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A Gender Responsive Monitoring and Evaluation System for Rural Travel and Transport Programs in Africa

A Handbook for Planners, Managers and Evaluators

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ACRONYMS

DFID	*United Kingdom Department for International Development*
GAD	*Gender and Development*
GRTI	*Africa Gender and Rural Transport Initiative*
IFRTD	*International Forum for Rural Transport and Development*
IMT	*Intermediate means of transport*
LOGFRAME	*Logical Framework*
M/E	*Monitoring and Evaluation*
NGO	*Non Governmental Organization*
NMT	*Non-Motorized Transport*
PRA	*Participatory Rural Appraisal*
RTT	*Rural Travel and Transport*
RTTP	*Rural Travel and Transport Program*
SA	*Social Assessment*
SRL	*Sustainable Rural Livelihood*
UNDP	*United Nations Development Program*
UNECA	*United Nations Economic Commission for Africa*
UNIFEM	*United Nations Fund for Women*
VCW	*Village Community Worker*
VHW	*Village Health Worker*
VTTP	*Village Travel and Transport Program*
WID	*Women in Development*

FOREWORD

The provision of rural transport infrastructure and services is inadequate in Sub-Saharan Africa (SSA). As a result, social and economic activities in rural areas take place at high cost in terms of the time and effort involved and the opportunity cost of labor not being available for more productive use. As studies in SSA continually show, no single group suffers more from this situation than the women and girls of SSA. Indeed, females are the beast of burden without whom movement in rural areas would ground virtually to halt.

Yet, women have been inadequately involved in the identification, design, implementation and monitoring of needed interventions to address transport needs. Accounting for this situation are many factors including: a perception by the transport profession that planning and project design is gender–neutral i.e. that the methods and approaches used by the profession are such that both men and women are equitably impacted upon by planned interventions; that gender inequalities should be dealt with as part of 'social' policy rather than transport; and, that women's time has less value. The reality however is that women suffer more from lack of transport than men, particularly in the rural areas, arising from the greater complexity of their basic activities which involve commercial, social production and community management activities. Moreover, as concerns shift from mere provision of means of development to the impact of such provision, questions have increasingly been raised as to the validity of these assumptions.

The need to pay special attention to the transport needs of women in rural areas is one of the key findings of the diagnostic work earlier published under the Rural Travel and Transport Program (RTTP). The Gender and Rural Transport Initiative (GRTI) was established in 1999 with the principal objective to (i) strengthen the capacity of RTTP national programs to incorporate gender issues into rural transport polices and strategies; and (ii) improve upon existing methods and approaches for the design and implementation of gender responsive rural travel and transport projects. Established under the RTTP, it is a collaboration of the RTTP and the World Bank Gender and Development Group with funding from the World Bank Development Grant Facility (DGF) under sponsorship of Bank's Transport and Gender Sector Boards and the Gender and Transport Thematic Group. The GRTI is administered by the regional NGO network MWENGO under a Steering Committee including representatives of national RTTP programs and chaired by a representative of the UN Economic Commission for Africa (ECA). The GRTI has so far funded activities in about ten of the countries in which RTTP is active. It is planned that GRTI will in future metamorphose into a more independent entity with funding not only from the World Bank.

The work reported in this Handbook, carried out under the auspices of the GRTI, contributes to furthering the achievement of a central objective of the RTTP — promoting the mainstreaming of gender in rural transport policies, programs and projects. As the development community increases its focus on reducing poverty, particularly within the Poverty Reduction Strategy Papers, instruments that allow principles to be translated into practice will be needed. The Handbook is seen as one of such instruments in the rural transport sub-sector. The present version is very much a working document and is being further field-tested in several countries. Lessons and experiences from its use will be incorporated into future editions. For these reasons, comments are very much welcome.

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Overview

The purpose of this Handbook is to provide practical guidance for planners, managers, and evaluators on the design and use of Monitoring and Evaluation Systems for the Rural Travel and Transport Program (RTTP), and to ensure that these systems are *gender sensitive* – capturing the impact of RTTP interventions on both men and women. The Handbook is designed both to provide an overview of the general principles of M/E design for RTTP programs as well as to ensure that the systems fully address gender. It is being developed as a collaborative product of the Gender and Rural Transport Initiative (GRTI) and the national RTTP programs, and has already benefited from inputs from a number of member countries[1]. The draft Handbook will be distributed to all RTTP countries for comments, and field-testing and experiences from the participating countries will be incorporated into subsequent editions.

The Gender and Rural Transport Initiative (GRTI) of the Rural Travel and Transport Program (RTTP)

The Rural Travel and Transport Program (RTTP), which is now being implemented in 19 African countries[2], is a collaborative initiative between the World Bank, the United Nations Economic Commission for Africa (UNECA) and several bilateral and multilateral donors agencies. The specific objectives of the RTTP are to help develop national rural transport policies and strategies to improve the planning, financing, and maintenance of rural roads, tracks, paths and footbridges; provide motorized and non-motorized rural transport services to move people and goods; and promote the use of least-cost methods, local resources, and small contractors for rural transport infrastructure works. The World Bank and other development agencies view the RTTP as a tool to advance reform in rural roads and transport policies, stimulate rural development and reduce poverty.

A central objective of the RTTP is to promote the mainstreaming of gender in rural transport policies, programs and projects. Specific gender objectives are: to reduce overall transport burden with respect to time, effort, and cost for rural households; improve accessibility of rural households to basic services through increased mobility and improved location of services; and develop gender sensitive economic and social evaluation methodology. The Gender and Rural Transport Initiative (GRTI) has been established under RTTP to provide a focal point for the implementation of these gender objectives.

Gender and Rural Travel and Transport

The survival and welfare of rural households depends on the participation of all household members in carrying out a wide range of *production* (wage labor, agricultural production, marketing, etc.), *social reproduction* (child-care, collecting water and fuel, ensuring children get to school and to health centers, etc), and *community management* (water supply, environmental protection, maintenance of roads and footpaths, community meetings, etc.) activities. In rural Africa, as elsewhere, there are social rules determining the responsibilities of men and women with respect to each of these activities. These social rules also govern control of productive resources (such as money, land, and productive resources), and participation in decision-making on community priorities and the selection of projects.

[1] Cameroon, Malawi, Senegal, Tanzania, Zambia and Zimbabwe.

[2] Cameroon, Chad, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Kenya, Madagascar, Malawi, Mozambique, Niger, Nigeria, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.

Most of these activities involve *travel*, and many also involve *transporting* water, fuel, agricultural produce, goods to be traded or people (children, the sick, handicapped and the elderly). In rural Africa, travel may be on foot with goods being head-loaded, or carried on the back, using non-motorized means of transport (handcarts, bicycles, donkeys etc), or – less frequently – through motorized transport (motor cycles, buses, lorries etc). In the same way that societies define the sexual division of responsibilities for productive, social reproductive and community management tasks, there are also social rules and customs governing the control and use of the available means of transport at the household and community levels; and also regulating mobility of different groups (including men and women) within and outside the community.

Studies in many parts of rural Africa have found that (a) women's multiple tasks impose on them a heavier travel and transport burden than that of most men and (b) women have more limited access to the available means of transport, and also may experience socially determined constraints on their ability to travel inside and outside the community.

Transport policies, programs and projects often ignore these differences by adopting a "gender neutral" approach which assumes that men and women will benefit equally from transport interventions, without having to make any special provisions to address gender differences. However, experiences have shown that when the special needs of women are not taken into consideration, they will often benefit less from projects and some women may even be worse off. More recently, policy-makers and planners are also becoming aware of the need to understand the household as the basic unit of production and consumption, and the need to use *gender analysis* and *gender planning* to ensure that interventions are based on a full understanding of the sexual division of productive and social reproductive roles and responsibilities, in order to ensure that interventions will produce the maximum benefit for the household and for all of its members.

The following are examples of negative consequences of interventions for women, when these factors are not taken into consideration:

- As a result of the large amount of time women must spend travelling to collect fuel and water, they may not have the time or energy to take advantage of economic activities offered by government or donor agencies (for example micro-credit or technical training programs) or to participate in community meetings to plan and manage projects.
- In many African cultures, men largely control productive resources, and consequently, there are many examples where intermediate means of transport (IMT) intended to reduce women's travel burden have been appropriated by male household or community members – with the consequence that women may either not benefit from the intervention or may even be worse off. For example, handcarts or bicycles introduced to reduce the time and effort burden of women who head-load fuel, have been taken over by male fuelwood traders. As a result, women may have to walk even longer distances to collect fuelwood as the traders now monopolize the more easily accessible fuelwood.
- While men are usually only prepared to work in road maintenance if they are paid, often the community (i.e. male household heads and community leaders) will offer unpaid women's labor for road maintenance (which is very arduous and time consuming) even though women may benefit less from roads than men; and
- Increased volumes of traffic on improved roads may present an increased danger to women pedestrians who are carrying heavy loads and children.

An effective rural travel and transport intervention must understand the social and economic organization of the household and the social rules governing the control of transport resources and regulating mobility of different household members; and must be designed to respond to the needs and constraints of household members – including men and women, as well as children, particularly students. These are addressed

through *Gender Mainstreaming* [see Section 1.1.3] in the design and implementation of travel and transport interventions.

One of the most promising new areas for women's employment in many parts of rural Africa is in labor-based road maintenance. Whereas road maintenance was traditionally assumed to mainly offer employment to men, male labor shortage (due to war and migration among other factor), and pro-active donor contracting policies have lead to a rapid increase in female employment in this sector. In Zambia, for example, many donors now require that on road maintenance projects which they finance at least 50 per cent of the labor force must be women. After initial resistance from contractors the police has met with considerable success and many contractors are finding that women are proving to be reliable and competent workers, and that they tend to be more trustworthy with respect to control of money (more example in the collection of tolls). In Lesotho, on the other hand, the main impetus to hire more female labor has been the sever shortage of male labor. It is now estimated that perhaps as much as 60 per cent of the road maintenance labor force is now female.

The gender dimension of road maintenance should be an important future area for gender research as it illustrate both the opportunities and the constraints facing women entering the labor market. On the positive side is the rapidly increasing demand for female labor entering the labor market and the opportunities for promotion to administrative positions or as truck and bus drivers. On the negative side, women often continue to be paid less for equal work. Also in many cases, the demand for female labor is greatest in food-for-work programs, but when payments is in cash, many men take over the jobs from their wives.

Mainstreaming Gender in Rural Travel and Transport

Gender mainstreaming has become an important conceptual tool for integrating gender [engendering] into sectoral policies and programs. Gender mainstreaming entails ensuring that projects address the needs, priorities and constraints of both men and women during:

1. The policy development process;
2. The project delivery system;
3. Staff development;
4. Personnel policies, such as the recruitment processes; and
5. Other organizational policies and practices.

This Gender Responsive Monitoring and Evaluation Handbook is intended to act as a practical guide in engendering the project delivery systems of RTT activities in Africa.

The Handbook

This Handbook is divided into four chapters.

Chapter one: Gender Issues in Rural Travel and Transport provides general information on the development of gender as a tool of analysis and the need for mainstreaming gender in rural travel and transport activities in Africa. It also details the gender issues in the rural travel and transport sub-sector. Some of the key issues include:

- Cultural and social issues inhibiting women from owning and using certain types of intermediate means of transport (IMTs) such as bicycles.
- Economic constraints women face as a result of their limited decision making authority within the household and their limited income earning opportunities;

- Lack of consultation of women in the planning and design of rural travel and transport programs. Many development programs focus on male and not female needs.
- The lack of a gender sensitive institutional framework to support the mainstreaming of gender in RTT activities. Gender analysis in RTT activities is still `new' and hence there is a general lack of skill among gender and RTT experts.

Chapter two: A Monitoring and Evaluation System for Rural Travel and Transport covers four major areas in M/E:

1. The essential elements of an M/E system
2. The information requirements of an M/E system
3. The appropriate data collection methods
4. The different kinds of studies required for RTT

A good M/E system will enable RTT program officers to extract lessons and best practices for design of future activities. An M/E system must be able to monitor performance and impact at each of the stages of the project cycle.

A successful M/E system will also monitor the impact of 3 sets of contextual factors that can significantly affect project outcomes:

- The economic and political context within which the project is being implemented
- The institutional context
- The social and economic characteristics of the local communities affected by the projects

An effective M/E must use both qualitative and quantitative methods of data collection and analysis, and must use participatory rural appraisal methods to collect these data. The use of participatory evaluation and planning methods are particularly important for ensuring the needs, priorities and constraints of both women and men are addressed (see Chapter 4 for a discussion of evaluation methods).

The Chapter also identifies six main types of M/E studies which can be used to provide the information required by rural travel and transport policy makers, planners and managers:

1. Input monitoring
2. Process monitoring
3. Output monitoring
4. Impact evaluation
5. Sustainability assessment
6. Replicability assessment

Chapter three: A Gender Responsive Monitoring and Evaluation System for RTTP makes the point that most conventional M/E systems do not fully assess the responsiveness of projects to the different needs of men and women and gender differences in project impacts. The chapter explains why gender sensitive data collection and analysis methods are required and provides a detailed account of what a gender sensitive M/E system should contain. It also provides practical steps for integrating gender where an M/E system exists; and indicates how to develop an independent gender M/E system where a project does not have any existing M/E system. It ends with a checklist for conducting a gender sensitive M/E study for rural travel and transport.

Chapter four: Data Collection and Analysis Methods explains in more detail the data collection and analysis methods referred to in Chapter two.

Annex 1: Guidelines for the Design of an Evaluation Study to Assess the Impacts of a Pilot Project. The example of a project to provide bicycles for women is used to illustrate the principles of designing an evaluation to assess the impacts of a pilot project.

The Handbook can be used by RTT managers and researchers in the following ways:

1. To design a monitoring and evaluation system covering all RTT program activities.

Chapter two explains the objectives of an M/E system for rural travel and transport, and describes the main elements of a typical M/E system. The six most common types of M/E studies are identified and described. Managers will normally have to decide which of the following types of M/E studies they will need to commission:

- *Input monitoring*: to assess whether project resources (money, technical support, equipment, credit, etc.) are being utilized on time and for the required purposes.
- *Process monitoring*: is the project being implemented in an efficient and participatory way, and is the project accessible to all sectors of the target population – including women?
- *Output monitoring*: is the project producing the required outputs? (roads, footpaths, training programs, development and testing of IMTs, provision of credit, reduced travel time and load burdens, etc)
- *Impact evaluation*: is the program, or an individual project, producing the intended impacts on the target population (increased income, improved health, increased women's participation in community management etc)?
- *Sustainability assessment*: are the facilities and services introduced by the program sustainable (maintenance of roads and footpaths, credit repayment, maintenance and continued use of new IMTs)?
- *Replicability assessment:* can the pilot activities and projects developed under the RTTP be replicated on a larger scale?

Section 2.7 of Chapter two discusses issues relating to the organization of an M/E system, including the planning of capacity building activities to provide staff with the necessary skills to conduct and use M/E studies.

Section 2.8 of Chapter two provides a checklist of the main steps in the selection, design, implementation and use of an M/E study.

2. To design a monitoring and evaluation program for an individual RTT activity: such as a pilot project.

Section 2.6 provides guidelines on the selection and design of the main types of studies, and Annex 2 describes each design in more detail.

3. To design a study to evaluate the impacts of a particular RTT activity, such as the introduction of donkey-drawn handcarts for transporting water.

4. To ensure that all of the above M/E systems are gender sensitive.

Chapter one explains why an understanding of gender differences in economic and social roles and responsibilities, and of the different travel and transport needs of men and women is essential for the design of an effective RTT program. Chapter three then explains the steps required to ensure that gender issues are fully addressed in all of the studies described above.

CHAPTER ONE

GENDER ISSUES IN RURAL TRAVEL AND TRANSPORT

1.1 Gender, Transport and the Rural Economy

1.1.1 Women in Development (WID) and Gender and Development (GAD)

Development analysts have used two major theories for the analysis of the position of women in society, namely the Women in Development (WID) and the Gender and Development (GAD) approaches. The WID approach was developed in the 1940s and identified and separated women as the major vulnerable group of the international development process. Hence, interventions made under this approach took the form of women specific policies, programs and projects, which aimed at giving women resources, skills and benefits that society was denying them. The WID approach was however, not able to materially change women's position and condition as it isolated women and failed to explain how their condition was related to the many socio-cultural factors operating at the household and community levels and in national policies and programs.

Gender, as a tool of analysis, refers to the social constructions of male and female, which give rise to *unequal* relations between women and men. Within these relationships, in most African societies men are more advantaged than women as they have better access to economic, educational, health, legal, information and technology resources than women. Gender inequalities are thus manifested through unequal access to household resources, education, health, legal, employment, income, decision-making and hence, development opportunities.

Gender constructions are culture specific and assign different identities and roles to men and women. The sexual definition of roles and responsibilities may change over time to reflect changing economic, political and demographic circumstances. Thus for example, in many pre-colonial African societies, women's work was primarily in the reproductive (household) sphere while that of men was in the productive/agricultural sphere. With the introduction of colonialism, women began to move more and more into the agricultural arena as men were drawn into wage labor, frequently involving migration away from the village for at least part of the year. Women however, remained responsible for the reproductive sphere, in addition to playing a greater role in production and community management. One of the most important consequences of these changes for gender analysis is the recognition of women's heavy

Box 1
Women's multiple economic and social roles

Most women must balance 3 social and economic roles:

Production: wage earning, agricultural production, own business, off-farm employment.

Social reproduction: maternity and child-care, care for the elderly and sick, household management, collection water and fuel, food production for household consumption.

Community management: participation in construction, management and maintenance of water, energy, schools, health facilities, roads and footpaths, and natural resource management.

time burden due to the need to simultaneously balance the demands of their productive, social reproduction and community management roles.

The GAD approach does not treat women as a separate sexual group for purposes of analysis. Rather it stresses the need to look at the differences in constraints, options and needs of women and men and how as a result of these, they are affected differently by many kinds of development. Policy makers, planners and project implementors must therefore, not assume that development interventions are ***gender neutral*** [3] and will benefit women and men equally. On the contrary, effort must be made to ensure that these interventions address men's and women's needs, constraints and priorities.

1.1.2 Gender and rural travel and transport sub-sector

Within the rural travel and transport sub-sector, men and women's experiences of transport and transport services differ. This is because they have different roles, constraints, options, needs and also priorities. In the rural areas, the majority of transportation is done on foot and by headload. Women in particular, have to travel long distances to reach water and fuelwood supplies, health facilities, grinding mills and markets and they do not have access to means of transport besides walking and headloading. Below are the average one-way journey times households in selected African countries. Women primarily perform the tasks listed in the table:

Table 1: Average one-way travel times for different social and economic activities for households in selected African countries

Survey Location	Water	Firewood	Cultivated land	Dispensary	Hospital	Grinding Mill	Market
Makete, Tanzania	23 min	98 min	65 min	96 min	5h 40 min	1h 42 min	3h 18 min
Zambia	5 min	92 min	1h 7 min	5h 20 min	5h 20min	50 min	5h 20 min
Ghana	25 min	43 min	48 min	1h 40 min	2h 38 min	28 min	2h 8 min

Source: Energy and Environment Technology Source Books: Rural Transport: by Jo Doran, Intermediate Technology Publications in association with UNIFEM, 1996: 10

While poor men and women share many of the same problems of limited access to transport services, women are subject to additional constraints due to: cultural factors limiting their access to available transport facilities, and to the fact that in many rural households the husband or father controls the use of household assets including transport.

[3] gender-neutral policies and programs are those that treat men and women as a homogenous group and assume that every intervention will necessarily benefit them equally.

Box 2: Cultural Factors Affecting Women's Access to Transport

- Men control the means of production including household income and they therefore, control what IMTs are bought at the household level
- Men's control of the household income also means that in some cases, women cannot use buses without requesting fares from their husbands
- Men control the use of IMTs at household level
- Most IMTs are developed with men and not women in mind and consequently, are inappropriate for women
- Women's work is not defined as 'work' and consequently, buses are only provided at peak hours when men are going for formal employment. In many cases, buses are allocated run infrequently causing hardship for women who must combine travel and household responsibilities
- Some women will not use public transport due to sexual harassment

The lack of efficient transport has been found in many studies to be a major constraint to marketing of crops and goods particularly by women and to effective time use by women. In recent years, the availability of IMTs has proven useful in reducing women's time burdens. However, studies show that the widespread use of IMTs is being hampered by several factors including high purchase prices as well as the poor conditions of paths, tracks and roads. These factors are accompanied in the case of women by sociocultural factors such as male ownership, control and use of IMTs at household level as a result of male control over household resources and cultural taboos that prohibit women from owing or using an IMT such as riding a bicycle.

The provision of transport such as IMTs can critically increase women's productivity and promote social equity. Consequently, it is important for RTT practitioners to ask:

- How best can transport policies or projects identify and respond to the different needs of men and women?
- How best can projects address these gender issues?
- Are gender interventions cost-effective in that they improve the efficiency of rural transport interventions?

1.1.3 Gender mainstreaming in the rural travel and transport sub-sector

Planning for rural travel and transport should start from the needs of the household, and aim at reducing unproductive time spent by women in obtaining access to basic needs. This process, commonly known as gender mainstreaming, has become an important conceptual tool for integrating gender in sectoral policies and programs. The UNDP has defined gender mainstreaming as situating gender equality issues at the center of broad policy decisions, institutional structures and resource allocations and including women's views and priorities in decision making about goals and processes in development. Mainstreaming of gender thus entails:

- Engendering policy development processes;
- Engendering staff development through training;
- Providing equal opportunities through recruitment provisions, training and promotion;
- Engendering the project delivery system; and
- Engendering the organizational policy and framework.

Transport and sustainable rural livelihood[5]

A useful framework for mainstreaming gender into rural transport is the Sustainable Rural Livelihood (SRL) Approach developed by the UK Department for International Development (DFID).

"A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base." [6]

The framework identifies five kinds of capital assets on which individuals draw to build their livelihoods (natural, human, financial, physical and social). A holistic approach is required to understand the linkages between all five types of asset. The approach builds on the assets which people already have, rather than focussing on what they need (but do not have). Three of the important elements of SRL analysis are:

Trends: resource stocks, population density, technology, politics and economics.
Shocks: climate, conflict
Culture: cultural constraints limiting women's access to transport and also use of, for example, IMTS

Indicators are developed to measure and monitor each of these elements. Based on this analysis, intervention points are identified.

The framework can easily be applied to the analysis of gender and rural transport.

1.2 Gender Issues in Rural Travel and Transport

1.2.1 Country experiences on the critical role of travel and transport in enhancing the quality of women's lives and strengthening their economic opportunities

Most of women's social and economic responsibilities involve travel, and the total time and effort spent on travel is a major constraint on women's access to resources and services, and their opportunities for improving their economic conditions. While transport infrastructure and resources are very limited for all of the rural population, the situation is worse for women as they face social constraints on their access to the available transport facilities (see Box 2).

Consequently, improved transport facilities can have a major impact on the welfare and economic opportunities for rural women. For example, in many parts of rural Africa the provision of improved roads and bridges can alleviate the transport burden of most rural women in Africa. This is because most roads are impassable and bridges are often swept away in the rainy season. In Kenya, for example, Nkone river is a small stream out of Mt. Kenya in the dry season but becomes a huge river in the wet season. In a study carried out by the IFRTD on the Nkone river bridge, the study observed that women's transport burden along Nkone bridge increased in the rainy season. This was because when the Nkone bridge was swept away by rains, men withdrew from transport activities, because their use of IMTs was rendered unusable leaving women entirely responsible for all transportation activities (Kaumbotho; 1996). Similar findings have also been had in studies in other countries.

[5] Department for International Development (DFID) 1998. "Sustainable Rural Livelihoods: What Contribution can we make?"
[6] Diana Carney "Implementing the Sustainable Rural Livelihoods Approach" in DFID op.cit p. 4

Annex 1 presents the findings from RTTP and IFRTD (International Forum for Rural Transport and Development) on the role of transport in women's lives in Burkina Faso, Ghana, Nigeria, Sudan, Tanzania, Uganda, Zambia and Zimbabwe.

1.2.2 Physical access

As indicated earlier, distance and difficulties of access to water, fuel sources and public services — particularly during the rains — represent a major time and constraint of the use of services. While access is a problem for both men and women, women are often more affected, both because they have the major responsibility for transporting water and fuel, and because they tend to have more limited access to whatever transport services are available.

1.2.3 Economic issues

Reducing distances of services such as grinding mills, health and education facilities and forest resources and supplies may not be the only answer to women's transport problems. In addition, research has shown that improved transport services and the availability of IMTs alone, may not necessarily address their problems. On the other hand, women's access to these services may be limited by the high prices they have to pay in accessing or purchasing them.

Studies show that the widespread use by women of transport and other services in the rural areas, including IMTs, is being hampered by economic factors such as:

- Women's access to income. Access to transport and transport facilities is largely determined by income. Most IMTs are above the earning capacity of most rural households. Even where households are able to access these services and facilities, women are not able to influence when and how to use them and also the types of IMTs to purchase, mainly because they have limited decision making in the use and allocation of basic resources, including household income. Lack of control over the use of income also limits women's access to health facilities at village levels, agricultural extension services and marketing centers and outlets, thus necessitating travel by foot.

- Credit schemes introduced at rural level have also been found to favor men more than women. They often require security such as land or crops when most women in the rural areas do not `own' land or control its produce. In addition, it has been found that information on the availability of such credit hardly reaches women. Demonstrations or advertising meetings and campaigns on the available IMTs and also use of these, are held at business centers which are a domain for men and are designed in such a way that they are held at times when women are in the field and men are free. Consequently, information and education campaigns must be deliberately engendered if women are to benefit.

[7] Excerpt for the Tanzanian and Zimbabwean case studies, all experiences cited in this section from Burkina Faso, Ghana, Nigeria, Sudan, Uganda, Zambia and Zimbabwe are summarised from the International Forum for Research and Technology Development (IFRTD) "Balancing the Load", 1997.

[8] Adapted from presentations by Josephine Mwankusye and Edward Mhina at the workshop in Tanzania in June 1999.

[9] Case study is a summary from "Energy and Environment Technology Source Books: Rural Transport". Jo Doran, 1996.

1.2.4 Cultural and social issues

African societies often include many diverse cultural and ethnic groups. Some countries (e.g. Tanzania) have as many as one hundred different cultural and ethnic groups, each with its own traditions concerning the economic and social roles of women. These differences must be kept in mind when discussing gender issues in transport. Several socio-cultural issues affect women's access to transport. The figure below gives examples of some of these cultural differences.

Box 3: Examples of Cultural Differences in the use of rural transport

- The gender division of labor has left rural women primarily responsible for all domestic, agricultural production, marketing and community management activities. Men's workload, on the other hand, is lighter and primarily limited to the productive sphere.
- Men control the means of production including household income and they therefore, control what motorized and non-motorized transport women will use and how they will use them.
- Women's work is not defined as `work' and consequently, buses are only provided at peak hours when men are going for formal employment. In many cases, buses allocated run infrequently causing hardships for women who much combine travel and household responsibilities.
- Some women will not use public transport for fear of sexual harassment.
- Rural women are inhibited from owning or using certain types of IMTs such as bicycles by cultural beliefs which ascribe such transport modes to men.
- IMTs are often designed with men in mind and women are not consulted. As a result, they are inappropriate for women.
- Women's mobility is often restricted under most African societies and is subject to their husbands' or fathers' approval. Men, on the other hand, do not need such approval.
- Women have less access to motorized transport. This is because women are expected to give priority to men on crowded buses; in some cases, women cannot travel on the same buses with men except if they are relatives; and women cannot avail themselves of passing lorries to take goods to the market as this is culturally unacceptable.
- Another major factor limiting women's access to transport lies in the planning of RTT infrastructure projects. Traditional perception of the woman's place as being in the home, excludes women from the planning and selection of for example, roads for rehabilitation. Transport practitioners often assume that the rehabilitation of a particular feeder road. Further to this, labor-based road rehabilitation programs have been found to benefit men more than they benefit women. This is because some labor based programs prefer male to female employment, while others feel that the methods employed in such programs are more suitable for men.

1.2.5 Participation and empowerment

One of the reasons why rural transport programs do not respond to the needs of women is that in many parts of the country women are not consulted on the selection or design of projects. Most of the planning processes use traditional research and planning methods, which are assumed to be "gender neutral", and where most of the information is only collected from the (usually male) household head. There is thus little use of female focus group discussions and of female staff in collecting information. Furthermore, these methods do not sufficiently investigate the household gender relations and how they disadvantage women. In fact, there is little consultation of all stakeholder groups, including either men or women, during the planning process.

1.3 The Institutional Framework for Transport Planning and Project Planning

Gender analysis of the transport sector and of RTT activities is still `new'. Consequently, there is a general lack of gender sensitized trainers. Other major institutional factors are:

- There are relatively few women in senior positions in most transport planning and implementation agencies.
- Most transport planning, training and research institutions are dominated by male engineers and the environment at these institutions is often hostile to female candidates or staff members.
- The level of gender analysis capacity is still very low as many project staff lack the skills to identify gender issues and to mainstream them in RTT activity planning, resource allocation, implementation and monitoring.
- There is also a general lack of knowledge of participatory research methods such as Participatory Rural Appraisal (PRA) that facilitate the collection of information needs from women.
- There is often an assumption that the National WID Policy of the Ministry of Gender is sufficient to ensure that gender issues are addresses in all sectors, and this is one reason why sectoral gender strategies are not developed. This is certainly true in the transport sector in many countries.
- Conventional transport planning tools and methods, do not address gender issues (See Chapter 3).

1.4 Conclusions

As is evident from the foregoing sections, movement of people and goods from one place to another in Africa, is still very time and energy consuming. Most rural areas are characterized by a general lack of transport and transport facilities and distant location of most services. While this affects both men and women, the situation is worse for women because of the gender division of labor, which assigns both agricultural productive and reproductive activities to them. Thus besides agricultural production and marketing, women are left to perform household tasks such as transporting water, fuel-wood, agricultural produce, children to health and educational facilities and they do this with little income and/or no improved means of transport.

The situation of many women is further exacerbated by a combination of physical, cultural and economic factors that limit their access to income to pay for public transport or to purchase improved means of transport such as IMTs.

It follows from the above that rural travel and transport policies, programs and projects cannot address transport issues without taking into account the gender dimension in RTT activities and specifically targeting women's needs in the process.

CHAPTER TWO

A MONITORING AND EVALUATING SYSTEM FOR RURAL TRAVEL AND TRANSPORT

2.1 The Objectives of a Monitoring and Evaluation System for Rural Travel and Transport

The definition and measurement of project objectives, particularly the social development objectives are critical in effective project implementation. Consequently, a well- designed monitoring and evaluation (M/E) system is essential for the efficient operation of any transport project. It ensures that the project is being efficiently implemented, reaching its intended target groups and that it is achieving its intended objectives. It also assists management to improve the efficient implementation, identify problems at an early stage so that they can be resolved, and provides a learning system so that lessons learned can be used to improve the design and performance of future projects.

An efficient M/E system will contribute to effective project implementation in the following ways:

- Develop a model of the project implementation process and identify key inputs, expected outputs and intended program impacts
- Monitor the use of project inputs
- Monitor the production of project outputs and the impacts they have on the pilot communities
- Monitor and assess the effectiveness of the project implementation process
- Monitoring the effectiveness with which transport project outputs resulted in the intended short-term and long-term impacts and evaluating the extent to which these impacts can be attributed to the effects of the project

In addition, the M/E system should contribute to the following learning and development objectives:

- Extracting lessons and best practices for design of future projects
- Adapting the program design to changing circumstances
- Providing adequate data for evaluation of program impact

2.2 The Elements of a Monitoring and Evaluating System

An efficient M/E system will contribute to the effective project implementation if it can develop a model for monitoring the following (see Figure 1):

- project design and inputs
- project implementation process
- project outputs
- project impacts
- project sustainability and replicability

All projects start with planning and *inputs*. Examples of *project design* include the extent to which participatory planning methods were used, and the research methods used to understand the different transport needs of women and men. Examples of *inputs* include money, staff and materials. These inputs produce a set of *outputs* such as better feeder roads, trained project staff or IMTs. The intention of each project is to make sure that these outputs produce *short-term* and *long-term impacts* on the project beneficiaries such as increased income, access to the output, new employment opportunities, increased participation by women in community management, more children completing school etc. For the project to be successful, these outputs and impacts must be sustained over time.

The project design will also evaluate the project implementation process used to ensure the project inputs are applied in the most effective way to produce the intended outputs.

The success of a project is also affected by 3 sets of *contextual* factors which are largely outside the control of the project implementation strategy. These constitute the *risks* to the project implementation.

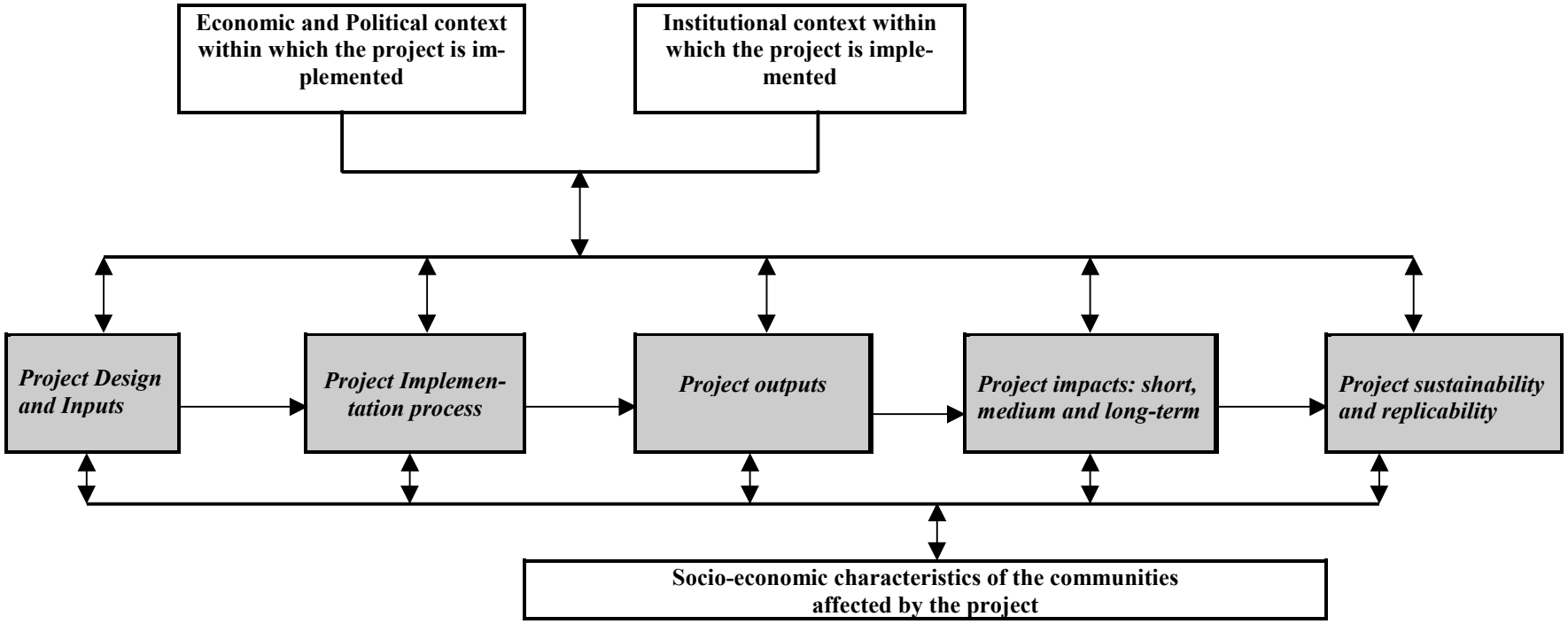
- *The economic and political context within which the project is implemented*. For example, if the local economy is growing and there is a big demand for agricultural produce, then local farmers may be more willing to spend time and money on improving the roads to get their produce to market. On the other hand, if the economy is in decline, women may be less able to purchase or hire IMT such as bicycles or hand-carts.
- *The institutional context.* Project implementation often requires coordination between a number of different government agencies as well as non-governmental agencies. If these agencies are efficiently organized, and if they work together, it will be much easier for the project to obtain the support required from each of these agencies, and that will improve the efficiency of implementation. On the other hand, if the agencies are understaffed, or if they do not cooperate well together, it will be much more difficult for the project to be implemented efficiently.
- *The social and economic characteristics of the local communities affected by the projects*. Many projects involve changes in activities of men and women, and how they relate to each other. The project may open up new employment and income earning opportunities for women, and may make it easier for them to travel. While some communities may welcome these changes, in other communities there may be some opposition to women riding bicycles or to girl students riding the bus to town where they can continue their education.

2.3 Information Requirements of Monitoring and Evaluation Systems

An M/E system will require that information be collected for each of the above components of the project cycle and the three sets of contextual factors, and that indicators be developed to monitor how effectively each of these phases of the project is carried out. Most of the design issues for monitoring and evaluation systems concern these basic questions:

- What are the indicators which should be used to measure and monitor each of the stages of the project cycle?
- How should the information be collected?
- How can the effectiveness and quality of the performance be monitored at each project phase?

Figure 1 Monitoring and Evaluation Model of the Project Implementation Process



- How do we obtain rapid feedback when problems arise?
- How can the findings of the M/E studies be communicated to project managers, policy makers and planners so that actions can be taken in a timely manner to correct problems, to change project design or to take advantage of things which are going well?
- How do we assess the impacts or benefits produced by the project and how can we be certain that these impacts are due to the project and not to many other independent changes which are taking place in the region? and
- How do we judge whether the pilot projects have been successful and whether they should be replicated on a larger scale?

2.4 Defining Indicators

A project must define a set of measurable indicators for each stage of the project cycle. The purpose of indicators is to obtain accurate and consistent estimates of project performance and the changes and impacts produced. Consequently, this requires that all concepts are sufficiently and precisely defined to be measured and that it is possible to collect the required information.

Good indicators should: (a) measure the key elements they are intended to study or describe; (b) clearly defined and unambiguous so that different people will give the same rating or value; (c) where possible numerical or quantifiable so that changes can be measured; (d) simple and economical to use; and (e) easy to interpret and understand.

2.4.1 Project design and inputs indicators

These include the resources put into the project such as:

- The staff consulting services used to design the project
- The funds raised and allocated for project implementation
- Funds for use by target groups such as loans
- The vehicles and equipment purchased to implement the project
- The training materials developed to build stakeholders' capacity for project implementation

2.4.2 Project implementation indicators

Indicators at this stage are meant to monitor the way in which the resources are used to achieve the project objectives. Examples include:

- The institutional arrangements and delivery systems through which the inputs will be utilized
- Participatory consultation with communities on project planning, involving communities in for example, road construction and monitoring of the project
- Procurement requirements concerning the target groups
- Methods of administering small loans
- The training, capacity building and methodologies used for introducing new forms of transport, such as donkey or bicycles

2.4.3 Project outputs indicators

Indicators under this measure the outputs produced versus the inputs. Examples include:

- Small loans approved
- Bus services initiated or improved
- Roads constructed

2.4.4 Project impacts indicators

Project impacts can either be short-term or long-term. Some examples of indicators to measure the impact of the project are:

- Increased income for participating households
- Reduced time and costs in taking goods to the market
- Reduced time spent in water and firewood collection
- Increased time spent on productive activities
- Improved health
- Improved school performance

2.4.5 Project sustainability and replicability indicators

A project must be able to continue to operate even after external funding has ceased, and the design must necessarily take this into account. Some of the indicators that can be used to measure the sustainability and replicability of a project are:

- The creation or strengthening of community organizations capable of contributing to the operations and maintenance of the project. In some cases the community must assume complete responsibility for maintenance, whereas in other cases there is a division of responsibility between the community and local government or transport agencies.
- The capacity of the community to collect and administer services charges and other sources of revenue required to cover operations and maintenance.
- The provision and efficient utilization of community labor in routine maintenance and upgrading.
- Access to the project and its benefits by all sectors of the target population.
- Continued contribution of outside groups (both government and NGOs) to their agreed responsibilities for operations and maintenance.

2.4.6 Indicators for analyzing the economic and political context

The social and economic context should also be monitored as changes are bound to affect the implementation process and particularly the impact of the project on the beneficiaries. In the case of transport project, some of the issues to monitor are:

- The major travel and transport patterns and needs of the community
- The major economic activities of the communities and how effectively current transport systems respond to these needs
- The changes in the local economy, availability of raw materials, loans for agricultural activities, employment patterns, etc.

- Government policies and laws affecting the transport sector
- The new development agencies being introduced in the area and the impact of their work on the project.

2.4.7 Indicators for analyzing the institutional context

Changes in the organization or operation of government agencies or NGOs involved with the operations or maintenance of the project can have important impacts on how well the project operates or is maintained and on who benefits. Possible indicators include:

- The frequency with which each agency visits the community or meets with community representatives
- Do agencies use participatory approaches [for example: holding some meetings in the community rather than requiring the community to visit their office, do they encourage the community to express their views]?
- The degree of compliance with the agreed commitments
- Do the agencies have staff speaking the local languages and do they have women staff?
- Coordination and communication among the agencies.
- Has there been any political or administrative change (such as elections, staff reorganization) which have affected the operation of any agencies?

2.4.8 Indicators of the social and economic characteristics of the communities affected by the projects

Projects with similar designs and resources may operate differently and have different impacts in different communities due to the social and economic characteristics of each community. Some of the indicators or variables to be taken into consideration in the analysis include:

- The tribal and ethnic characteristics of the community
- The degree of tribal/ethnic diversity or cohesion
- Household composition and particularly the proportion of single-parent households due to war, disease (particularly HIV/AIDS) or migration
- The economic dynamism of the community, which includes: the level of male and female unemployment or under-employment, average household income, trends in prices and income from primary products, etc.

2.5 Data Collection Methods (discussed in more detail in Chapter 4)

Data collection methods are determined by the kinds of information/data needed to monitor change and progress. Principal methods of data collection should combine both quantitative and qualitative methodologies. In selecting a particular combination, project staff need to consider how the information is to be used and by whom and to assess these needs in light of budgetary and time constraints. Chapter 3 discusses the strengths and weaknesses of different data collection methods for gender analysis. Chapter 4 describes the range of available quantitative survey methods and qualitative methods from among which the evaluation researcher can choose.

Chapter 4 also refers to social assessment methods which offer cost-effective and rapid ways to combine quantitative and qualitative evaluation approaches. Social assessment methods provide inputs to the M/E system by focusing on inputs, processes, outputs and impacts that pertain to the social and economic development objectives of the project. These methods also can provide a better understanding of who benefits and who loses, and can identify important policy considerations as well as help design complementary

and targeted programs that are needed to enable the poor to maximize benefits from improved access to infrastructure and services. Within monitoring and evaluation, a social assessment:

- Establishes baseline conditions in select communities in order to allow for a comparison of pre- and post project benefits and to enable the measurement of the magnitude and direction of change.
- Identifies a set of indicators against which the benefits of transport interventions can be measured.
- Develops mechanisms for participatory monitoring of social development objectives by all stakeholders.
- Monitors the distributional impacts among different socio-economic groups with respect to income distribution, access, gender, safety, land-use and values, and spatial impacts.

2.6 The Main Kinds of M/E Studies Required for RTT

There are a number of different kinds of information which management, planners, policy makers and donors may require on the social dimensions of transport projects. Each of these kinds of information will require that a different kind of monitoring or evaluation study be conducted. The following are the main kinds of information and corresponding monitoring or evaluation studies:

Table 2: The main types of M/E studies which may be required for RTT programs

Examples of questions which can be addressed through M/E studies	Study Design
1. Are the activities being implemented on schedule and within the approved budget?	*Input monitoring*
2. Are both men and women fully involved in the selection, design and implementation of the activities?	*Process monitoring*
3. Were the footpaths constructed according to the intended design and in a cost-effective and timely manner?	*Output monitoring*
4. Are the activities producing their intended benefits, and do both women and men share in these benefits?	*Impact evaluation*
5. Are the activities and programs sustainable?	*Sustainability assessment*
6. Where the pilot interventions successful and should they be replicated?	*Replicability assessment*

A summary of the design of each of these studies is described in the following pages. A more detailed description, including the design, data sources and possible methods of use and dissemination is given in Annex 2.

2.6.1 Input monitoring

This entails a monitoring study and will be an output of the LOGFRAME if it is used.

Example: Micro-credit to promote women's access to IMT

These monitor the actual activities against the planned. Gender sensitive indicators are developed to compare women's and men's access to credit. Information to monitor the project is usually obtained from secondary sources, interviews with project staff and random samples of households consisting of both men and women. Regular reports of the findings are submitted to the management and possibly donors of the project.

2.6.2 Process monitoring

Assesses the responsiveness of the project implementation process to the needs of both women and men.

Example: Assessing the gender responsiveness of project implementation — Installation of village water pumps

A simple baseline study is undertaken at the start of the project to provide information on the sources of water, the number of households having access to each type of water source and the time and cost of using each source. Periodic studies are carried out to document the changes.

The baseline data will be collected from short survey of a random sample of households, a PRA study or by direct observation. Gender sensitive indicators would be used. Reports in this case would be circulated to management and also funding agencies on a regular basis of perhaps 3 months.

2.6.3 Output/Monitoring

Example: Construction of feeder roads

The study will use information produced through project records to compare the number and length of feeder roads constructed, and the provision of complementary structures such as culverts, fords and bridges with project planning documents. Consultants will assess the quality of the construction. Unit construction costs will be compared to planning documents and progress reports.

2.6.4 Impact evaluation

Example: Impact of women's access to IMT on the marketing of agricultural produce, household income and women's control over household resources

There can be two types of impact evaluation studies:

The more comprehensive impact evaluation study design: Baseline data is obtained at the start of the project on various indicators such as women's access to transport, amount of grain grown and marketed, etc. The baseline is repeated at the end of the project to measure changes in each of the indicators.

The rapid ex-post evaluation study: This model which uses PRA and other rapid assessment methods, would be conducted after the project is completed. Baseline data would only be obtained from available

secondary data sources. The household survey would rely heavily on household opinions on how they had benefited from the project.

2.6.5 Sustainability assessment

Example: Upgrading of footpaths

Maps and charts would be prepared at the start of the project to record the condition of the footpaths during different periods of the year (to compare dry and rainy seasons and also to assess how the footpaths stand up to heavy use during the different stages of production). The charts would be updated at the end of the project, and after the project has been operating for at least one year to measure changes.

Besides, the maps, other sources of data would be observation and interviews conducted with key informants. The final report would be widely circulated at district and national levels and to donors.

2.6.6 Replicability assessment

Example: Was the introduction of new IMT successful and should this be replicated in a future project?

The assessment will draw on all of the information collected in earlier studies (particularly impact and sustainability studies) to assess how effectively the activities were implemented and what kinds of benefits were produced. An assessment will be conducted of the cost effectiveness of the component. This will estimate the cost of producing a certain type of benefit. Risk analysis might also be conducted.

The findings will be included in the project completion report and in the planning documents concerning future projects.

2.7 Organization and Capacity Building for Monitoring and Evaluation

There are various organizational questions an M/E designer may need to ask when designing an M/E system for assessing the gender dimensions of a rural transport project. Some of these key questions are:

- What are the options that are available in designing a gender sensitive M/E?
- What should the scope of the M/E be?
- How will the M/E be linked with other agencies?
- Who will conduct the M/E?
- How will the M/E system be managed?

2.7.1 Scope of the M/E

An M/E can be developed at micro/village/project level or at regional and/or national levels. A project based M/E system has the advantage that it can easily respond to the changing environment and incorporate changes into the project cycle. In addition, the regional and national levels of monitoring are complicated in that they are more difficult to manage and likely to lose the project specific changes and impacts.

2.7.2 Link with other agencies

It is also advantageous to link the M/E system with other activities on going in the area. This will help in singling out other factors outside the project that are having a bearing on the project implementation process.

2.7.3 Managing and conducting the monitoring and evaluation

Who conducts the monitoring and evaluation. Monitoring can be done by either:

- The Ministry responsible for Transport; or
- The Ministry responsible for Planning; or
- An Inter-Ministerial Committee.

Within these institutions, data collection or monitoring studies can be either centrally controlled through for example, a Central Evaluation and Monitoring Unit or decentralized and information stored and processed at the local level. A decentralized M/E system is easier to manage as data can be readily processed and fed back into the project cycle to modify project design and the implementation strategy and thus into account the changing circumstances or new information. In a decentralized M/E system, a good strategy is to have a staff member within a department responsible for monitoring. This facilitates the process the data collection and processing activities.

Training: Gender in rural travel and transport is a `recent' development and hence training needs assessments must be carried out to ascertain the level of knowledge of staff and the training they need to manage the M/E.

When to carry out monitoring and evaluation: The M/E must also make clear whether monitoring and evaluation will be carried out simultaneously or separately. Where a project opts for an ex-post evaluation study at the end of the project, then an M/E design should decide on the type of quantitative and qualitative information to be collected during the monitoring process and how it will be used in the evaluation.

Role of the community in monitoring and evaluation: It is important for the M/E to define the role of the community in the monitoring process. Some of the aspects the community could be involved include:

- Deciding the aspects of the project to monitor;
- Deciding the methods for monitoring such as daily, weekly, fortnightly record taking. The frequency is determined by the nature of the project;
- Delegating people to gather information;
- Analyzing the information/results;
- Deciding on the adjustments to the project if required; and
- Deciding on how and where else they can use the information.

Participatory monitoring and evaluation has been found to have several advantages. One of these is that they build organizational and individual skills in managing and developing future projects. Another advantage is that they empower communities for greater and more effective participation in the local development process. Other participatory rural appraisal methods, besides those outlined in Chapter 2 are group analysis of reports, reflection groups and use of real case studies to facilitate comparison.

Role of external consultants/agents: Monitoring may need to be done using both internal and external consultants as the latter has the advantage of reducing subjectivity resulting from the use of internal officers.

External consultants may however, be forced to compromise their findings for fear of losing a long-term client. An organization must therefore carefully select consultants to evaluate their projects.

Sustainability of M/E system: Where an M/E system is funded by a donor, this may mean that at the end of the project, the M/E unit will close thus reducing the impact of this system on any future work. It is thus important that these issues be addressed before the system is put in place.

2.8 Main Stages in the Design and Implementation of a Monitoring or Evaluation Study

The following table provides a checklist of questions which can be used at each stage of the design and implementation of a monitoring or evaluation study.

Table: 3 Checklist for the main stages of the design and implementation of a monitoring or evaluation study

Stage of the study	Key questions to answer
1: Why is the study being conducted?	▪ Why is the study being conducted? ▪ Who are the clients? ▪ What is the problem or what information is needed? ▪ What decisions or actions will be taken? ▪ When are the results needed? ▪ Who are the stakeholders and what are their views and priorities? ▪ Conduct exploratory study (if necessary) to understand the problem.
2. What type of monitoring or evaluation study is required?	▪ What type of study is required (input monitoring, process monitoring, output monitoring, etc)? ▪ What is the time-frame and when are the results needed? ▪ Can the study be conducted at one point in time or is it necessary to collect information at different points in time? ▪ Exactly what information is needed and how will it be used (collecting information to understand a problem, feedback on problems, evaluating the impact of a project, assessing the accessibility to different population groups)? ▪ How precise must the information be?

3. Designing the study	▪ Define the group (or groups) to be studied and select a sample which will cover all of the groups ▪ List of information to be collected ▪ Select the data collection methods ▪ Preferably use a multi-method approach ▪ Design and test the data collection instruments ▪ Prepare an interview guide (if required) ▪ Include budget and time to return to the field (if necessary) once the draft report has been discussed
4. Conducting the study	▪ Selection of the supervisors and interviewers and organization of training (if required) ▪ Conduct the data collection, including quality checks.
5. Data analysis, report preparation and dissemination	▪ Conduct the data analysis ▪ Include consistency check to assess the validity of the information ▪ Prepare a draft report
6. How to ensure the study will be used?	▪ Discuss the draft report with stakeholders and obtain feedback ▪ Include consultations with the community if necessary ▪ Develop a dissemination strategy to ensure the report will reach and will be understood by all stakeholders and possibly the general public ▪ Combine written reports with workshops or briefings

CHAPTER THREE

A GENDER RESPONSIVE MONITORING AND EVALUATION SYSTEM

3.1 Why is it Necessary to Focus on Gender in the Design of an M/E System?

Women and men have different transport and travel needs and they also face different constraints due to their different social and economic roles. Transport projects often ignore these differences by adopting 'a gender neutral' approach which assumes that men and women will benefit equally from the project and its services without having to make any special provisions. However, experiences have shown that when the special needs of women are not taken into consideration, they will often benefit less from projects and some women may even be worse off. For example,

- If male traders monopolize new IMTs such as bicycles, then women traders who sell wood, charcoal or other produce which must be transported by them on foot, may be at an even greater competitive disadvantage;
- Often the community will offer women's labor for road maintenance (which is very arduous and time consuming) even though women may benefit less from roads than men; and
- Increased volumes of traffic on improved roads may present an increased danger to women pedestrians who are carrying heavy loads.

Consequently an effective transport project must understand these differences and must be designed to ensure that the travel and transport infrastructure and services provided respond to the needs of both men and women and also to the needs of children (particularly students).

Cultural constraints on women's participation in project planning and implementation

Gender research in RTT programs, has found that women are usually excluded from participating in feeder road programs that enhance their income levels. This is because `cash related work' is ascribed to men while `food for work' or `voluntary activities' are left to women. Many factors account for these differentials in treatment between women and men. Primary among these are cultural constraints, which have been found to inhibit monitoring and evaluation of the gender dimensions of RTT activities. This is because where men and women are mixed for discussion purposes, women have been found to be reserved, particularly where they are mixed together with their husbands. Traditional female subordination requires that women listen while men do most of the talking and decision making. Men's decisions within this context are presumed to represent those of women as well. It may thus be necessary to separate men and women in PRA meetings. In addition to this, depending on when meetings are convened, they may turn out to be inconvenient for women, particularly if it is during the rainy season when they are busy with agricultural activities or when they are committed to other reproductive chores.

One strategy that is used by many organizations to address women's participation in PRA meetings is employing women to talk to the women. This is useful as it has been found that rural women tend to relax and participate more actively in discussions, when they are talking to another woman.

3.2 How adequate are conventional data collection methods for gender analysis?

All methods of data collection, whether quantitative or qualitative, participatory or non-participatory, can be gender-sensitive – or not – depending on how they are applied. When gender issues are not addressed in, for example, poverty diagnostics, this is likely to be due as much to lack of awareness of the importance of gender, as to the limitations of the data collection methods per se. However, it has been found that gender issues are not adequately addressed in the majority of the Poverty Reduction Strategy Paper diagnoses, and the same limited treatment of gender is found in the majority of World Bank project design studies and many similar types of project planning and poverty research. Why is this? Table 4 suggests that data collection and analysis methods can be ranked along a continuum in terms of their adequacy for addressing gender issues.

Studies adequately addressing gender issues. At one extreme are the many studies using standard household survey instruments and sampling methods which include a full analysis of gender issues. Another area in which household surveys have contributed to gender analysis is the research literature on intra-household resource allocation [Quisumbing and Maluccio 1999].

Inadequate analysis of gender differences in control of resources within the household. Although, as indicated above, excellent studies of intra household resource allocation have been based on household surveys, these surveys frequently have difficulties in analyzing how resources such as food, money, productive resources are allocated and controlled within the household. Consequently surveys may underestimate the level of malnutrition, lack of access to medical services, etc. among girls and women that result from customary patterns determining resource allocation.

Available sex-disaggregated data is not analyzed or easily available data is not collected. There are also many studies where the information is available to conduct gender-analysis, but where this was not done this is mainly because gender was not considered an important issue by the researchers. A common example are the many cases where sex-disaggregated data is available on, for example, school enrolment, labor force participation, and applications and successful applications for loans. Other common examples in this category include transport user studies and the sexual division of labor at different stages of the agricultural production cycle.

In some cases information about the needs, attitudes, time-use or consumption patterns of all household members is obtained from a single interview – usually with the so-called [usually male] "household head". He will often not have the full information, or may claim that all household members have the same opinion or priorities as himself. Men often underestimate, or under-value the multiple tasks which their wives must carry out, and consequently put a low value on projects to save time and energy. In other cases, when women are asked about sensitive topics in the presence of other household members, they are unlikely to respond honestly and openly.

Additional questions must be included on gender-specific topics. Another common situation is where the study should include [but does not], not only sex-disaggregated data on questions applicable to both sexes, but also additional questions reflecting the particular concerns of one sex or the other. For example, questions addressed to women might refer to domestic and other forms of violence ;

Table 4: The adequacy of conventional household surveys for gender analysis		
adequacy for gender analysis	The extent to which gender issues are addressed in conventional household surveys and data collection methods.	Examples
↑	1. Gender issues are fully analyzed.	Analysis of intrahousehold resource allocation (Quisumbing and Maluccio 1999).
Fully adequate	2. Information is available but gender issues have not been addressed; or sex-disaggregated data has been collected but not analyzed.	• Housing studies often do not examine differences in housing demand for male and female headed households. • Data on school enrolment, labor force participation and use of heath facilities is often collected on each household member but sex-disaggregated data not presented in analysis.
	3. Sex-disaggregated data could have been included in the survey but was not.	Data on consumption, employment or household travel could have been collected on each household member, but this was not done.
	4. The survey instrument asks the right questions but the information is only provided by one person (usually the "household head").	Information on needs, expenditures, time-budgets is often provided for all household members by only one person. The respondent (usually the husband) cannot respond correctly for all household members.
Inadequate	5. The data collection method is adequate but additional gender-relevant questions should be included.	Surveys on education or labor force participation often do not include information on time-use or cultural constraints on girls or women's participation.
	6. The survey instrument is adequate but certain people must be interviewed without the presence of other household members or neighbors.	Both women and men may be unwilling to respond to sensitive questions on topics such as domestic violence. In addition, women may not speak freely about their development priorities in the presence of male family members. Similarly men may not give complete income on their earning in the presence of their wives.
↓	7. The instrument and data collection methods are not appropriate for the purposes of the study	Information on domestic violence can usually not be obtained from household surveys as recognition if taboo in many cultures. Separate focus groups with women and men, interviews with key informant or participant observation may be required.

time burdens and the problems of balancing multiple social and economic roles. Similarly, questions addressed to men might include, the psychological, social and economic stresses caused by unemployment, and the changing structure of the labor market.

Information is not collected form the right person. There are other cases where gender-relevant questions are included in the survey but the information is not collected from the right person or

Household surveys are not the appropriate data collection instrument. Finally, there are cases where the household survey is not appropriate for collecting gender-relevant information. Examples include, information on sensitive questions such as domestic violence and [in some cultures] contraceptive usage; or where the purpose is to observe household or group behavior, where people may be unaware of, or unwilling to discuss interpersonal behavior or leadership styles.

3.3 Key Gender Issues to be Addressed in the M/E System

A good gender responsive M/E system should address the following:

- Transport constraints on women's economic and domestic roles
- Identify women's and men's latent (unsatisfied) transport needs
- Women's involvement in project design and implementation
- Do projects address women's travel and transport needs
- The positive and negative impacts of projects on women
- The cost-effectiveness of transport versus no-transport (providing water closer to the village, providing more grinding mills etc.) interventions in improving women's welfare
- Cultural issues in addressing women's transport needs and how they can be dealt with

3.4 The Elements of a Gender Responsive M/E System

An effective gender responsive M/E system is useful for identifying and integrating gender issues in the project cycle and in the 3 set of factors described in Chapter 2. Below are some of the kinds of gender specific information, which a good gender-responsive M/E system should provide:

- Baseline data on travel and transport burdens and constraints of women, children and other family members prior to the start of the project
- Women's and men's "latent" (unsatisfied) transport needs
- Levels of women's involvement in project identification and design
- Reasons/constraints affecting women's use of the services, including economic and cultural
- Feedback on how services can be modified to make them more responsive to the needs of women
- Changes in women's travel and transport as a result of the project
- Assessment of the relative contribution of different project components and interventions to the benefits produced for women, men and boy and girl children
- Were there gender specific inputs and actions in the project design and to what extent were they implemented
- Evaluation of the implementation and effectiveness (including cost-effectiveness) of non-transport interventions (provision of water, grinding mills, etc)

3.5 Indicators for a Gender Responsive M/E System

Indicators should be developed to monitor effectively how each of the stages of the project cycle is carried out namely: (i) Project design and inputs; (ii) project implementation process (iii) project outputs; (iv) project impacts; (v) project sustainability; (vi) economic and political context; (vii) the institutional context; and (viii) changes in the social and economic characteristics of the local communities affected by the projects.

3.5.1 Project design and inputs

Indicators here relate to project planning and resource allocation. Some of these indicators include:

- Use of sex-disaggregated data in project planning, so as to bring out the differences in roles between women and men;
- Transport constraints on men's productive roles and women's economic, domestic and community management roles addressed;
- Women's and men's `latent' transport and also travel needs addressed;
- Women's and women's groups' involvement in the data collection process and the effectiveness of the data collection methods used in detecting women's transport needs and priorities, such as PRA;
- The economic and cultural issues affecting women's access to transport and services identified and addressed;
- Project staff provided with skills in gender analysis and mainstreaming;
- Female staff identified to facilitate women's participation in the project;
- Overall structure set up to act as an incentive in encouraging staff to address gender in their projects;
- The existence of guidelines to address gender; and
- Gender sensitive criteria formulated for selection of participants in RTTP activities.

3.5.2 Project implementation process

Indicators under the implementation process must be able to measure the impact of the way in which the project resources are being used to achieve the project objectives. Some of the key indicators include:

- the gender responsiveness of the institutional arrangements and delivery systems through which the inputs will be utilized;
- participatory consultation with communities on project planning and formulation of Action Plans;
- involving communities in construction, procurement requirements concerning female labor;
- administration of small loans through women's organizations; and
- the level of promotion of men and women's initiative by the project facilitator.

3.5.3 Project outputs

Indicators to measure gender sensitivity of project outputs may include some of the following:

- Level of women selected to participate in RTTP activities such as rural infrastructure projects or projects to promote IMTs;
- Level of increase in number of women using IMTs;
- Level of increase in number of women owning IMTs;
- Increase in number of women with access to small loans;

- Increase in the number of groups formed and implementing the project; and
- Gender sensitization workshops held for men and women.

3.5.4 Project impacts

Indicators must also measure the impacts resulting from each of the project outputs such as:

- Increased economic empowerment of market women;
- Reduction in time women take to perform reproductive activities such as collection of water, fire-wood, going to the hospitals and taking children to school;
- Improved consumption levels, nutrition and health at the household level;
- Improved access to agricultural extension services;
- Improved access to markets;
- Greater role for women in household, group and community based decision making bodies; and
- Changes in household and communities' perception of women and their capabilities.

3.5.5 Project sustainability

Gender sensitive sustainability indicators are related to the project stakeholders' ability (such as women's groups, village or ward level structures) to continue addressing gender even after the project is completed:

- Capacity of groups to work on their own strengthened
- Group capital maintained
- Links with external agencies established
- Other involved agencies more gender sensitive

3.6 Designing a Gender Sensitive M/E System

There are basically three options in designing a gender sensitive M/E system.

3.6.1 Individual gender studies and gender M/E system

It is important that in designing a gender sensitive M/E system, the project defines the kinds of information to be collected to ascertain the social dimensions of a transport project. This information will depend on the type of monitoring and evaluating study questions the project wishes to address. Thus where the project wants to ascertain whether the project is producing its intended benefits and women are benefiting from the project, then an impact evaluation may be the appropriate study. In such a case, plans must be made at the start of the project to collect baseline data, which in an ex-ante and ex-post analysis yield comparative data, and allow important conclusions to be drawn regarding the impact of local level infra-structure, as well as the impact of decentralized decision-making and community participation.

Most M/E systems decide ahead of time what information will be observed or measured periodically and over time. Box 4 organizes the information according to the anticipated physical outputs of a typical rural transport project as well as the range of benefits/impacts that accrue from rural transport investments.

Box 4

Suggested baseline data to be collected

- Population characteristics in each village (average household size, % of female headed households, average household income and income sources;
- Village structures, transport infrastructure and services (access, needs, perceptions)
- Agricultural activities, land ownership, ownership to means of transport;
- Location and quality of commonly used social and economic services and facilities;
- Reasons affecting villages, especially women from utilizing above services or facilities;
- Transport patterns differentiated by male and female patterns of travel;
- Travel and transport constraints and burdens of women, children and other family members, especially on women's economic and domestic roles;
- Women's access to, and use of, the travel and transport services provided by project;
- Types and number of sources of water, firewood;
- Involvement in self-help work; and
- Traffic counts including pedestrians (pre-and post rehabilitation).

3.6.2 Integrating gender into an existing M/E system

Typical gender issues to be monitored at each stage of the project cycle include:

A. Project identification and appraisal

Identifying stakeholders and client groups

- Were the needs of all stakeholder groups, including women assessed?
- Did the project assess the potential travel and transport demands from women – including the currently unsatisfied demand?

Understanding women's travel and transport needs

- Did all studies include sex-disaggregated data to permit analysis of the differences between women's and men's travel patterns and transport needs?
- Did studies examine the high proportion of women's travel which is on foot or using non motorized transport?
- Did the studies document women's time use and their need to balance multiple roles?
- Did the studies examine the constraints which these multiple needs place upon their travel? For example, women may not be able to wait as long for infrequent and unreliable transport as men can.
- The crops which women can grow are limited by the fact that they are not able to tend them as frequently as men, and may not be bale to plant and water at the critical times due to their other commitments.
- Market women make more frequent trips between women and home than men do.
- Were participatory analysis methods used to ensure that the views of women are often into consideration and that information on their travel patterns and needs is obtained from them and not just from them and not just from men?

Assessing institutional capacity for managing gender responsive projects

- Do the planning and implementing agencies have access to gender specialists (either on their staff or as consultants)?
- Did staff received gender sensitivity or gender analysis training?
- What proportion of the professional staff are women?
- Is there an incentive structure which would encourage or permit staff to address gender?

Working with NGOs, women's organizations and academic groups

The possibility should always be considered of involving NGOs, women's organizations and academic groups in the appraisal stage. These groups can provide insights into women's travel and transport needs and constraints and can help conduct the different studies. They can be particularly useful in conducting participatory assessments.

It will often be necessary to provide guidance to these groups in the design of studies, and in particular to ensure that information is collected objectively and not in the form of advocacy.

B. Project design

Defining client groups, partners: transport/planning/finance/social sectors

- Were all stakeholder groups, including women's organizations actively involved in the project consultation and design process?
- Were groups opposed to the project also involved?
- Were the findings of the assessment studies disseminated and discussed?

Promoting female employment through public works

- Did the project include income and employment creation activities?
- Did women have equal access to these opportunities?

C. Implementation and supervision

Gender responsive monitoring indicators

Simple to apply monitoring indicators must be developed to ensure that gender sensitivities approaches are being implemented and targets are being achieved. These will cover areas such as:

- The number and proportion of women participating in project planning and management meetings, and the proportion of key management positions they occupy.
- Women's access to project services and resources.
- Women's use of transport and related project facilities.
- Implementation of gender-related capacity building activities (such as training activities for agency staff, providing guidelines).

Capacity Building

- Did the project involve capacity building activities for implementing agencies or community organizations?
- Were the funds approved for gender capacity building are actually assigned?

- Were staff training programs implemented?

3.6.3 Developing an independent gender M/E system in cases where project does not have an overall M/E system

The process below illustrates the M/E design and implementation process for a rural transport project, but the process is similar for an urban transport project, although the specific issues to be addressed would of course, vary.

Incorporating gender into the basic monitoring and evaluation model

Where a project does not have an existing M/E system, then an independent M/E system must be developed and specific gender issues incorporated into each stage of the M/E model discussed in Chapter 2. The project M/E model is defined in terms of the different stages of design, implementation and outputs/impacts:

i. *Project inputs:* Gender must be incorporated at this stage to make sure that all the resources provided by the project such as funds for loans, vehicles and equipment, training materials and staff will benefit men and women equally.
ii. *Project implementation process:* A gender analysis of the project implementation process must be carried out to ensure that the way in which project resources are being used will meet the objectives of the project to benefit men and women equally. Thus for example, project planning and implementation must include deliberate strategies to enhance women's participation in the planning and implementation processes. Examples of some of the participatory data collection methods that can be used to collect information on women's experiences of rural travel and transport are already cited in Chapter 2. In addition, the introduction of new forms of transport such as bicycles and taxis must also take into account, women's specific socio-economic constraints. It has been found that women's access to and use of intermediate forms of transport such as the bicycle are sanctioned in most African societies.
iii. *Project outputs:* These must also reflect gender balance in terms of loan allocation, use of transport and transport services in use in the area.
iv. *Products/Impacts:* The immediate impacts produced by each of the project such as reduced costs of taking goods to the market, increased income, time spent in collecting water and firewood, increased visits to the health centers and improved school attendance outputs must illustrate the positive impact of the project on men's and women's workload and time budgets.
v. *Project Sustainability:* Project sustainability can be measured through indicators such as whether agencies have become more gender sensitive, groups and especially women's empowerment.

Describing the social and economic context

Before beginning to work on the M/E design, it is essential to first understand the economic, social and political context within which the program will be developed. In the case of gender and transport, some of the issues to examine include:

- The major travel and transport patterns and needs of the community
- The major economic activities of the communities and how effectively current transport systems respond to these needs
- Women's travel and transport usage and the unsatisfied transport demands
- Travel resources available to households and who controls their use

- Cultural, economic and other factors constraining women's access to available transport. Women's time use and the amount of time spent travelling.

Identifying the major stakeholders interested in the gender dimensions of the project and their primary areas of concern

An important element of the evaluation design involves the identification of the key stakeholder groups involved with the projects in the villages and in the different agencies involved with the project. The views and information needs of these groups must be incorporated into the evaluation design.

- Who are the major groups inside and outside the community who have an interest in the gender dimensions of the project?
- What are the main areas of interest/concern for each group?
- What are the transport and travel issues on which there is a reasonable degree of consensus?
- What are the areas of actual or potential conflict?
- What are the priority areas of concern for different groups of women?
- What are the key assumptions on which the proposed project model is based?

The impacts of context on project outcomes

The model will also describe and evaluate how the context within which the project is implemented affects the results. These factors include:

a) *The socioeconomic characteristics of the target population groups which may affect project outcomes.*

For example,

i. Women's multiple productive, reproductive and community management roles and the related transport needs.
ii. Cultural factors affecting control and use of different means of transport at the community and household level. For example, the responsibility of women and men for different transport-related household tasks such as the transporting of fuel, water and agricultural produce; and social customs concerning the use of bicycles, animals and other means of transport.

b) *The institutional context within which the project is implemented*

i. The capacity of the key implementing agencies towards addressing gender issues.
ii. The involvement of NGOs and academic groups concerned with gender issues.

c) *The economic and political context within which the project is implemented*

i. The labor market and how it affects men's and women's access to employment.
ii. The political context and government policies towards gender equality.

Figure 3 illustrates how the basic monitoring and evaluation model could be applied to a typical rural transport project. Examples of inputs, implementation processes, outputs, products/short term impacts and medium/long term impacts are given to illustrate the model. Indicators should be selected for the three boxes: economic and political context, institutional context and the socio-economic characteristics of the

communities. This is a very simple example, and the model could be adapted to the specific design and conditions of each area.

3.7 Main Steps in Conducting a Gender Sensitive M/E for Rural Transport

Justifying the study

In defining the study, it is important to ensure the following:

- The study is being conducted to assess the impact of the project on women's and men's lives
- Both men and women constitute the study clients
- The problem is analyzed and the information is collected from a gender perspective
- Decisions or actions are taken from a gender perspective
- When are the results needed
- The stakeholders include women and their views and priorities take into account women's specific needs
- Conduct exploratory study (if necessary) to understand the problem

Defining the study

The study must specifically mention women as a target of the study.

Designing and conducting the study

Depending on the study and also the size of the sample, a study can use one or more factors in selecting samples for the study interviews. Age is one and sex another. A gender sensitive M/E must make sure that:

- the selected sample is representative of both men and women
- the data collection methods used enhance the participation of men and women in the study such as participatory rural appraisal methods described in Chapter 2.
- data collection instruments are engendered

Conducting the study

The selection and use of gender sensitive data collectors and supervisors is important as rural women have been found to open up to other women or those that are sensitive to their needs. It is thus important for data collectors to be aware of this so that they can help to draw women out through the way they ask questions. The interview of women by women may also be another strategy to address this problem.

Further to the above, the use of multiple data collection methods has also been found to be useful in checking the quality of the data collected.

Data analysis and report preparation and dissemination

Data analysis should necessarily include a gender analysis, that is a comparison of the impacts on men and women. Once the draft report is prepared, it must be discussed with stakeholders, including women. The dissemination strategy for the final report of findings must also target women and women's organizations.

Using the Report

Women must be involved in the formulation of an action-plan which describes how the findings of the study will be used. The project implementors must also be able to follow up on the action plan to make sure that women specific recommendations are being implemented.

CHAPTER FOUR

DATA COLLECTION AND ANALYSIS METHODS

Data collection methods are determined by the kinds of information/data needed to monitor change and progress. Principal methods of data collection should combine both quantitative and qualitative methodologies. In selecting a particular combination, project staff need to consider how the information is to be used and by whom and to assess these needs in light of budgetary and time constraints.

4.1 Quantitative survey methods

4.1.1 Secondary data

Secondary data can often be used to estimate conditions in the pre-project period or used as a control. Most of the information related to ward, village, and district level aggregated data can be collected from various secondary sources. The data related to physical and demographic characteristics, land availability, standards in terms of area and population for different type of services, etc at various levels should be gathered from secondary sources, which can be both quantitative and qualitative[10]. It is important to check for the availability of secondary data before collecting new data.

4.1.2 Surveys

Household surveys

Based on a random or stratified sample of households, this tool obtains representative household information on size, labor force participation, income and expenditure levels, ownership of assets (land, means of transport). Information regarding access to, use and costs of public and private transport, satisfaction with transportation service in order to analyze actual and potential needs of transport users should also be collected. It is important to collect information on non-motorized transport (NMT) issues as well, since footpaths, bicycle paths, and other NMT pathways are integral to the overall transport plan. Gender-specific constraints and needs should also be identified.

Socio-economic surveys

The main objective of the survey is to assess the socio-economic benefits, both quantitative and qualitative, and to develop a system to monitor and evaluate such benefits. Data to be collected includes[11]:

[10] See Joseph Valadez and Michael Bamberger, 1994 *Monitoring and Evaluating Social Programs in Developing Countries: A Handbook for Managers, Researchers and Policy Makers*. World Bank. page 271

[11] Pankaj, Thampil. Terms of Reference for World Bank Bhutan Rural Access Roads Project, 1998.

(i) Demographic information of a sample population (e.g. ethnicity, gender, age, religion, etc.)
(ii) Forms of livelihood (e.g. land holding, land cultivated, income, type of crops, non-farm employment including migration, etc.)
(iii) Transport data (e.g. average daily loads, distance and time to and from nearest road, type of transport, costs of transport, etc.)
(iv) Access to social services and the status of social well-being (e.g. distance to primary and junior high schools, enrollment rates to primary and junior high schools *by gender*, access to primary health facility/ nearest hospital, days lost due to sickness in the previous year, etc.)
(v) Access to markets (e.g. costs and time by main modes of transport, marketing channel of main crops, etc.)
(vi) Commodity prices (of major crops, fuel, etc.)

Transport user surveys

This instrument is intended to obtain *observed* transport use data that is representative by location, time of day and weekday. It includes the time spent waiting and journeying; the uses, purpose, and cost of transport; satisfaction and needs; and income. In addition, the user survey should identify the range of available transport means and services. The results obtained from the surveys will highlight trip purposes and the relationship between income levels and transport use, as well as incomes and modal choice. For VTT this should be expanded to include travel on foot – not just the usual vehicle use surveys.

Transport supplier surveys

A series of surveys administered to a range of transport suppliers (i.e. bus associations, non-motorized suppliers, taxi services, or enterprises) to obtain information on the status of their operations, what incentives/disincentives exist, their respective roles and importance in urban transport service provision; measure and prospects for changes in its status. This should also include non-vehicular transport services such as water carriers (on foot).

Travel pattern surveys

Describes who is going where, with whom, at what time, by which mode and route, and for what purpose.

Perception and attitude surveys

Attitude questions can either be open-ended (For example: “What are the things you like most about living in this community?”, or “What are the reasons that you do not allow your daughters to use public transport to travel to school?”). In this case the survey analyst must read all of the responses and then develop categories (examples from the latter question might include: “concerns about security”, “high cost”, “inconvenient schedules”.

On the other hand, it is possible to obtain a quantitative estimate of the intensity of opinions or attitudes by asking respondents to select a position on a scale. Scales can either contain a set of responses reflecting intensity of satisfaction or attitudes, for example:

5. Strongly agree
4. Agree
3. Neither agree nor disagree
2. Disagree

1. Strongly disagree

Or respondents may be asked to select a position on the following kind of scale:

Strongly disagree Strongly agree
1___ 2___ 3___ 4___ 5___ 6___ 7___

It is then possible to conduct numerical analysis on the findings, although it is important to remember that this is an *ordinal* variable rather than an *integral* or *continuous* variable. This means that each value can be considered as greater than the previous value but that the intervals between the values cannot be considered as equal. Consequently, it is not valid to compute values such as means or standard deviations.

Willingness to pay and capacity to pay for transport services

The planning of many transport interventions is based on the estimation of the "effective demand", or the capacity of the potential users to pay the economic cost of the service being provided (for example bus or taxi fare, fee for use of grain mill or rice mill, or the amount paid for water etc.). A number of methods have been developed to calculate willingness to pay, including:

- Direct questions as to whether potential users would be willing and able to pay the fare or service charge
- Asking how much user would be willing to pay
- Estimating what is spent on alternative services

It is often useful to combine these quantitative questions with the use of observational or other qualitative methods to estimate how much is currently being paid for these services. It is frequently found, for example, that household are paying a much higher price for water provided through informal and sometimes illegal sources than they would pay for the public service. Qualitative methods are often required to obtain this information as respondents may either be reluctant to acknowledge they are using illegal sources, or because they wish to give the impression that they would be too poor to pay the full cost of the public service – in the hope that they would receive a subsidy or concessional price. The use of consistency checks through the combination of survey questions and qualitative methods is an example of the strategy of triangulation, which is discussed later in this chapter.

4.2. Qualitative Survey Methods

4.2.1 Secondary data

As indicated earlier, secondary data can be both quantitative and qualitative. Qualitative data may include newspaper articles, photographs, university theses, records of community groups, land titles, medical records etc.

4.2.2 Stakeholder analysis

Stakeholder analysis identifies the key stakeholders and develops ways to involve them in the consultation and participation process in selection, preparation, implementation and monitoring of the project. Identification of **key stakeholders** should occur at various levels (e.g. central/national, district, and lo-

cal/community level) and their **stakes** in the project. For each of the stakeholders, the following should be analyzed: the expectations from the project, likely benefits and adverse impacts, conflict of interests, their type of involvement (e.g. roles and responsibilities, type of participation such as information sharing, collaboration, employment, etc.) in design and implementation process, commitment of resources, opinions towards project, priority of services and standards required, and other as necessary. By involving stakeholders through consultation and collaboration, the consultant should identify and disseminate the objectives and scope of the project. The task also involves defining the **constraints** in achieving objectives and develop strategy and tactics to address them. Recommendations must be made for a mechanism of consultation and collaboration for bringing stakeholders knowledge and experience in project preparation and implementation process. If any **vulnerable** or **at-risk** groups are identified, in terms of poverty, gender, age, cultural identity and displacement, how to address their needs, minimize the adverse impacts and maximize their benefits must be also addressed.

4.2.3 Institutional analysis

This involves the analysis of institutional capacity and risks in successful and timely implementation of the projects and develop appropriate institutional arrangements which strengthen their capacity and minimize the risks. This task involves a careful review of existing institutional arrangements for delivering various services (e.g. financial management, engineering, resettlement management) and identify the strengths and weaknesses of such arrangements. Special attention should be paid to the context of decentralization, in which capacities of District Councils and Village Committees play an important role in project planning and implementation. The task also involves the assessment of likely risks both internal and external to the project in terms of lack of commitment to project goals, insufficient capacity to achieve the project objectives, involvement of NGOs and beneficiaries in implementation, etc. Based on the identified risks and institutional issues and consultations with key stakeholders, the consultant should propose suitable measures to address institutional risks and issues, including appropriate institutional arrangements and capacity building programs to be undertaken in the projects.

4.2.4 Focus group interviews

These are useful methods for soliciting community attitudes and identifying other issue areas. Focus groups need a trained individual who can handle group dynamics and who has the ability to prevent anyone from dominating the setting.

Focus group or semi-structured interviews should be undertaken to explore issues that could not be easily captured by household surveys. Separate discussions should be carried out among all the stakeholders to draw their experience and knowledge in each of the issues involved in project selection, preparation and implementation.

4.2.5 Community forum/workshop

These are useful methods that can rapidly produce information. Suggested that an agenda be prepared in advance of the meeting and basic rules are explained to the moderator to ensure that all participants contribute to this forum.

4.3 Participatory Rural Appraisal (PRA) and other participatory evaluation methods

4.3.1 Participant observation

These are fieldwork techniques used to collect qualitative data and to develop in-depth understanding of people's motivations, perceptions, and attitudes. In-depth participant observation can reveal the influences on people's preferences and can lead to a better understanding of their constraints and incentives.

4.3.2 Access to resources

Collects information, raises awareness and understanding of how access to resources varies according to gender and other social variables. The tool is used in participatory settings and draws upon the everyday experiences of rural inhabitants.[12]

4.3.3 Analysis of tasks

Analysis of tasks by gender raises community awareness of the distribution of domestic and community activities according to gender, and it familiarizes planners with the degree of role flexibility associated with different tasks. The complementarity of community members' tasks can be highlighted during this activity by illustrating the dynamic system of activities that constitute daily life. The participation of young adults and children in task analysis exercises can reveal important information about how youth perceive the gender roles and responsibilities.

4.3.4 Needs assessment

This tool extracts information about people's needs, raises participants' awareness of related issues and provides a framework for prioritizing needs. Usually employed as a part of gender analysis, this tool develops an understanding of the particular needs of both men and women. A thorough assessment of the needs of a community must take into account the interdependence of women's and men's needs, and the degree to which needs change seasonally and at different life stages.

4.3.5 Mapping

This tool can be useful for collecting baseline data on a number of indicators – for example, as part of a beneficiary assessment – and the process can lay the foundation for community ownership of development planning by including diversely interested groups of people. Maps are an excellent starting place for investigation because of the high level of participation they encourage and because the visual output can be used to bridge any verbal communication gap that might exist between local people and development planners. Mapping can be used to generate discussions about local development priorities and aspirations.

[12] Sue Jacobs, downloaded from the World Bank Social Assessment Website.

4.3.6 Photographs

Periodic photographs of a project site is a rapid means of collecting data that preserves information for depicting progress over time.

4.4. The strengths and weaknesses of quantitative and qualitative methods and the importance of using integrated, multi-method evaluation approaches.

Quantitative survey methods have their drawbacks when used to evaluate community participation and organizational behavior. In pilot projects where the participation of communities in labor-based infrastructure schemes and in priority setting and decision-making are central, rapid qualitative monitoring and evaluation techniques are appropriate and suitable. In fact, in the Morogoro Planning Workshop, one of the participants suggested that the pilot districts be involved in the development of the monitoring system. Participatory Monitoring and Evaluation should be a component of the VTTP overall monitoring and evaluation system. Participatory Monitoring and Evaluation is "a process of collaborative problem-solving through the generation and use of knowledge. It is a process that leads to corrective action by involving all levels of stakeholders in shared decision-making."[13]

The strengths of utilizing participatory and rapid qualitative methodologies in projects of this nature are:

- The success of the project is evaluated by the active participation of the community itself and is focused on building stakeholder capacity for analysis and problem solving
- Knowledge and data that is generated during the course of an evaluation remains and is owned by the community
- More cost-effective

Information about and feedback from communities can be obtained in several ways. In selecting appropriate and cost-effective data collection methods, the evaluator must determine the purpose of the evaluation and the audience.

4.4.1 Triangulation

The degree of confidence in the findings of the participatory assessment methods can be greatly increased by comparing estimates obtained from different methods of data collection, such as a carefully selected random sample of households could greatly strengthen the reliability and validity of the data. Effective use of triangulation must satisfy the following conditions:

1) Potential biases of each method must be identified
2) Other methods that do not share the same biases must be selected and used
3) Different methods must be independent of each other so as to provide independent estimates.
4) Procedures must be established for comparing the estimates obtained through different methods and for explaining any observed differences

[13] Deepa Narayan, 1993, "Participatory Evaluation: Tools for Managing Change in Water and Sanitation," World Bank Technical Paper No. 207, Washington, DC.

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Annex 1

African Country Experiences with Gender and Transport

Studies from African countries on the impacts of the quality of rural transport on the lives of women

Experiences from Burkina Faso

In a case study undertaken by the IFRTD in an area called Rollo consisting of 21 villages in Burkina Faso, researchers found that there is a single track leading from the main town of the region to Rollo (160 km). The track has been formed through usage and is not surfaced at all. In addition, it is basically a track that is disintegrating with use. In the rainy season, the lack of bridges and crossing places means that it becomes impassable to any/all means of transport, and then it is impossible to get relief supplies into the villages of Rollo, which are cut off. There are no roads/tracks linking Rollo with other towns or villages.

The means of transport used in the area are: donkeys, carts, bicycles and human portage. The first three are beyond the financial means of most people in the area, so human portage is the most frequently used mode of transport.

Women undertake most of the travelling, because of the nature of their combined agricultural and domestic tasks. It is also a feature of the area that women's fields are those furthest away from the village, handed out after the family plots have been selected.

Women also engage in basket making, pottery and soap making, to trade with other villages. The lack of transport infrastructure makes this trade very difficult. There are few wheelbarrows and donkey carts in the villages, but despite the fact that most transport tasks fall on women, they do not own any of them.

Experiences from Ghana

According to Porter, women, in many districts face considerable difficulties in getting their goods to the market, particularly from off-paved road allocations. This is because, feeder roads and tracks which constitute the most common type of road, deteriorate rapidly in the rainy season and many villages along these roads are completely cut off from traders and the main markets. Women have to headload their produce to the nearest motorable road for them to obtain good prices.

Experiences from Nigeria

Generally, the level of infrastructure development in Nigeria is very poor and a poor policy framework compounds the problem. The government invests more money in developing the urban and trunk roads but not the rural infrastructure. Rural communities rely on traditional transport means such as walking and animals for carrying loads. Women are constrained from owning IMTs by a combination of cultural, material and religious factors. Women under purdah, for instance, are prohibited from leaving their homes except by permission of their husbands even though they are involved in productive economic activities in

the household. Men are largely responsible for marketing of the household produce and although women make journeys to the market, they also send their children to market or purchase household goods for them. To illustrate the influence of religion on women's movement, of those surveyed in a case study done by Mohammed-Bello Yunusa, only 3.4% headload. In the remainder of the cases, (96.6%), women send their children to the markets.

Experiences from Sudan

A study of Jebel Si Rural Council, in Sudan shows that it is characterized by impassable roads. The direct consequence of this isolation is that women, who are the major farmers in the area, cannot get their produce out to the markets to barter for the best prices. The farmers' isolation also means that the women cannot get access to improved farming tools and techniques. The study found that food security is threatened as a result.

Experiences from Tanzania[14]

About 50% of the villages in rural Tanzania are not accessible by road during the rains. This is due to the fact that a large proportion of tracks and paths leading to these villages are impassable due to poor drainage systems and lack of general maintenance. Most travelling or trips for reaching social services and facilities are on foot and by women. Travel to reach fields and for marketing agricultural produce is also largely done on foot, particularly women.

A study carried out in 1996 in Kazimzumbwi district revealed that the district hospital is situated eight (8km) from the village. In the rainy season, when the regional road is impassable, women have to walk for about three (3) hours to the district headquarters to obtain health facilities. Women's transport burdens could be reduced if transport facilities such as IMTs, transport services and rural infrastructure could address the needs of both men and women. Women are limited from accessing these by many economic and socio-cultural such as are stated in the next sub-section.

Experiences from Uganda

Rural transport is not very well developed in Uganda with most districts having remote areas that are not easily accessible from the district headquarters. Headloading and walking are the most common means of rural transport and women carry out the majority of transport activities. Ownership and usage of IMTs is limited to well-to-do households.

A study carried out in the rural towns of Mpigi district, which is a main gateway to the capital city, Kampala showed that the district has a total of 851 kilometers of roads and of these 110 kilometers are tarmac roads, while 267 kilometers are gravel and 474 kilometers are dirt roads. As in Mpigi, rural areas in Uganda are primarily serviced by footpaths. The condition of the roads has made motorcycle taxis, commonly known as *boda boda*, an important means of transport in the rural areas of Uganda.

Experiences from Zambia

Headloading was found to be the most common method of transporting agricultural produce and water and fuelwood resources in the villages in Songololo in the Northern Province and Mwachilele in the Lusaka Province. Songololo lacks feeder roads and is serviced by paths and tracks and cultural barriers limit ac-

[14] Adapted from presentations by Josephine Mwankusye and Edward Mhina at the workshop in Tanzania in June 1999.

cess to bicycles by women. In the case of Mwachilele, men own bicycles while women only have the right of use.

Experiences from Zimbabwe[15]

Hilly and impassable roads and the need to facilitate easy and quick delivery of health services to homes and communities in the rural areas, necessitated the issue of bicycles to the Village Health Workers (VHW) through a joint Ministry of Health/UNICEF subsidized credit scheme (Jo Doran, 1994). Under the program, VHWs paid for the bicycles through installments deducted from their monthly allowances over a period of two (2) years. The program is still on going in Zimbabwe and was extended to the Village Community Workers (VCWs) when the VHW program was amalgamated with the VCW program.

According to an evaluation carried out by the Village Community Worker program in 1999 (Chisvo and Maramba), around 5 000 women have benefited from the program as they were issued with either imported Raleigh or Pashley 26 inch wheel ladies' bicycles or locally assembled Phillips 26 inch ladies' bicycles.

[15] Case study is a summary from Energy and Environment Technology Source Books: Rural Transport: by Jo Doran, 1996

Annex 2

The Six Main Kinds of Monitoring and Evaluation Studies Required for the Assessment of RTT Projects

There are a number of different kinds of information which management, planners, policy makers and donors may require on RTTP activities. Each of these kinds of information will require that a different kind of monitoring or evaluation study be conducted. The following are the main kinds of information and the corresponding monitoring or evaluation studies. The design of each of these studies is described in the following pages:

The main types of M/E studies which may be required for RTT programs	
Examples of questions which can be addressed through M/E studies	Study Design
1. Are the activities being implemented on schedule and within the approved budget?	*Input monitoring*
2. Are both men and women fully involved in the selection, design and implementation of the activities?	*Process monitoring*
3. Were the footpaths constructed according to the intended design and in a cost-effective and timely manner	*Output monitoring*
4. Are the activities producing their intended benefits, and do both women and men share in these benefits?	*Impact evaluation*
5. Are the activities and programs sustainable?	*Sustainability assessment*
6. Where the pilot interventions successful and should they be replicated?	*Replicability assessment*

1. Input Monitoring

Example: The implementation of a micro-credit to promote women's access to IMT.

Design

Periodic reports are prepared on the actual and planned: use of funds, number of orientation training sessions organized, numbers of staff recruited, numbers of financial institutions involved in the program, number of women who have acquired IMT etc. Gender-sensitive indicators would be used to compare women and men's access to credit.

Data sources

Most of the information can be obtained from secondary sources such as project records, records of lending institutions, records of suppliers of IMT etc. Interviews would also be conducted with project staff, lending institutions and a small sample of beneficiaries to obtain feedback on how effectively the project is operating. A random sample of households in the target areas could also be interviewed to estimate the proportion of households who know about the project and possibly to identify potential borrowers who were either discouraged from applying for loans or whose applications were rejected. Both women and men would be interviewed. Triangulation techniques would be used to check on the validity of information supplied by women and men and to ensure that women were not concealing any problems they had encountered (such as their husbands using the loan for other purposes).

Dissemination and use of the study findings

Short reports will be submitted to management and possibly funding agencies on a regular basis (perhaps every 3 months) reporting on the progress of the activity, identifying any problems and presenting recommendations on how they might be resolved.

2. Process Monitoring

Example: Assessing the participation of both men and women in the installation of village water pumps.

Design

1. Simple baseline study to provide information on the sources of water at the start of the project, the numbers of households having access to each water source and the time and cost of using each source.
2. The study is repeated periodically to measure to document the number of new water sources installed, the number of households using each one, and the average cost and time of water collection to each household.

Data sources

Baseline data will be collected from short survey of a random sample of households, a PRA study or by direct observation. Gender-sensitive indicators would be used.

Dissemination and use of the study findings

Short reports will be submitted to management and possibly funding agencies on a regular basis (perhaps every 3 months) reporting on the progress of the activity, identifying any problems and presenting recommendations on how they might be resolved.

3. Output Monitoring

Example: The construction of feeder roads

Design

Periodic reports are prepared on the actual and planned: number of roads constructed, length of roads, provision of complementary structures such as culverts, fords and bridges. The quality and unit costs of the work are also assessed.

Data sources

Much of the information can be obtained from project supervision reports and cost data of the finance division. Consultants or construction specialists from the project agencies are used to assess the quality of the construction. In many cases participatory assessment methods will be used to obtain the opinions of affected communities on the quality of the constructions.

Dissemination and use of the study findings

Short reports will be submitted to management and possibly funding agencies on a regular basis (perhaps every 3 months) reporting on the progress of the activity, identifying any problems and presenting recommendations on how they might be resolved.

4. Impact evaluation

Example: Impact of women's access to IMT on the marketing of agricultural produce, household income and women's control over household resources.

Normal

Design Model 1: More comprehensive impact evaluation design

The evaluation will collect information on each stage of the project implementation model presented in Figure 1:

1. Baseline data will be obtained at the start of the project on women's access to transport, the amount of agricultural produce grown, the amount marketed, income from marketing, time spent in the marketing process, post-harvest losses, household income and women's control over household resources.
2. The baseline study will be repeated at the end of the project to measure changes in each of the indicators.
3. Information will be obtained on the project implementation process and the effectiveness with which each stage of the project is completed.
4. Information will be obtained on the institutional context, economic and political context and the socio-economic characteristics of the community to assess how these affect project outcomes.

Design model 2: Rapid ex-post evaluation study

This model, which uses PRA and other rapid assessment methods, would be conducted after the project is completed. Baseline data would only be obtained from already available secondary sources. The study would rely heavily on household's opinions on how they had benefited from the project.

Data sources

(a) Short survey administered to a randomly selected sample of households before the project begins and after it is completed (design 1).
(b) Information from project records on the effectiveness of implementation of each stage of the project (design 1)
(c) Time-use and travel surveys might be used (design 1).
(d) Participatory methods to assess household opinion on project impacts (design 1 and 2)
(e) Observation, secondary sources and interviews with key informants to obtain information on the institutional context, the economic and political context and community social and economic characteristics. (design 1).
(f) Efforts would be made to ensure that all relevant indicators are gender-sensitive, and triangulation would be used to check on validity of the information.

Dissemination and use of the study findings

The study would be used to assess whether IMT interventions are an effective way to increase household income and to enhance women's control over household resources. Recommendations would be made as to whether, and under what conditions, this intervention should be included in future projects. The findings would be disseminated widely in the district and to the national and international stakeholders.

5. Sustainability assessment

Example: Upgrading of footpaths

Design

Maps and charts would be prepared at the start of the project to record the condition of the footpaths during different periods of the year (to compare dry and rainy seasons and also to assess how the footpaths stand up to heavy use during different stages of agricultural production. The charts would be updated at the end of the project, and after the project has been operating for at least one year to measure changes. Information would also be obtained on the maintenance procedures and how well they are carried out.

Data sources

(a) Use would be made of available secondary data (maps, etc).
(b) Maps and charts would be prepared in cooperation with the community and would be updated periodically.
(c) Observational methods would be used to assess the condition of the footpaths, to observe whether they satisfy community needs (including whether they are over-designed), and to observe maintenance procedures.
(d) Interviews would be conducted with key informants.

(e) Gender-sensitive indicators would be used throughout.

Dissemination and use of the study findings

A report would be submitted to project management at the time the project is completed. This would include recommendations on any actions which must be taken to correct actual or potential maintenance problems. The final report, prepared at least one year after the project has been implemented, would be disseminated widely at the district and national levels and to donors.

6. Replicability assessment

Example: Was the introduction of new IMT successful and should this be replicated in a future project?

Design

The assessment will draw on all of the information collected in earlier studies (particularly impact and sustainability studies) to assess how effectively the activities were implemented and what kinds of benefits they produced. An assessment will also be conducted of the cost-effectiveness of the component. This will estimate the unit cost of producing a particular benefit (person hours of travel time saved, increase in household income etc). Risk analysis might also be conducted.

Data sources

(a) Information collected by earlier studies.
(b) Assessment of the costs (money, community time, project staff time, materials, equipment etc) used in the implementation of the activities.
(c) Quantitative indicators of benefits obtained from earlier studies.
(d) Gender sensitive indicators and triangulation, to ensure validity, would be used throughout.

Dissemination and use of the findings

The findings will be included in the project completion report and in the planning documents concerning future projects. The findings would be disseminated widely at the local, national and international levels.