

4. *Women and Rural Transport*

4.1 *Women's Perceptions of Rural Transport*

Women are well aware of the time and energy that their transport responsibilities consume. When asked specifically about water and firewood collection or crop transportation, the women vividly explain their situations. Frequently, after a meeting, they wished to show the exact location from where they get water, especially the condition of the footpath and the sanitary conditions around the water source. They wanted to make sure that the person asking questions understood the magnitude of their effort.

Women often start their day by fetching water. Then they move to the fields to cultivate the fields and to gather food for the day. Before they return home to prepare the meal, they also have to collect firewood. In some areas, firewood is available near the fields or home, or on the way home from the fields. In other areas, a special trip has to be made in order to collect firewood. In the mountainous areas of Mbale district, gathering firewood is said to be the most time-consuming transport task women face. No evidence was found of any intermediate means of transport being used for firewood collection in any of the villages visited. In the plains, water collection is considered to be the most time-consuming transport activity. In the dry season, households may need to travel up to 7 km in order to reach a water source.

The transportation of agricultural produce is also a daily task, although it is only particularly difficult during the harvesting seasons. As with the previously mentioned activities, the loads are generally carried on the head, or, as found in some areas of Mbale district, on the back. Women generally accept their situation but are very eager for changes and improvements.

Opportunity Cost of Time and Effort Dedicated to Transport

What would women do with the time and energy "saved" if they reduced the time and effort dedicated to transport? Most women would spend more time at home. They would cook better meals, keep their homes cleaner, wash the family's clothes more frequently, spend more time with the children, and rest. These are all activities which women currently do not have sufficient time for. An increase in time at home would thus result in enhanced family welfare.

Rural women are socially deprived. They farm alone and the only social interchange they have during the day may be at the water well or stream. Therefore, many women would also spend the "extra" time at women's clubs which could serve both social occasions and income-generating purposes.

Very few women said that they would cultivate more land or intensify existing cultivation. Most women indicated that in case of an improvement they did not wish to further increase their existing burden. Ugandan families are large, and women often have 6 to 10 pregnancies during their childbearing years. They take care of infants over a long period of time. Given their heavy workload and many responsibilities, women often neglect their own health. Rural women are tired, overworked, and undernourished. An increase in time spent at home may indirectly contribute to a rise in productivity in the fields as well.



Women fetching water in Mulenju village in Tororo district

4.2 Existing Time- and Effort-saving Measures for Internal Travel

An intermediate means of transport (IMT) is very rarely employed women's transport. In fact, in all cases where an IMT was used, regardless of whether it was a task performed traditionally by men or women, the transport task was performed by a male. Children alleviate the transport tasks of their mothers by carrying water, firewood, and crops at harvest periods. They generally help during the afternoons since most of them go to school in the mornings. Most women thought that older children (particularly boys) would be more willing to continue assisting them if they could use an IMT.

Bicycles

In two of the VLTTs households in Nampanga, bicycles were used during the dry season to fetch water from distant sources. In Buwanyama village, the two bicycle-owning households used their vehicles to go to the grinding mill in another village. These are the only examples within the VLTTs where the availability of bicycles resulted in the transfer of a traditionally female transport activity to men.

Wheelbarrows and Handcarts

In a few villages in the flatland, water was seen being transported in jerrycans on wheelbarrows. In most of these cases the water was intended for construction (generally a man's responsibility) rather than for personal consumption.

Wheelbarrows are popular in Uganda and in most flat areas there is a wide variety of locally- made wheelbarrows in use. Often, children make their own crude toy versions of these vehicles. In villages, wheelbarrows are mainly used for movement of an occasional heavy load such as a bag of fertilizer or cement, or to bring a bag of coffee to the cooperative godown. They are also used to transport sand or bricks during construction.

In the larger town marketplaces, and at the bus parks, there are wheelbarrow and handcart transport operators. All of them own locally manufactured vehicles. These vehicles have large wooden bodies, metal axles and a pneumatic or metal tire. There is a carpentry shop in the market in Tororo town that specializes (among other things) in custom-made wheelbarrows and carts.

Metal wheelbarrows are available in both Mbale and Tororo towns. The most common ones come from China and India, and they cost Ush.16,000. Apparently, there is also a Ugandan wheelbarrow made in Jinja, and a Zimbabwean model. Both cost around Ush.25,000. They were not available in the shops visited by the team. The main problem with metal wheelbarrows in the villages is the lack of repair facilities.

Oxen

In eastern Uganda, oxen are frequently used for ploughing. Many families who do not have the animals try to rent them. Oxen are also used for transporting agricultural products during harvest season. Two-span and 4-span oxen are engaged to pull locally manufactured sledges. A large basket is placed on top of a sledge to transport crops, commonly maize or onions. The sledges are also used to move bricks or logs for construction.

Ox-carts were found in two of the villages visited - Mukujju and Magodesi in Tororo district. Both are located in the flatland along the main road between Tororo and Mbale. The two carts were imported 48 and 12 years ago respectively. Only the one in Magodesi was still operational. It has metal wheels and is pulled by 4 oxen. The cart is used for collecting water in a drum, and for ferrying crops from the fields at harvest time. The cart was only used by the owner, i.e. it was not rented out, as is frequently the case with the oxen themselves. The women were very keen on the carts and on the idea of improved sledges, although they recognized that only a few households have a pair of oxen. Both cart-owning households belong to the wealthiest families in their respective villages.

Donkeys

Donkeys are not traditionally kept in either Mbale or Tororo district. In fact, many women on the flatland have never seen a donkey. In the hilly areas of Mbale the villagers are very interested in these animals because they know that donkeys are used in the sub-counties which border with Kapchorwa district in the northeast or with Kenya.

The only village visited that has donkeys was Bumbo, about 62 km southeast of Mbale town. It is situated in the mountains on the Kenyan border. The last 20 km before reaching Bumbo are on a very poor access road which is virtually impassable when it rains. Due to its remoteness, this village has only sporadic contact with Mbale district. District officials rarely visit Bumbo due to lack of transport. Close to the village there is a trading post with Kenya - Bwakhakha. This area has clearly benefited from trade with Kenya. There are a number of private grinding mills in the village, and both oxen and donkeys are used for transportation.

At the time of the team's visit, there were 4 donkeys in the village center. The donkeys carry "everything that can be put in a bag." They are thus mainly used for the transport of agricultural produce. Both donkeys and oxen are rented out by their owners. It costs Ush.500 to rent a donkey to go to the Kenyan border. There are no carts in Bumbo and very few bicycles due to the mountainous terrain. Veterinary services are limited and donkeys and oxen frequently die due to lack of proper care and medicine.

In 1986, the Young Women's Christian Association (YWCA) brought 25 donkeys from Kenya intended for sale in Mbale district. The animals were kept at the government farm in Sironko. The project made efforts to improve on the harnesses and attempted the construction of a small cart. Shortly after the donkeys came to Uganda they contracted lung worm. The veterinary staff had limited experience with donkeys and lacked the necessary medicine. As a result, all the donkeys died, except one. Some of the donkeys died shortly after they were delivered to their owners. At the time they were sold for Ush.50,000. The owners lost their money in the process, and naturally are skeptical about trying again.

Non-Transport Interventions

The transport burden of rural women can also be alleviated by having better access to:

- (i) Water supply;
- (ii) Woodlots;
- (iii) Grinding mills.

The existence of these facilities in the study area is discussed subsequently.

Water Supply

Few villages have protected springs or boreholes. In Mbale and Tororo districts, there are ongoing rural water and sanitation projects being carried out with external funding. The fact remains, however, that, even in villages with improved water supply, women and children must still travel large distances to get to the source. Villages in eastern Uganda are rather spread out and settlements are scattered. Thus, in order to eliminate the transport element of water collection, several sources would be required within the same village.

Woodlots

Very few households plant trees. A women's group was recently formed - the Uganda Women's Treeplanting Association - which addresses the issue of firewood and deforestation. In the villages where the group exists, women start nurseries and arrange seminars on tree planting. This organization is, however, still not established in the mountainous areas of Mbale district, where firewood collection is considered the most time- and effort-consuming transport activity.

Grinding Mills

Women also tend to take responsibility for grinding. In villages without a grinding mill, considerable time is spent on this task. However, in Bukisimamu, the most remote of the VLTTTS villages, women do not take their grain to be ground because the closest mill is too distant. Instead, they sell their maize to traders, and buy flour in the shops around the market.

There is a European Community (EC)-funded project where communities construct mill buildings according to exact specifications, and the project provides and installs the mill. Not all the women's groups struggling to get a mill were aware of this project. Also, in some of the places where they were working with the project they had trouble following the building plan.

4.3 *Women's Priorities for Interventions to Improve Transport*

During meetings with women's groups in villages, they were asked how their main transport problems could be alleviated, emphasizing the limits of the economic and technological means of the rural household. A variety of suggestions were made which have been divided into five different categories.

- (i) Intermediate means of transport;
- (ii) Motorized vehicles;
- (iii) Development of transport services;
- (iv) Improvement of road networks; and
- (v) Non-transport interventions.

Each of these categories is discussed here.

Intermediate Means of Transport

An IMT is used to transfer the load-carrying task from a person to a vehicle and/or enables a person to increase the load per trip. The use of an IMT can thus either reduce the time and effort spent on transport, and/or allow for an increased consumption of the transported item. The former is a common result of improved access to firewood while the latter is common for water. In most cases, the use of an IMT increases trip efficiency in terms of weight transported per minute.

In eastern Uganda, 4 alternative types of low-cost vehicles were discussed by the women's groups and relevant key informants.

- (i) Bicycles;
- (ii) Wheelbarrows;
- (iii) Oxen/cows; and
- (iv) Donkeys.

Bicycles

Women in flat areas are very interested in bicycles and find them useful. They would either use the bicycles themselves or other household members would use them in order to assist the women. The main constraints to increased bicycle usage are, as discussed previously cultural factors (depending on the area), technical and economic factors, and infrastructure.

In all of the villages visited in Tororo district, and in Bumudu, Buwanyama and Nampanga, in Mbale district there was a keen interest in bicycles. In Tororo, the women were more open to the idea of riding themselves, while in Mbale, most women thought that their older sons would be more interested in helping them with daily transport activities and running errands if they had access to a bicycle.

The bicycle has large potential in Uganda because it is well known, popular, and could, with suitable credit arrangements, come within the financial reach of a rural household.

Wheelbarrows

Women in flatter areas are also enthusiastic about the prospect of employing wheelbarrows for the collection of water, and the transportation of crops from the fields, either by using their wheelbarrows directly or having their children use them. Despite this opinion, wheelbarrows are rarely used by women at present.

In the hilly areas of Bumbu village and in Bukasakya village in the flatland in Mbale district, women were interested in using wheelbarrows for the transportation of water and crops. When asked why they did not buy them, the women hinted that they were unaware of their price or availability. Their estimate of the cost of a wheelbarrow was twice as high as the current market prices.

Wheelbarrows are widely available, and cost a quarter of the price of a bicycle. Yet few people purchase them for other than building and construction. As mentioned earlier, there are limited possibilities for the repair for broken wheelbarrows in the villages and this could be a constraint to the sustainable impact of wheelbarrows in the local transport system. Locally-produced wheelbarrows would be less affected by this problem.

Oxen/cows

Improved sledges and locally manufactured carts could greatly enhance the transport capacity of households who own oxen. A pair of oxen are, however, too expensive for the average household. The most practical option for the majority of households to benefit from improved carts would be to rent oxen for transportation, in the same way as oxen can be rented for ploughing. Women's groups in Mukujju and Magodoro expressed an explicit interest in carts. Women in general, both in the mountains and on the plains, were interested in extending the use of oxen.

Cow carts could be considered as an alternative to ox carts. At the Namulonge research center outside Kampala, carts made of local materials have been built at a cost of Ush.82,000. (This should be contrasted with a price of Ush.300,000 for available imported ox carts.) The Namulonge cow cart is pulled by one cow, which can transport loads of 300-400 kg. The animal is fitted with a padded horseshoe-shaped collar to increase its pulling capacity. It takes about 4 weeks to train a cow to pull the cart. The younger cows are more easily trained, as they tend to learn their transport role faster. Many households already have cows; thus, the investment for these households would be limited to the cost of the cart.

In eastern Uganda, it is the men who plough or transport goods using oxen. Consequently, women have limited experience using the animals. The cow trainer at Namulonge thought that it would be easier for women to take charge of a cow rather than to deal with oxen, as they are more familiar with cows. Since cows are not used currently for transport, they could be introduced as draught animals to be used particularly for women's transport activities.

The animal caretaker at Namulonge said that a pregnant cow could also pull a cart if the animal is properly fed. It was mentioned, however, that there may be a law in Uganda that prohibits the use of cows as draught animals due to their function of providing milk. Thus, it could go against cultural or traditional beliefs to use cows to pull loads. These aspects need further investigation because there is a large potential for using cows as draught animals in rural areas.

Donkeys

The use of donkeys could be extended through improved carrying aids and the introduction of carts. Currently, donkeys are used in a few upland areas of eastern Uganda and there is an interest in them in other mountainous areas, such as in the VLTTTS villages of Bumudu and Bukisimamu. Here, the

women feel that donkeys could be very useful for internal transport purposes. Equipped with appropriate carrying devices, the animals could transport water, firewood, and crops, and be used for trips to the grinding mill. Unfortunately, neither agricultural nor veterinary extension officers have any experience with donkeys and their introduction would have to be a slow and carefully supervised process to gain acceptance and minimize health hazards.

Motorized Vehicles

In Bumbo village in Mbale district, the women were very interested in purchasing a tractor in order to bring their produce to market. However, they would need access to credit. They knew of a neighboring village that had acquired a tractor and now receives much better prices for its produce.

However, the idea of acquiring a tractor had not been properly thought through by the women. On the economic side, the problem is the lack of knowledge on how to finance and manage a motorized vehicle. Limited demand in the village may also necessitate the tractor being stationed outside for long periods of time. On the technical side, the lack of local maintenance facilities and expertise are problematic in this remote region of Mbale.

When asked to consider less expensive means of transport, the women said that donkeys and oxen are very useful, but that they are not "women's animals," that is, they are always handled by men. When it was mentioned that tractors and other motorized vehicles generally are also "men's animals," some of the women indicated that in fact in their daily transport chores they would probably get more use out of a wheelbarrow. It is possible, however, that the responses of these women might have been influenced by their belief that there was a project being planned to facilitate their access to wheelbarrows.

Development of Transport Services

At present, transport services in villages are related mainly to external travel. However, in towns and trading centers, transport operators are engaged for both internal and external travel as well as for personal and goods transport.

Internal transport

It was hard for village women to conceive of how they would be able to afford to pay someone to bring them water or firewood. Unless women are able to generate income, they will not be able to buy either the product or the service. In the study area, the average farmer rarely uses money payments for transport-related activities. In cases where people are "hired" to transport crops from the fields, the service is often based on a mutual agreement: "If I help you today, you invite me to food and drink, and then tomorrow you will do the same for me."

On occasion, donkeys have been rented out to bring crops home from the fields. If animal carts and sledges were to be introduced, there may be potential for local transport services to develop using these vehicles.

External travel - rural traders

Traders coming from town to buy produce enable farmers to sell their crops directly in the villages, saving the farmer time and effort which otherwise may have been dedicated to transport. Farmers frequently complain, however, that it is a buyer's market. This applies both to large traders who come with motorized vehicles and to bicycle transporters. An increase in the number of traders would result more competition and this may transfer some of the profits to the farmers.

External travel - boda-boda transport services

The boda-boda service is appreciated and used by both men and women. However, this service has limited benefits for the rural woman since she rarely travels outside the village. She does, however, benefit to the extent that other members of the household can travel on a boda-boda to sell or purchase goods.

Discussions with boda-boda riders and police authorities indicate that there are already as many riders as the market can support, and as a result daily revenues are low. The main impact of more widespread services like boda-boda would be in predominantly flat areas, and it is not likely to have a great effect on rural women.

External travel - public transport

Many households in the VLTTS villages suggested that a bus service in areas without buses, or more frequent bus service in areas where buses are already operating, would greatly enhance their possibilities of undertaking external travel.

A bus passes through Bumudu village on route from Budadiri to Mbale town. It costs Ush.250 to go from Buwira to Mbale by bus; the bus passes once a day. Consequently, people tend to rely on pick-up trucks -"taxis"- instead. The taxi fare is Ush.600, more than twice as much as the bus fare. Travel cost is a factor that affects external transport patterns. An extended bus service network would improve the possibilities of travelling for rural households.

Improvement of Road Networks

Women feel that improvements to the road network are very important as this would allow for increased contact with the surrounding world. Delivery of inputs and consumption goods would be made easier and the possibilities of selling produce to traders or bringing produce to market would increase.

Although women attach great importance to roads, in areas where roads are passable all year around people are frequently faced with a scarcity of motorized transport or lack of finances when they need to travel. A road also has limited direct impact on the transport patterns and burden of rural women since it mainly facilitates outside travel. Women will benefit to the extent that an improved road brings goods and services to the village. However, the perceived benefits of having a good road may be greater than they are in reality.

Women in eastern Uganda do not traditionally work on the roads. However, with the establishment of the Resistance Committee system, community and self-help work is being organized, and women in many areas are starting to participate in road work as well. When women participate in road works, they generally transport stones and gravel to the road sites.

Mbale municipality has recently employed women to undertake road maintenance work. This is an indication that women also have started to do road work for payment. Women also work on roads for the World Bank-funded Pilot Road Maintenance Project in Mbale district. However, the project manager had to put pressure on the village authorities to let women compete for the employment opportunities. Apparently, the quality of the women's work is very high. Also, women are considered to be more responsible and dedicated to their job commitments than men; if a woman cannot come to work, she herself arranges for a substitute. In addition, women were found to be "neater" and more conscientious in their approach to the assigned tasks.

Women in one village said that in colonial times there was a decree which banned women from road work. Because of that decree women are no longer used to working on roads. In all of the villages visited in both Mbale and Tororo district, however, women were willing to undertake paid work on the roads. They considered it both a good opportunity to earn money and an activity which would be beneficial to the community. They would also participate in self-help road work, but here the women were not unanimous. Some of them felt that if the work was unpaid, women's participation on the roads would only add to their already long list of responsibilities.

Non-Transport Interventions

Water supply

Many households in Nampanga village on the tarmac road in Mbale district have to travel 60 minutes to get to a water source in the dry season. In the Magoro settlement of Tororo municipality, the distance to water is 3 km, and people have to cross the main tarmac road to reach the water source. In these villages, women preferred the idea of having a closer water source to the alternative of employing an IMT to ease their transport burden. However, a closer water source would not totally eliminate the transport problem since the typical village tends to be spread out over a wide area, and it would be very costly to provide a source close to every house.

Woodlots/alternative energy sources/fuel-efficient cooking stoves

Women in mountainous areas identified firewood collection as being their most time-consuming transport activity. Firewood is used for cooking, and to a certain extent also for lighting. In cold areas, firewood is also the main source of heating. Due to deforestation and the resulting need to protect natural forests, the areas where farmers search for fuel are becoming increasingly distant from their homes and the fields. Thus, the time and energy dedicated to firewood collection is likely to increase even more in the near future.

A long-term solution is the establishment of woodlots. However, the implementation of such a solution would have to deal with the problem land shortage and the need for identifying trees which can intercrop with food and other cash crops. Farmers say that they cannot intercrop eucalyptus with matoke and beans, and they are reluctant to plant traditional trees as they grow very slowly.

The establishment of tree nurseries and the concept of woodlots is to a large extent an educational issue. Women recognize the problem of fuel, but the concept of growing trees, which cannot be used for decades, is alien to many of them. On the other hand, it is feasible that households which

plant trees can use them as a source of income in the future as people may have to start buying wood. Few people in the rural areas have fully realized this.

Women mentioned the possibilities of cooking with gas or electricity. There is no reliable supply of butane gas in the rural areas of Uganda, and the majority of villages do not have electricity. Moreover, in towns where there is electricity, most households do not have electric burners. They mainly use charcoal, which again contributes to deforestation. The introduction of improved cooking stoves which use less firewood, or an alternative energy source, would also reduce the transport burden of women.

Grinding mills

Many of the women's groups within Mbale and Tororo district are attempting to acquire grinding mills. They are motivated by the fact that easy access to a mill saves time and effort and allows for more frequent grinding which improves the taste and quality of the flour.

One village project visited in Bayengo in Busia subdistrict, had a grinding mill but no one in the village knew how to operate the diesel generator. Training of grinding mill operators would improve the reliability of the service the mills offer to the villages.

The cost of buying a grinding mill is very high (a figure of Ush.3-4 million was mentioned). This makes it difficult for women's groups to aspire to a grinding mill as their income-generating and time-saving project. The implementation of appropriate credit schemes might make it more feasible for women to acquire a mill. It is, however, important that the women are trained in how to operate the mill both technically and financially in order to make it a sustainable project.

Health facilities

In all village-level discussions the issue of access to health facilities was brought up as one of the major transport concerns. Improved access to clinics has very high priority for rural women. The most common cause of death among women in Uganda is related to complications during childbirth. Women are also responsible for taking care of sick family members, and they are sometimes confronted with the dilemma of not being able to get a patient to a clinic or hospital due to the lack of vehicles or poor roads.

Very few villages have their own dispensary or clinic. Most people have to travel to a sub-county headquarters to obtain basic health services. In some villages there are private clinics, but they are expensive compared to government clinics which offer free services.

The shortage of health care staff and premises could be addressed by mobile clinics, but there are, as yet, none operating in the area.

Summary

The use of an IMT could reduce the transport burden on women directly by reducing time and effort dedicated to transport, and indirectly by transferring the transport responsibilities to men. A reduction of women's transport tasks can also be achieved through non-transport interventions which locate economic and social facilities closer to rural homes. Were such an intervention to take

place most women would choose to spend the "extra" time at home and in women's groups to enhance social welfare.

There are a number of time- and effort-saving devices currently in use in the rural areas in eastern Uganda. The problem is that IMT are rarely used for women's transport activities, and women have limited access to IMT because of cultural, educational, and economic constraints. Another problem is that improvements in the transport situation through the provision of facilities is rarely lasting or significant.

Women are very eager for changes and are willing and prepared to work to improve their situation. They need guidance and support from community development workers in order to overcome existing obstacles and constraints. In terms of reducing the transport burden on women, the challenge lies in working with local women's groups to identify the most appropriate intervention for each area, and to assist them in bringing about sustainable improvements.