Module 5: Social and Environmental Issues

Women and rural transport in development

Session: 5.2
Part 1

Presentation: 5.2a
The Training Modules

Module 1. Policies and Strategies

Module 2. Planning, Design, Appraisal and Implementation

Module 3. Management and Financing

Module 4. Rural Mobility

This Module

Module 5. Social and Environmental Issues
Module 5: Social and Environmental Issues

Session 5.1 Social benefits of rural transport

This session

Session 5.2 Women and rural transport in Africa and Asia

Session 5.3 Transport and sustainable rural livelihoods

Session 5.4 Environmental impact assessment and management

Session 5.5 Concepts of rural transport surveys

Session 5.6 Role play on rural transport
1. Introduction

Learning Objectives

By the end of the session participants will be able to:

- Analyse the effect of transport issues on women’s main activities
- Develop recommendations for reducing women’s transport burden
- Describe strategies for gender based interventions at macro, meso and project levels
Session Overview

- Background and rationale from a World Bank perspective
- Analysis of women’s activities and transport
- Reducing women’s transport burden
- Effective strategies for advocating gender based transport interventions
The failure of past rural transport interventions

- Women did not benefit from past initiatives because they
  - ignored gender relations at the household and community level
    - men tended to monopolise IMTs intended to benefit women
    - men refused to allow their wives to use IMTs if they were seen as a threat to the man’s position in the household
Gender-analysis, monitoring, evaluation

- Helps identify the economic and social divisions of labour (household, community)
- Recognises cultural, economic and social factors constraining women’s access to economic opportunities
- Helps identify intervention strategies more likely to gain men’s support
Gender roles

Women’s roles include

- productive, reproductive and community management
  - … so they have numerous, diverse travel and transport needs

Women suffer the physical and health burdens of headloading most of the fuel, water and produce of the household
Gender and transport

Cultural traditions and male control of household resources mean
- women have less access to non-motorised and motorised transport than men

‘multi-tasking’, poor service access, poor vehicle access
- severely limits the time available to women for other activities
- .. and the timeliness for carrying out activities
Policy responsive to women’s needs

- Requires more **knowledge** of the effect of transport burden on
  - women’s availability for employment, access to markets and social services
  - economic losses
- Requires a **structured** approach to
  - understand women’s transport needs
  - identify instruments to address these needs
  - analyse costs and benefits of those instruments
  - establish an appropriate policy framework
**Time and transport**

Most transport projects use **cost-benefit analysis**
- undervalue the transport needs of women because they inadequately reflect the **opportunity cost of their time**

Analytical approaches that put a **value on transport time**
- are difficult to apply in developing countries with a high proportion of subsistence employment

A time saving approach should take into account
- value of time saved in carrying of water and fuel wood, and domestic activities
Evaluation of transport projects often exclude …

- **Trade offs** between the private and social benefits of improved transport
  - access to health and education services
  - economic and social empowerment of women
  - social inclusion of marginal rural populations

- **Impact** of better transport on women’s
  - labour participation and wage rates
  - social standing and empowerment
  - … and indirect effect on family health
Are gender focussed strategies and interventions worth the cost?

Women have worse/more expensive transport than men
- may be the result of more general gender inequality
  - access to the household budget, rather than biases in transport service provision

Transport interventions CAN be designed to help the most vulnerable, including women

Design process in rural road projects should
- prioritise the transport needs of rural women
- identify the potential for time and cost savings of appropriate interventions
3. Analysis of women’s activities and transport

- Agricultural activities of women and transport
- Domestic activities of women and transport
- Marketing activities of women and transport
- Non-agricultural income earning activities and transport
Women’s activities and transport

Group Discussion

How does women’s access to transport affect their ability to carry out these activities?

A. Agricultural
B. Domestic
C. Marketing
D. Non-agricultural income earning
Rural household labour has to meet time allocation requirements, e.g. agriculture
- women: subsistence crops
- men: cash crops

Division of labour assigns
- heavy physical activities to men
- time-consuming activities to women

Women have limited
- control over financial resources
- limited incentives to participate in many kinds of agricultural production
Seasonal variations in labour demand affect time allocation of household members.

Kenya survey of farm labour:
- Women spend 4.5 hours/day in the low season.
- 6 - 9 hours/day in the peak season.
- Hours women spent on other activities increased in low season - water and fuel wood collection.
Agricultural activities of women and transport

Transport requirements for agriculture influenced by

- distances between fields: 1 - 20km
- transport means used
- loads carried: headload 20kg per trip
- topography
- travel speed
- health status of travelling person
Women tend to make more trips than men
  - combine agricultural activities with domestic responsibilities (preparing meals, collecting water, child-care)

Location of fields
  - cash crops tend to be closer to the homestead than food crops
  - women tend to travel further than men
Women’s **limited access** to motorised transport for marketing
- added burden - longer trips
- post-harvest losses

**Access to simple equipment may double the volume** of produce women can take to market
- wheel-barrow, bicycle
Path and track problems make travel and transport by walking and headloading:
- arduous, time-consuming, dangerous
- inefficient due to the limited load being carried
Women combine farm and household activities, and have limited access to transport
- limits the degree to which they can engage in agriculture

Domestic activities:
- collection of water and firewood
- preparation and cooking of meals
- food processing and storage
- child rearing
- cleaning and washing
- household purchases and errands
Domestic activities of women and transport

Conventional economic analysis

- failed to capture the high economic & social value of domestic activities
- grossly underestimated role of domestic work in livelihoods of households

Women perform 80% of domestic work

- ... so bear the brunt of corresponding transport tasks
Transport tasks for domestic work are almost inflexible.

**Timing** of different transport requirements means
- A choice has to be made between conflicting responsibilities, such as
  - Immediate need for water or longer term need for food production.

**Zambia and Tanzania**
- 90% of all energy spend on load carrying was for water, firewood, food for grinding.
Domestic activities of women and transport

A closer look at:

- Fuelwood collection
- Water collection
- Food processing and preparation
- Childcare
Women provide **90%** of wood that is consumed by the household

- but only **70%** of wood collected for sale

**Firewood**

- transported by headloading a few times a week

Credit: TRL Limited
Collecting firewood

- becoming more arduous & time consuming
  - depletion of firewood reserves
  - women have to travel further
  - impacts on family nutrition and health - fewer cooked meals

Other energy sources of energy tend to be

- too expensive or unavailable
Transport burden of firewood collection also depends on the location of the source
- firewood collection may be combined with trips for agricultural purposes (if appropriate)

Substitution of wood sources with agricultural residues - cow dung and cassava stalk
- cultivatable land is being denied valuable fertiliser
- reducing the potential for surplus crop production
Travel time for water collection

- 2 - 4 hours per day
- excluding the time spent queuing at the source
- significant increase in the number of trips for water collection in the wet season
Food processing & preparation

**Trips** to grinding mill/hammer mill to process maize, cassava, wheat, millet
- usually by foot

**Tanzania studies**
- 2 – 8 trips to grinding mill/month
- overall distance 3 - 9km
- average weight 18kg/trip

**High transport requirements =**
- women served fewer cooked meals per day
Inefficiency of ‘passenger traffic’ on women’s productivity

- weight of a child goes unrecorded
  - women carrying loads with additional weight
  - further increases travel time
  - health implications of overloading & risk of injury

Time used taking children to school and health clinics

Women may travel home from the farm or market at midday to feed children

- travel burden and complexities of multi-tasking
Marketing activities of women and transport

Sub-Saharan Africa

- majority trips to market - by men
- women play a major role in marketing transport
  - especially West Africa: 4 out of 5 women engage in crop marketing

Women tend not to be involved in marketing initiatives

- if transport infrastructure & means is inefficient

South East Asia (+ India)

- rural women travel extensively outside the village
- major responsibility for marketing
Marking activities of women and transport

Men
- tend to capture all **external contacts**
- responsibility for marketing activities **outside** the local sphere
- **exception of West Africa - Nigeria**, where women dominate marketing and transport

Women
- trip rates = high
- distances = shorter
- travel times = shorter

.... than those of men
Farm to market distances vary according to the permanent or periodic character of markets

- 90% of rural households travel 10-13km to reach a permanent market
  - except coastal areas
Increasing landlessness, plus economic and demographic forces

- created need for non-agricultural employment in rural areas
- women particularly vulnerable to displacement from land by commercialisation of agriculture

Increasing non-agricultural occupations for women (low labour demands for agriculture):

- more female headed households (22%) in sub-Saharan Africa
- need for surplus income for basic household items
- ... and school and health centre admission fees
Majority of income earning activities carried out by women require

- significant **inputs** of water and firewood
- **time** consuming due to transport involved in fetching these resources

In sub-Saharan Africa

- fuel **availability** and distance to fuelwood sources affect women’s ability to earn income directly
Tanzania study

- 73% of women studied brewed local beer
- of these 75% said brewing was main source of income
- each preparation of beer requires the same firewood as the weekly requirement for cooking
  - = 2 extra trips per week to collect wood
  - = 9.6 hours/week extra added to women’s time budgets
Addressing women’s transport issues

Group Discussion

_In what ways might the issues facing women with regard to transport be addressed?_
4. Reducing women’s transport burden

Transport interventions

Non-transport interventions
Transport interventions

Traditional means of transport - headloading
- huge direct costs
  - not taken into consideration in economic analysis
- enormous indirect costs
  - diversion of time and effort from productive work, ill-health

Requires a strategy with appropriate interventions
- performance matches women’s needs
- cost is related to income
- can generate income
- can be maintained locally
Intermediate Means of Transport (IMTs)

- virtually the only operable modes of transport in many rural areas
- though not a universal panacea!
- innovations in IMTs can be far reaching
- adoption often hindered by the absence of an effective demand and supply relationship
- e.g. bicycles with carriers, ox carts, pack donkeys
- most carts & bicycles owned and used by men
- few IMTs used by women (Sub Sahara Africa)
Rural women can collect water and fuelwood more effectively by **bicycle**

**Motorised IMTs** not widely adopted in Africa

Power tillers most successful
- in areas of irrigated rice production
- high population density
- close to towns - for maintenance

Other motorised IMTs
- most successful in peri-urban areas with economic demand & supporting infrastructure
- used almost exclusively by men
Adoption of IMTs (especially Africa) is hampered by:

- lower economic activity
- lower availability of certain materials
- fewer cultural exchanges
- smaller information flows
- high seasonality of cash flows and transport demand
- concentration on traditional economic uses
- lack of credit for initial capital outlay
- suppliers reluctant to invest in IMTs if they feel demand is low
Rural development programmes need to create conditions that **favour IMT adoption**

- viable support services near local markets
- where women's needs can be directly addressed
Most IMTs
- owned and used by men
- initiatives determined by and designed for men
- major beneficiaries are men

Women are marginalised from use of IMTs
- lack of purchasing power relative to men
- cultural issues e.g. bicycles, ox carts considered ‘male’ domains
- less access to information, capital, credit, cash incomes, profitable transport activities
- viewpoints less heard
- few transport projects incorporated gender analysis in designing IMT components
Integrating gender into IMT strategies requires ways of:

- identifying gender differences in transport needs and priorities
- addressing gender inequalities in transport interventions
- including women’s perspectives in decision making processes – policies, IMT initiatives
- supporting low cost manufacture, marketing, distribution systems
- addressing supply issues - credit, subsidies
- developing income generation schemes e.g., labour-intensive construction methods
Transport interventions

- Differences in the design requirements of IMTs for women and men
- Market for IMTs was dominated by sales to men
- Few economic incentives to design IMTs for women
- IMT programmes need to create a ‘critical mass’ of women users to justify the manufacture and sale of suitable IMT designs
Transport planners and decision makers
- potential for women transport contractors

**Senegal & Niger** - biases against women entrepreneurs
- small women-owned firms had difficulty raising the deposit when bidding for contracts
- in labour-intensive construction & maintenance - women tend to be excluded from employment opportunities (cultural inappropriateness, other responsibilities)

To increase **opportunities** for women
- ensure a proportion of the labour force for road maintenance is women (Zambia, Lesotho)
Non-transport interventions

- **Magnitude of the transport task**
  - may have little to do with the direct transport constraints
  - access and availability of the goods to be transported - water, fuel, crop processing

- **Interventions to relieve transport problems**
  - include equipment/technologies to
    - process food crops
    - collect and store water
    - reduce the amount of firewood and charcoal needed for cooking
Unlikely that non-transport interventions will solve all women’s transport problems

Rural planners should focus resources in optimising access to basic facilities and services

- water wells, woodlots, schools and health centres to reduce the time and energy expended by women on a daily basis

Requires

- thorough consultation with service users
- liaison with other sectors - transport
5. Effective strategies for advocating gender based transport interventions

National policy level

Gender capacity building in ministries to
- ensure gender equality in hiring and promotion
- develop expertise in gender analysis and participatory planning

Economic and transport planning tools
- value women’s economic contribution and time
National policy level

- Co-ordination between sectoral agencies
  - education, health, agriculture
- Gender-sensitive approaches incorporated into national Poverty Reduction Strategy Papers
Regional and district level

☐ Establish inter-agency co-ordinating committees
  - Rural Travel and Transport Programme (RTTP)
    - how to finance transport services for education, health and economic development which involve different agencies

☐ Promotion of gender-sensitive participatory planning and consultations
Project Level

- Participation by women in the planning and design of interventions

The Action-Research Programme (ARP)
  - initiated in 1998 – part of Government of Tanzania’s Village Travel & Transport Programme
  - example of a project that advocates community empowerment for planning, self organisation and implementation of appropriate interventions
  - promotes gender mainstreaming as a pre-requisite
  - ARP was successful in stimulating self development of vulnerable groups, including women
Approaches for women’s involvement in transport programmes

- Better identification of the problem
  - gender disaggregated data and research - rural transport problems, needs and priorities

- More interventions
  - appropriately designed and disseminated to address gender inequalities

- Greater understanding of impact of transport programmes
  - little evidence of impact on women’s transport burden, lives and livelihoods.
Approaches for women’s involvement in transport programmes

- Increased women’s participation
  - in decision-making about transport policies, priorities and investments at national level, decentralised (district) level, within communities
  - without such participation - difficult to see how rural transport strategies can address gender issues with practical implications for the lives of women
Concluding Remarks

- Continued gender inequality in transport
- Women spend more time and energy on transport tasks than men
- Transport interventions, including IMTs have favoured men more than women
- Transport programmes need to address these inequalities
- Effective advocacy requires awareness raising amongst policy makers

For more information on gender and transport issues: World Bank Gender and Transport Thematic Group (GTTG) website at:

www.worldbank.org/gender/transport