintain roads;
- control stores and use of equipment;
- conduct meetings to review monthly progress of work with the Thana Engineers and the Technical Assistance Consultant; and
- monitor implementation and submit progress reports and reimbursement claims to the PD.

The Thana Engineers and their technical staff are responsible for implementing and supervising project works within the Thana. They co-operate closely with the Union Parishad for construction of UP Complex and ensure that rural roads on which structures are provided properly maintained by it. Structures on rural roads are selected by a participatory process involving Union Parishad and local communities. The Union Parishad is to implement ancillary earth works required on rural roads on which structures are to be built. Thana Engineers ensure the involvement of local government bodies and market committees in market development. They ensure quality control of works and submit monthly progress reports and reimbursement claims to XEN, LGED and the PD. They maintain all accounts and payments and adhere strictly to the “Public works accounts code” and audit requirements.

Labor Contracting Societies (LCS) or labor groups are formed by the project’s community organizers to involve actively landless people and destitute women, who are the majority of the rural unemployed, in implementation. The community organizers and the sociologist are to ensure

the participatory process is transparent and well implemented. LGED gives special attention to gender issues - a sociologist in its HQ looks after gender issues.

The project tries to ensure participation of people in project selection and implementation. Opinions of local government bodies are taken for schemes to be selected and representatives of local bodies are involved as far as possible in implementation.

For the use of flash flood refuge shelters, local bodies are engaged to ensure their proper use, in times of and after floods, for social activities.

For the implementation of Union Parishad Complexes, the selection criteria are:

- the existing building/ complex is dilapidated condition and requires immediate rehabilitation/ construction;
- the complex is not located in and near the Thana HQ;
- there must be a heavily populated union compared to others in the Thana;
- good performance on revenue collection of the union in the Thana; and
- willingness to contribute 10% of construction cost of union Parishad Complex.

A team of design and supervision and institutional support consultants, consisting of foreign and local experts and other supporting staff, are appointed for implementation of the project. The design and supervision consultant renders assistance to the PD, DPD and XEN to plan, evaluate, prepare specifications and bidding documents, evaluate bids and monitor and supervise the construction and maintenance program at PIO and district levels respectively. The institutional support consultants arrange all training programs (local and foreign) of the project. They also assist the Thana Engineers in preparation and implementation of the components under their jurisdiction.

The project uses the planned road maintenance system developed by the Rural Infrastructure Management Cell (RIMC), with which it collaborates to improve and refine this system. The PIO, assisted by the design and supervision and institutional support consultant, are to work with the LGED Zonal, District and Thana Offices in the project area to prepare the annual maintenance program, based on the roads and structures inventory and the conduct of condition surveys. This program includes periodic maintenance of all roads and structures. For routine maintenance of earthen embankments, care of trees and cleaning of structures, LGED enters into direct contracts with LCS groups of disadvantaged women. Routine maintenance of pavements and periodic maintenance are carried out by local contractors under LGED procedures.

3.3 MONITORING AND EVALUATION

The MANCPAC report recommends gradual introduction of a management information system (MIS). The project includes resources for an MIS master plan in to further introduction of this system. This system is helpful for monitoring and evaluation of the projects. A separate impact and benefit monitoring and evaluation (BME) study is being carried out in implementation of the projects. Highway Design and Maintenance Model-4 (HDM-4) is incorporated in the projects and LGED for design and maintenance of roads.

The PD is responsible for overall project implementation and coordination, under the supervision of LGED's Additional Chief Engineer (Project). The Chief Engineer, LGED through the Additional Chief Engineer coordinates and provides overall guidance of the project activities to ensure proper and smooth implementation.

4. GENDER ISSUES IN PROJECT IMPLEMENTATION

Road infrastructure projects are growth oriented; they reduce transport costs and increase access to markets, jobs, education and development. Experts in the transport sector are convinced that road transport projects contribute to poverty reduction both directly and indirectly. One of the most visible and direct impacts of road network development projects on poverty reduction is employment, provided labor-intensive methods are used. When they are used, road construction especially that for rural access, has clearly identifiable benefit. For instance, construction can easily be wage-targeted to ensure participation by the poorest, especially women. These targeted employment opportunities for women and the poor are beneficial, but short term; more long term and sustainable employment opportunities are needed if poverty is to be reduced.

Rural roads provide “enabling” environments that break traditional isolation, provide access to new opportunities, resources and services and ultimately increase social and economic security including social capital. Such environments overcome and/ or reduce vulnerability and can facilitate empowerment and participation of the rural poor, specifically women, in decision making. It is claimed that roads may be the single most important sector investment in a program of rural poverty reduction.

A gender action plan was prepared in 2000 to address gender issues in all components of RDP-21; it highlighted the objectives, target groups, indicators, activities, targets, responsible persons/ organizations and a time frame (Appendix A). LGED integrates “gender and development” (GAD) issues in its development activities in accord with the national policy; it pioneered women’s development in different spheres of activities. RDP-21, undertaken for poverty alleviation, has participation of all stakeholders in implementation is a core objective. To ensure participation, women’s and GAD issues are addressed component-wise at all stages of implementation. The principal objective of this GAD activity is to make LGED project officials’ gender-sensitized for implementation of its related components. A Gender Specialist of ADB and BRM provided continuous support to prepare GAD and contributed in the workshops organized for LGED officials.

4.1 GENDER ISSUES BY COMPONENT

4.1.1 Road Maintenance and Tree Plantations through LCS Women

The Rural Maintenance Program (RMP) launched in 1983 by CARE is the pioneer project in Bangladesh which has challenged the traditional role of rural women by engaging them in road maintenance outside home. This program is designed to address some of the most important development challenges of Bangladesh - poverty alleviation, women’s empowerment and institutional capacity development of local government and ultimately, integration of women in transport sector. RMP, funded principally by CIDA, is a country program presently working in 4,152 unions of 61 districts serving 41,520 women annually. In each union (the lowest administrative unit of local government) 10 destitute women are employed in a group for a four years to maintain and keep passable throughout the year about 20 km of rural earthen roads. The wage per day is Tk 43 of which Tk 10 is saved in their escrow (forced savings) account. Escrow savings are used as start-up capital for income generating activities, which they have to undertake at the end of business management training, six months before their graduation from the project. Graduates are prohibited from joining RMP a second time as it is expected that by the time of graduation they

are no longer destitute. Other destitutes in the union should get an opportunity to come out from that condition. Initially LGED was involved in supervising and monitoring the RMP program. RMP activities are now supervised by jointly by union councils and CARE.

LGED has followed the model for employing destitute women in maintaining rural roads and growth center connecting roads, through various projects and as part of its regular program. These are the better of those roads maintained through RMP.

In RDP-21, women from areas near roads are recruited for two years as members of Labor Contracting Societies (LCS) of 10, so they can take care of plantations from morning to evening and maintain road sides including shoulder and slope and clean bushes. Each woman has to take care of 0.5 km of road. The wage structure is about the same as for RMP. After two years and IGA training, these women receive their escrow money. Unlike RMP, these women can be recruited by LGED for other similar programs. LGED community organizers are responsible for recruitment and monitoring activities.

A total of 1,676 LCS women have been appointed in RDP-21 for road maintenance and tree plantation on 838 km roads; all received training on road and tree plantation maintenance. Every LCS women has opened a bank account and receives a wage and has started mandatory savings. This component has created an opportunity for destitute rural women to earn money. After the two years' services, the women are provided with two days training on "awareness raising and IGA" on health, sanitation, family planning. A training manual for the trainers of LCS women was prepared, finalized and approved.

4.1.2 Women's Market Sections

The concept of Women's Market Sections (WMS) was initiated in RDP-13 followed by RDP-16 of LGED, both as pilots. RDP-21 incorporated the design to provide market sections exclusively for women traders, after initiation of the project. Out of 279 WMS's planned, 102 have been completed and 745 shops for women vendors have been constructed; there are 6-12 shops in each market. Potential women traders were consulted by participatory sessions in designing and selecting sites of the WMSs. The traders were selected by lottery. If a winner of the lottery fails to run a business, the shop is allotted to the woman positioned next in a waiting list. A total of 700 women vendors have signed lease agreements and 690 have started business. About 200 women have got employment to assist traders. In total, 733 women have received training on "shop management and trade skill development" by two NGOs. Hand tube-wells and separate toilets for women have been provided in all constructed WMSs. Women vendors were selected from disadvantaged women. About 60 members of WMSs are represented in "Traders Associations" and "Market Management Committees" to voice their opinions. Each WMS has its own association constituted by the shop owners and headed by a President and one President, for management and maintenance of the sections their interests.

4.1.3 Growth Center Market

Out of 196 proposed Growth Center Markets (GCM), 113 have been completed and women vendors have started selling products in open sheds. Before construction of GCMs, a participatory planning session was conducted where women's role and other stakeholders' participation were considered. In each GCM one to five women vendors can get their seats. There are women vendors also outside the constructed open sheds.

4.1.4 Flood Refuges

Of the planned 30 flood refuges (FR), 8 have been completed. Before starting construction, women heads of households were consulted for their opinions. Private corners for emergency during flood, separate sanitary latrines and hand tube-wells for women have been ensured in each FR. The Center for Development Services (CDS), an NGO, has been sub-contracted for participatory works.

4.1.5 Union Parishad Complex

To date, 60 UPCs out of the 105 planned have been constructed, with separate rooms and toilets for women UP members. At least 25 UPCs are operational and women members are attending their offices. All stakeholders and local people, including women of surrounding areas, were consulted in planning and design. Training for UP chairmen, male members, female members and secretaries has been organized in 2002.

4.1.6 Bridges and Culverts on Rural Roads

A total of 572 BCRRs have been completed. Women UP members participated in site selection and decision making in implementation committees. Participation of female labor in construction activities was 34%. However, their wage rate was lower than for male laborers.

4.1.7 Submersible Road

About 15 km of submersible road has been constructed in the haor area to provide access to local people during the dry season as well as saving crops from flash flood prior to and early in the monsoon. Before construction, UP women members and rural women took part in discussions on site selection, durability and utility of the roads.

4.1.8 Ghat

Of the proposed 39 ghats, 6 have been completed. The beneficiaries, including women, participated in site selection and design which includes waiting sheds, hand tube-wells and toilet facilities for passengers. In some ghats, there is provision for ladies' toilets.

4.1.9 Training

Training is given for dissemination of gender and development issues and awareness raising among LGED personnel. Trainees include LGED's HQ officials, for XENs, AEs and FREs in Mymensingh and Rangpur regional offices and officials in 105 thanas.

5. GENDER DIFFERENCES IN OUTCOMES

The project will provide better road communication in its area of influence through construction of roads, structures, GC and submersible road in haor areas, river jetties/ launch-landing ghat. Improved roads and better market facilities will help in rapid supply of inputs for agriculture and marketing of agricultural products. Project activities will create both short- and long- term employment opportunities for the rural poor. ADB in 1997 engaged a consultant to examine the project benefits. The consultant forecast, in an aide-memoire, that the economic rate of return (ERR) of the project would be 27.7%. Development of physical infrastructure, especially small scale water resources schemes and growth centers, will help to increase agricultural production and intensify other commercial activities. The project will facilitate local socio-economic linkages and reduction of transport cost for goods, services and people.

This project has addressed gender issues with very high priority, through not only its transport component but also those for infrastructure and training and motivation. The outcomes of these interventions are evaluated and analyzed by component, covering four aspects: opportunity, capability, security and empowerment, in accord with the World Bank's Poverty Reduction Strategy Paper (PRSP).

The project provided economic and social opportunities to its targeted people irrespective of gender. Job opportunities and upgrading of jobs have been created in LGED's head office and in the field. The majority of the appointed community organizers in 105 thanas are women. Public representatives of local government, including women, got the opportunity to participate in decision-making for development activities in each locality.

5.1 UPGRADING FEEDER ROADS

By upgrading of 123 FRB's totaling about 1,250 km to bitumen-surfaced standard, the project provided all-weather access to growth center markets to about 27 million people. Job opportunities were created, in construction, for some additional officials in LGED, both at headquarters and in the field, consultants, contractors, material suppliers, local labors and others. More than 30% of the local laborers employed by the contractor are women; the proportion of women laborers was much higher (40%) in the north-west region than in the north region. The case study found that, of more than 50 contractors involved in the project's road improvement activities, only one was female. She is from Kurigram district (north-west region of the country). However, the wages of women laborers are lower than those of males. The women laborers have gained some skill by working on the project roads and are now getting more employment in the vicinity. With their new skill they are in a position to bargain for wages. Their earning capacity is appreciated by their families and by the society and they are encouraged to join in other available non traditional employment.

Traffic movement has increased remarkably with the upgrading of roads. According to the local people, it rose by 200-300% as these roads are connected to growth centers and local administrative headquarters and important nodal points. Most trips are made to the market centers for trading and other purposes, followed by going to different institutions like schools, UPs and Upazila offices, banks, NGO offices, hospital and NGOs. Women constitute about 10-20% of the total traffic; this is up from only 6-10% before the upgrading of the road. These women make trips mostly to school, market, hospital, relative's houses, NGO offices and UP offices.

The numbers of motorized vehicles (truck, bus, baby taxi, tempo) have increased remarkably. The number of rickshaws and vans increased at least 200% as compared to the pre-project situation. Huge numbers of people are engaged in this transport sector including ownership business, operation and maintenance and support services. All of them are male. Only 1-3 women bicycle riders were identified during the survey. People have been encouraged to use the road by reduced transport costs.

The roads have helped traders to make more business and ultimately more profit. The collection and marketing network for local products including agro-based products and handicrafts has been facilitated by this project, ultimately increasing returns to primary producers. As women have a big role as primary producers, this project is facilitating the rural women to improve their economic condition. This project improved accessibility of farmers/ primary producers to the inputs and raw materials.

Local women are facilitated with better accessibility to educational institutes, health centers, NGO offices and other institutions. By using these opportunities, they are improving their social status in the community.

There is a plan for maintenance of 1,345 km of road and tree plantations, of which 838 km has been constructed. This allows 676 LCS women to earn livelihoods. Thirty women were interviewed, from six roads in six districts. Average age of these women is 29 with a range from 26 to 34. Average household size is 5 and ranges from 2 to 7. About 50% of these women are illiterate, but 20% have formal education of 5-8 years; few have education up to grade 8. The literate women are doing better by using the training provided by the project. As almost all are heads of households, the project is thus helping these households to survive. The wage per day is TK 43, out of that they have to save Tk 10 in their own account. Before joining the project the majority worked in people's houses in the village. About 15% worked as member of RMP under CARE and 10% had experience of outside the village, such as garment working in Dhaka or earth works in district head quarters. These women were destitute. This project has facilitated them to have own earning and be empowered in the society. Some of the women have established themselves as successful entrepreneurs with the money saved from the project.

Case Study LCS Woman for RM and TP

Julekha Begum is from Panchagarh and is 28 years old. She has the education level of grade five. Julekha got married at the age of 15. Her son was born after one year of her marriage. After five years she gave birth to one daughter but her husband left her before the birth of her daughter. At that time she had to move to her father's house. Now she is living with her 12 years old son Bashir and 7 years old daughter Beena in her father's house. She became destitute as her husband left her with children. She survived by working in neighbors'/ villagers' houses as a maid.

Julekha joined RDP-21 late 2000. She was selected as an LCS member of RDP-21 through the lottery system. She maintains the roadside and looks after the plantation provided by the project. She received one day's training after joining the project. According to her, two years is very short to make the plants/trees sustainable. She mentioned that the project should provide the supporting bamboos or sticks for the plants. In rainy seasons, she faces a problem in collecting soil to maintain the road.

After joining RDP-21 she has become independent with reasonable earnings. After IGA training she rented some land with the money she saved when she was working in the project. She spent Tk 2,500 to rent this piece of land and she invested Tk 1,000 in a money lending business from her own savings. Now Julekha earns Tk 80 and Tk 75 per month from the land and credit from the lent money.

Julekha believes that RDP-21 should employ women for two more years, as the additional year would help them to become totally independent. At present, at the end of the second year they start to become independent. So this support should continue for two more years. As of now, some of the women cannot stand on their own foot after their termination from the job.

Julekha is no more destitute and has honor in the society. She has decision making power as well as some money. She does not have to depend on anybody any more. She earned the skill to accommodate and establish her own right in the society.

Before joining RDP-21 Julekha did not have any savings. Now she has invested some money on land and credit business and earning Tk 155 per month. She is again working in peoples' house and getting food from there.

Julekha is planning to buy a cow with the RDP-21 forced-saved money, which she kept in the bank. She is also thinking of buying land. She wants to give a good life to her children. Her economic condition was better when she was working in RDP-21. After the termination her condition has deteriorated again. She wishes to join another LGED project and work again if there is any scope.

5.2 CONSTRUCTION OF BRIDGES AND CULVERTS

It was planned to construct 4,800 m of bridges and culverts along the rural roads feeding into FRBs. About 572 m have been completed and provided the facilities pass through the rural road uninterrupted. Many people both skilled and unskilled were employed to construct these bridges. Majority of them were local. In this component 34% of the labors were women. However their wage rate (Tk 60/day) was lower than the male (Tk 65/day) labors. By working in this sector these labors earned skills. This skill has empowered them to get another job in and around the area and bargain for their wage rate. Some local boat operators who used to earn in the rainy season have lost their job after construction of these bridges. Efficiency of transport network of the project area has increased tremendously and ultimately contributed in the local economy and the local people like the improved road with newly constructed bridges and culverts. These bridges and culverts have complemented in making the transport network efficient.

5.3 IMPROVEMENT OF GROWTH CENTER MARKETS

Growth center markets are designated local focal points for the sale of rural produce and the distribution of agricultural inputs and consumer goods. Most rural markets are congested, alternating muddy and dusty and unhygienic. The project has constructed or improved common public facilities at 196 growth center markets in order to provide an efficient, safe, and hygienic trading environment.

The growth center market improvements are based on established LGED standards, and comprises of:

- a. Paving and drainage of the market area;
- b. Provision of internal roads and footpaths plus vehicle parking space;
- c. Construction of covered selling sheds, open sales platforms, fish shed, meat sheds, and livestock slaughters slabs;
- d. Installation of tube wells, sanitary latrines , and garbage pits;
- e. Provision of an office for market administration;
- f. Women market section;
- g. Existing market area extension

The planning, design and implementation of growth center markets is participatory. The local government bodies (UP, Thana parishad, users, individual) contribute at least 10 percent of the improvement costs from their own resources or from the Government's block grant for local government development. The different categories of market users (farmers, traders, rickshaw/van pullers etc.); market management committee, union parishad, women and other stakeholders participate in the design of the improvements through meetings, using participatory planning techniques, to define priorities and requirements of growth center market facilities. This process instills among the participants a greater sense of ownership, and involvement in the operation, of the growth center markets.

Provision of an exclusive area for women vendors in the open space (under the shed) is a precondition of improvement of Growth Center Markets. In 40% of the completed GCM women have started vending in open space. In an average 5-8 women use the assigned space to sell various commodities including puff rice, vegetable, poultry products etc. They are more or less same women and use same space in the market days. During hat day, sometimes if they become late they do not get the space. These women are mainly from the nearby area. Majority of them have male family member or relative involved in trading or with other activities in the market. Initially they faced some social problem but by now it is accepted by the community and market management committee plays a good role in this respect. Through this project they got employment, good earning and empowerment in the society. By having good income aided with good connecting road network and communication facilities they can avail health and other facilities in the vicinity.

120 Women market Section (WMS) has been constructed where 6-12 shops are constructed exclusively for the women traders. The site is being selected through consultation with the women traders, union parishad members specially woman member, market management committee and LGED officials. Initially destitute women were given allotment on lottery basis. But later on interested women with at least starting capital have been given allotment of the shops. The shops are being leased out for five years with a rent rate of Tk 150 per month. Only women are suppose to do the trading, and men working in the shop will lead to cancellation of the allotment. Sixty percent of them had some kind of training or experience of earning through informal employment before getting opportunity to do business through this project. Shops are in better condition in northern region (Mymensingh zone) than that of Northwest (Rangpur zone). Till now feminine items are most popular items to keep in the store like Clothing material, tailoring , cosmetics, stationary items, saree, beauty parlor etc. Other shops are shoe shop, medicine; telephone, restaurant, tea stall etc. Among all tailoring constitute 40% of the shop. The monthly income of these traders ranges from Tk 800-10,000. Thirty percent of the shops have employee or helping hand. Most of the cases they are helped by some other female family member.

Because these shops are located in the GC and these are well connected with other nodal points these traders can collect their commodities very easily and they can also send to other places in good condition. These roads are also helping them to attract their customers from the surrounding area. It is remarkable that a majority of the customers of these shops are men but buy necessities or gift items for women. However, in some markets a majority of the customers are women. It is remarkable that these markets are located near the girl's schools or colleges.

About 25% of these traders have received loans from NGO but in a small amount. They expect the project to organize credit for them. They also expect the project to modify the temporary lease agreement and arrange a lease agreement for a long period or give them the ownership. The ownership right will enable them to receive credit from the commercial banks. All the women traders mentioned that without credit it is very difficult for them to run the business.

All these women traders are helped by their male family members. They faced some social problem in the initial stage, but now they are in good shape and confident and empowered in the family as well as in the society. In some markets there are demands for more shops. However, some markets are also facing problems with the traders mostly for shortage of capital and selection of the same business by a majority of the traders as well as low purchasing power of the customer of the locality. It has been seen that some WMSs are not running well due to the construction of shops in improper sites. Most are located at the less important corners of markets.

Case Study of Woman trader in WMS

Lovely Roy Choudhury, from Haluaghat, Mymensingh, is 32 years old with education of grade ten. She married at 16 and her son was born one year later. Her husband died due to a motor cycle accident after one and half years of marriage. After two years she came back to her father's house. Now she is living with her 15 years son and her mother in her father's house. She used to sew and be involved with other handicraft activities at home and survived by marketing those products in the nearby areas. Her father's condition was good. Later she got a job in World Vision as trainer in handicrafts and sewing. By this time she worked as teacher in village school through informal appointment. She has a good reputation in the locality.

Lovely got the shop in late 2000, via the WMS lottery system. At first, there were 5 women traders, now there are 18. She started her business as tailoring and later expanded and now sells cloths (materials as well as readymade garments). Initially it was very difficult for her to run the business due to shortage of capital. Later she got some materials on credit from relatives. That helped her as she could repay the money (without interest) a few months later. Now she has good contact with other traders in Mymensingh and Dhaka and receives materials on credit from them.

At first, all the women faced some social problems but now their work is appreciated by the community. As this WMS is located near the local college, its main customers are the girls from the college. She received training in business management after joining the project. According to her, the five years lease period is very short and not secure enough to invest more and expand the business or take credit. She mentioned that the room is too small for her business. The project should provide storage facilities or allow the women to modify the room according to need.

The business has made Lovely independent with reasonable earnings - of more than Tk 4,000 per month. She has two employees, one for tailoring and one for running the business; both are her relatives. She is providing good education to her son. The improved road network with good transport facilities has a big role in expanding her business. It helps in carrying commodities for the shop and in bringing customers from surrounding areas.

Lovely believes that the training program of RDP-21 helped her to become confident and the LGED personnel have helped her to continue her business. Now she is empowered in the family. She looks after her mother. Her family helped her to stand on her own with the opportunity provided by LGED. However, LGED should make some arrangement to give ownerships rights of shops to the women traders, to encourage them to invest more and expand the business.

Lovely is now a business lady with honor in society. She is empowered and earns a reasonable amount of money. She depends on nobody. She earned the skills to accommodate and establish her own right in the society. A few months ago she was interviewed by Bangladesh Television and it was broadcast. That made her a role model in the locality. She is very happy about it.

Lovely is planning to expand her business by employing more people, especially for sewing and she is planning to use her home as premises and supply through the shop. She wants to give a good life to her child.

5.4 IMPROVEMENT OF GHATS

Rural ghats are generally unplanned and old-fashioned and can not offer minimum satisfactory services. In most cases boat loading and unloading arrangements are unsafe, there is no sanitation and there is no satisfactory access from the ghats to the roads to which they connect and the markets they serve. The project has constructed/ improved 6 ghats of its proposed 39 to provide safe, efficient and hygienic conditions for loading, unloading and transfer of goods and passengers. The improved ghats comprise river-bank facilities for safe unloading and loading of goods and passengers and where necessary, for mooring of boats; and on-land facilities include:

- a paved area;
- internal access road;
- drainage;
- a passenger shed with arrangement for women;
- tube-wells;
- latrines, separate arrangement for women and garbage pits; and
- office.

On-land facilities are based on growth center market technical standards and where ghats are adjacent to growth center markets, are integrated to their improvement.

Planning for constructing or improving ghats is participatory. Ghat users (operators, traders, porters, passengers) and other stakeholders (eg. Ghat management committee) participated in design of the improvements. Local government bodies contribute 10% of costs.

To ensure active participation of all concerned planning, design, implementation, maintenance and operation, the stakeholders are identified and involved were:

- passengers;
- women passengers;
- businessmen;
- boatmen;
- porters;
- ghat management committee; and
- union parishad.

The improved ghats have provided good facilities for traders, boat operators and passengers. The passengers' shed has provided women passengers a comfortable waiting room with toilet facilities and tube-well. The improvements have encouraged the stakeholders, both men and women, to use ghats more frequently for various journeys including those to work, health services, education facilities and relatives. Women can move easily without any male's help, unlike before improvement of the ghats.

5.5 FLASH FLOOD REFUGES

Flash flood is common in some northern parts of the project area due to the heavy rainfall in the hills across the border. These floods cause sudden inundation followed by quick recession and last from 34 hours to 45 days. Flash floods can have a devastating impact on those who are not prepared, or when the flooding is exceptional, resulting in loss of possessions, livestock and homes and in the worst cases, in injury and loss of life. The poor are worst affected by flash flooding, because both they are more vulnerable to it and the loss of what few possessions is particularly severe. Flash flooding is the type of “crisis” event that may cause the vulnerable non-poor to slide into poverty.

Sites for flood refuges are selected through a participatory approach of public consultation meetings, focus group discussions and consultation with UP chairmen/ women members, potential users and land owners. The criteria are sites being:

- close to flood-prone households;
- easily accessible;
- close to growth center market/hat/bazaar; and
- close to the maximum number of flood prone households.

Eight of the proposed 30 flood refuges have been constructed, with facilities based on the need assessment and subsequently agreed by potential users:

- shade with raised surface/HBB surface;
- drinking water supply;
- sanitary latrine;
- cooking facility;
- livestock keeping facility; and
- separate provision for women’ emergency need.

A local NGO has been appointed to organize primary users and management committees to identify off-season user groups and operation and maintenance of the structures. Varying suggestions have come up in different locations. People benefit from these structures during floods as well as non-flooding time. They do not lose their resources to flash floods. These structures indirectly encourage people to accumulate more resources than before as they provide greater security. Women feel more comfortable going to these shelters as they have separate arrangements.

5.6 SUBMERSIBLE ROADS

The haor areas of Netrokona and Kishoreganj districts are particularly disadvantaged agriculturally as their low-lying area is restricted to one dry-season crop per year and roads are almost non-existent. Vast areas are flooded in the wet season and transport is by boat. When floods go down, transport becomes very problematic. Excavation of perennial waterways is impractical, for hydrological and environmental reasons. Development of roads is seen as one of the most pressing needs to increase agricultural production and facilitate the delivery of economic and social services. However, construction of all-weather roads would be very costly as embankments would be high,

require major protection works against erosion from wave action and need high densities of bridges and culverts. Such high embankments are assessed to be environmentally inevitable. On the other hand, submersible roads have low-height embankments, are less costly and are environmentally sound and save crops from flash flood in pre-monsoon periods. These roads are submersed in monsoon from April onwards, but emerge above flood level in October to provide dry season access.

All the proposed (15 km) submersible roads have been constructed. The roads were selected by a participation process, with all stakeholders including users and local men and women representatives being consulted. Many women participated in construction. These roads provided accessibility to the farmers of the haor area in the dry season to carry their products to market and collect agricultural inputs. Movement of people to work places and other facilities for health, credit, education is enhanced by these roads.

5.7 UNION PARISHAD BUILDING/ COMPLEX

Local rural development through self government is getting emphasis and Union Parishad as the lowest tier of government is accorded priority. It is assumed that there is strong need, from community participation assessment, for people to cooperate with each other through thick and thin and meet community requirements as necessary. The rural people have to respond when needs arise in adverse times and extend care when it is called for.

Sixty out of 105 UPCs have been completed. It is expected that the upgraded UPCs will:

- increase local participation by providing points for UP and interest group activities;
- provide spaces for accommodation of beneficiaries' training;
- provide easy access for people to the union administration in one place and reduce transactions costs;
- provide a convenient platform for the rural people to voice their problems and needs to different departments located in the complex; and
- assist the UPs to guide and coordinate development activities of the Gram Parishads and render assistance concerning the activities of the NGOs.

The UPCs provide:

- office of the Union Parishad
- offices for the union's departments such as agriculture, health and family planning, primary and mass education, rural credit, farmer training and clinics;
- meeting room;
- separate room with toilet facilities for the women UP members;
- hall for social gathering/ meetings; and
- display/ exhibition center as and when required, especially for agricultural products.

Participatory approaches were undertaken by incorporating all potential users and management in site selection for these complexes. Local government is to share 10% of the cost by raising revenue from local sources. It was found that almost all the buildings are under used. Very few union

government officials have moved to the complexes. Representatives of local government, especially women members, are using the buildings for public support. NGO use the meeting rooms for training and other meetings.

5.8 INSTITUTIONAL DEVELOPMENT

To strengthen the management capacity in LGED and dissemination of gender and development issues and awareness raising among LGED personnel and the beneficiaries of the project, various kinds of training have been provided during implementation. For strengthening management capacity, main emphasis was on training of:

- LGED field and project staff in supervision of works, quality control, contracting and management of contractors, maintenance planning, implementation, and monitoring and reporting and administrative procedures; and
- pre-qualified contractors in construction methods, quality control and contract bidding and management; there is also training for senior project staff in management techniques and for relevant project staff in the environmental aspects of infrastructure works.

To disseminate the GAD issues training was held for:

- LGED HQ level officials on GAD issues and gender action plans at LGED HQ (one training for one day);
- XEns, AEs, FREs of 5 districts of Mymensingh zone in Mymensingh (one training for one day) on GAD issues;
- for XENs, AEs, FREs of 8 districts of Rangpur zone in Rangpur (one training for one day) on GAD issues; and
- thana level officials (105) on GAD issues and gender action plans at LGED HQ (one training for one day).

Other training is provided for women vendors, LCS women groups and UP members including women members as a continuous process.

An initial set of the issues in the gender differences in outcome of the studied project covering various components including transport is presented in Table 1.

Table 3: Issues of Gendered Component Impact on Poverty

Gender Dimensions	Issues Supported by the Project Component	Comments
Opportunity	Access to employment/ income	Employment opportunity created through roadside maintenance and plantation, IGA training and savings, wage labor during construction, having shops in the market, vending opportunity in the open space of the market
	Access to education and training	The completed road facilitated access to school, various kinds of training organized by the project in various stages for different groups
	Employment within the project	Women workers are community organizers (majority) and NGO workers
	Affordability of transport	Improved infrastructure including roads, bridges/ culverts, submersible roads, ghats, flood refuges and introduction and increase in number of motorized and non motorized facilitated to reduce the transport cost
	Access to natural resources, farm inputs, raw materials	Improved markets with improved roads with culverts and ghats have facilitated access to these resources
	Opportunity to own transport	With improved roads, saved money as well as better earning encouraged to own transport for business purpose as well as own use
	Access to transport services	With improved road with good network, women's market sections and more transport have facilitated better access to transport services
	Access to market, trading opportunity	Good road network, improved road and women's market sections encouraged and facilitated women in the vicinity with access to market and trading opportunities with traditional and non traditional items
	Access to use road for economic and social purpose	Improved roads are being used for threshing and drying paddy and reduce cost of threshing. Roads are used for social purposes such as marriage ceremony or other family/ community congregation. However, these activities also lead to higher potential for accident.
	Access to save live and resources	Improved road and flood refuges facilitate saving lives and assets from flood and heavy rain
Capability	Access to health service	Improved road with good network facilitated women's access to better health services

	Access to financial institutions	Employment in tree plantations and trading in the market facilitated women to open accounts in commercial banks, taking credit from NGOs
	Access to education and training	The completed road facilitated easy access to school, various kinds of training organized by the project in various stages for different groups provided the opportunity to have training on various aspect including IGA, business management, health, sanitation and gender awareness.
	Access to land and housing	The economic opportunity through the project directly as well as indirectly provided women access to own land and housing
	Saving resources from natural disaster	The flood refuges facilitated saving assets during flash floods as well as provide security to accumulate more assets
	Access to energy	Good road network and improved market facilitated collection of fuel
	Access to social capital/network	Good road network, UP complex ghats facilitated women for access to social capital
Security	Personal security	Personal security has increased with good transportation systems and movement opportunity of many people, improved market facilitated improved electricity services that enhanced personal security in moving after sunset
	Transport-related accident	Transport-related accidents have increased with introduction of more motorized transport
Empowerment	Participation in policy planning/ implementation	Project area women are empowered through participation in many decision making processes in various components of the project
	Development of social capital/ networks	The LCS group, women market corners, women vendors in the market have their own association and their networking has been enhanced through participating in different training programs, participation in different NGO programs and communication with women member of UPs in UP complex facilitated in enhancing the social capital
	Knowledge and information –user involved	Interaction among the women has increased through facilitation by the project and ultimately increased the dissemination of information and knowledge and empowered the local women
	Participation in political processes at different levels	Women members of UPs are facilitated through this project by having their own office, training and mechanisms for participation in decision making processes. They are empowered in the community and enhance their participation in national and local politics

6. CONCLUSIONS AND LESSONS LEARNED

6.1 SUMMARY AND CONCLUSION

Road transport plays the major role in the movement of people and cargo in Bangladesh, carrying over 62% of all goods and 79% of passenger traffic. LGED is responsible for developing and maintaining the rural roads which are 90% of the total network. GoB, with assistance from DFID, prepared the draft National Land Transport Policy in 2003 but this policy has not addressed the gender issue.

LGED has been developing roads and other infrastructure for rural development through various projects since 1984, with the objective of poverty reduction. These projects are designed to be labor-intensive to provide employment to rural poor and women are specially targeted with the creation of the National Policy for Advancement of Women in 1998. The Third Rural Infrastructure Project (RDP 21) is one of these projects; its design started in 1994 and its implementation in 1998, with completion to be by the end of 2004. Total project cost is USD 181 million. ADB is providing a loan for 70% of the cost and other contributors are IFAD, SIDA and JBIC. GoB is to contribute 23% of total project cost including a contribution of 3% from local government. The project has nine components under four major headings: development of the rural road network; improvement of growth center markets and ghats; flood-response schemes and participatory development; and institutional development and project support.

The project area covers 13 districts in the northwest and north of the country, in 105 thanas with an area of 30,000 km² and population of 27 million. Gender aspects were not well addressed until the appraisal of the project but at the time of approval of the project proposal by the GoB (1998), the coverage of gender was greatly extended. With the appointment of a gender specialist of ADB, by mid 2001 a gender action plan was developed to cover all possible gender issues in the project.

With its record of successful implementation of rural development projects, GoB asked international lenders to support the third project. With the agreement of ADB and other lenders and donors, the project was approved and implemented by LGED. LGED has mobilized and appointed technical and supporting staff in different levels from head office to thana offices by assigning responsibilities to the respective offices and staffs.

The gender action plan prepared to address gender issues in RDP-21 highlights objectives, targets, responsible persons/ organization and time frame. Nine components have direct bearing on women's role in different stages: road maintenance and tree plantation through LCS women; women's market sections; growth center markets; flood refuges; Union parishad complexes; bridges and culverts on rural roads; submersible road; ghats; and training.

A total of 1,638 destitute women have been appointed for two years as LCS members for road maintenance and tree plantation on 838 km roads in RDP 21; all received job training. These women are being facilitated to earn money from their jobs as being involved in IGA activities with training and forced saving. This opportunity has empowered women in the society, with some capital, involvement with other non traditional activities and increased bargaining power for wage rates.

Of 279 planned women's market sections, 102 have been completed and 745 shops for women traders have been constructed and 700 women traders have signed agreements to continue their

businesses by themselves. These traders employed another 200 women to assist in the shops. All traders got training on shop management and trade skill development by two NGOs. In all completed WMSs, hand tube-wells and separate toilets for women have been provided. About 60 women traders have representatives in traders' association and in market management committees to voice their opinions and needs.

Of the proposed 196 GCM, 113 have been completed and vendors started selling products in open sheds assigned for women vendors only. This arrangement has encouraged women vendors to participate in trading as well as motivating the general traders (mostly males) of the market to accept women traders in the market and indirectly facilitating the women customers to come to the market.

Eight out of 30 proposed flood refuges and 60 out of 105 proposed Union Parishad Complexes have been constructed with separate provision for women. Stakeholders were consulted in planning, design and use of these structures. These complexes have facilitated women to protect their assets during floods and to voice their demands or problem to UP members and chairmen. Women UP members are facilitated to have separate offices to serve the people, specially women in her constituency.

The project has constructed 572 bridges and culverts on rural roads, 15 km of submersible roads and 6 ghats. Participation of women stakeholders was ensured in planning and designing phases. More than one third of the construction labor force was women. This encouraged local women to become more active and mobile in respect of availing various social and economic opportunities in the locality as well as improving their earnings through employment or business.

Training has been organized for dissemination of gender and development issues and awareness raising among LGED personnel. Training was organized for beneficiaries for awareness raising and on economic opportunities and management practice.

It can be said that the study project is not a transport project but an infrastructure project with transport as one of the major component. The project is designed with long term vision by combining transport with other infrastructures and support services. Gender issues have been incorporated in the project with great importance to meet the desire of international agencies and to comply with government policy – the main thrust is to empower women by providing economic opportunity. Gender awareness has been created among the officials and staff of the implementing agency and other stakeholders in the community. Community participation has been identified as part of the design and planning phase to make it sustainable and assure the optimum use of the constructed facilities. The experience of this project shows that, to integrate gender into any transport project, multiple components should be incorporated and integrated with each other.

6.2 LESSONS LEARNED

The lessons learned from this project are, in brief:

- transport needs of women and children should be integrated into the mainstream of transport policy;
- women and rural poor should benefit from road construction and maintenance work;

- security of women to use the transport facilities should be assured, partly by assurance of electricity supply in the evenings to allow women to travel safely to and from markets;
- employment of women in road maintenance encourages them to use the road and to go for non traditional employment;
- improved road facilitates motorized vehicles to and ultimately, better transport facilities to local people, specially to women;
- transport cost is reduced with an improved road network which enhances the movement of people and helps them to avail economic and social opportunities;
- special arrangements for women to do business in growth centers have facilitated them using roads more frequently - these roads assisted women to do better business;
- to ensure women's employment in the transport sector, compulsory employment of women needs to be incorporated in construction contract documents;
- by following the example of RDP 21 in providing shops in markets, women transport operators/ owners can be increased by providing special facilities such as training on transport operation and capital to women with certain terms and conditions in any transport-related project; and
- to encourage more women to use transport, sheds with toilet facilities in the bus stops should be provided.

REFERENCES

- Asian Development Bank, 2003. Gender & Development (report)
- Asian Development Bank, 1997. RRP:BAN 28023, Report and Recommendation of the President to the Board of Directors on a proposed loan to the People's Republic of Bangladesh for the Third Rural Infrastructure Development Project.
- Asian Development Bank, 1997. Technical Assistance (TA No. 2550-BAN) Formulation of Third Rural Infrastructure Development, IT Transport Ltd. UK in association with Kranti Associates Ltd. & Resource Planning and Management Consultants, Local Government Engineering Department, Government of the People's Republic of Bangladesh
- Bangladesh Bureau of Statistics, 2002. Statistical Pocket Book, Bangladesh 2000.
- Bangladesh Bureau of Statistics, 2002. 2000 Statistical Yearbook of Bangladesh.
- Government of the People's Republic of Bangladesh, 2003. Report on National Land Transport Policy, Ministry of Communication.
- Government of the People's Republic of Bangladesh, 1999. Project Proforma (PP) for Rural Development Project – 21: Infrastructure, Ministry of Local Government, Rural Development & Cooperatives (Local Government Division), Local Government Engineering Department.
- Government of the People's Republic of Bangladesh, 1998. The National Policy for the Advancement of Women, Ministry of Women and Children Affairs.
- Government of the People's Republic of Bangladesh, 1998. National Action Plan for Women's Advancement: Implementation of the Beijing Platform for Action (PFA) Ministry of Women and Children Affairs.

APPENDIX

Local Government Engineering Department

Third Rural Infrastructure Development Project Institutional Support Component Consultant Component Wise Gender Action Plan

- First phase target is 60 Women Market Section
- Second phase target is 219 Women Market Section

SL	Component	Objective	Target Group	Indicator	Activity	Target	Specific Responsibility	When
1.	Women Market Section	1. Creation of IGA & employment opportunity for rural disadvantaged vendor women	1. Rural disadvantaged vendor women	1. Increased women's employment opportunity	1. Construction, organization & distribution of shop and training of the rural disadvantaged vendor women	1. <ul style="list-style-type: none"> ▪ 940 women vendors & 300 temporary women vendors ➤ 3430 women vendors & 2190 temporary women vendors 	1. NGO, UE	March 2000 and onward
		a. Motivation of potential & existing women vendors, community leaders to establish WMS	a. Women, elite, religious leader, vendors and rural people	a. Awareness of women raised Awareness of elites gained	a. Information campaign	a. <ul style="list-style-type: none"> ▪ 1800 women ➤ 6570 women 	a. NGO; UE	“
		b. Assessment of social attitude towards establishment of WMS	b. Women vendor, religious leader elites, UP	b. Women are interviewed Elites provided positive support	b. Social Assessment	b. <ul style="list-style-type: none"> ▪ 1200 women ➤ 4980 women 	b. NGO	“
		c. Social and stakeholders' agreement for establishment of WMS	c. Potential & existing women, elites, UP	c. Women participated in joint planning session	c. Joint Planning session	c. <ul style="list-style-type: none"> ▪ 60 joint planning session ➤ 219 joint planning session 	c. NGO	“
		d. Establishment of women vendors in designated rural market	d. Women vendors	d. Women are shop owners	d. Allotment of shop among the genuine disadvantaged women vendors	d. <ul style="list-style-type: none"> ▪ 470 women vendors ➤ 1715 women vendors 	d. NGO/UE	“
		e. Encouragement of women vendors & buyers presence for longer time in WMS	e. Women vendors & buyers	e. Women's sanitation and comfort is ensured	e. Instillation of separate HTW & toilet for women at a congenial site of WMS	e. <ul style="list-style-type: none"> ▪ 60 toilets ➤ 219 toilets 	e. UE	“

SL	Component	Objective	Target Group	Indicator	Activity	Target	Specific Responsibility	When
		f. Facilitation of poor women temporary vendors to enable in trading	f. Temporary women vendors and other temporary vendors of market	f. Temporary women vendors use open shed	f. Motivation of temporary women vendors to participate at open shed platform for temporary vending Motivation of other vendors to accommodate women	f. <ul style="list-style-type: none"> ▪ 300 women ➤ 1095 women 	f. NGO	
		g. Skill development of women in shop management & trading	g. Women vendors	g. women vendors are trained	g. Training of shop allottee women on shop management & trade skill	g. <ul style="list-style-type: none"> ▪ 470 women vendors ➤ 1725 women vendors 	g. NGO	
		h. Enabling shop owner women to voice their rights in the market vendors association	h. Women vendors	h. Women vendors are active members of vendors associations	h. Inclusion of women shop allottee as member in the market vendors association	h. <ul style="list-style-type: none"> ▪ 60 women vendors ➤ 219 women vendors 	h. NGO, TA, LGED Guideline	
		i. Rationalization for increasing number of WMS for implementation	i. Women vendors	i. Effective utilization of WMS	i. Assessment of the use of WMS	i. 470 women vendors and 300 temporary women vendors	i. BME Special Sociologist	December 1999 to June 2000
		J. Enabling shop owner women in their proper settlement economically & socially	J. Women vendor	j. Socio-economic development of Women Vendors is ensured	j. Monitoring of the shop owner women's performance & back-stopping support	j. Shop owner women	j. NGO, UE	"
2.	Flood Refuge	2. Creation of shelter & facilities for potential flood affected poor and vulnerable non-poor people specially for women & children for hygienic way of living during the flood time	2. Women, men, children	2. Women use RF in hygienic way	2. Construction of Flood Refuge in flood prone area	2. 3000 flood affected women	2. UE, NGO	March 2000 and onward
		a. Creation of special attention for women beneficiaries	a. Women	a. Women are sensitized	a. Information campaign and special emphasis on women beneficiaries	a. 5000 women	a. NGO	"
		b. Consultation women's opinion	b. Women UP members, women head of HH	b. Women are consulted	b. Inclusion of opinion of UP women members, head of women HH during planning of FR	b. 150 women	b. NGO	"
		c. Prioritization of women need	c. Flood affected women	c. Women are privacy ensured during emergency in FR	c. Provision of private corner for women's emergency during flood	c. 180 women in different flood refuges	c. NGO, off Season User UE, O&M Committee	"
		d. Special attention for women on medical support	d. Flood affected women	d. Women get first aid services at FR	d. Provision of first aid box specially for women & children in one of the clustered flood refuge	d. 3000 women in different flood refuges	d. Off Season User UE, O&M Committee	"

		e. Special attention on women's needs at Flood refuge	e. Flood affected women	e. Women get medical services at FR	e. Provision for medical care by off season user during flood specially for women & children	e. 3000 women in different flood refuges		“
		f. Special attention on women's need at Flood Refuge	f. UP Women members	f. Women's facilities are reviewed	f. Monitoring of the performance Operation & Maintenance of FR	f. 3000 women in different flood refuges	f. NGO, UP, Chairman, UE	“
		g. Provision for discussing women's issues in the meeting of the committee	g. Flood affected women	g. UP women members are the members of respective FR O&M committee	g. Inclusion of UP women members in the O&M committee	g. 30 UP women members	g. NGO, UE	“
		h. Providing women comfortable and hygienic living at FR	h. Flood affected women	h. Women use HTW & sanitary Latrine separately	h. Provision for separate Sanitary Latrine & HTW for women .	h. 30 HTW & 150 Sanitary Latrine	h. UE	“
3.	Road Maintenance & Tree Plantation	3. Income generation of rural poor disadvantaged women	3. Rural poor disadvantaged women	3. Employment of poor women	3. Tree plantation & Road Maintenance through Rural Poor Women	3. 2500 poor women	3. UE	March 2000 and onward
		a. Enabling poor women to earn their livelihood	a. Rural poor disadvantaged women	a. Women are earning livelihood	a. Employment of disadvantaged poor women	a. 2500 poor women	a. UE	March 2000 and onward
		b. Creation of group Cohesion for social security	b. Rural poor disadvantaged women	b. Women integrated to group	b. Employment through group	b. 2500 poor women	b. UE	“
		c. Familiarization of tree plantation & road maintenance work with appointed women	c. Rural poor disadvantaged women	c. Women are conversant about their job	c. Job Orientation for the women	c.2500 poor women	c. UE	“
		d. Savings to start new income generation activities	d. Rural poor disadvantaged women	d.Saving is available with women	d. Forced deposit of the part of daily wage	d.2500 poor women	d. UE	“
		e. i. Familiarize with gender concept ii. Familiarize with suitable IGA iii. Enable to utilize savings to start IGA after the end of employment	e. Appointed women	e. i. Women are trained ii. Women are conversant about IGA iii. Women start new income generation activities	e. i. Gender Awareness ii. IGA program	e.2500 poor women	e.NGO	“

4.	UP Complex	4. Prioritize development through self governance using UP complex as a platform with the participation of women UP members & local women organization	4. UP women members, social and women development organization	4. Women are benefited directly and indirectly having facilities to hold meeting, training on women development issues	4. Construction of Union Parishad Complex through user participation	4. 315 UP women members and 630 women organization	4. UE	March 2000 and onwards
		a. Ensure privacy for UP women members	a. UP Women members	a. UP members stays longer time in the office	a. Provision of separate room for UP women members	a. 315 UP women members	a. UE	“
		b. Ensure privacy for UP women members	b. Women members	b. UP members stays longer time in the office	b. Provision of separate room for UP women members	b. 315 UP women members	b. UE	“
		c. Value Women' opinion	c. Women members, women organization	c. UP women are consulted	c. Consultation of women, UP women members and women organization about the use of UP complex through initial social assessment	c. 315 UP women members and 630 women organization	c. UE	“
		d. Prioritize women program in utilizing UP complex infrastructure	d. Women members, women organization	d. Women's need is identified and prioritized	d. Use of the space of UP complex	d. Women of the area	d. UE	“
5.	5. Bridges and Culverts on Rural Road	5. Increase income generation and employment of rural women & men through the improvement of transport infrastructure	5. Rural women	5. Average income of rural women is increased	5. Construction of bridge & culverts on rural roads through beneficiary participation	5. Rural working women	5. UE	March 2000 and onwards
		a. Uphold women's opinion for development work	a. UP women members	a. UP women members are consulted	a. Consultation with UP women members in scheme preparation	a. Rural working women	a. UE	“
		b. Involve women in quality control of the scheme implementation	b. UP women members	b. UP members are in the implementation committee	b. Inclusion of UP women members in the implementation committee	b. UP women member	b. UE	“

6.	6.Submersible Road	6. Creation of road infrastructure in inaccessible rural areas to facilitate movement of women & men	6. Rural women	6. Women are benefited	6. Construction of submersible Road through beneficiary participation	6. Rural women	6.UE	March 2000 and onwards
		a. Considering women's role in O&M of the transport infrastructure	a. UP women member	a. UP women member are in the O&M committee	a. Inclusion of . UP women member are in the O&M committee of Submersible road	a. UP women member	UE	“
7.	7. Ghat	7. Creation of safe & hygienic loading and unloading & harboring infrastructure for rural women & men, riverine vehicle and goods	7. Women passengers	7. Women passengers are benefited	7. Construction of Ghat through beneficiary participation	7. Rural women	7. UE	June 2000 and onwards
		a. Ensuring women's privacy	a. Women passengers	a. Women use waiting room	a. Provision of waiting room for women	a. Women passengers	a. UE	“
8.	8.Training	8. a. Facilitate Implementation of GAD issues	8.a. PIO personnel and Consultants of the project	8.a. PIO personnel and consultants are conversant about the GAD issues	8.a. Integration of GAD issues in training curricula orientation of PIO & consultants on GAD issues	8.a. PIO personnel and consultants	8.a. Training Specialist, Sociologist	February 2000
		b. Proper implementation of GAD issues	b. DPD, XENs, FRE, UEs and field officials	b. Implementation officials are conversant about GAD issues	b. Orientation of regional, district & thana level implementation officials	b. 2DPDs, 15 XENs, 105 UEs	b. Training Specialist, Sociologist	March 2000
		c. Proper implementation of GAD issues	c. Contracted NGOs	c. Contracted NGOs are conversant about the GAD issues	d. Orientation on implementation of GAD issues to contract NGO	c. Contract NGOs	c. Training Specialist, Sociologist	March 2000

		<p>d. Motivation of contractors to:</p> <p>i. employ women in increased manner</p> <p>ii. pay women equal wage</p> <p>iii. ensure security, sanitary facilities & accommodation for women</p>	d. Contractor	<p>d.</p> <p>i. Women are employed in increased number</p> <p>ii. Women labor are equally paid</p> <p>iii. Security, sanitation accommodation are ensured for women labors</p>	d. Training of contractors	d. Women labor in construction activities	d. Training Specialist, Sociologist	July 2000 and onwards
		e. Familiarize UP women members and other women members with GAD issues	e. UP women members and other women members of the respective committee	e. UP women members are conversant with the financial & O &M issues	e. Inclusion of women in the training of financial management & resource mobilization and O&M of UP, UMMC & GMC	e. UP women members and other women members of the committee	e. Training specialist, Financial Management Specialist	March 2000 onwards
		f. Facilitate creation of gender awareness among the participants	f. All the participants under the project training program	f. Participants are aware about the GAD issues	f. Inclusion of gender issues in all the training materials	f. Participants of the Training Program under RDP-21	f. Training Specialist, Sociologist	October 2000 onwards
9.	BME	9. Monitoring of the implementation of GAD issues	9. Women	9. Participation of women in project activities is ensured	9. Inclusion of gender related indicators in BME	9. Women	9. BME Specialist, Transport Economist, Sociologist	During design of formal survey, report and analysis