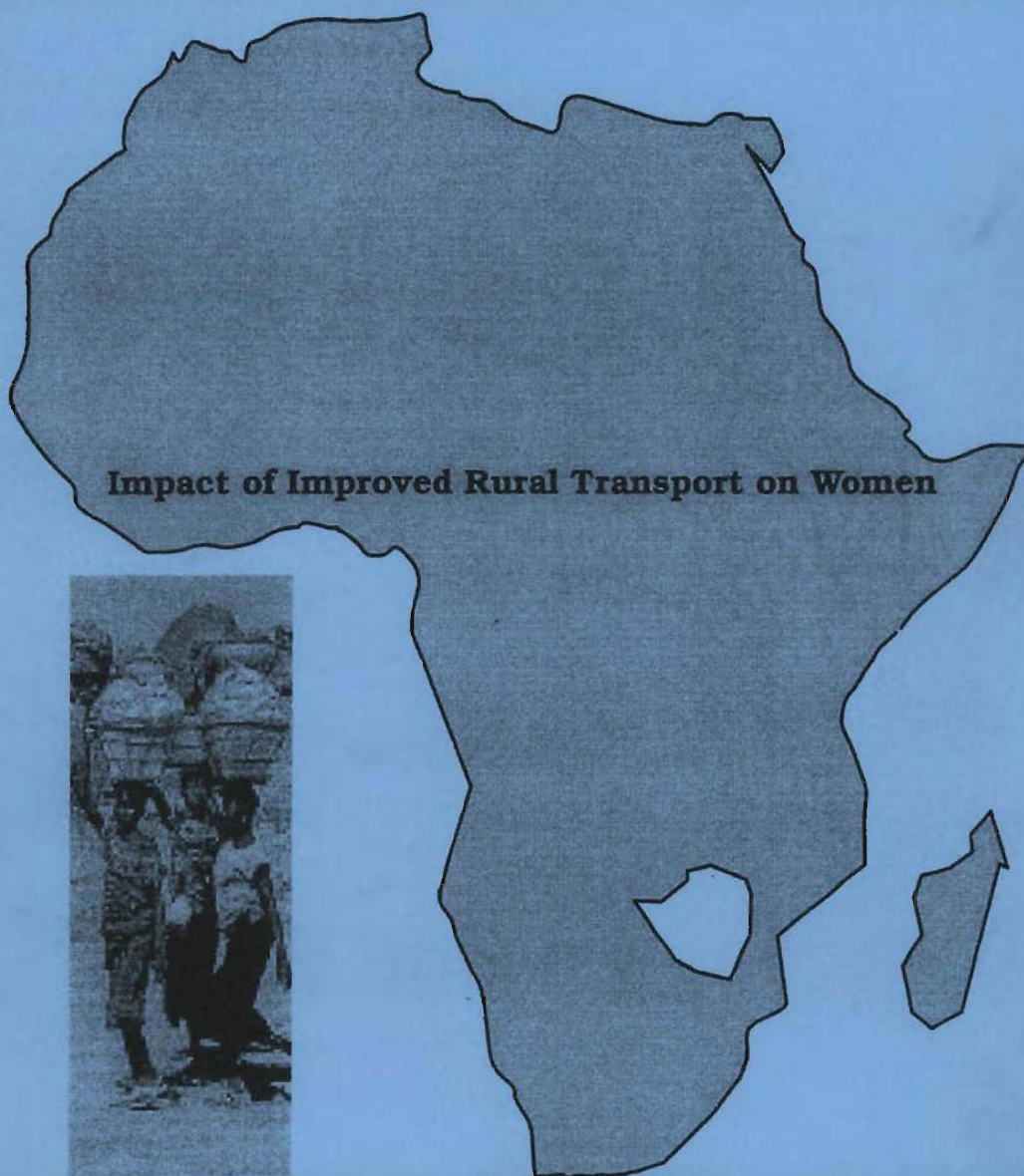


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ECA/RCID/80b/98

**ECONOMIC COMMISSION FOR AFRICA
COMMISSION ECONOMIQUE POUR L'AFRIQUE**



Country Report : ZIMBABWE

IMPACT OF IMPROVED RURAL TRANSPORT ON WOMEN IN AFRICA

August 1999

I. Introduction

This document is the synthesis of the findings of five studies carried out by Economic Commission for Africa in Burkina Faso, Tanzania, Uganda, Zambia and Zimbabwe on the impact of improved rural transport on women in Africa. The objective of the document is to draw some general conclusions about the impact of improved rural transport on women which could assist the countries in developing national transport policy.

The documents is in two parts. Part I outlines an analytical framework on women and transport and Part II provides a synthesis of the studies. Ideally, the analytical framework ought to have been developed prior to the research and used as the basis for the case studies. The fact that this did not happen will probably be evident in the gaps between the issues raised by the framework and those addressed in the country studies.

II: Analytical framework on women and rural transport

This section highlights the key issues relating to women and rural transport and shows how any analysis of the impact of rural transport on women should take these factors into account.

A. Rural transport: an alternative approach

The conventional approach to developing transport in Africa, as in other parts of the developing world, has been to invest in roads and motorised transport systems. The recognition that roads are not enough has emerged in the 1990s from the disillusionment with the expected benefits of capital intensive infrastructure, the increasing concern about sustainable development and the eradication of poverty. Most rural communities in Africa are not on national road networks. Even where there are links most rural women and men cannot afford the use of motorised transport to meet their daily transport needs. People and goods continue to be transported on foot, and the lack of transport constrains agricultural production and rural development. Many rural areas remain isolated and poor. Tackling the issues of poverty and isolation in rural parts of Africa requires a change in approach to transport planning and policy making that goes beyond the conventional concern with road networks to look at: Improving village infrastructures – such as paths, tracks and footbridges.

- Encouraging the purchase and use of intermediate means of transport i.e. means that fall between the two extremes of walking and large four wheeled motorised vehicles (cars and trucks). Intermediate means of transport include pack animals, animal carts, bicycles and motor cycles.

- ❑ Promoting the provision of adequate and appropriate rural transport services, so that those who do not own their own means of transport will have opportunities to be mobile.
- ❑ Locating services near where people live so that they do not have to travel great distances.

This alternative approach is supported by ideas of decentralisation, sustainability and participation which aim to design transport policies that take into account the needs of rural women and men. The increasing liberalisation of African economies, the diminishing role of government, and the new government-private sector-civil society partnerships put the market process at the centre of sustainability and scaling up of developmental impacts. These policies seem to allow plenty of opportunities for making people the focus of the development. It must be remembered however, that tackling the issues of poverty eradication and isolation means targeting people who exist at the margins of the market economy because of their physical remoteness, their low incomes and purchasing power and their lack of economic opportunities. Many of these people are women and it is they who could be left out of a process that relies on perfect market solutions.

B. Gender

Activities, resources and opportunities of people are significantly influenced by gender - that is, by the socio-economic and cultural aspects of being male or female. Different types of activities and tasks are generally allocated to women and men within the family, in household production and in production for the market. Typically, gender roles and responsibilities can be divided into three categories. Child bearing and rearing responsibilities and domestic tasks relating to the maintenance of the household (cooking, fetching water, collecting firewood) are referred to as *reproductive roles*. In most societies these are the responsibilities allocated to women. Women and men also carry out *productive roles*, producing food or cash crops, working in the formal or informal sector. There are also *community related* roles. These relate to management of collective community resources and the participation in formal community politics). (Moser, 1994)

Gender is also about power relationships. These power relationships are rarely equal and in most societies they reflect male dominance and female subordination. This is supported by differential access to resources. At a *practical level*, women and men need resources to carry out their gender allocated responsibilities. At a more *strategic level*, gender needs include legal rights, ownership and wages. Meeting strategic gender needs implies achieving greater equality between women and men.

C. Gender and rural transport

The different types of tasks and responsibilities of women and men imply that women and men have different transport needs. In many countries, for example,

trips to collect firewood and water are predominantly made by women (and children). Farming and marketing tasks also have specific gender characteristics. Women and men grow different crops on different fields. In some communities, women providing food for the family through subsistence farming are often allocated the poorest fields furthest from the village. This increases their daily travel distance (Bryceson and Howe 1992). Women and men may also differ in the crops they bring to the market and the distances that they have to travel to those markets.

Most rural transport whether it is by women or men is carried out on foot with loads carried on the head or back. In Africa, the gender division of transport labour is particularly rigid when it comes to human portage. Where water or harvests are transported on the head or on the back, women and children almost exclusively do it. Men will however, transport water on bicycles, or in ox carts.

The use of these more efficient transport technologies (bicycles, ox carts etc) or the provision of transport services can reduce the transport burden of women and men. Access to transport technologies and transport services is rarely equal. A study on the impact of the introduction of scotch carts in Zimbabwe has shown that most often transport technologies are owned by wealthier households and that both women and men in poorer households usually walk (Chingozho, 1999). However, because women generally have less access to assets and fewer rights to dispose of them their ability to own and acquire appropriate time and energy-saving transport technologies is even more restricted. In many African societies, donkeys are designated as animals to be used by women and enable women to more efficiently carry out their domestic transport activities. Even then in many of these societies it is the men that own and control the animals and women are unable to purchase or sell donkeys (Fernando & Starkey 1997).

Gender power relations, social attitudes and beliefs also restrict women's access to means of transport. Cycling is a very common form of transport in some African societies but women's use of bicycles is often restricted. Women usually have neither the purchasing power to acquire a bicycle nor in many cases the social acceptance of riding one. In the Mbale District of Uganda bicycle ownership and use was monopolized by men. (Malmberg Calvo 1994). In Mpigi District, women also feel constrained to use the *boda boda* bicycle taxis because of the seating arrangements and the cultural inhibitions about holding on to male operators (Iga, 1999).

In Mbeya, Tanzania, 50% of the male farmers used ox carts for water and firewood collection to satisfy the needs of the agricultural and other income-generating activities. For water and firewood collection for domestic consumption, women made little use of the carts (Doran, 1989). In Zimbabwe the traditional perception that women are incapable of managing work animals has among other reasons meant that they are rarely seen using ox-drawn scotch carts. Yet this seems likely to change as owing to male migration, women often perform "male" tasks with teams of oxen and steel ploughs (IT Transport 1996). Some observers have commented that in some countries of Africa the perception of women as "natural transporters"

has inhibited their use of transport technologies. Bryceson and Howe state that African women frequently express the view that a man, having paid the bride price, then expects his wife to perform the load carrying tasks as part of her obligations to her husband's households (Bryceson and Howe, 1993). Some men will invest in reducing women's transport burden only if there is a direct benefit to them. It is said that in certain parts of Tanzania, the men supported an improved water supply scheme only because their meals were delayed because women spent so much time fetching water (Doran 1996). In the Kitui region of Kenya, Curtis (1986) suggests that one of the reasons for high ownership of donkeys is that water sources were so distant that men often had to help the women with carrying the water. So they decided to use donkeys instead.

Quite often, women's access to transport technologies is also constrained by the inappropriateness of the design of the technology and its method of dissemination. Initially, in the Makete Integrated Rural Transport Project in Tanzania, the promotional messages did not reach a large number of women. Because of their restricted mobility women had only limited exposure to donkey use where the animals were being used in neighbouring villages or by traders (Jennings 1992). The Northern Region Feeder Roads programme in Ghana set up compulsory saving schemes for women working on the roads to purchase cycle trailers. They were very unpopular. Women working on the scheme did not own or ride bicycles so the trailers were useless to them; they were also very expensive relative to incomes and did not work well on village footpaths (Starkey, 1999)

National policies have inhibited access to means of transport. In many East African countries, policy makers considered bicycles a luxury good and taxed their import accordingly. This made the price of bicycles prohibitive to both rural men and women. Changes in tariffs have resulted in greater use of bicycles in Uganda and Kenya - and the development in several rural towns of bicycle based transport services (*boda boda*). These transport services provide for journeys between villages and rural towns and are also a source of employment for young men. Women are rarely operators of these services (though some own bicycles which they hire out to male operators). Greater availability of transport services does not necessarily translate into benefits for women. In Mpigi District in Uganda, the benefit women derive from the *boda boda* services is limited because a bulk of women's transport tasks are carried out within the village and not between the village and the town where the service operates (Iga, 1999).

Gender differences in transport need and provision leads to gender differentiated consequences. Studies in Africa have, without exception indicated that women spend more time on transport activities than men. In Sub-Saharan Africa, they are responsible for nearly 70% of the time spent on transport and nearly 85% of the effort (Urasa 1990).

Much of women's transport burden is related to her reproductive and domestic responsibilities and are the result of the gender roles allocated to women in the different societies. These domestic activities do not generate income, but are indispensable for the survival of rural households. Water and firewood collection

account for 50% of time and effort spent on transport tasks. Water collection especially is one of the most burdensome activities due to the lack of easy and quick access to water sources (particularly in arid and semi-arid areas), the inability to transport large quantities at a time and the poor conditions of the transport routes. As an extreme case, in some parts of Mozambique women spend more than fifteen hours a day collecting water, and in Senegal about seventeen-and-a-half hours (UNDP 1995).

For many women the domestic workload has increased. The intrusion of the cash economy into many rural villages in sub-Saharan Africa has had a significant effect on the gender division of labour. In traditional agriculture, women have been responsible for the cultivation of food crops and for the more burdensome and time consuming activities like weeding and the transport of the harvest. Men were responsible for cash crops and livestock and heavy physical activities such as land preparation. The economic changes have forced women to sell some of their surplus, to spend more time on their husbands' cash crops and engage in a variety of income-generating activities.

Deforestation and overgrazing of pasturelands have led to soil erosion, the loss of fuel wood and depletion of water sources. Changing demographic and land use patterns have made the distances to fields, forests and water sources much greater and increased the travel time for water and fuelwood collection. Increased use of educational and modern health facilities and women's engagement in wage labour and petty trading have also increased women's transport activities.

The heavy loads and energy required take their toll on women's health and on the health of their families. The loads that women carry make demands on their metabolism that are not met by their nutritional intake in many developing country villages. It also puts an excessive strain on their skeleton, leading to spine deformities and the early onset of arthritic diseases (Page 1996). Girl children are often kept out of school so that they can assist with transport and other domestic tasks.

D. Invisibility of women

Transport planning for rural areas of developing countries has traditionally been concerned with economic sectors - mainly with the transport of primary produce to cities and the distribution of manufactured goods to the periphery. New planning methodologies have challenged this approach and aimed at developing participatory ways of identifying the full range of transport demands. Domestic tasks are less visible and despite a growing recognition that much of the transport demand is related to the domestic responsibilities of rural households, planners and decision-makers seem reluctant to move away from purely economic criteria for prioritising transport-related interventions. This means inevitably that women's transport needs are not always integrated into project plans and policies. The low participation of women in the decision-making processes that prioritise and design interventions also limits the implementation of more appropriate interventions.

E. A framework for analysis of impact of improved rural transport on women

As we discussed in the first section of Part I of this paper, rural transport can be improved through policies and interventions that deal with :

- improving rural (and particularly village) infrastructure
- improving the availability of intermediate means of transport
- improving transport services
- providing facilities closer to people so that it obviates their need for travel

At another level, rural transport can be improved through greater participation of rural women and men in the planning, implementing and policy making structures that deal with the above type of interventions. This probably involves greater decentralisation, increased community participation in development planning and implementation, and democratic government. It also involves active targeting and involvement of particularly vulnerable groups – particularly those on the margins of the market economy.

For rural women in the developing countries of Africa, the benefit from improved transport takes place at two levels. At the *practical level* it can help them to more easily carry out their gender allocated tasks. For most women in Africa this would mean less time and energy spent on domestic tasks such as collection of firewood and water, or distances walked to the field, market or health centres. Time saved could be used for much needed productive or leisure activity.

At the *strategic level*, improved transport can benefit rural women by positively influencing gender relations. It can help decrease the subordination and marginalisation of women and create greater equality between women and men. For instance, better access to transport technologies can increase women's asset base, enable women to earn greater incomes and breakdown traditional perceptions on women's use of technologies. This in turn can stimulate greater ownership and control of transport technologies and increased mobility for women. Increased mobility and greater exposure can lead to better education and health and greater political participation.

Several *strategic benefits* can be obtained by women organising and working together. For example, in the Kajiado district of Kenya, Maasai women have started using donkeys to fetch water – a task the women used to spend several hours a day on. Women's groups band together to carry out this task, sharing the use of the donkeys with those women who do not have access to them. With the time saved the women have started agricultural production and as a group have succeeded in building a schoolhouse especially so that their daughters can get an education (Noyes and Fernando, 1999).

Greater participation of women in the planning and decision making process can also have benefits at both the *strategic* and *practical* levels. It must be noted however that benefits at the *practical* level do not necessarily translate into more equitable gender relations. For instance, there is some evidence to show that the introduction of intermediate means of transport to an area can begin to save women's time even if they do not own or use the technologies. Men or boys with bicycles or carts often take over the tasks of collecting water or firewood using these technologies. But this does not necessarily change women's gendered and subordinate position. Sometimes it could even disempower them. A study of the changes in transport provision to tribal communities in India has shown that once cycles were introduced, the men took over the marketing of forest produce. Though women were freed from the burden of headloading and walking long distances to the market, they lost control of the cash income from the sale of the produce (Rao, 1999).

Studies engaged in the analysis of the impact of improved rural transport on women, they must consider the situation from several perspectives. In the first instance they must establish whether an improvement to rural transport has indeed taken place and whether the interventions initiated by government, private sector or the people have effected *changes* to the travel and transport patterns of women and men in the rural areas. It is important to understand what these changes are. Secondly, the studies need to assess whether the changes have had an impact on women at the practical or strategic level. Are women's transport burdens reduced? Are there any perceptible changes to gender relations within households and communities where the interventions have taken place? Are these positive or negative for women? A third perspective is an assessment of changes to the level of involvement of women in the planning of policies and interventions in transport and the impact of these changes, if any, on the lives of rural women.

F. The analytical framework and the country studies

The country papers prepared on the five countries complement earlier research on women's case studies. They emphasise the magnitude of the transport burden on women and the domestic nature of women's transport tasks. The Zambia country paper for example, states that a typically adult female in the northern part of the country spends nearly 1000 hours per year (the equivalent of 2.7 hours per day) on transport tasks. In Zimbabwe, the paper suggests that in certain districts fetching water entails on average four trips a day carrying a 25 litre bucket for 2-3 hours. The country papers also confirm the limited access that women have to transport modes. In Burkina Faso and Zimbabwe papers, the authors state quite clearly that intermediate means of transport are most often only accessible to people of wealth, and this often does not include women. The Ugandan paper draws on other studies to show that even though the bicycle is the major means of transport in the Eastern Districts of Mbale and Tororo, their use by women is restricted because of "cultural perceptions and limited access to money women".

The country papers describe national policy formulation relating to rural transport and analyse the impact on women of selected improved rural transport interventions.

This paper will comment on this analysis and try to draw out some conclusions for the impact of rural transport on women. This paper is limited to the experience of the five countries studied and within those countries to the initiatives selected by the authors of the country papers. The value of generalising from these rather selective examples is somewhat limited.

It is important to note however that the country papers, and therefore this synthesis, focuses on "improved rural transport interventions" in terms of government policies and programmes and, to a lesser extent, on the projects of non-governmental organisations. This may seem to imply that rural women and men are passive recipients of "development". This is furthest from the truth. While the lack of appropriate state policy and intervention can and does constrain how rural people react to their situation, it is also true that they are actively engaged in manipulating the environment and taking advantage of changes in the social, economic and political environment to meet their needs. There are rural transport interventions that are examples of peoples' initiative (such as the growth of *boda boda* bicycle and motor cycle taxis in Uganda and in neighbouring Kenya) and of commercial responses to market situations (such as the expanded market for cart technology in some parts of West Africa). Unfortunately an analysis of such spontaneous community and market innovations is beyond the scope of the country studies and therefore of this paper.

III: Synthesis of country studies

1. Rural Transport Development

1.1 Policy Formulation and Institutional Frameworks

The five country studies show markedly different ways in which national policy on rural transport has been formulated.

According to the country papers, Burkina Faso, Zambia and Zimbabwe have no explicit rural transport policy. In Burkina Faso, the central government's primary concern is developing urban, inter-urban and national roads. The planning of approximately 6000km of unclassified, desert rural, agricultural and mining roads are left to the uncoordinated efforts of particular interest groups such as funders, professional groups and NGOs. The country paper also points out the disparity in resource distribution between investment in the classified network and the development of the rural network. In Zambia, transport development has taken place along the lines of the colonial era, when north-south rail and road corridors were built to access Zambia's mineral resources. The rest of the country remained (and largely still remains) underdeveloped. The main preoccupation of these other regions is to develop connectivity to the system. Zambia has no national transport policy, but transport provision has been reflected in various national development plans. The strategies for improving rural transport have included the modernisation of the Zambia railways and the development of feeder roads for opening up new areas of economic potential. The implementation of these plans has been constrained by the lack of government funding. Two recent programmes, ROADSIP and the Rural Travel and Transport Programme (RTTP) aim to promote and facilitate the development of a more efficient and reliable transport network. ROADSIP is concerned with the maintenance of infrastructure and RTTP with the creating of an effective policy and institutional framework to develop mobility and accessibility in the rural areas.

Zimbabwe has no rural transport policy either though there is now a growing awareness of the need for one. The Ministry of Transport is working towards designing a transport policy for rural areas that will complement the policy in urban areas and the Government is trying to clearly define the responsibility of the different agencies through its decentralisation programme. A study on rural transport needs was conducted by the Government of Zimbabwe in collaboration with the ILO in three districts of the country. The country paper points out that there are many activities of the sectoral ministries that have helped reduce the burden of rural transport by bringing facilities such as water points, schools and health centres closer to the people and by developing Growth and Business Centres.

The Ugandan government has explicitly recognised the need for an efficient transport sector for the development of an integrated and self-sustaining economy. It emphasises the development of transport infrastructure to stimulate agricultural production and achieve growth. Government policy aims to liberalise and privatise

road works and to create an enabling environment for the process of effective and safe transport services by the private sector. The policy also encourages local communities to participate in matters relating to road infrastructure in their areas through the use of District Works Monitoring Committees to which they elect representatives.

Tanzania acknowledges the need to relieve rural dwellers of walking long distances and of the burden of human portage as a prerequisite to attaining efficiency in the performance of the agricultural sector. The Tanzanian National Transport policy identifies three levels of intervention in the transport system. At the household and village level, the system caters for agricultural and other household activities. At this level the policy requires transport infrastructure to be developed and maintained by the villagers themselves and sees the ownership of transport equipment as a combination of private, co-operative and communal ownership depending on the existing socio-economic conditions. At the district level the model that predominates policy is that of road and motor vehicle transportation.

While the differences in policy formulation reflect the levels of acceptance by national governments of the need to address rural transport needs, they do not necessarily reflect how far practical interventions to improve rural transport have been implemented. Sometimes, changes in policy can stimulate spontaneous changes to the rural transport situation. Howe and Dennis (1993) attribute lack of foreign exchange and tax and import duty induced high prices, for the decline in bicycle stocks in Africa for about two decades from 1975. In many East African countries once the government removed these restrictive taxes, the availability of bicycles in the countries grew significantly, leading to their becoming one of the key modes of transport for rural people. In many instances however, the translation of policy into practical interventions is limited by economic and political considerations.

1.2 Policy implementation – programmes and projects

The country papers describe several programmes and interventions to improve rural transport and use these interventions as the basis for analysing the impact of improved rural transport on women. It would seem that the interventions described in the studies fall into five different “categories”:

1. **Road Development Programmes.** These programmes have the rehabilitation or construction of parts of the road network as their main objective. In the country studies the projects that fall into this category are: the Tanzanian Integrated Roads Project, the Ugandan Rural Feeder Roads Rehabilitation Programme funded by USAID, PASCE-T or the Programme d’Adjustmment Sectoriel des Transports in Burkina Faso and the ROADSIP programme in Zambia. The last also has a transport component that aims to go beyond the development of infrastructure to provision of transport services and of intermediate means of transport.

2. Rural Development Projects where the main objective is to develop a rural area or community or an aspect of the rural situation (e.g. agriculture or health services) but which include a transport development component. In Uganda the Hoima District Integrated Community Development Project and the South West Region Agricultural Rehabilitation Project fall into this category.
3. Integrated Transport Programmes. The Tanzanian study describes the pioneering Makete Integrated Transport Project and its successor - the Village Travel and Transport Programme (VTTP) and in Zambia the World Bank's Rural Travel and Transport Programme is just beginning to take shape.
4. Programmes to develop intermediate means of transport or transport services. These are often non-governmental programmes since most governments are keen to leave these aspects of transport to the private sector. The Zimbabwe case study describes the programme of the Intermediate Technology Development Group.
5. Programmes that improve the facilities available in rural areas. In the discourse on rural transport these are often referred to as "non-transport" interventions which result in reducing the travel and transport time and effort by bringing facilities closer to people. Of the five country papers it is only Zimbabwe that takes into account the other sectoral programmes of government that are providing facilities such as water points, schools and health centres.

1.3 Impact of Improved Rural Transport on Women.

This section looks at evidence presented in the country studies for the impact of rural transport interventions in each of the "categories" of intervention listed above. Overall, the evidence is limited by the lack of gender disaggregated data.

1.3-1 Impact of Road Development

The Uganda country paper describes the general impact of the USAID Rural Feeder Road Rehabilitation Project as

- (i) an increase in the use of and preference for motorised transport;
- (ii) better access to a range of service centres;
- (iii) reduction in travel times and costs for middle income earners and in vehicle operating costs

We have seen that generally in Africa women's transport tasks are focussed on domestic activity, on trips that take place in and around the village, in particular in collecting water and firewood. We do not know how much the rehabilitated feeder roads enabled women to reduce the time they spent on these tasks. It is not clear either what proportion of "middle income earners" who benefited from reduction times are actually women. Women do need access to health services and markets and reduction in travel time would certainly benefit their time budgets. We have seen that women rarely own transport modes and are limited in their use of transport services by their lack of access to cash. In such a context, it would seem unlikely that women would gain much benefit from the increased motorization of the transport system.

The analysis of the impact of the Integrated Roads Project in Tanzania provokes some interesting observations. The country study describes the direct benefits of improving the Kwa Sadala - Mbweera road as cost savings to users. As in Uganda, we do not have a breakdown of these users by sex. The study describes indirect benefits as those deriving to the whole community from increased agricultural production. The value-added to agriculture comes from the introduction of more perishable but higher value crops such as beans and tomatoes. The study states that these high valued cash crops belong to men. Women grow vegetables and fruits. It is likely then that the road development has had less impact on women's agricultural activity than it has on men's.

The Tanzanian country study provides some interesting information about changes in selected socio-economic activities due to the improvement of the Kwa Sadala - Mbweera road. From the data it would seem that availability of agricultural inputs and equipment, access to markets, and access to consumer goods seem to have improved considerably with the improvement of the road. However, what would be a key responsibility of women - access to water - has remained the same or worsened.

The Tanzanian country study also discusses the technical and socio-economic impact assessment of the Ngyio Mtambula Road. The picture is somewhat confusing. It would seem that road improvements increased the number of dispensaries and saved villagers long distance travel by bicycles and foot to the major health centres. This benefit was counteracted by the inadequate supply of medicine at the dispensary.

An interesting observation in the paper is that the village authority restricted the use of ox carts on the newly rehabilitated road. Ox-carts had previously been used by about 10 percent of the families to transport large quantities of firewood and it is not known how this restriction impacted on them. The paper also indicates that men are willing to transport firewood and water on their bicycles, but that they would prefer to do this for commercial rather than domestic purposes. We are also told that the transport of agricultural inputs by bicycle has decreased since the road was rehabilitated and has been replaced by increased transportation by motor vehicle. There is no information on how this has impacted on the availability and price of these inputs. Yet a third of the transport of agricultural inputs continues to take

place on foot. The study also seems to indicate that the rehabilitated road has had no positive impact on educational levels or household income.

The analysis of the available information on the impact of road rehabilitation in Uganda and Tanzania on women raises several questions. The most obvious benefit of the road rehabilitation seems to be to those groups who have greater assets in terms of land for increased production and vehicles for transportation and who can take advantage of the cost-reductions from improved infrastructure. It is unlikely that women will make up a significant proportion of these groups. While we can infer that it would seem unlikely that the road rehabilitation could have had a similar impact on the poor and on women given their lack of assets, the absence of detailed gender-sensitive information precludes any firm conclusion.

1.3.2 Impact of Rural Development Projects

There are two rural development projects described in the Uganda country study. These are the South West Region Agriculture Rehabilitation Project and the Hoima District Integrated Community Development Project.

The South West Region Agriculture Rehabilitation Project has as its objective the increase in food production, household incomes and standards of living of small farmers in the project area. The project components included adaptive research and extension, agricultural input supply and rural access roads. The last component included rehabilitation and spot repairs to 2000 kilometres of rural access roads and the provision of plant and equipment and inservice_ training for district and Ministry of Local Government staff to enhance the maintenance of feeder roads. The rehabilitation of access roads was expected to facilitate increased agricultural production and greater household incomes from greater volumes marketed at lower transport costs. It would seem from the information from the Project Completion Report that much of this was achieved. Agricultural production increased, as did the prices for bananas and irish potatoes. This was translated into higher household incomes and standard of living, especially for households adopting irish potato production.

However, like in the road development projects the information provided is insufficient to understand how these positive results have benefited women. There is said to be increased participation in women's groups, in input retailing and in the heifer project. It is important however to have more information on how such activities have met women's domestic transport needs or resulted in strategic changes in gender relations and to look at the positive and negative impacts of changes. Gender analysis of other projects in other sectors have shown that increased agricultural production and involvement in income generating projects have often increased women's workload rather than decreased it.

The Hoima District Integrated Community Development Project had as its prime objective the reduction of morbidity and mortality among rural women and children in the districts of Hoima and Kibaale. The project also aimed to provide safe water and ensure that households had enough food for subsistence. Project components

were community based health care, rural water supply and sanitation, community access tracks, revolving credit and women's group formation. Probably because the project has been designed with social (as opposed to economic) objectives, there is a strong emphasis on the involvement of women in the planning and implementation of the different project components. A study on the feeder road and trunk road rehabilitation in the Kibaale District came up with several economic and social benefits (see box).

Economic benefits include:

- ☐ More competition and better prices for agricultural produce
- ☐ Growth of new markets and trading centres
- ☐ New business opportunities
- ☐ Buoyant local economy
- ☐ Employment opportunities on road rehabilitation and maintenance

Social benefits include:

- ☐ Timely access to hospitals for serious health care needs
- ☐ Greater personal mobility
- ☐ Non-residents returning home more regularly
- ☐ Reduced travelling time
- ☐ Increased confidence and awareness amongst women
- ☐ Improved quality of housing and schools
- ☐ Improved quality of education

From: Uganda Case Study on Impact of Improved Rural Transport on Women by Charles K Kaira

The study suggested that women had benefited from road rehabilitation in four ways.

- ☐ As road labourers. 50 percent are women, 33 percent heads of gangs are women and six out of 33 contractors are women
- ☐ Time saved: local emerging new markets have saved women from walking long distances to buy household items
- ☐ Changing roles: during the dry season, men are assisting with collection of water from boreholes if the journey is possible by bicycle.
- ☐ Greater exposure: women have been sensitised about their rights, have acquired greater awareness of credit availability and have been encouraged to participate in leadership and politics.

Again, it would have been useful to have more detailed information. Some earlier research has indicated that while roadwork contributes to providing much needed income for the day to day needs of rural households, it increases the working day for women (Kinuthia-Njenga, 1996). A second issue is whether women are paid the same amount of wages as men and whether participation as gang leaders and contractors have had any impact on the social and cultural factors that determine women's "place" in society.

It would also have been interesting to know whether emerging new markets have enabled women to market produce as well as purchase household items and whether growth of markets and business centres have increased opportunities for women to engage in other income generating activity. The paper suggests that the project has resulted in some changes in roles. A more in-depth gender analysis could reveal how far would these changes and the greater exposure have led to strategic changes in gender relations. One project component was improving rural water supply. Since water collection is a key responsibility of women and one that in many African countries take up an inordinate proportion of women's time, it would have been interesting to see whether this component had any impact on women's transport burden in the Hoima and Kibaale districts. Unfortunately, the country study does not provide this information.

1.3.3 Integrated Transport Programmes

The ILO in collaboration with the Makete District Council from December 1985 to December 1996 implemented the Makete Integrated Transport Project. The Swiss Agency for Development and Co-operation funded the project. The project's aim was to reduce the transport burden of rural households. By improving footpath tracks and roads with labour-based technologies, by making donkeys available for the local population and reducing trip lengths by repairing local grinding mills. By the end of 1996 the project had

- Improved 27.3 km of local paths
- Improved 40.5 km of feeder roads and tracks
- Sold 144 donkeys and 120 panniers
- Had 181 wheelbarrows in use
- 25 motorised grinding mills were repaired and 3 hand operated grinding mills were available

The country study suggests that there has been significant benefits in terms of time saving, to women. The installation of water supply systems seems to have had the biggest effect. It has been calculated that piped water has made an annual reduction of transport by 1370 to 1570 person kilometres and saved 340-400 hours per household. This is about 14-16 percent of the total time spent on transport by each household. Since fetching water is primarily a woman's task it is likely that this has had a considerable benefit for the women of the district. Taking grain to the grinding mill is also primarily a woman's task, and the project's attempts to repair

grinding mills resulted in annual saving of 100 hours per household which is the equivalent of 4.5 percent the time spent on transport. The provision of piped water and the repairing of rice mills has thus contributed to an almost 20 percent reduction in the transport burden of some women.

The Tanzanian country paper also states that the main beneficiaries of the improved paths in Makete were women and girls who made 65 percent of the travellers on these paths and who used them for household activities. The improvement of feeder roads opened up the area to traders and significantly reduced female time for crop marketing. This meant significant time and energy savings. Women who used to headload 20 litres of bamboo juice (ulanzi) for four hours to the nearest market town now only need walk to a nearer village two hours away. However, the price they get is lower and so they need to walk every day of the week to maintain their income. The study states that women prefer it this way.

Two low cost means of transport, donkeys and wheelbarrows, were introduced through the project. Donkeys were used to carry 15 percent of the household transport burden measured in terms of tonne kilometres. The animals are used for transporting crops from the fields, for taking grain to the grinding mill, for purchasing fertiliser and for marketing. Despite the fact that the use of donkeys for household activities (e.g. fetching water and firewood) is severely limited they still represent almost a 54 percent of time saving for women. Donkeys are also hired (or less frequently lent free of charge) to other households in the village. A study on the constraints on women's use of transport in the Makete District in 1992 (Jennings 1992) highlighted some significant gender differences in the use of donkeys. This study pointed to the fact that loading a donkey required two people which was a "greater problem for women who generally work alone in their shambas, unlike men who have their wives to help them". It also pointed to the limited use of donkeys for household tasks, a point that the present study also makes. Jennings also recommended a strategy for hiring donkeys so that more women could use them. This seems to have been implemented.

There are fewer bicycles in Makete than in other parts of Tanzania because of the hilly terrain. Bicycle ownership is limited to economically better off households and are almost exclusively used by men. The ownership is reflected in the patterns of their use. Bicycles are mostly used for external trips and for social purposes and rarely for female tasks such as water or firewood collection.

The Tanzanian Village Travel and Transport Programme (VTTP) will build on the Makete experience and develop integrated transport programmes in other districts in the country. It is too early as yet to determine the impact of these programmes on women. In Zambia, the Rural Travel and Transport Programme was launched. The country study describes one goal of the RTTP as improving mobility of goods and people in rural areas so as to provide access to economic, social and administrative facilities.

The above discussion shows that integrated rural transport projects can have a significant impact on women's practical transport needs particularly because they have the capacity to address problems that manifest themselves as transport problems from a wider perspective of providing rural infrastructure and services. However, a more sensitive understanding of gender power relations is probably necessary if these projects are to change the strategic position of women. For instance in Makete, while project interventions seem to have contributed to alleviating the transport burden, they have had less impact on women's access to transport resources such as bicycles and donkeys.

1.3.4 Programmes to develop intermediate means of transport or transport services

The Zimbabwe country paper briefly describes the intervention of Intermediate Technology Development Group (ITDG) Zimbabwe in promoting intermediate means of transport in the country. In rural Zimbabwe the main modes of intermediate means of transport are ox and donkey drawn carts and wheelbarrows. These modes are manufactured by big companies and sold through various hardware stores countrywide. Small-scale workshops also make these carts. From 1992-1995 ITDG in partnership with the Institute of Agricultural Engineering (a government department of the Ministry of Agriculture-Agritex) in Zimbabwe and support from IT Transport, UK developed a broadbased national programme for training in and dissemination of low cost vehicles. They introduced split rim, wheel and axle making technology to small workshops. The project manufactured scotch carts, wheelbarrows, water carts and water barrows, donkey carts and push carts.

The country paper does not provide much evidence on the benefits of the introduction of IMTs. It does suggest however that the ownership of intermediate means of transport is influenced by wealth. As we have discussed in an earlier section, women's access to intermediate transport technologies is constrained by their lack of cash and cultural restrictions on use. So it is unlikely that unless there were special efforts made to reach women, these technologies would have had any significant impact on their lives. Where they are being used they have reduced the number of trips involved in the various transport journeys and secondly, they have substantially increased the efficiency with which loads are carried.

1.3.5 Non-transport interventions - programmes that improve the facilities available in rural areas

The Zimbabwe country extensively discusses the interventions of sectoral government ministries in providing services to rural communities. It rightly recognises that these interventions improve accessibility in the rural areas and reduce peoples' need to travel.

The health delivery system is one such strategy. In the decade after independence the Zimbabwe National Health Service was guided by the Equity in Health policy that emphasised health need over ability to pay for services. The plans that were implemented during this period extended the health physical infrastructure and

developed a health management system. Women and children feature as special targets of these policies. Activities that were put in place included introduction of village health workers and mobile clinics. By 1997, 85 percent of Zimbabweans lived within 8 km of a health facility. Additional rural health centres and District Hospitals have been built. As a result, infant mortality dropped from 84 per 1000 in 1980 to 71 per 1000 in 1990.

There are also programmes to enhance access to safe and reliable drinking water sources and sanitation. According to the Ministry of Health, over 64 percent of rural people now have access to safe drinking water and just under 50 percent to sanitation through the Rural Water Supply and Sanitation programme in the last 16 years. The expansion of supply of services has slowed down in recent years due to lack of funds.

Education has also expanded in the years after independence. The number of primary schools increased from 2401 in 1979 to 4504 in 1989 and secondary schools from 177 in 1979 to 1502 in 1989. There was also a large increase in rural enrolments as well. Unfortunately the case study does not provide a gender breakdown of enrolments or attendance. An adult literacy campaign was launched in the early 1980s with special attention being made to the literacy of women. In 1985, 85 percent of the adult learners were women and the facilities for adult literacy training were brought to the villages.

All these measures would have reduced the amount of time women, men and children in the rural areas of Zimbabwe have had to spend on accessing water, health and educational services. In the absence of data on time savings the impact has to be inferred.

1.4 Conclusions

In the preceding paragraphs of this section, this paper has looked at the types of policies and programmes to improve rural transport described in the country papers and the way that they have impacted on women. In this final section the paper tries to draw out the conclusions of this report and the implications of these conclusions for integrating gender concerns into rural transport policy and plans.

III. Constraints to analysis

The first and most obvious constraint is the lack of gender information. It would seem that most governments and project implementers do not collect gender-disaggregated data in the assessment of impact. The unit of data collection is the household. There is no recognition of the differences within the household. If women and men are allocated different tasks within a family, then women and men must have different interests, and interventions must impact differently on them. For almost three decades, women in development and gender professionals have been trying to show that there is little use in talking about farmers, workers, or users as one homogenous group. There are many stratifications within these groups,

and gender is one of the most basic of these. The lack of gender disaggregated data seriously hampered the analysis in this paper.

The second issue relates to lack of baseline data or, as the case may be, the inability to describe impact in terms of this baseline. In many of the examples provided in the papers it would seem that the expected outcome is inherent in the technology itself i.e. roads must improve access and reduce vehicle-operating costs and carts must increase the efficiency of load carrying. What we need to know is for whom has this load carrying become more efficient, and how do you know it is becoming more efficient? Who are the users of the road and who are the non-users? Has improved access led to lower morbidity and higher school attendance? What have time savings been used for?

And finally, there is insufficient analysis in the country papers on gender issues. With exceptions, the studies and the reports quoted in the country papers do not seem to take into account gender differences or gender power relations. This has affected the collection and presentation of data and therefore the information in the country papers and ultimately this synthesis as well. The studies also do not address as an issue the participation of women in transport planning and decision making. The Hoima District Integrated Community Development Project seems to be the only project that actively encourages the participation of women. This has been to have some strategic benefits. Women have been sensitised about their rights, have acquired greater awareness of credit availability and have been encouraged to participate in leadership and politics. It would be interesting to monitor the dynamics of this process and to see how this leads to reduction to greater gender equity in transport planning and provision. It is with this background of constraints that the paper draws its conclusions.

IV.

Conclusions on impact

In all of the countries studied, policies relating to rural transport are either non-existent, or imperfectly formed. In Burkina Faso, Zambia and Zimbabwe there are no explicit rural transport policies. In Uganda and Tanzania, government policy recognises the importance of rural transport, but there is no clear indication whether this recognition has been translated into allocation of resources to this sector or of particular actions. The implication from the Ugandan and Tanzanian country papers is that meeting rural transport needs seems to be the responsibility of the decentralised administration (usually the part of the administration with the least amount of resources) and of communities and households. Overall government policy in Uganda requires participation of women in all decision making bodies, but the papers do not show how this participation has been translated into initiatives that meet women's gendered transport needs.

It would seem from the available (yet limited) information that the integrated transport programme in Makete, Tanzania and the non-transport interventions of the different sectoral ministries of the government of Zimbabwe were best suited to meeting women's *practical* needs. By this we mean that they were able to enhance

women's capacity to carry out their gender-allocated responsibilities. If women did have access to intermediate means of transport this would also be of practical benefit to them, though it is not clear from these papers how such access can be facilitated. On the other hand feeder road development while stimulating agricultural production (provided the other factors for increased production are in place) does not seem, at least from the evidence presented in the country papers, to have any direct impact on meeting women's practical needs. Men's involvement in cash crop production and their greater mobility enable them to take greater advantage of feeder road improvements. The two rural development projects described in the Uganda study display recognition that access is an important part of rural development. However the impact on women differs according to whether access is seen to be solely as access to markets (external) or access to sources of water, firewood and to fields (internal). Improving access roads that facilitate external access would more likely to benefit men than women. Improving paths and tracks that provide access to sources of water, firewood and to fields, would go a long way in meeting women's practical needs. [Grinding mills probably provided an exception to this differentiation of internal and external access].

We have discussed above how women's *practical* needs have been met (or not met) through the interventions described in the studies. We are less able to understand the *strategic impact* on gender relations. It must be recognised that gender is as much about power as it is about the division of labour. The power relationship between men and women is rarely equal and in the countries studied it is most likely that they reflect male dominance and female subordination. This is supported by differential access to resources, and cultural restrictions on what women should or should not do. Meeting women's strategic needs implies achieving greater equality and includes legal, ownership and wage rights. As presented here, the studies do not indicate whether women's strategic needs have been met. As the Burkina Faso study pointed out, women's lack of land rights delegates them the fields that are furthest away and require greater travel times. The interventions described seem to have done little to change women's ownership or ability to use transport technologies or to overcome cultural barriers. The reduction in time spent seems often to be offset by increased workloads in productive activity. There is no evidence either of women's participation in transport planning except through decentralised programmes in Uganda. But a closer analysis is required before any firm conclusions can be drawn.

Implications for policy

For transport policy and programmes to be more sensitive to rural women's practical and strategic needs it will be important to:

- Move away from the conventional approach to transport provision – the construction of road networks and development of motorised transport systems – to more integrated interventions.

- ❑ Understand clearly the gendered nature of transport tasks at village level. This will require collection of gender disaggregated baseline data and information.
- ❑ Develop interventions that are directed towards meeting women's practical needs as well as men's. This would mean facilitating the transport tasks that women carry out in relation to their domestic responsibilities as well as working to increase their productive capacity.
- ❑ Increase women's access to resources, especially transport resources. This requires recognising the power relations between men and women and how these can constrain women's access to resources. It also requires innovative schemes to overcome economic and cultural constraints to women's ownership of intermediate means of transport. For instance, promoting donkeys where they are viable could be a strategy because donkeys have less restrictions for being owned and used by women than other livestock.
- ❑ Consider rural transport in its totality to include infrastructure, the provision of means of transport and transport services and interventions that provide better services to the villages (i.e. non-transport interventions).
- ❑ Increase gender awareness at all levels of transport planning and implementation. This should include (but not be limited to) women's participation in decision making at all levels.

References

Bryceson, D F and Howe, J (1993) *Rural Household Transport in Africa: Reducing the Burden on Women?* ASC, Leidan

Chingozho, Dorris (1999) *Impact of Intermediate Means of Transport on the allocation of transport burden on gender relations: some aspects from the ITDG transport project in Zimbabwe*. Written for the IFRTD: Balancing the Load, Gender and Transport research programme (to be published).

Curtis V (1986) *Women and the Transport of Water*. Intermediate Technology Publications, London, UK. 48p. ISBN 0 946688 42 7

Doran J (1989) *A moving issue for women: is low cost transport an appropriate intervention to alleviate women's burdens in southern Africa?* Dissertation submitted to the School of Development Studies, University of East Anglia.

Doran, J (1996) *An Imbalanced Load: Gender Issues in Rural Transport Work*, draft paper prepared for ITDG, Rugby, UK.

Fernando, P and P Starkey(1997) *Donkeys and development: socio-economic issues in use and management of donkeys*, paper prepared for the ATNESA Workshop on Improving Donkey Utilisation and Management, 5-9 May 1997, Zebre Zeit, Ethiopia

Howe, J and Dennis, R(1993): *The Bicycle in Africa: Luxury or Necessity?* Paper presented at the VELOCITY Conference "The Civilised City: Responses to New Transport Priorities" 6-10 September, Nottingham UK. IHE Working Paper IP-3. IHE, Delft, The Netherlands.

Iga, Harriet (1999): *The impact of bicycle/motorcycle taxi services (boda boda) on women's travel needs in Uganda. A case study of Mpigi District*. Written for the IFRTD: Balancing the Load, Gender and Transport research programme (to be published).

IT Transport Ltd (1996) *Promoting Intermediate Means of Transport: Approach Paper*, SSATP Working Paper No 20. World Bank Washington DC.

Jennings, M (1992) *Study on the Constraints to Women's Use of Transport in the Makete District, Tanzania*, ILO, Geneva

Kinuthia-Njenga, C. (1996) *Rural Infrastructure: what role for women? Some examples from Kenya and Tanzania* (unpublished)

Malmberg, Calvo C. (1994) *Case Study on Intermediate Means of Transport: Bicycles and Rural Women in Uganda*, SSATP Working Paper No.11, World Bank, Washington DC.

Moser, Caroline (1994) *Gender Planning and Development: Theory, Practice and Training*. Routledge, London.

Noyes, Mike and Fernando, Priyanthi (1999) *An Evaluation of IT Kenya's Rural Transport Programme*. Unpublished. IT Kenya, Nairobi.

Page B (1996): Taking the strain: the ergonomics of water carrying. *Waterlines* Vol. 14 No 3 January 1996. IT Publications, London.

Rao, Nitya (1999) : *A Forest Economy and women's transportation – Case study of Dumka District, Bihar*. Written for the IFRTD: Balancing the Load, Gender and Transport research programme (to be published).

Starkey, Paul (1999) *Intermediate means of transport: people, paradoxes and progress*. Key note paper for RTTP Regional IMT Initiative Experts Meeting, 15-17 June 1999, Nairobi. Rural Travel and Transport Program – Sub-Saharan Africa Transport Policy Program, World Bank.

UNDP (1995) *Human Development Report*, United Nations, New York.

Urasa, I. (1990): *Women and rural transport: An assessment of their role in Sub-Saharan Africa Rural Travel and Transport Project*, SSATP, ILO, Geneva.

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Executive Summary

The study on 'Impact of Improved Rural Transport on Women' is presented in two parts. The first part, called Chapter. 1 highlights general issues on transport as expressed in various research papers on Sub-Saharan Africa (The Literature Review). The second part, called Chapter two, focuses specifically on the situation in Zimbabwe.

Rural transport studies carried out in Africa, especially in Sub Saharan Africa (SSA), reveal that women in the rural areas bear the brunt of the transport burden both in terms of time and effort expended. In order to alleviate this burden, improvement in policies and implementation is important to generate time savings which can in turn be utilised for other productive economic activities contributing to poverty alleviation. From the literature survey it comes out that rural transport and access can be done through various transport and non-transport interventions.

Transport interventions include provision and maintenance of better roads and maintenance, use of low cost and appropriate intermediate means of transport such as wheel- barrows and oxcarts and better designing of rural transport programmes.

Non-transport interventions entail the provision of economic and social service facilities closer to the communities so that they do not have to travel long distances to access them. Examples include the siting of schools, health and sanitation facilities and commercial and administrative services.

Combined efforts by government, non- governmental and community participation in designing, implementing and maintenance of the rural projects is essential if the activities are to bear the required fruits.

The section on Zimbabwe highlights the various initiatives that the Government and Development Agencies have undertaken to alleviate the transport burden in the rural areas. The various ministries put in place programmes of action to bring their services nearer the people they sought to serve. Examples include health facilities, schools, water-points (in the form of bore-holes) and market centres for the agricultural inputs supply and selling of produce. The District Development Fund assisted in the 'food for work programmes' mostly tasked to making and repair of footpaths and footbridges by the communities themselves.

The evidence from documented work and surveys done in Zimbabwe point to the alleviation of the transport burden and time and energy savings associated with the provision of these services. These savings lead to the generation and expansion of other productive economic and social activities.

CHAPTER 1

1. Introduction

1.1 Purpose and Justification for studying Rural Transport Issues

This section most of which has been adapted from the Task Brief shows why it is important to spend time thinking and researching on rural transport problems. Many of the problems arise as a result of the level of development and also the cultural tendencies and traditions that govern most rural communities in Africa.

In Africa, particularly in Sub Saharan Africa (SSA), women in the rural areas bear the greater brunt of transport burden. Examples of studies undertaken in the course of the Sub-Saharan Africa Transport Policy (SSATP) reveal this. Women spend more than 65% of all transport activities on household chores. In terms of effort, women's roles in rural transport accounts for 66 to 84% of all energy expended on transport.

As such it is clear that improvement of rural transport will have a greater impact on women's time and effort, and can contribute to generate significant resources for other more productive economic and social activities alleviating poverty.

Improved transport could be done through: provision of better roads; use of intermediate means of transport, better designing of transport; involvement of women in the planning and decision making especially as regards the location of facilities and services to reduce the distances travelled to access such facilities. Examples of the facilities are health centres, market place, water-points and food processing facilities among others.

There is the need to analyse the multi-sectoral implication of rural transport and related issues in policy formulation, institutional structures and planning. There is also the need to find a range of policy measures, which facilitate an effective response to rural transport needs. Barwell (1995) advocates a more integrated approach to rural transport planning at the local level through government, NGOs and donor agencies in the design and implementation of many of the rural development policies and programmes (Barwell, 1995). These organisations have recognised that rural transport is relevant to a number of strategic rural development issues.

The desk study is to evaluate and assess the impact of improved rural transport on women with regard to initiatives carried out to alleviate the rural transport burden (be they transport or non transport)

Findings and recommendations from the studies will contribute to better planning of transport in rural areas. The report will also assist ECA and its partners to guide and mainstream the rural transport approach into development plans and policies by:

- (a) helping countries in developing national rural transport policies and strategies

- (b) develop innovative approaches to improved accessibility in physical programmes and projects

2. The Study

The study has been presented in two parts, literature review and the Zimbabwe case study.

2.1 Literature Review - Summary

The literature review covered work done by the World Bank, The International Labour Organisation (ILO), Ministry of Transport in Zimbabwe, Development Agencies in Zimbabwe, INTERNATIONAL Forum for Rural Transport and Development(IFRTD) and Intermediate Technology Development Group(ITDG) publications among others. The following highlights issues arising from this review.

Various studies have been carried out on Rural Transport. The work presented here is a review of the existing relevant documented work on the efforts at increasing the understanding of the transport needs of rural population in sub-Saharan Africa in general, and Zimbabwe in particular. It also highlights the range of policy options, programmes and measures to provide rural people with the access they need. It also aims at raising awareness on the significance of gender and to make gender strategy for transport as part of the national gender advocacy and implementation policy.

Transport is of particular significance in the developing countries particularly in remote areas. Transport provides rural people with access to a range of goods and services that they require to meet their daily needs and for economic and social development. Access to ideas and information, to markets and services, to people and places and to new opportunities are all-important in the process of development. Lack of means of transport is both a cause and an effect of rural deprivation. Deprivation prevents access to those resources that could uplift the rural people, they are distanced from extension and health services and learn of new ideas last. Due to great distances from the markets, they are limited in what they sell by what they can carry and have to procure essentials at exorbitantly high prices. Distance from services such as water or famine relief makes the isolated most vulnerable to disaster.

A study of three districts in Zimbabwe, commissioned by the Ministry of Transport and the International Labour Organisation and funded by SIDA in 1997, has highlighted the fact that transport policy and programmes are often too narrowly defined in terms of a public sector responsibility for the development of physical infrastructure for transport, principally roads (GoZ and ILO, 1997). In spite of the tremendous government efforts in health and education, there has been no rural transport policy. Under such circumstances rural needs cannot be fully met in the future, since road networks rarely extend to meet village level needs and poor people cannot afford access to vehicles (GoZ and ILO, 1997 and Bamberger, 1998).

Studies in a variety of disciplines have indicated that roads and motor vehicles, which hitherto have been the central focus of transport models, have only a limited impact on many people living in the rural areas. The highway and car approach only will not in the foreseeable future be able to meet the increasing and important transport demands of

the rural communities. The Three District study recognised that the new approach to the analysis and understanding of rural transport patterns questions the exclusive focus of conventional transport policies on improvements to and expansion of the current transport system and calls for greater attention to an examination of the real access needs of the rural dwellers (GoZ and ILO, 1997). Past efforts in Zimbabwe like SSA to improve transport, principally focused on building and maintaining roads with limited attention devoted to the whole complex of rural access mobility and household transport. Village-level transport is important in this, and an indispensable element for meeting the basic subsistence needs of rural households (GoZ and ILO, 1997).

2.1.1 The Status of Roads in Zimbabwe

The Zimbabwe Public Road network is divided and managed by three bodies namely:

1. State Roads managed by the Department of Roads
2. Urban Roads managed by Urban Councils
3. Rural Roads managed by the Rural District Councils.

See table below showing a quantitative analysis of Zimbabwe's roads in Kilometres by type and governing authority.

Road type	State roads	Rural District	Urban councils	Total km
Paved	8.689	1.800	4.140	14.630
Gravel	7.305	40.800	1.150	49.255
Earth	2.344	9.640	-	11.985
Total	18.338	5.290	52.240	75.870

2.1.2 Household Travel and Transport Patterns

A lot of research has gone into researching and developing a sound understanding of the time and effort spent on transport in the context of the overall household labour allocation and its effects on the rural productive patterns and structures in sub-Saharan Africa (SSA). Comparative studies carried out by Jonathan Dawson and Ian Barwell (1993), Ian Barwell (1994) in Zambia, Uganda and Burkina Faso, Val Curtis (1994) in Kenya and GoZ and ILO (1997) in Zimbabwe, revealed similar findings. They showed that household members spend a considerable amount of time and effort on meeting basic subsistence needs. Water collection is the biggest burden.

There are varying transport needs in the rural areas depending on geographical and ecological conditions and settlement structure. In areas of scattered settlement people have their houses close to their fields due to the need to reduce time taken to travel to and from such fields. Such scattered settlements also means that other facilities tend to be relatively far from their villages implying more time in travel unless through the use of IMTs (GoZ and ILO, 1997; Barwell, 1994). Demographic characteristics also impinge on distance to social and economic facilities and these tend to be greater in sparsely populated areas. In large polygamous households, the transport burden per adult tends to decrease because it can be shared among a large group of people (Barwell, 1994).

All over Zimbabwe, cultural variations in demand for goods and services, for instance reliance on central market for staple food requirements, influences travel patterns for harvesting and crop processing e.g. the need to access the grinding mill.

Government and rural development policy has a big bearing on the provision of water supplies and other social amenities, distance to sources of farm inputs and distance to crop marketing facilities and opportunities for agricultural production. The availability of affordable means of transport also determines the extent to which rural people rely and travel on foot especially in low-income areas (GoZ and ILO, 1997). Lastly, the type and quality of transport infrastructure such as the condition of rural road network and terrain of the paths and tracks in and around the village influences the means of transport used for different purposes and is determined largely by seasons only passable with great difficulty by motor vehicles during the rainy season. This set of conditions affects the travel, transport mechanisms and frequencies and the overall time spent in the execution of the duties. In remote areas people primarily depend on travelling on foot. Their walking world is restricted to the village, its environs and local places. Outside the village long-distance travel is rare (Barwell, 1994).

Essentially, transport focuses on the carrying of goods and commodities associated with the basic domestic needs for food, water, fuel and production needs for agriculture both within and around the villages. This travelling takes place along footpaths and tracks as well as on conventional roads. The means of transport largely includes walking, with loads on their heads or back as well as IMTs such as wheelbarrows, ox-drawn carts and bicycles and motor vehicles (J. Dawson and I. Barwell, 1993; Barwell, 1994 and GoZ and ILO, 1997).

In Zimbabwe like in SSA, household travel and transport is divided into internal and external transport demands. Domestic transport comprises of water and firewood collection, trips to the grinding mill at various frequencies, agricultural travel and transport to fields for different purposes e.g. cultivation, movement of farm inputs, harvesting and marketing of crops and finally, external travel to service centres for social purposes such as trips to hospital travel to markets both within and outside the villages involving the use of vehicles or public transport. This is also associated with visits to family members and friends or to meet social obligations and travel by school children to and from schools.

The bulk of water collection is carried out by girls or women. This entails on average four trips on foot daily carrying a 25-litre bucket for 2 to 3 hours in total and walking is the most common mode of water collection. In some parts of Zimbabwe 85- 95 % reportedly head load their water and those who do not head load use wheelbarrows and this means that more boys are involved as well. Research under Rural Travel and Transport Project (RTTP) has shown that women transport at least three times more tonnes/km than men in many African countries and men usually travel for one purpose, while women's multi-task means that they must combine travel to clinics, schools and market with their travel to work (Bamberger, 1998). The Three-District study concluded that: a household averaging 5 persons spends on average between 60-70 hrs per week travelling excluding farm-related travelling. It further concluded that 17 hrs per week is

spent on waiting at service points, with women carrying a larger amount of burden (70-80%) (GoZ and ILO, 1997).

Studies cited by Fernando from Tanzania, Mozambique and Ghana indicate that rural women in Tanzania spend over 30 hrs per week or over 4 hrs per day on transport tasks. In Beira, Mozambique they take up to seven hours per day in transport activities with 3.6 hrs on transporting water and fuelwood. In Ghana, men only spend 35% of the time and exert only 25% of the load carrying effort of women in transport activities. In sub-Saharan Africa as a whole, women are responsible for nearly 70% of the time spent on transport and nearly 85% of the effort (Fernando, 1997).

In Zimbabwe's Chipinge, Zaka and Rushinga districts, the equivalent head load travel per annum is 2 260kms walk carrying a load of 20kg-equivalent to a walk from Harare to Johannesburg and back to Harare per year (GoZ, 1997). Other surveys in Africa have identified load carrying burden as ranging from 1.4kms to 6.8kms every day (Barwell, 1997). Studies by Curtis in Kenya show that women got up an hour earlier than men and went to bed an hour later than men (Curtis, 1994). These are just averages and they conceal substantial variations both between and within different areas and for many households the burden is substantially higher (Barwell, 1994 and GoZ and ILO, 1997).

The above scenario has two implications. Firstly, a reduction in the time devoted to unproductive transport would free this household labour resources for other, more productive and beneficial activities. Because rural life is essentially labour intensive, the absence of energy saving devices means that most rural activities involve a lot of physical work. However, they have a limited daily resource of energy due to their poor diets (Min of Health, 1997).

The fact that transport acts as a factor and constraint in agriculture has been recognised and well documented. There is a strong correlation between reliable transport and improved agricultural production as farmers can access inputs, dispose outputs in bulk and save time for other purposes. This meticulous utilisation of time is low in areas with transport constraints. In order to reduce this constraint, farmers usually hire outside labour, use IMTs to increase transport efficiency of household labour and in some cases hire trucks to carry harvested crops from the fields. A gender approach can have the same benefits to women.

Marketing is another constraint and head loading is the most common transport mode used to access near markets. IMTs have played a huge role in widening the choice of market outlets and in allowing greater amounts to be marketed per trip. There is a significant use of bicycles in marketing crops in Kenya, Burkina Faso and Tanzania due to their higher speeds for smaller volumes but ox drawn carts for huge volumes. In Zimbabwe marketing is largely done using scotch cart and public transport to distant places and wheelbarrows to near markets (GoZ and ILO, 1997). The most important transport and access factors that facilitate marketing are, a good network of local market facilities, availability of IMTs and adequate road access to encourage private trader visits to villages (Price Waterhouse, 1998).

2.1.3 Women and rural Transport

The question on the transport burden on women is vastly covered in many African case studies but there is a lack of practical implementation particularly government projects. This is even clear at the level of the World Bank projects (Bamberger, 1998). The literature places emphasis on the fact that women are overburdened and spend most of their time on transport activities than men.

The transport burden is closely related to their reproductive and domestic responsibilities. Though these activities are not economically valuable, they are indispensable for the survival and well being of the rural households. This workload has increased tremendously due to the tough cash economy associated with ESAP and the entry of women into the wage labour system. This has seriously affected the gender division of labour. In traditional agriculture, women had the responsibility to grow food crops and to undertake the more burdensome and time-consuming activities such as weeding and transporting harvests.

Men were responsible for cash crop production and livestock rearing and heavy physical work such as land preparation. Increasing cash cropping has also led to a great need for transport of inputs and outputs. However, the imbalanced distribution of the transport burden restricts the time and energy available to women for economic activities and family welfare. Furthermore, many income generating projects such as agriculture, beer brewing and brick moulding require additional water and fuelwood increasing women's transport burden. This implies that they must balance their time much more carefully than men (Bamberger, 1998).

Resources, opportunities and activities are influenced by gender. Priyanthi Fernando (1997) argues that different tasks and responsibilities of women and men implies different transport needs for men and women. In Zimbabwe, farming and marketing and household tasks have specific gender patterns and characteristics. They also grow different crops on different fields with women in some cases having the poorest fields furthest from villages, thus increasing their workload and travel times. Women and men may also differ in the crops they bring to the market and the distances they have to travel to access the markets (Fernando, 1997). Most rural transport whether by men or women is done on foot with loads on the head or back and a lot of this burden falls on women and children. Fernando (1997) argues that in many African countries women are seen as natural transporters and whilst the journeys may be short and local, their high frequency absorbs significant amounts of time and energy (Fernando, 1997).

2.1.4 Women's Access to Transport Technologies

It has been documented that the use of more efficient transport technologies or the provision of transport services can reduce women's transport burden and leave more of their time for other beneficial activities (Barwell, 1994 and Fernando, 1997).

Bamberger strongly suggests that the mainstream transport projects have been considered as technical problems of road design, traffic flows and vehicle operating efficiency. It has been assumed that projects will benefit women and men equally without looking at the gender power relations on the ground. As a result women have not been consulted on project design perpetuating neglect (Bamberger, 1998).

This restricts their ability to own and acquire appropriate time and energy saving transport technologies. In many parts of Zimbabwe, fewer women than men own and can ride bicycles, use oxcarts or wheel barrows or hire transport services, yet these are the most convenient for transport in bad rural roads and paths. Donkeys are largely designated as animals to be used by women. Even in many societies, it is the men that largely own and control the acquisition and disposal of animals.

The ownership and use of IMTs by women is limited by their inability to buy. Women also travel less on public transport than men because of their rural isolation and in some cases financially, they have to request for bus fares from their husbands (GoZ and ILO, 1997). This lack of access to transport also limits women's empowerment in the political, cultural and educational activities particularly notable in the rural areas.

Children particularly daughters contribute to alleviating the transport burden on women, largely involved in hauling water and harvesting due to the short distances involved and water can be conveniently collected in small containers. Children are also involved in travelling to the grinding mill depending on their ages to cater for long distances involved and cash transactions and hence increased responsibility. Surveys also show that the need for daughters to contribute to household tasks also contributes to poor health and early school dropouts.

The availability and use of IMT for domestic uses can reduce transport burden for women considerably. This situation is worse particularly in female-headed households (GoZ and ILO, 1997). The use of IMTs has significant benefits to both men and women when their use results in males assuming responsibility for a transport task that would normally be undertaken by women and when women themselves are the users of IMTs.

Due to the above, there are potential time savings involved through the use of IMTs. The potential for such savings can be estimated assuming realistic targets for reduced access time to the sources of these needs.

2.1.5 Interventions and Evidence of impact

Non-Transport Interventions- these involve bringing services nearer to the users. These interventions are usually undertaken by various institutions encompassing Government ministries and development agencies.

In Zimbabwe, the Ministries of Education, Health, Water and Energy intervened in the provision of schools, health facilities and water near to the people. Various governmental and non-governmental organisations' projects mean that the rural houses are within manageable distances from the main sources of services required.

These interventions and resultant benefits are similar to those found in Tanzania,

Uganda and Kenya (Wattam, 1998). However, it has been found that the provision of such facilities will not necessarily generate these time-savings for the household, nor will the full time saving necessarily accrue to the female adults, unless the improved, closer sources of water are reliable, have adequate capacity and supply water of acceptable taste. A Rural Development Initiatives study by Intermediate Technology Zimbabwe (1998) found that in most dry areas, particularly natural regions 4 and 5 the boreholes have either dried up due to deteriorating weather patterns or broken down without being repaired, leaving women burdened as before the intervention. The donor community has had to shoulder the burden of funding and maintaining the water projects (ITZ, 1998).

It has also been found that better access to a water source can increase consumption patterns and hence more trips. Though beneficial and increases the productivity of time spent on water collection, it will reduce the absolute time saving and a reduction in the scale of the task may even mean a reduction in the children's work, but not necessarily in adult women's work. The introduction of fuel saving stoves that reduce the burden of firewood and the provision of grinding mill closer to the home can reduce the transport burden substantially. The Three District Study found that in areas with a high density of grinding mills like in Zaka, households spend between 2 and 3 hours going and coming back from the grinding mill as compared to Chipinge and Rushinga, who spend between 4 and 5 hours respectively.

The time saved can then be allocated to other activities. However the analysis of some case studies shows that while women tend to use their physical and financial resources to maximise the welfare of their families, at times they find it difficult to accurately predict their own future actions. For example in a study in ITDG's projects, women predicted that they would devote the time saved for improved access to water primarily for leisure, resting and visiting companions (Dawson, J, 1995; Njenga and Orr, 1995).

However, in practice after the water situation was improved, the time saved was allocated to agriculture and to domestic activities. This illustrates the fact that, while women may desire additional leisure, the welfare of the family takes precedence. Other studies in Lesotho, Burkina Faso, Uganda, Zambia and Tanzania showed that women make assessments of the priorities of the family or of their responsibilities that are most neglected, in deciding where to allocate time savings. Transport can be an income generating activity and often when firewood or water are transported for sale they are largely male activities. In female managed and headed households this activity can be assumed by women, thus increasing their economic independence.

Bamberger has emphasised that women have different roles, responsibilities and needs in most areas of social and economic development. These differences have been recognised in the design of education, water supply and microcredit programs. However, gender differences have received very little attention in transport projects save perhaps in pilot rural transport projects.

2.1.6 Gaps

The existing data on gender and rural transport reveals some glaring gaps in our knowledge. First, there is a lack of better data and research on women's needs because

there is little information on their specific problems. The Transport project by ITDG recognised that whilst it had managed to provide and disseminate low cost technology the impact on women was unclear (Njenga and Orr, 1995). The second area is that little analysis has been carried out to recognise the value of women's time and their contribution to the nationally recorded economic indicators. There is a lack of women's involvement in the participatory planning. Men are given first priority. There is therefore a critical need to design and implement pilot project and careful evaluation and documentation of pilot projects that have a gender perspective. Therefore, activities earmarked for women should take into account the dynamics of the community. Gender issues on rural transport programme aims at assisting planners and implementers to design strategies that are both women focused and also seek to redress the current imbalance in an acceptable manner, in so far as they help to alleviate the transport burdens. There should be improved planning, financing, provision and maintenance of rural transport with women's involvement.

2.1.7. Conclusions

Available information shows that women have a greater workload than men both socially and economically. Men and women have different roles but men are increasingly assuming women's roles as well but a lot still needs to be done. Though women have access to use of IMTs, they have limited access to ownership of IMTs. Many gender specialists and groups have emphasised health, education and economic empowerment without looking at transport issues seriously. This has not alleviated the marginalisation and burdens of women.

This research should assist rural development by building the capacities of women, communities and countries for rural mobility so as to redress the existing imbalances. It should help to raise awareness on the significance of gender, data collection, analysis and dissemination of information.

The study highlights the importance of inter-sectoral co-ordination in planning strategies for rural travel, transport and accessibility interventions.

CHAPTER 2

RURAL TRANSPORT IN ZIMBABWE

1. Type of rural transport policy formulated and adopted:-

In Zimbabwe there is no explicit policy document guiding the development and improvement of rural transport but efforts have been on major roads and urban transport. However many initiatives from various interest groups including Government itself have been done which help alleviate the transport burden in the rural areas. Also recently, the Ministry of Transport has been working towards designing a policy for rural areas to complement the urban one to come up with a National policy through the Road Sector Reform Programme. The government is also trying to clearly define the responsibilities of different agencies through the Decentralisation Program whereby local authorities are expected to be responsible for the development of their areas including rural accessibility issues.

Some of the intent statements by various ministries and non governmental organisations on how they want to put up different facilities for the rural transport include :

- Provision of roads through the Road Motor Act, which governs the maintenance of roads, footpaths and footbridges through local authorities.
- Food for work programmes by government and non-governmental agencies.
- Promotion of Intermediate Means of Transport. This has been done through government and non-governmental organisations collaborating in designing and disseminating appropriate technologies to rural areas. It has also involved women testing the suitability of the gadgets and recommending improvements to suit them, especially the transport project by ITDG.
- Participatory involvement of communities such as the involvement of women in planning and carrying out activities such as Rural health workers, pre-education school teaching, participation in local authority governing structures.
- Discussions in planning and implementation processes with women in siting facilities such as water points.

In 1997, The government of Zimbabwe through the Ministry of Transport worked with the International Labour Organisation to study transport constraints and needs of rural communities in three districts (Zaka, Rushinga and Chipinge) of Zimbabwe. The objective was to generate a National Rural Transport Policy, which takes the actual transport needs and priorities of the rural population into consideration. It was also to improve the understanding at National, Provincial and District level of the actual transport needs and patterns of the rural population and contributing towards the formulation of a national Transport Policy.¹ This work led to current implementation of project recommendations by the local authorities with the assistance of NGOs in those

¹ International Labour Organisation and Ministry of Transport. 'Rural Transport Study in Three Districts of Zimbabwe'. April 1997.

areas. ILO has been very instrumental in this work. The ITDG designed technologies on IMTs have also been displayed and used in those areas to increase awareness and encourage adoption.

2. Improvement of rural transport through Initiatives.

Various initiatives have been carried out by different government departments, development agencies and other parties to alleviate the burden of transport/ distances travelled by the rural folk to source facilities. As has already been documented by previous research, it is the women who bear the brunt (77%) of the burden.² In Zimbabwe the initiatives include both transport (making of roads, foot bridges and footpaths and IMTs)³ and non transport (e.g. the provision of schools, health facilities, water sources and business centres in close proximity of the people). As will be shown below, there is a wide range of institutional stakeholders involved in the rural transport sector development. What this study recommends is that over and above the existing strategies, the government and donor agencies should adopt a more explicit rural transport strategy.

3. Impact of the rural transport on women.

An assessment of the Intermediate Technology's Transport project revealed that the use of IMTs and other facilities/initiatives substantially helped women to spend less time on travel and transport and then engage themselves in other productive activities.

Below is a more detailed assessment of the various initiatives mentioned above that help reduce the transport burden thus improving rural travel and transport.

Although there was no specific guiding policy on the development of rural transport and accessibility, a number of interventions have been undertaken in varying degrees to promote the accessibility of rural areas. One has been the intervention to increase the level of mobility of rural people to reach social and economic facilities such as markets and health services through the use of IMTs. The other initiative is to bring the facilities closer to the community for instance the siting of facilities closer to the rural communities such as health facilities, schools and water sources. These have the added advantage over the use of IMTs in that all members of the community can benefit, whereas ownership of IMTs is influenced by wealth and only a few villagers may own them. Even though non-owners can borrow from those who have it is usually limited to family members and at the convenience of the owner. Thirdly, the adoption of more effective procedures for the planning of social and economic facilities by local authorities (Rural District Councils).

In designing and carrying out the programmes, considerations of government policy, economic efficiency, financial viability and operational effectiveness all influence the degree of spatial distribution of rural services that can be achieved. Spatial distribution of services is poor in areas of low population densities, whether a village is nucleated or has broadly distributed housing (facilities can be provided closer to people more

²Ibid. p.15.

³These are done by communities through food for work programmes under local government.

cheaply and more efficiently if the villages are nucleated). In planning and implementing developmental programmes, the Ministry of Education, Agriculture and Water Development and Ministry of Health adopt a spatial planning approach that aims to maximise the improvement in accessibility.

One of the determinants of rural transport problem in the rural areas is the long distance that many people have to travel, in most cases on foot to reach facilities that they need to use. Furthermore, the poor quality of service offered by the closest at hand might mean people have to travel to more distant facilities which offer a better quality service. The siting of high quality one stop services and facilities closer to the rural people can make a significant impact on transport efficiency, on the time and effort spent on transport and on the frequency of the utilisation of the service offered. Hence government policy on development of Growth and Business Centres. Low-income focused chain stores and some banks have established branches in these areas.

3.1 Transport Interventions

The use of Intermediate Means of Transport is prevalent in Zimbabwe. It is the main mode of rural transport in rural areas where the terrain is suitable. These include ox and donkey drawn carts and wheelbarrows. These IMTs are manufactured by big companies and sold through various hardware stores countrywide. Small scale workshops also make these carts. Furthermore, NGOs are helping in the dissemination and use of these devices.

Intermediate Technology Development Group (Zimbabwe) came in with improvements to the existing technology to alleviate the axle bottleneck. It carried out a transport project from 1992-1995, in partnership with the Institute of Agricultural Engineering (a government department of the Ministry of Agriculture-Agritex) in Zimbabwe and support from IT Transport U.K. The main thrust of the project was a broad based national programme in the training and dissemination of the low-cost vehicles (LCVs also called IMTs) introducing split rim, wheel and axle-making technology developed by ITDG into small workshops. The project aimed at mitigating transport problems faced by the households in communal areas by increasing and broadening the product range, availability of good quality, low cost transport devices.

This resulted in a wider range of products than what had previously been made by the workshops. Transport gadgets made as a result of the project include, scotch carts, wheelbarrows, water carts and water carriers (barrows), donkey carts and push carts. The IMT technology was disseminated to Binga, Zhombe, Chiredzi, Chivi, Nyanga, Murombedzi, Chivhu and Chiota through ITDG's partner institutions. (See footnote for location details⁴.)

The ownership of IMTs is influenced by status and wealth and local availability of IMT manufacturers. For instance, the IMT technology is prevalent in Zaka, Chiredzi, Zhombe, Tsholotsho, Murombedzi, Nyanga, Bindura, Rusape, Gokwe and Chivi where workshop owners were trained in the technology and where ITDG in collaboration with

⁴ Chiota is about 65km South of Harare. Chivi is 363km South of Harare. Nyanga 268km East of Harare. Murombedzi 117km West of Harare. Chiredzi, 495km South of Harare and Binga 514km West of Harare.

other NGOs disseminated the technology. ORAP promoted technology in Zhombe, Tsholotsho and Binga; Christian Care in Zaka; Life Sowing Ministries in Chiredzi; Agricultural and Rural Development Authority (ARDA) in Murombedzi and ITDG in Chivi and Nyanga. Most of these agencies allocated the low cost vehicles to particularly needy individuals or groups. As will be seen in a section below, the use of these IMTs generated both direct and indirect benefits to women.

3.2 Non Transport Interventions

Various stakeholders were instrumental in providing different inputs to assist the alleviation of the transport burden. These are shown below:

3.2.1. Local Governance

The promulgation of the Rural District Councils Act in 1988 marked the transfer of power and roles from central government to Rural District Councils, which came into effect from 1993. It is hoped that decentralisation will lead to the development of comprehensive, targeted, sustainable and efficient services and programmes that are consistent with the requirements of the Economic Reform programme (Ibid.).

Water and fire wood collection in Zimbabwe are very time consuming and burdensome particularly for women. Firewood continues to meet nearly 100% of energy needed for cooking in most rural areas. It is also a major source of energy for heating and lighting (GoZ and Unicef, 1990; ILO and Ministry of Transport, 1997). The stockpiling of firewood involves frequent trips several times per week for fuelwood and several times per day for water collection. There is a marked seasonal pattern in fuel wood collection. In the winter months women spend more time collecting and stock piling wood and as farming picks up in summer, there is less time for the collection of firewood (Min of Health and UNICEF, 1990). With the progressive degradation of firewood sources and the increasing changes in the weather patterns, the distance to firewood and water collection and hence the transport burden is likely to increase. This is why the government and NGOs have developed different active and proactive initiatives to alleviate these problems.

The development of community woodlots closer to the households is a long-term measure that reduces the time trip hence the time and effort devoted to firewood collection. In recognition of this significant initiative, the government introduced the National Tree planting day on the first week of December of every year in order to make this event nationally recognised. See Annex 1 for details of Government Departments and NGOs involved in Natural Resources Management.

At the rural local level, this is seen through the activities of the Rural District Councils (RDCs) who are tasked to carry out administrative and developmental activities.

Activities of the RDCs carried out include pegging sites for schools, clinics, shops, market sites and inspection of buildings as well as liaising with the relevant ministries. They are also involved in soliciting for donor funds for the development of new and existing facilities. They co-ordinate food for work projects, with most food earmarked for

making access roads, footbridges and other facilities particularly for marketing purposes (GoZ and ILO, 1997; van Esch, 1998; Airey, T and Wattam, M, 1998).

A recent study by Intermediate Technology (1998) found that the developmental potential in most rural areas is big, provided it is supported by an improvement in the transport and communication networks to access remote areas. In some areas, the scope for agricultural improvement is also based on the good irrigation potential by tapping up the water from perennial rivers and streams in drought prone areas in order to bring facilities closer to the people and to improve their food security (C. Nyamurova, 1996).

The contribution of Rural District Councils towards the empowerment of women is a central component of the Capacity Building Programme. It is conceived that the programme will facilitate the identification of and training of women as leaders in the various administrative levels viz. VIDCOs and WADCOs and the Central Authority. This process is integrated within the economic empowerment of women through improved access to markets, urban transport and other various different areas. In 1996, the Ministry of Transport and Energy (MoTE) Department of Roads (Dor) together with the Rural District Councils identified the need for a co-ordinated approach in formulating a national policy on roads as well as in charting institutional reforms in the sector. It was also found imperative that all development activities in the sector be geared towards optimising distribution of available resources across the entire road network by adopting a sectoral approach. (Intech Associates and Sesani Projects, 1998 p3).

The outcome of this process was the Road Sector Reform Steering Committee charged with the task of overseeing the envisaged reform process. Members are drawn from a wide spectrum of stakeholders including the Private Sector. The Association of rural district councils represents the interest of the 57 councils throughout the country.

This process will see the decentralisation of the road maintenance and this will increasingly enhance greater participation of women and beneficiaries at the local level. Community involvement is crucial for a number of reasons: It is important in promoting and strengthening democracy, governance and accountability, since the people particularly women participate fully in issues that are directly related to their development and governance. It helps in reducing bureaucracy and increasing efficiency since the levels of decision making are reduced. Lastly, it ensures sustainability of projects and programmes since the communities consider the projects as theirs, as opposed to those that are externally imposed and controlled. It fosters a sense of ownership and responsibility. (T.C. Mbara, ASIST Bulletin, 1998).

In Zimbabwe the Ministry of transport through the Department of Roads is engaged in a two and a half year labour based contractors Development Programme since January 1997. The objective of the project is to establish a sustainable rural construction and maintenance capacity using a combination of labour based small-scale entrepreneurs. It is envisaged that this will contribute towards the provision of improved rural transport and the promotion of socio economic development in rural Zimbabwe. There is also a programme for small-scale labour-based contractors, which started in 1998. They are trained and loaned with equipment. All contractors started work in January 1998 and

are producing roads of high quality standard at an average of 2.5km per month. A total of 160 km of secondary rural roads has also been contracted out for rehabilitation by the SSCs in 1998. Women will also benefit from community contracting where the community forms itself into a registered or organised group (Community-based organisation) or CBO and they are tasked to perform certain tasks in return for payment from the Rural district council or a funding organisation.

The food for work programme provides a safety net for food insecure households thus directly supporting their livelihoods. In emergency situations, food for work schemes are often aimed at direct relief aid.

iii. Community participation

Activities involved in this programme of work include road work maintenance, making foot paths and foot bridges, maintain borehole water points in the food for work programme, reclamation of guillies and dongas. These activities require ferrying materials for instance stones and sand and using scotch carts and wheelbarrows the work is significantly enhanced. The food for work programme results in people getting the needed food in exchange for work rendered.

3.2.2 Improvement of Health for Women and Children.

The health delivery system is also one non-transport intervention strategy. From independence in 1980 the health and economic policy of Zimbabwe was of 'Growth with Equity' (Min of Health, 1997) This implied the redressing of the inherited colonial health delivery system that was biased towards serving the small urban population at the expense of the vast rural population. The Zimbabwe National Health Service during the decade 1980 -1990, was in turn guided by the policy of Equity in Health and this emphasised health need instead of ability to pay for the services. In conformity with this drive, various policies were planned and implemented.

These included Planning for Equity in Health (1984), Primary Health Care Approach and the Zimbabwe Health for All Plan (1986). These policies were to ensure that all people of Zimbabwe had access to comprehensive and effective health care. This was done by extending the health physical infrastructure and the development of a health management system in conformity with the needs of the nation (Min of Health, 1997). Women and children feature as particular targets of social policy not only because they have a higher risk of health and death, but because they are also amongst the socio-economically disadvantaged within the working class and peasantry (UNICEF and GoZ, 1990). Activities put in place include; bringing facilities closer to the people for instance introduction of village health workers, who move around in the villages teaching and administering primary health care, hygienic standards and family planning. They also operate mobile clinics in schools for baby and child care and immunisation programmes.

In addition, several inter-sectoral strategies were pursued as a means of integrating the health delivery system into the broader developmental policies initiated by the government. This was done with the Ministries of Education, Agriculture and Water Development, Local Government, Rural and Urban Development and Community Development. For instance, the health impact of better housing, increased educational

facilities, improved agricultural production and proper natural resources management has been demonstrated in development literature. The level of women's education has been shown to have a bearing on the nutritional standards of their children and their adoption of family planning methods. Equally the empowerment of local communities in the development and management of their economic and social affairs have also been identified as important contributors to improved health for individuals and the communities.

All these facilities are helping rural people to access health facilities without having to go to far away clinics through their outreach programmes, enhancing the health and quality of life in the rural areas. According to the Ministry of Health statistics, since 1980, the government through the above measures has succeeded in facilitating better access to health services. By 1997, 85% of Zimbabweans lived within 8km of a health facility. (Min of Health 1997). Additional Rural Health centres have been built across the country resulting in a significant impact on health delivery services. The policy has also been to ensure one District Hospital per each district and one provincial hospital with specialist services. As a result of health delivery services, the infant mortality from 1980-1990 dropped from 84 per 1000 to 71 per 100 and the maternal mortality rate also dropped (Min of Health, 1997). These developments have had a significant bearing and impact on time management and allocation by women who are mostly involved in child care and caring for the sick. This has contributed substantially to generating time for other productive economic and social activities.

There are also programmes to enhance access to near safe and reliable water sources and sanitation. The government recognises that water and sanitation are critical if living standards of the population are to be improved. Although urban Zimbabwe is nearly 100% covered with safe water supply and sanitation services, the situation in the rural areas is different (Min of Health, 1997).

Since independence in 1980, water supplies in all government and rural district council facilities have been promoted and upgraded so that water supply will be adequate and people do not have to travel very long distances. Schools have benefited from borehole drilling programmes to facilitate access to clean and reliable water at relatively shorter distances. In the communities people have access to bore-holes, springs and piped water. According to the Ministry of Health (1997) over 64% of rural people now have access to safe drinking water and just under 50% to sanitation as a result of the Integrated Rural Water Supply and Sanitation Programme implemented in the last 16yrs. Through involving female community members in the water point siting strategy, the program made important advances in promoting women's participation (Min of Health, 1997).

However, the rapid expansion of supply and services recorded in the 1980s has slowed down due to reduced funding. The other problem is that some dry out and remain un-repaired when they break down due to lack of spare parts.

Crop production is the major activity in the rural areas. However, due to generally low rainfalls received in most parts of Zimbabwe from natural regions 3-5, the construction of dams and the provision of irrigation facilities are of prime

development objectives of every district. The Situation Analysis carried out in four provinces of Zimbabwe by Intermediate Technology in 1998 showed that dam construction is a major strategy of the period 1995-2000 development strategy, framework (ITDG, 1998).⁵ This enables communities to have better access to water for both domestic and crop production enabling them to increase agricultural and small scale income generating projects (ITDG, 1998).

Research by ITDG found that they employ participatory and consultative approaches in identifying and prioritising community needs and priorities and this encompasses community participation to address their transport problems.

3.2.3 Improvement Education of women and children

Post independence education policy emphasised that education was the birthright of every citizen and that the state would ensure that the necessary facilities are provided for all particularly in the rural areas. The colonial distribution of schools meant that pupils had to travel long distances to school and the post colonial government's aim was to redress the situation. The government through the Ministry of Community Development and Women's Affairs with the assistance of Labour, Manpower Planning and Social Welfare and the Ministry of Local Government participated in various capacities (GoZ and UNICEF, 1990) to establish Early Childhood Education Care. Added to this was the expansion of the primary and secondary school enrolment and the development of infrastructure. This represents a significant achievement in terms of investment in the future of the country in human resources development.

At the primary school level expansion has been evident in the increase in the number of schools from 2401 in 1979 to 4504 in 1989 (Min of Health and UNICEF, 1990). A similar expansion took place in the secondary schools increasing from 177 in 1979 to 1502 in 1989 with an enrolment of 66215 in 1979 to 695 612 in 1990 with a larger number in the rural areas (Ibid.). There was also an adult literacy campaign launched in 1983, first under the Ministry of Community Development and Women's Affairs and under the then Ministry of Primary and Secondary Education from 1985. The Ministry of Primary and Secondary Education policy established basic literacy and functional literacy classes at primary schools both in urban and rural areas. Fundamentally by 1990 rural adults had been the main beneficiaries given the history of rural neglect by successive colonial governments. Women in particular received attention recognising that they are a potent force for transforming society. In 1985, 85% of the adult literacy learners were rural women and facilities were brought to the villages. There were times when classes would be conducted under tree shades in the villages. (Min of Health and Unicef, 1990).

3.2.4 Improvement of Social Welfare

The Ministry of National Affairs Employment Creation and Co-operatives (MNAEC) also strives to enhance the social economic empowerment of communities through mobilisation for development by equipping them with leadership and management skills

⁵ See Annexes 1 and 2 for details of NGOs involved in Natural resources management and Water and Sanitation Programs.

with a specific focus on employment generation through the creation of an enabling environment for the promotion of small scale enterprises, the informal sector and commercialisation of co-operatives. It has a Labour and Social Welfare Department, which is also involved in food- for- work programmes. These programmes improve or create assets of direct benefit to the community for instance making tracks, footpaths and footbridges and to address emergency situations. This improves access by people. Also MNAEC endeavours to mobilise technical and financial resources to support development of grass roots communities and this has become their mission statement. It operates on three levels.⁶ The village-level where it mobilises and trains the community to ensure effective participation in decision making, design and management of development projects at village level. It also operates at Ward level where it supervises the development activities and at district levels where it develops project proposals, monitors and evaluates projects for client groups and linking with NGOs involved in the employment generation. All these activities ensure poverty alleviation and improvement in living standards.

3.2.5 Time Saved and Derived Activities

The use of IMTs and other interventions as indicated above has created both direct and indirect benefits to women. With regards to IMTs, there are variations between these gains, depending on the wealth status and household size, which determines the range or number of IMTs, owned. First, the use of IMTs has reduced the number of trips involved in the various transport journeys. Secondly, they have substantially increased the efficiency with which loads are carried e.g. women are finding that transporting for instance maize, firewood and manure load by cart is more efficient and quick than by head loading.

Women who head load, collect firewood on average twice every week while those using the cart, the time and frequency are substantially reduced to once every month depending on family size and consumption patterns. In two village of Chiota in Mashonaland East Province of Zimbabwe, firewood is collected over a distance more than 3-4 kms, involving 2 hours of walking and another hour of collecting. This translates to 16 hours per month for head loaders and only 2 hours per month using the cart. Annually this approximately translates from 192 hrs per year to 48 hours per year.

As has already been mentioned time savings arising from nearby sources is difficult to measure as usually near sources mean more usage of water, hence more trips. However small girls and boys can easily bring in the much needed water alleviating the burden on the mothers. More water is required to keep the home clean and therefore better hygienic conditions. The benefits accrue more in terms of cleanliness and better primary health care.

The use of IMTs has reduced the time devoted to going to the grinding mill. For instance, in Chiota people travel 2 km to the nearest grinding mill over 1hr. An average family consumes 4 tins x20kgs of mealie- meal per month. Women on average head-load 1tin of maize every week and small girls head-load 10kg (1/2-tin) every week. This

⁶ See Annex 3 Local Government Structure Chart.

translates to 4 trips per month involving 2 hours of walking and 1 hour of waiting making 3 hours per trip and 12 hours per month. Using a cart or wheelbarrow, this travelling frequency is substantially reduced to once per month. Further benefits are that several households can send their maize for grinding even if they do not go themselves reducing the travelling frequency household further. The time saved as a result approximately translates from 12 hours per month to just 3 hours per month and from 144hrs per year to 36hrs per year. The waiting time at the mill is determined by the seasonal changes in the availability of maize. This time is high soon after harvesting in April/May and tapers downwards as maize stocks subside with time, peaking up again the following season. It is also affected by the number of grinding mills available at the commercial centre. Non-Transport interventions such as family planning baby care and siting of water and marketing facilities near yields significant time savings as women are saved from travelling long distances. However these cannot be imputed accurately. As will be elaborated below, the issue of time savings is more complex than is implied in literature.

3.2.6 Time allocation and utilisation to productive activities

All the evidence from the surveys and other earlier work and case studies points to the effect that the use of IMTs and siting of amenities nearby significantly reduce women's transport burden. This has left them with more time to partake in other economic, social and in some cases politically oriented activities. They are no longer simply tied down at home. This has an empowerment dimension and effect. The main benefits fall into time savings and income generation activities. However as Ian Barwell (1997) acknowledges in case studies from sub-Saharan Africa, we also found that the question of time saved and its utilisation is more complex than imagined.

The women across the various areas in Zimbabwe indicated that they use time saved to participate more actively in women's clubs and co-operatives, where they do sewing, cooking and home management issues. In areas where comprehensive studies were done, they use the time saved to do more income-generating projects such as individual peanut butter production, gardening, poultry and piggery. They are also involved in buying and selling goods to beat the hard economic times. Some are increasingly partaking in casual labour side by side with men. For instance, use of IMTs to fetch water and ferry feeds has eased the workload in dairy, poultry and piggery projects.

The resultant productive activities in which women will spend more time saved on are mostly a higher contribution to agricultural activities for a better welfare of the participating family, enhanced access to primary health care programmes and women's Clubs. Projects like piggery, poultry and gardening. These may not necessarily be new activities. Participating in them may be increased for example keeping more chickens or pigs, plant larger hectareage for gardening, keeping more dairy cows, engage in buying and selling (retailing activities), sewing co-operatives, most sew school uniforms for the local schools. Although these are not entirely new activities the release of more time has enabled women to partake in more of them.

The results also indicate that for many rural people, women income-generating activities tend to take place on a relatively small-scale within the local area. Women indicated that the rise of many projects is largely constrained by lack of start up capital and not time

constraints. It is the minority of more successful businessmen in an area who will have a greater demand for long distance motor vehicle transport service requirements.

The assumption is that the introduction of IMTs and facilities will have all round positive advantages. Whilst this has been so to some extent, the release of time has also opened women to more demanding tasks as listed above, leaving them again with little time to rest and visit friends and relatives. This is due to the fact that with the increase in the cost of living and unfavourable changes in weather patterns affecting agriculture, women have to work extra hard in other income generating projects, for household livelihoods.

Whilst leisure time is beneficial because consistent huge workload leads to unsatisfactory work performance and other related social and health implications, the women stressed the fact that they cannot 'rest' because they have to ensure the survival of the family. It is their perception that women in urban areas can rest. "While an urban woman can rest, a rural woman hardly gets the time, she can only rest when she goes to sleep", said one woman.

3.2.7. Poverty Alleviation

With the use of scotch carts and wheelbarrows, much more agricultural work can be accomplished for instance, ferrying agricultural implements to the fields, ferrying produce to the market in time this reducing production costs substantially and loss as well. This also has the desired effect of significantly reducing the livestock burden piggery, poultry and Dairy projects. This has resulted in enhanced food sufficiency and surplus for sale. It should be highlighted however that there are many factors at play, but then transport drudgery and burden is significantly reduced thereby enhancing the productive base of the rural families and activities. The quantitative analysis of the effects require an investigation into the number of bridges and footpaths either made or maintained and repaired in any given community where these activities have taken place.

3.2.8. Improvement of welfare, education and wealth

Welfare, education and health improved significantly in the past almost twenty years due to several factors. Before independence there was a marked dual economy on racial lines with provision of better essential services for the white minority. The new government sought to redress this imbalance and put in place structures and services for all the people.

These services include schools and health centres in the rural areas and farming communities closer to the people (ie target of a radius of not more than 10km to the nearest centres) and provision of social welfare for the needy.

3.2.9. What role did transport play in all this

When the distances to the clinics and health centres was reduced by bringing services nearer to the people, it became possible to ferry the sick in scotch-carts and wheelbarrows. This made it possible for most people to access medical attention than

before.

Close proximity to schools and free education made it possible for increased attendance at schools. Use of IMTs by villagers also made it possible to reduce time spent on collection of fuelwood and other household chores for women and the girl-child making it possible for the girls to attend schools and also reduced dropouts. More mothers and women in general were able to participate in the adult literacy programmes.

In fact it was the whole concept of RTTP process that enhanced the welfare of the rural people not just the transport initiatives.

Below is a table showing Education trends.

4. CONCLUSIONS

In many Developing and African countries, governments and donor agencies actively support the improvement and creation of basic social and economic infrastructure at a community level. This has the effect of reducing the transport burdens of the rural people by bringing facilities closer to them. The use of IMTs has helped to lessen women's transport burden leaving them with time to partake in other productive activities. Non-transport interventions e.g. siting of health and commercial activities nearby has also reduced time and effort expended in travel and transport. The overall effect has been increased community participation and poverty alleviation. These community based infrastructure programmes usually benefit the communities concerned directly and are characterised by members of the communities participating in project activities.⁷ Participation in planning and implementation ensures the relevance of the projects offering local solutions for sustainable development. It promotes a feeling of ownership and creates intensive employment amongst the community

Finally, it is however recognised that achieving development plans that are sustainable is not easy due to dwindling government and donor funds but three ingredients that also support transport initiatives will be vital to success. These are;

- Increased local involvement, through a participatory approach;
- integration: making vertical and horizontal linkages up and across the sectors and;
- focused plans based on priorities.

5. RECOMMENDATIONS

The food- for work programmes are supported by the World Food Programme. See van Esch. W, 'Community Based infrastructure carried out with food for work payments', In ASIST Bulletin No 7, July 1998.

Over and above the existing initiatives by various players , the Government of Zimbabwe must adopt and document a more explicit strategy to guide rural travel, transport and access activities. From this more benefits will be accrued as different players perform different functions well co-ordinated by a central body.

6. References

Airey. T and Wattam. M. 'Community Participation in Road Maintenance', In ASIST Bulletin No 7, July 1998.

Bamberger. M, 'Addressing Gender in the African Rural Travel and Transport Programme RTTP', Gender and Development Group World Bank, 1998. 21.pp.

Barwell. I, 'Transport and the Village: Findings from African Village-Level Travel and Transport Surveys and Related Studies', World Bank Discussion Paper No344, 1996, 66pp.

Central Statistical Office (CSO), Zimbabwe National Census Report1992, Harare: Government Publishers. 266pp.

Curtis. V, Women and the Transport of Water. Intermediate Technology Publications,1994, 48pp.

Dawson, J and Barwell. I, Roads are not enough: New Perspectives on Rural transport planning in Developing countries, Intermediate Technology Publications, London, 1993.

Dawson. J, 'Manufacture and Diffusion of Low-cost Transport devices in Zimbabwe', Report of visit by Consultant Socio-Economist 18January -9 February, 1995.16pp.

Fernando. P, 'Balancing the Load: Gender Issues in rural Transport: Overview of existing information and identification of gaps', IFRTD, 1997, 7pp.

Gender Issues in Rural Transport: An Inter-regional Research Programme: The Impact of Transport and non-transport interventions on gender allocation of transport burden and gender relations.

Government of Zimbabwe and UNICEF, 'Children and Women in Zimbabwe: A situation Analysis Update July 1985-July 1990'.

Intermediate Technology Zimbabwe, 'Situation Analysis of Rural Development Initiatives in Zimbabwe'. Final Report prepared for W. W. Kellogg Foundation. 1998, 80.pp.
Mannock Management Consultants and ILO, Rural Transport Study in Three Districts of Zimbabwe, Volume 1, April 1997.

Mbara. T. C, 'People centred Planning Systems For Rural Transport Development –A case study from Zimbabwe'. In ASIST Bulletin No 7 July 1998.

Min of Transport and Association of Rural District Councils (ARDC), 'Equipment and Rural Road Maintenance Cost Study'. Draft Inception Report prepared by Intech Associates and Sesani Projects. September 1998.

Ministry of Health and Child Welfare, 'National Health Strategy for Zimbabwe 1997-2007', December 1997.

Ministry of Health and UNICEF, 'Health Service Costs and Financing in Shurugwi District', December 1993

Ministry of Health and UNICEF, 'Health Service Costs, Resource Use and Financing in Gutu District', May 1994.

Nyamurara. C, 'Chimanimani District Profile' National Economic Planning Council, Manicaland, 1996

Orr. S and Njenga. P, Manufacture and Diffusion of Low –Cost Transport Devices in Zimbabwe: Evaluation Report, July 1995, 42pp

Price WaterHouse, 'Report of the Study on Transportation conditions and Requirements for the Mashonaland East Fruit and Vegetable Project', Final Report Prepared for Agricultural and Rural Development Authority (ARDA), April 1998.

RDCU, 'High Level Road sub-sector Policy Review Workshop Recommendations', RDCU Issue No2 September 1998.

van Esch. W, 'Community-based infrastructure carried out with food for work payments'. In ASIST Bulletin No 7, July 1998.

7. Annexes

Annex 1: Organisations involved in Natural Resources Management

Organisation	Activities
Forestry Commission	Natural resources management
Natural Resources Board	Natural Resources management
Agritex	Farming and natural resources management
ZERO	Energy Issues
Environment 2000	Natural resources management
National Parks and Wild Life	Wild life management
SAFIRE	Indigenous natural resources management

Annex 2:

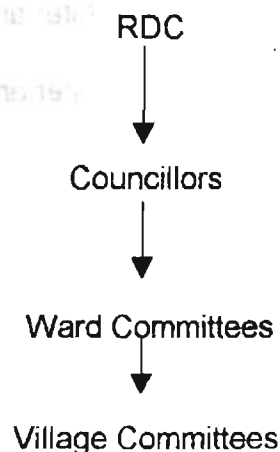
NGOs involved in Water and Sanitation Programmes

Organisation	Activities
Catholic Development Commission (CADEC)	Water and sanitation
Silveira House	Water and sanitation
Christian Care	Water and sanitation
World Vision	Water and sanitation
Plan International	Water and sanitation
Care International	Water and sanitation
Manicaland Development Association	Water and sanitation
Matebeleland Development Association	Water and sanitation

Annex 3:

Government Development Structures.

In 1984 the government passed a decree that provided for the creation of a new structure to spearhead development at district level. The new structure has four levels namely; village committees, ward committees, councillors and the Rural District Council as shown below. The role of the village committee is to identify community projects at the village level. The Ward committee works on projects coming from the VCs. Each ward is represented by an elected councillor and all the councillors constitute the RDC executive.



Source: Situation Analysis of Rural Development Initiatives in Zimbabwe(ITZ,1998).