



# BICYCLE TRAILERS IN ZAMBIA

Report on Practical Action Bicycle Trailers used in Lundazi, Zambia by Alison Noble working for VSO

## Background

I was working in Lundazi, Eastern Province Zambia on a VSO Placement as a Management Advisor to small community groups and NGOs in the District, October 2003 – October 2005. While I had heard of the work of ITDG (now Practical Action) for many years, I learned the details of one project while on a visit to Ndiwa in Kenya where my daughter was assisting an ITDG project on Bicycle Taxis. The taxis businesses had been sponsored by my home town of Steyning in West Sussex for a Millennium project.

In Zambia I was working in a very rural location. The main town of Lundazi has a population of about 10,000 surrounded by a District of 14,000 square kilometres with a population of 250,000. The main occupation is subsistence farming of maize, ground nuts and beans with cotton and tobacco as cash crops. Poverty is widespread, UN *State of the World's Children Report 2003* quotes 86% Zambian population below the poverty line. Literacy levels: 32% of the population of Eastern Province are fully literate but this falls to 20% when considering women only (*Zambia Central Statistics Office 2000*).

## Why Bicycle Trailers?

In Eastern Province the main forms of transport are walking and bicycle. All luggage is carried balanced on the head (by women) or on bicycles using the cross bar or the small luggage rack at the back (for men). Two 50kg sacks of maize are transported in this way with the bicycle being pushed along – sometimes up to 30km when transporting to town. Motor vehicles are not common in the District and expensive to hire even as a passenger let alone carrying heavy luggage. Most villages are accessible only by foot, bicycle or ox cart.

I had seen some bicycle trailers in use in Kenya but noticed that, although there are many hundreds of bicycles in Eastern Province in Zambia there were no trailers. I was given a donation of \$400 by a private individual from UK and determined to use this to purchase some trailers in Lundazi.

I contacted a local welder who not only spoke English but also has some specialist training and understood the diagrams as given in the Practical Action Technical Brief. He estimated that he could make a trailer for K500,000 – about \$100 using locally available materials such as bicycle parts.

## Who Benefited from the Trailers?

I had funding for 4 trailers at K500,000 each. I requested payment of K100,000 from each recipient group as an indication of their commitment to the supported project and to encourage self-sufficiency. I was, therefore, able to commission 5 trailers.

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## ROCS Lumber Group

Reform Open Community School, ROCS – a Zambia wide organisation who network community schools. They have 25 schools in Lundazi District with 4,000 mostly primary pupils. The schools are usually in remote rural areas away from Government schools and are managed by the community with voluntary teachers. Each school is autonomous for funding – usually they have none. ROCS is assisting each school to develop an income generating activity to provide funds for the teachers, materials and school repairs.

One school has started a lumber business whereby the community members cut beams from local trees. The beams are sold to other villagers for house construction, community building projects (such as churches and schools) and to make furniture. The Lumber Group was given a trailer in order to transport their prepared beams 35km to Lundazi town for onward sales. The provision of the trailer allowed the group to sell beams to a wider market.

### Beneficiaries:

Direct: 15 men employed part time on the lumber project

Casual labour from young men paid to carry the beams to town using the trailer

150 children gaining school materials and support for their teachers. Most of these children would not attend school if the ROCS community school did not function

## Dambo AIDS Self-Help Group

The majority of members of this group have been affected by AIDS. Either they are HIV+ve, have a partner or family member who is HIV+ve, have lost a family member or are orphans as a result of AIDS related illness. (Although it must be pointed out that AIDS is still a taboo illness and the majority of people would never admit to being HIV+ve or of a family member dying of an AIDS related illness.)

The Group is located at a village near a year round supply of water. They have started a vegetable garden which is irrigated from the dambo. The crops include tomatoes, onion, rape, cabbage, carrots, green peppers and okra. The crops are shared among members and the surplus sold to raise funds for medical supplies and household necessities. The bicycle trailer is used to transport the crops to Lundazi town (about 6km) or to deliver to other customers in nearby villages; without the trailer the market would be very restricted so the business would be less viable.

### Beneficiaries:

Direct: 30 households are members of the AIDS support group – particularly important if one person is sick that other people in the household can still get support from the Group in terms of food aid, cash, help with household tasks or field work

Indirect: Average family size 5 members, therefore, potentially 150 indirect beneficiaries gaining income, better food and nutrition levels. Also emotional and physical support

### Welder

One trailer was given to the welder who made all the commissions. He is in business with his two sons, one of whom hopes to go to college in the near future. The trailer is used as an advertisement of the work he can carry out – a new product in the area - and for transporting materials and finished items round the town. There is also the potential to establish a mobile workshop to carry out welding on site such as at homes. (All houses and other buildings have burglar grills which are welded to the metal door and window frames.)

### Beneficiaries:

Direct: One family increased business activity enabling son to attend college (I hope!)

## Disabled Men's Group

The Disabled Men's Group has been given a grant to promote AIDS awareness among the disabled community. This necessitates going into outlying villages to hold workshops – an expensive activity. At present the Group has some AIDS funding but this will not be everlasting. To provide funds in the future, the Group has started a business in selling second hand clothing to their members (2,500 disabled people in the District) and to their families. The trailer enables members of the Disabled Men's Group to take the clothes to the villages thus reaching new markets but more importantly, their members who are unable to travel to market.

### Beneficiaries:

Direct: Realistically 200 disabled people able to purchase clothes for themselves  
 Indirect: Income generating activity to support AIDS awareness programmes in the future

## Mthuzi Women's Group

This is a group of around 70 women living around one village. In Zambia, women are the main workers in the fields where they dig, plant, weed and harvest the family's crops, all by hand. The men usually take the crops to market; they keep the cash only giving their wives a little money for food and other household needs. While the main crop is maize for processing into meal meal for nshima, the women also grow ground nuts, soya beans, beans and vegetables.

The bicycle trailer is used for transporting their excess produce to market and for taking goods from town back to the village. Unusually, in the Mthuzi Group it is the women ride the bicycles pulling the trailer – about 5km. This means the women take the goods to market and control the cash.

The Mthuzi Women's Group has learned the added value that can be given to crops by processing. For example the women have been making peanut butter for some time and selling it in plastic bags to villagers and around offices and other businesses in Lundazi town. A bowl of ground nuts, as ground nuts is worth K1,000; if made into peanut butter and put into plastic bags it is will sell for K2,000; if sold in a plastic jar it is will sell for K5,000 (the jar costs K600). [\$1 = K5,000] I was able to obtain 500 plastic jars with lids for the group so the profit on the peanut butter was immediately doubled.

The trailer enables the Group to make a large batch of peanut butter which can be transported to town where sales have considerably increased with the better presentation of the product. The trailer can also hold vegetables and other produce – a travelling market stall taken round the offices, council buildings and other customers.

The Group runs as a co-operative particularly assisting those most in need at any given time. There are a high number of widows, single orphans and double orphans supported by the Group. One of the problems for the children has been high cost of school uniform which is required by most Government schools in Zambia. The profits from the increased peanut butter sales have been used to purchase a sewing machine and some fabric. The women are now able to make school uniforms at little or no cost for orphans. They are also making other household items for sale to generate more income.

### Beneficiaries:

Direct: 70 women gain economic independence through income generating activities  
 Indirect: 70 households have higher standard of living; 280 individuals have better nutrition  
 Children, particularly orphans, able to attend school

Also an indirect benefit is the women, working together, share information such as on AIDS, child health and nutrition. Their success, such as in the peanut butter business has created a culture receptive to new ideas and of willingness to learn. They have a literacy Group, pre-school group and so on.

Just before leaving Lundazi, I was given another donation from UK of about \$600. I



The Mthuzi Womens Group with their trailer. (Photo: Alison Noble)

approached one of the rural Health Centres located 45km from the town and asked what they would like to purchase with the funds. After consultation with the community, it was agreed that they would like 6 bicycle ambulances which were constructed using the ITDG basic design. The idea is that the ambulances will be given to 6 villages in the catchment of the Health Centre – up to 3 hours walk from the Centre itself. At present people who are sick can reach the Centre in one of four ways: walk, on bicycle, in an ox cart or carried on an improvised stretcher such as a door. As you can imagine none of these are comfortable for a patient and often mean that patients are only taken to the Centre as a last resort. Unfortunately stories of patients dying along the way are not uncommon.

The bicycle ambulances will be kept in the villages and will enable patients to travel to the Health Centre faster, in more comfort and, hopefully, before their condition is too serious. The catchment for each of the ambulances is about 2,000 people. Zambia national statistics show that, in any three-week period, one third of all Zambians are sick so it is likely that the ambulances will be well used! However, they were only placed into the community in November and no monitoring of use has yet been obtained. The Health Centre estimated that each ambulance would be used to bring one person to the Centre each week – 300 people per year.

When the ambulances were delivered a large crowd soon assembled and many questions were asked. Of course, as with any new item, there were many doubtful comments made. We made up one of the ambulances and a bicycle was found. The trailer was fixed to the bicycle and a 'willing' patient placed on the ambulance to see how it worked. The bicycle rider pronounced the ambulance easy to pull and very manoeuvrable, the patient declared a

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comfortable ride – at least the word going out with the ambulances as they are delivered to the communities was favourable, we wait to see how it works in practice.

### Summary

One leaflet has assisted:

Direct beneficiaries: 620

Indirect beneficiaries: 580

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Volunteer Service Overseas

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VSO is an international development charity that works through volunteers.

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