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## Improved food crops marketing through appropriate transport for poor farmers in Uganda. Proposal for Phase II of the project (April 2003 - March 2005)

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# **Improved Food Crops Marketing through Appropriate Transport for Poor Farmers in Uganda**

**Proposal for Phase II of the Project  
(April 2003 – March 2005)**

**U. Kleih and C. K. Kaira**

**April 2003**

**DFID Crop Post-Harvest Research Programme – Project R8114**

**Natural Resources Institute  
University of Greenwich  
United Kingdom**

**Transport Forum Group  
Kampala  
Uganda**

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## Abbreviations

AEATRI	Agricultural Engineering and Applied Technology Research Institute
AGOA	Africa Growth Opportunity Act
ART	Agricultural Rural Transport
ATNESA	Animal Traction Network for Eastern and Southern Africa
CAO	Chief Administrative Officer
CBOs	Community base organisations
CDO	Cotton Development Organisation
CPHP	DFID Crop Post-Harvest Programme
DAP	Draught animal power
DFID	United Kingdom Department for International Development
DAPCWI	Draught Animal Power Community Welfare Initiative
FABIO	First Africa Bicycle Information Office
FHH	Female Headed Household
GoU	Government of Uganda
HH	Household
IFRTD	International Forum for Rural Transport and Development
IGA	Income Generating Activities
IMTs	Intermediate Means of Transport
KDDP	Katakwi District Development Programme
KENDAT	Kenya Network for Draft Animal Technology
KPF	Karughe Farmers Partnership, Bwera, Kasese
LC	Local Council

MHH	Male Headed Household
MTCEA	Multi-Purpose Training and Community Empowerment Association, Iganga
NAADS	National Agricultural Advisory Services
NALG	Nakisenhe Adult Literacy Group
NARO	National Agricultural Research Organisation
NEIC	National Environment Information Centre
NFG	National Forum Group
NGOs	Non-government Organisations
NRIL	Natural Resources International Ltd
NRI	Natural Resources Institute, University of Greenwich
PACODEF	Poverty Alleviation and Community Development Foundation
PCT	Presidential Commission for Teso
PAP	Poverty Alleviation Project
PEAP	Poverty Eradication Action Plan
PMA	Plan for Modernization of Agriculture
PM&E	Participatory Monitoring and Evaluation
PRA	Participatory Rural Appraisal
RO	Regional Office, Crop Post-Harvest Programme
RTS	Rural Transport Services
RTTP	Rural Travel and Transport Programme
SAARI	Serere Agricultural and Animal Production Research Institute
SOCADIDO	Soroti Catholic Diocese Development Organisation
SRI	Silsoe Research Institute
SSATP	Sub-Saharan Africa Transport Program
TFG	Transport Forum Group, Kampala
TRAP	Technology for Rural Animal Power
TRL	Transport Research Laboratory Ltd
UNATCA	Uganda Network for Animal Traction and Conservation Agriculture
UNFFE	Uganda National Farmers Federation
UNHS	Uganda National Household Survey
UPPAP	Uganda Participatory Poverty Assessment Project
USAID	United States Agency for International Development
WFP	World Food Programme
YWAM	Youth with A Mission, Katakwi

**Exchange Rate**  
£1 = US\$2,900



# **Improved Food Crop Marketing Through Appropriate Transport for Poor Farmers in Uganda**

## **Background to the Project**

The project **Improved Food crop marketing through appropriate transport for poor farmers in Uganda** was approved for funding for one year by the DFID Crop Post-Harvest Programme in April 2002. Subject to the results of a review in February 2003, the project may be extended on terms to be agreed upon.

The project purpose is to develop and promote strategies that will improve food security of poor households through increased availability and improved quality of food and better access to markets. The main outputs of the project are:

- a) Capacity building,
- b) Improved understanding of poor farmers' transport needs,
- c) Validated technology for IMTs,
- d) Promotional material.

During the first year of the study (i.e. April 2002 – March 2003), the project has carried out the following activities:

- Assistance to the Transport Forum Group of Uganda in setting up an office;
- Strengthening of existing networking mechanisms and creation of new linkages within Uganda and international partners;
- Organisation of a kick-start workshop in May 2002 in Jinja, with the main objectives of presenting the project to stakeholders, exchange of information amongst partners, and participatory planning of the baseline survey;
- Carrying out of baseline survey using participatory and quantitative tools between September and December 2002;
- Processing, compilation and analysis of data between January and March 2002.
- Training of five Ugandan artisans in cart manufacturing in Kenya.
- Purchase and distribution of some IMTs in selected communities where the survey took place. This activity has been put on hold at the recommendation of the review team.

The project includes the following partners: Natural Resources Institute (Managing partners), Transport Forum Group (Project Co-ordinators in Uganda), Transport Research Laboratory, Silsoe Research Institute, and local partners mainly at District level (e.g. Multi-Purpose Training and Community Empowerment Association (MTCEA) in Iganga, Karughe Farmers Partnership in Kasese, and Youth With a Mission in Katakwi). The local partners, who were either identified at the kick-start workshop or during the course of the baseline study, were involved in the baseline survey. Also, some members of these organisations went to Kenya for the aforementioned training in cart manufacturing, and were involved in the acquisition and distribution of a small sample of Intermediate Means of Transportation (IMTs).

As for the policy background, the Poverty Eradication Action Plan (PEAP) states that “efforts will be made to upgrade the technological capacity of agricultural equipment

is use through introduction of low-cost and scale-neutral technology such as draft power.” Also, the Plan for Modernisation of Agriculture (PMA) highlights the importance of rural transport, mechanisation and animal traction.

## Summary of Findings of the Baseline Survey

### The Survey

As indicated above, the baseline survey consisted of a Participatory Rural Appraisal (PRA), and a household questionnaire survey (total sample size 397) in nine sub-counties as outlined in Table 1. The sub-counties were selected based on crops grown, farming potential (preferably high) and different degrees of accessibility.

**Table 1: Survey Location**

District	Sub-Counties	Accessibility	No of Households Interviewed
Iganga	Ivukula	Medium	45
	Bukanaga	Good	45
	Makutu	Remote	44
Kasese	Kyabarungira	Mountains, poor access	43
	Mahango	Mountains, poor to medium access	45
	Nyakiyumbu	Mountains and flat terrain, variable access	42
Katakwi	Asamuku	Good	44
	Orungo	Remote	45
	Kapujan	Medium	44

### Household Livelihoods

As for **livelihoods assets**, education has been taken as the main indicator. According to the questionnaire survey, the percentage of children attending school is of the order of 82% in Iganga, 87% in Kasese, and 71% in Katakwi (i.e. number of family members in primary or secondary school as percentage of children in the households).

Group membership is considered a main social capital asset in that it provides members with easier access to other assets (e.g. micro-credit) or offers protection in times of hardship. Overall, the membership in groups is relatively low. Only membership in credit groups (32% in Kasese) and in IGA groups (31% in Katakwi, and 15% in Kasese) stand out. As for membership in agricultural production and marketing groups, this stands at 1% in Iganga, 11% in Kasese, and 3% in Katakwi<sup>1</sup>. This confirms the findings of the PRA during the course of which it was found that the majority of households conduct their farm and non-farm activities on an individual basis and may engage in

<sup>1</sup> To some extent, this might have been due to the selection of the villages surveyed in that it was found that NGOs such as Sasakawa Global 2000 and NALG (both in Iganga), and ActionAid (Katakwi) are quite active in forming groups in other parts of these Districts.

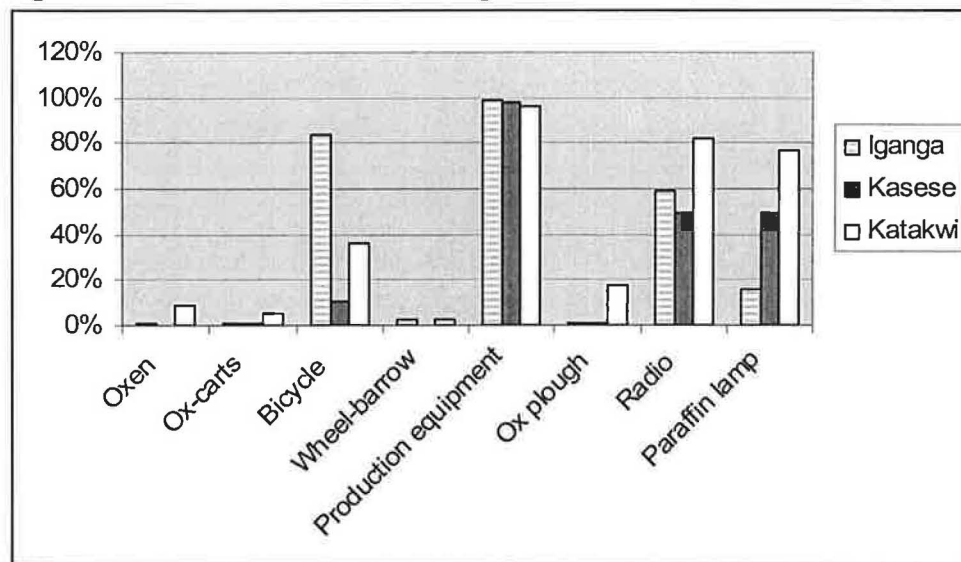
social and / or economic group-based activities on a periodic basis. At the same time it is worth pointing out that group formation is strongly encouraged by GoU and NGOs alike. As a result new groups are currently being created in the villages on a regular basis.

As for access to land, the average acreage cultivated by households during the period of November 2001 – October 2002 (i.e. 12 months prior to the survey), is of the order of 2.8 acres in the case of Kasese, 3.6 acres in the case of Iganga, and 4.0 acres in the case of Katakwi. In particular, Kasese has a high proportion of villagers cultivating on two acres and less.

Bicycles are the main IMT and one of the principal physical assets owned by the households surveyed. Especially Iganga has a high ownership of bicycles (i.e. 84% in total). Katakwi District also has a reasonable degree of bicycles ownership (i.e. 36%), whereas it is limited in Kasese District which is primarily due to the mountainous terrain (Figure 1).

No ownership of donkeys, donkey carts, tractors and trailers, cars and pick-up trucks was found. The ownership of bicycle-trailers and wheel-barrows is very limited. The use of oxen and ox-carts was mainly encountered in Katakwi District, where Kapujan sub-county stands out (i.e. 16% of households own oxen and 14% own ox-carts). Draught animal power has been introduced in the Teso farming system relatively early (i.e. during the colonial period). However, cattle rustling has become a major problem in recent decades for livestock owners of the District.

**Figure 1: % of Households Owning selected IMTs, and other Goods**



In most cases these physical assets are owned by men. Ownership by women only appears to become comparatively more prevalent if there is a higher number of female headed households, suggesting that only household heads own assets.

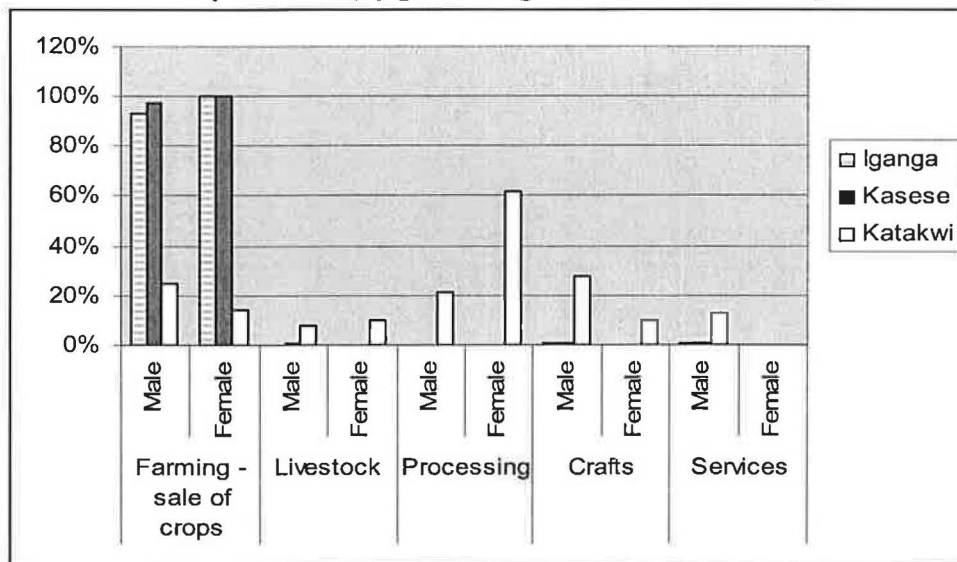
Chicken, goats, cows, and pigs are the main forms of livestock owned by the households. However, there are differences between the Districts, in that only very few farmers own cattle in the sub-counties surveyed in Kasese (3%). On the other hand, 35% of farmers in Iganga and 46% of farmers in Katakwi own at least one cow.

The **vulnerability context of farmers** has to be seen in the context of shocks, trends, and seasonality. Insurgencies during the last decades has been one of the key factors causing household vulnerability, in particular in Kasese and Katakwi Districts. This may explain the higher number of female headed households in these two Districts (12% and 16% respectively) as compared to Iganga (4%). As already indicated, cattle rustling still prevails in Katakwi thereby causing a constant threat to livestock owners and their restocking efforts. This has also implications for the spread of IMTs such as oxen and ox-carts in this District.

Trends include declining soil fertility, or declining farmgate prices for major cash crops such as coffee. Prices of some of the food crops can also fluctuate widely from one year to another (e.g. maize prices were particularly low in 2001/02).

As for **livelihoods strategies and outcome**, Income Generating Activities (IGAs) show how households use their asset base within a given context (i.e. vulnerability and institutional / policy contexts) to earn their living. Figure 2 indicates the main occupations and Income Generating Activities (IGAs) of household heads. Farming and the sale of crops clearly dominates the economic activities of villagers in Iganga and Kasese Districts (i.e. 93% and 98% respectively). Other activities only play a minor role in these two Districts.

**Figure 2: Selected Primary Occupations / IGA by Household Head, by Gender (by percentage of household heads)**



NB: Percentages are related to the totals of male and female headed households. It is important to bear in mind that the majority of household heads are male. Female headed households (FHHs) represent 4% (Iganga), 12% (Kasese) and 16% (Katakwi), respectively.

In Katakwi, on the other hand, the household livelihoods are much more diversified in that farming, traditional processing of primary produce, and crafts each occupy about a quarter of the household heads' income portfolio. In addition, activities related to the sale of animal produce and services also play a role there.

As far as IGAs by female headed households (FHHs) are concerned, farming and the sale of crops are their only primary occupation in Iganga and Kasese. In Katakwi, however, traditional processing of primary produce (i.e. 62%) plays a dominant role for FHHs. In particular, beer brewing is widely undertaken by FHHs in Katakwi. Other primary IGAs carried out by FHHs in Katakwi include sale of livestock produce (10%), crafts (10%), and waged or salaried work (5%).

At the same time, there are **variations of poverty** within the communities reflected in varying degrees of access to resources and capital assets (e.g. education, land, livestock ownership), which in turn lead to variations in income levels. Often, those considered rich (i.e. in general, having a monthly income in excess of US\$200,000) are also engaged in other IGAs such as trade or civil service. Those who are considered poor in the villages often earn well below US\$100,000 per month. Concerning landownership, as already indicated the number of households with small plots of land is especially high in Kasese District.

At the same time, it needs to be borne in mind that poverty is not only reflected in levels of income or expenditure but also in factors that are more difficult to quantify (e.g. social needs or people's feeling of powerlessness to influence their own destiny). According to the Uganda Participatory Poverty Assessment Project (UPPAP), lack of market access, poor health, and lack of education and skills figure highest amongst the causes of poverty in rural areas. Poverty is mainly a rural phenomenon in that 48% of the rural population live below the absolute poverty line compared with 16% of urban dwellers (PMA, 2000).

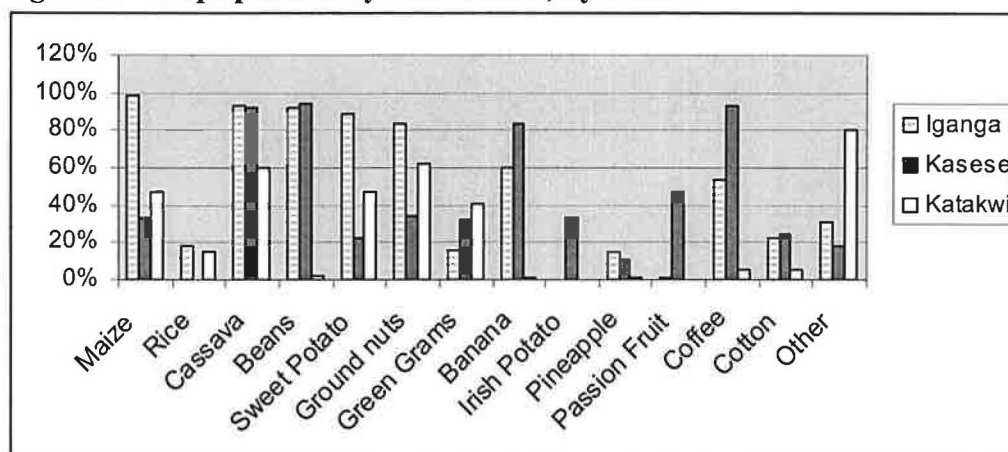
### **The Agricultural Production and Marketing System**

As for the **farming systems** in the three Districts surveyed, Figure 3 shows to what extent the farmers rely on a number of key crops such as maize, beans, cassava, sweet potato, groundnuts, banana and coffee in Iganga District. The main crops grown by Kasese farmers include cassava, beans, banana, coffee, passion fruit and Irish potato. Katakwi farmers grow maize, cassava, sweet potato, groundnuts, millet and sorghum and oilseeds such as sunflower.

Based on the survey data, Iganga has the highest amount of **crops marketed** (i.e. in particular maize, beans, and coffee), which is a result of its location close to major marketing centres such as Kampala, and Kenya. As can be seen from Figures 4 and 5, Kasese also has a reasonable degree of crop marketing (i.e. especially coffee, passion fruit, and Irish potatoes).

Katakwi, on the other hand has a much less commercialised farming system in that the quantities marketed are lower than in the other two Districts. Only comparatively small quantities of crops such as maize, sweet potatoes, cassava, and coffee are sold by farmers of this District.

**Figure 3: Crops planted by Households, by District**



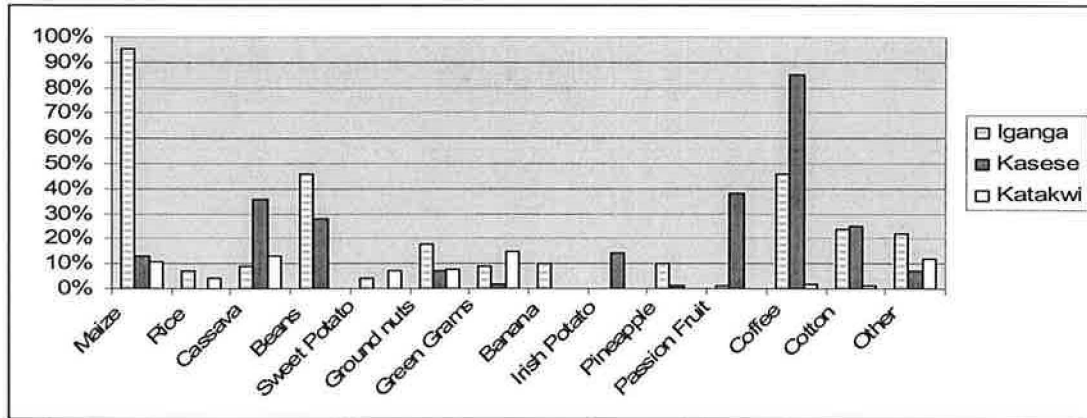
NB: Other crops in Katakwi include oilseeds (e.g. simsim, and sunflower) and grains (e.g. millet and sorghum).

The gender responsibility for sale varies according to crop and, in some cases region, although high value food crops and traditional cash crops such as coffee or cotton are predominantly sold by men. Traditional food crops may be sold by men only or women only or a combination of both depending on the location.

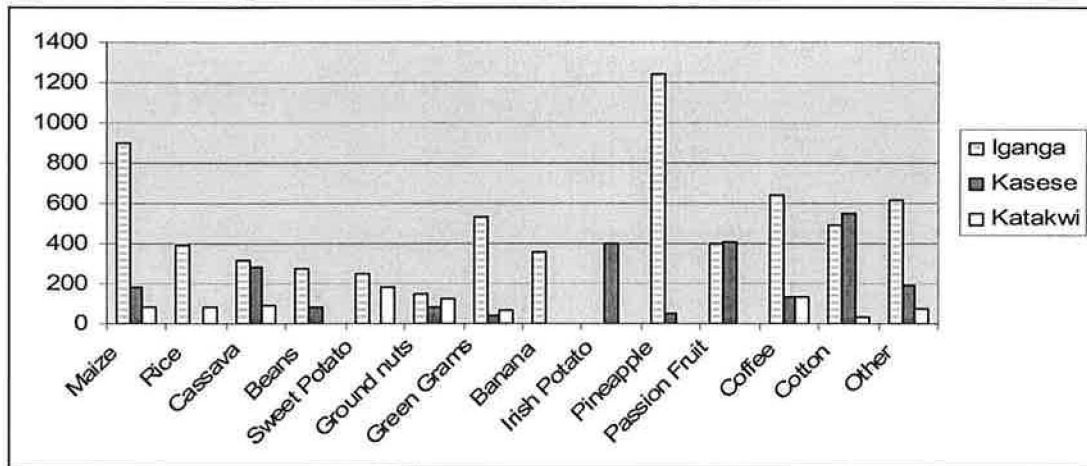
As for the place of sale, selling from home and at the village market are the two main locations in all three Districts. However, the majority of farmers in Iganga District tend to sell their crops at the farmgate, as compared to Kasese and Katakwi Districts, where relatively more farmers go to the village market to sell their produce. Selling at the District market or the village store is relatively uncommon, with the exception of Kasese (e.g. 28% of farmers sell coffee at the District market, and 63% of cotton producers sell their harvest at the village depot).

The distances to the main markets are 11km (Iganga), 13km (Kasese), and 16km (Katakwi). As for storage, the vast majority of farmers store their produce at home. In all three study areas the majority of farmers sell the bulk of their crops to non-local traders. Village agents come second, whereas selling to other buyers such as groups, private companies or neighbours rarely takes place. The fact that more than half of the cotton growers in Kasese sell to co-operative societies represents an exception.

**Figure 4: Crops Marketed During the Last 12 Months (% of households)**



**Figure 5: Crops Marketed (mean kg per household)**



NB: The mean quantities refer to those households that sold at least some of the crop.



## **The Rural Transport System**

The use of **motorised forms of transport** (e.g. motorcycle, pick-up, mini-bus, tractor, lorry, and car) during the 12-month period prior to the PRA, was found to vary considerably. The use of motorised vehicles is particularly limited in the mountainous parts of Kasese District. Whilst some communities have constructed roads to facilitate access for the vehicles, the latter may only come on demand or not at all if the terrain is too difficult for them to access the villages. On the other hand, even in the flatter areas of Nyakiyumbu Sub-county near Lake Edward the use of motorised vehicles is quite limited.

In Iganga District the overall use of motorised means transport is more common compared to Kasese, however here it is also quite difficult to discern a clear pattern by mode of transport or gender. Motorcycles, mini-buses and pick-ups are the main forms of motorised transport used by both men and women. However, this can be quite location specific in that one form of transport may dominate in one village whilst it is a different one in another sub-county. Although the overall use of motorised means of transport in Katakwi appears to be similar to Iganga, here it is equally difficult to discern a clear pattern. Women may not have used pick-up trucks over the last twelve months in one village (although these were available since men used them) whilst they might have extensively used them in another village of the same District.

The main reasons for using motorcycles, buses, or mini-buses (also referred to as taxis) include health (e.g. emergency such as taking sick people to the clinic or hospital), economic (business in urban centres and market), or social (e.g. funerals, or weddings).

As for **Intermediate Means of Transportation (IMTs)**, bicycles are by far the main mode used in that 60 – 100% of both men and women have used them in the villages of Iganga and Katakwi Districts over the last 12 months. As indicated above, bicycle ownership is highest in Iganga District, followed by Katakwi, whilst it is limited to non-existent in Kasese District.

Other IMTs that are used in the villages include stretchers (mainly in Kasese), sledges (mainly Katakwi), ox-carts (mainly in Kapujan sub-county of Katakwi) and wheelbarrows. Although ownership of the latter is low, men of four villages (out of six) in Iganga and Katakwi have used them relatively frequently by hiring or borrowing them for the transport of building material, manure to the field and crops from the field (i.e. up to about 50% of men).

**Human loading** was found to be very common in all three Districts. Although the survey revealed that head loading is practised by both men and women according to the PRA, it is more common to see women carrying loads on their heads. Other types of loading practised include back loading which is especially common in the mountains of Kasese (and for women carrying children in all the villages), shoulder and hand loading. Weighing exercises revealed that women carry loads of 30 to 35 kg on their heads or backs.



**Transportation of crops to the home** primarily takes place on foot (i.e. human loading), with only some farmers in Iganga District using bicycles for the transport of specific crops (e.g. coffee or maize). The use of bicycles in Kasese or Katakwi for transporting crops from the field to the farm is very limited.

As for the **transport of crops from the farm to the village market**, it was possible to discern clear patterns whereby almost all the farmers in Iganga would use a bicycle, although it needs to be borne in mind that the majority of them sell from their farm. Almost all the farmers in Kasese would use human portorage, whereas the system seems more diversified in Katakwi District in that human loading, bicycles, or lorries would be used.

It has already been indicated that only a few farmers would transport their crops to the District market. The means of transport to do this would include mostly human portorage in Kasese, and a mix of means in Iganga District (i.e. bicycles, pick-up truck, lorry, and mini-bus). The very few farmers who transport maize to the market in Katakwi town would use a bicycle.

**Transport use for domestic purposes** is mainly dependent on human portorage and walking in that wood collection exclusively takes place on foot. Walking is also mostly used for water collection and purchasing of consumer goods. Bicycles are only used to some extent in Iganga for water carriage and for shopping in both Katakwi and Iganga District (i.e. about 30%). Walking would be the dominant mode of transport for the overwhelming majority of Kasese villagers undertaking these tasks.

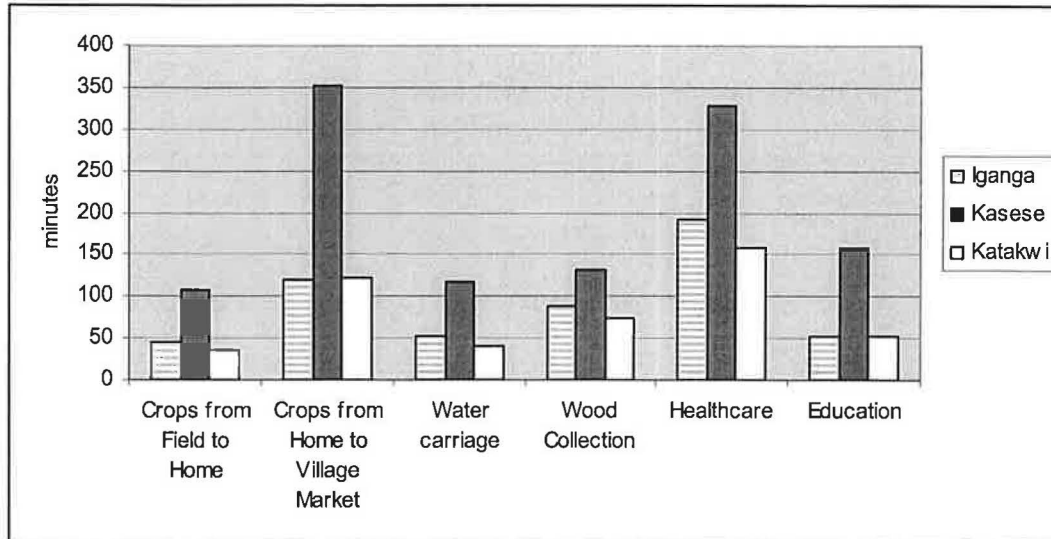
According to the questionnaire survey, transport use to obtain services such as health care and education shows a mixed picture, in that walking is the only mode to go to school, and, depending on the location, walking and bicycles are used to visit health care facilities. In Kasese District, walking is the principal mode of transport to reach health facilities, whereas 85% of Iganga villagers and 35% of Katakwi villagers would use a bicycle. As for transport for social reasons, the picture is similar to that of transport for health reasons. In all three Districts, very few farmers would use motorised means of transport for health or social reasons according to the questionnaire survey.

**Regarding the average time per trip**, the survey clearly reveals that villagers in Kasese District spend much more time for transport purposes than their colleagues in Iganga or Katakwi District. For example the average return trip time to fetch water is 118 minutes in Kasese compared to 53 minutes in Iganga and 41 minutes in Katakwi. The fact that the Kasese villagers also indicated fewer trips per day (i.e. 1.2) compared to 2.5 and 2.1 in Iganga and Katakwi respectively, indicates that they are likely to have less water available for domestic purposes. Similar results have been obtained for other domestic transport uses and for the transport of crops from the field to the home and from there to the village market, as is highlighted in Figure 6.

As for other means of transport such as bicycles, differences in the average trip time are less pronounced, although it needs to be borne in mind that owing to the hilly terrain the Kasese villagers depend much more on walking and human portorage.

Transport of crops by bicycle is not always faster than transport on foot due to the fact that it is often used to transport heavier loads rather than for speed.

**Figure 6: Average Trip Time Using Foot as Main Mode of Transport**



NB: The trips for transport of crops from the field to the home store and from the home to the village market refer to one-way trips. The trips for water carriage, wood collection, health care and education refer to return trips.

Regarding **transport economics**, the principal cost element in the use of an IMT is the capital cost involved in its acquisition. Operating costs tend to be low, given that no fuel is required and repairs or veterinary care is comparatively inexpensive.

Bicycles which are the most prevalent IMT cost about US\$100,000 when purchased anew. Although this may seem a modest sum of money, it is still beyond the reach of many villagers who are struggling to meet their daily costs of living. Other IMTs found in Uganda and considered for this research, include oxen (US\$300,000 – 350,000), donkeys (US\$80,000 – 100,000), ox-carts (US\$250,000 – 700,000), donkey-carts (US\$200,000 – 300,000), and wheelbarrows (about US\$40,000).

Research has found that bicycles have the lowest operating cost only at short distances (10km maximum) and where demand is low (Starkey 2002). They are quite suitable for rural transport characterised by the transport of small loads over short distances as long as roads or tracks are relatively flat. Donkeys also represent an relatively inexpensive option for short distances and low levels of demand, and can be used in hilly terrain. Ox-carts are the lowest cost option for annual transport demand between about 10 to 250 tonnes (assuming a 10km distance). Over longer distances (i.e. up to 50km), ox-carts are the cheapest option only up to 50 tonnes annual demand. For heavier loads to be transported over longer distances, motorised transport such as farm vehicles, power tillers, tractors and pick-ups are the best option.

The use of ox-carts requires load consolidation if individual farmers produce and market relatively small amounts of agricultural crops. This points to the need of

introducing IMTs through groups given that individuals on their own are unlikely to be able to afford the animals or vehicles.

It also needs to be borne in mind that all IMTs are unlikely to be used exclusively for crop marketing. The project ought to envisage a multi-purpose use of the IMTs to be tested. This also reflects the transport priorities indicated by villagers who named crop transport as one priority only amongst others such as transport for other IGAs, domestic transport needs, transport of farm inputs, and travel for social reasons.

In all three Districts, villagers expressed a **need for better availability of means of transportation**. In particular, high cost and lack of available transport were indicated by both men and women as main household travel and transport problems.

Donkeys in Kasese District, and ox-carts in Iganga and Katakwi Districts were identified together with farmers as potential IMTs to be tested. Due to the conditions of the farming system and the terrain, animal transport seems the most viable option for Kasese farmers for the time being. However, it needs to be pointed out that past efforts to introduce these animals in the District have failed due to lack of sensitisation, training, and follow-up. It is important to avoid these mistakes if future attempts are to succeed.

Amongst the three Districts, Iganga farmers currently produce the largest amounts of agricultural produce for sale. Bicycles which are commonly used in the District are only suitable for transporting smaller amounts of produce over shorter distances. As a consequence, the testing of a larger-capacity means of transportation appears justified. This would provide farmers with more options for selling their produce (e.g. selling at the market rather than at the farmgate, which is currently the main practice).

Although ox-carts are already used in some sub-counties of Katakwi it appears that there is scope for design improvement. In addition, given the problem of cattle rustling in this District the introduction of donkey carts may represent an option to be envisaged. Other IMTs which were considered with farmers during the course of the survey in the three Districts include power-tillers and bicycle trailers, however it was found that the former is too expensive for rural communities under current conditions, and the latter required flat and smooth road surfaces, which presently do not exist in most villages.

The design standard and the condition of the **road infrastructure** are key in terms of all-year access for communities. Earth feeder roads, which are easily rendered impassable in the rainy season, mainly traverse the three districts surveyed. The roads, which have drainage structures at river crossings are suitable for IMTs and motorised vehicles not heavier than light (i.e. 4-tonne) trucks. However, in some cases heavier vehicles transporting produce or building materials use these roads damaging the running surfaces severely and in most cases damaging the drainage structures thereby cutting off community access. This points to the need of adequate maintenance of community access roads and tracks.

## **Local Organisations and Support Services**

Local organisations (e.g. NGOs) and potential support services have been identified during the course of the survey with a view of involving them in the research during its later stages. Local partners who took part in the baseline survey include the following: Multi-Purpose Training and Community Empowerment Association (MTCEA) in Iganga, Karughe Farmers Partnership in Kasese, and Youth With a Mission (YWAM) in Katakwi. Members of these organisations were subsequently invited by the project to attend a training workshop in cart manufacturing in Kenya.

In addition to these organisations, contacts were established with other local NGOs and community based organisations (CBOs) who are potential project partners. In particular, NGOs which are involved in the formation of credit and agricultural production & marketing groups have been targeted. It is intended to involve other NGOs at District level as far as they indicate an interest in intermediate forms of transportation. In addition, contacts have been established with Local Government officials and locally based donors who all expressed an interest in the project (e.g. the Belgian Development Cooperation in Kasese).

## **Outline of Action Research in Phase II of Project**

This section discusses the main elements of an action research plan for phase II of this project (April 2003 – March 2005). However, it needs to be pointed out that the following are preliminary suggestions only, which will be validated and amended as required during the Golden Milestone workshop to take place in June 2003.

### **Potential clients of research project (target group)**

It is envisaged that testing and validation of IMTs will be undertaken in partnership with village groups which have an emphasis on either savings & credit or agricultural production & marketing. Criteria for the selection of groups will be decided in detail at the Golden Milestone workshop in June 2003. Potential criteria include, number of years a group is in existence, a proven track record, and willingness to pay for the IMTs.

IMTs will be made available at a price which represents at least 60% of their cost price. Given that very few IMTs are currently in use in the village (with the exception of bicycles) it was deemed appropriate that a certain amount of subsidy was required in order to stimulate villagers' interest in the technology, and reduce the risk involved with making a substantial investment.

It may be the case that the poorest members of the communities will not be able to participate in this project due to potential difficulties to undertake the investments required. Nevertheless, it will be attempted to collaborate with groups which are predominantly made up of lower to middle income households within the village. Women groups will be particularly encouraged to participate in the project.

It needs to be borne in mind that some villagers who currently earn income from human portage may lose out in the medium to long-term as a result of this research project. Although not many villagers who undertake this activity have been encountered during the course of the baseline survey it is possible that small numbers of poorer households are engaged in it at least on a part-time basis. As a consequence, it needs to be analysed during the second phase of the research to what extent villagers are likely to lose out and what mitigation measures can be envisaged for them.

### **Intermediate Means of Transportation (IMTs) to be Tested**

**Iganga District:** Based on the findings of the baseline study, it is envisaged that the project will concentrate on oxen and ox-carts in this District. The local NGO Multi-Purpose Training and Community Empowerment Association (MTCEA) will be involved in acquisition, distribution and participatory monitoring of these IMTs in village groups.

If farmers also request ploughs it will be attempted to link farming communities with providers. The NGO Sasakawa Global 2000, which is also active in Iganga will be invited to the Golden Milestone workshop in order to discuss their interest in the project and potential involvement.

**Kasese District:** According to the survey, donkeys are the most appropriate form of IMT in this District. The local NGO Karughe Farmers Partnership (KFP) in Kasese, will be involved in acquisition, distribution and participatory monitoring of the animals in the communities. Local Government and the representative of the Belgian Development Cooperation expressed interest in supporting the project. Details of this will be discussed at the Golden Milestone Workshop.

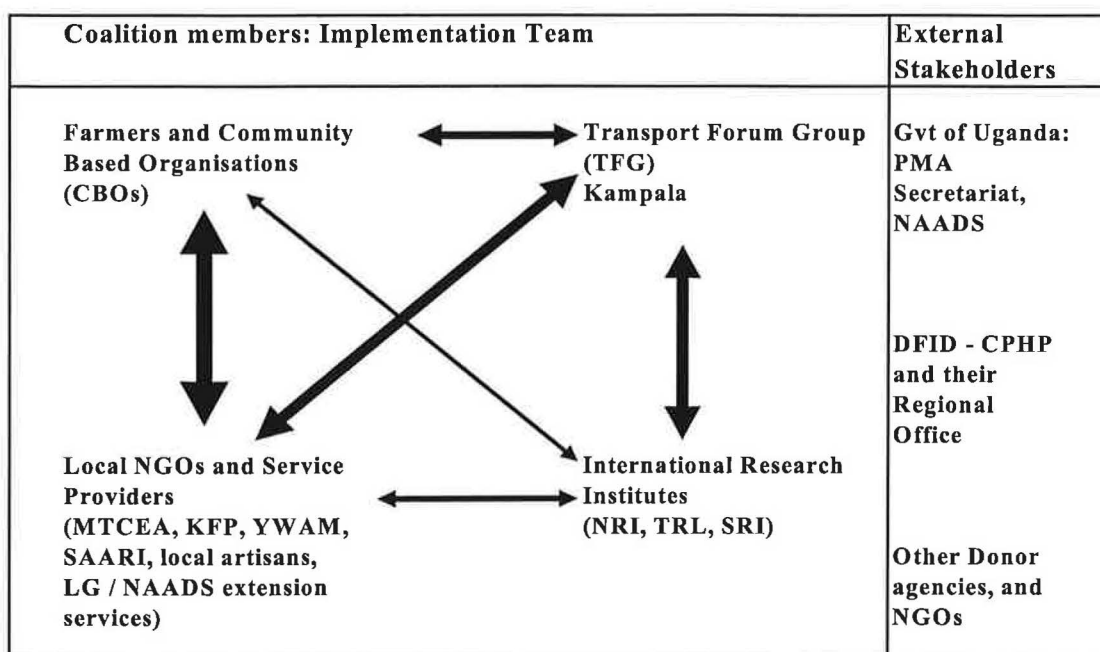
**Katakwi District:** On a preliminary basis it is envisaged that ox-carts will be tested, focussing on improving the design of currently used equipment in this District. Given the problem with cattle rustling, it will be discussed at the Golden Milestone workshop to what extent the introduction of donkeys and donkey-carts should be tested. The latter exist in neighbouring Districts and donkey cart manufacturing capacity exists at the NGO Youth with a Mission in Katakwi town.

Also, it will be attempted to establish closer links with ActionAid who are active in this District in order to discuss their potential involvement in the project.

### Hypothesis for Partnerships

As a consequence of its activities during the first year, the project has been able to establish a good basis for building a strong partnership to the benefit of potential users of Intermediate Means of Transportation (IMTs) in Uganda and other parts of the region.

**Figure 7: Coalition Framework for Research Project - Improved Food Crop Marketing Through Improved Transport For Poor Farmers in Uganda**





The key members of the partnership include farmers and their community based organisations, the Transport Forum Group (TFG), local partners (e.g. District based NGOs and service providers), and international research institutions.

As Figure 7 demonstrates the Transport Forum Group (TFG) has a lynchpin role to play in the project in that it provides the major link between the partners of the coalition. Table 2 indicates the different relationships between the principal partners and stakeholders of the project.

**Table 2: Map of Stakeholder Relationships**

	Farmers and CBOs	Local NGOs and Service Providers	Transport Forum Group	International Research Institutes	CPHP
Farmers and CBOs		Participation in initial baseline work;  Support of farmer groups through advice or provision / sale of IMTs  PM&E activities.	Initial baseline work, Contact when distributing IMTs; Periodic PM&E activities	Initial exchange of information during baseline survey (characterisation and contextualisation)	N/A
Local NGOs and Service Providers	Request for (paying) services  Sharing of ideas and needs in PM&E		Initial selection and sensitising; Contractual agreement for distribution of IMTs in collaboration; Partnership for rural transport; Joint PM&E	Initial discussions and consideration  Training in PM&E	N/A
Transport Forum Group	Sharing of ideas and needs in PM&E	Partnership for rural transport; Communication of information from farmers; Joint PM&E activities		Contractual agreement between NRI and TFG, strategic guidance and training by NRI, TRL, and SRI	In-country guidance through Regional Office (RO)
International Research Institutes	Exchange of information; Request for specific forms of assistance	Initial discussions and considerations; Exchange of information	Joint determination of actions, contractual arrangement; Lesson learning and feedback		Contractual agreement between CPHP and NRI; provide guidance, obtain feedback
CPHP	N/A	N/A	Provision of feed-back; Sharing of lessons	Account for project outputs, Provide feedback on lessons to share	

NB: The relationships are described from the viewpoint of the stakeholder in the top-row relating with the stakeholder in the left-hand column.

Other partners not present in the map include external stakeholder such as the Government of Uganda through the PMA Secretariat and NAADS. They expressed a strong interest in that they would like to use lessons from the project for the implementation of the Plan for Modernisation of Agriculture. Others include the Belgian Development Cooperation in Kasese which indicated willingness to fund the introduction of IMTs in the District (e.g. donkeys). In addition, NGOs working in Uganda and the region are likely to be interested in the project findings.

The hypothesis for the project partnership as outlined in Table 2 will be monitored throughout phase II of the project. Relevant and appropriate indicators will be identified at the Golden Milestone workshop in June 2003. Indicators to be potentially considered include:

- Degree of exchange of information,
- Transparency in decision making,
- Timely transfer of resources, and
- Fulfilment of obligations and responsibilities.

Details of the modalities will be developed at the Golden Milestone workshop borrowing from the Participatory Monitoring and Evaluation framework outlined in Appendix 4.

Table 3 outlines the main activities to be carried out, time-frame, and institutional responsibilities for phase II of the project.



**Table 3: Action Plan for Phase II of Research Project - Improved Food Crop Marketing Through Improved Transport For Poor Farmers in Uganda**

<b>Activities</b>	<b>Time-frame</b>	<b>Responsibility</b>
Golden Milestone Workshop: - Presentation and validation of baseline study findings; - Prioritising of IMTs to be tested; - Preparation of participatory monitoring and evaluation (PM&E) system - Allocation of responsibilities and resources	June 2003	Organisation by TFG and NRI Participation: 30 – 40 primary and secondary stakeholders
Training of stakeholders in participatory monitoring and evaluation	June 2003 (Week after workshop)	NRI, TFG
Acquisition of IMTs to be tested	July – September 2003	Co-ordination: TFG Manufacturing of carts: local artisans who have been trained in Kenya; Acquisition of animals: local partners such as SAARI, KFP, MTCEA, YWAM.
Distribution of IMTs	July – October 2003	Co-ordination: TFG  Distribution of IMTs and training of farmer groups: local partners such as SAARI, KFP, MTCEA, YWAM.
Participatory Monitoring	July 2003 – March 2005	Co-ordination: TFG  Collection of field data: Farmer groups in partnership with the MTCEA, KFP, and YWAM  Back-up support: SAARI and LG (e.g. animal health care)
Periodic meetings involving entire monitoring team. These meetings are expected to have a strong partnership building component	Oct. 03, Jan. 04 Apr. 04, July 04 Oct. 04, Jan. 05	TFG, MTCEA, KFP, and YWAM
Evaluation survey using participatory and quantitative methods	September – November 2004	TFG, NRI, local partners MTCEA, KFP, and YWAM
Compilation and analysis of data	December 04 – February 05	TFG, NRI, TRL, SRI
Final project workshop	March 2005	Organisation: TFG and NRI Participants: National and international primary and secondary stakeholders
Dissemination of findings, networking and raising of awareness of project	On-going between July 04 and March 05	TFG and NRI

## Appendix 1

### Livelihoods Analysis for Research Project - Improved Food Crop Marketing Through Appropriate Transport For Poor Farmers in Uganda (Phase II).

#### **1. Interest groups the work is intended to benefit and where are they?**

The project is intended to benefit poor farming communities in Uganda. Although it is carried out in nine sub-counties belonging to Iganga, Kasese, and Katakwi Districts, it is expected that in the longer-term the research findings will benefit other rural communities in Uganda and the wider region.

In particular, groups of farmers which have been formed for savings & credit or agricultural production and marketing purposes will be targeted. Women groups will be especially encouraged to participate in the project.

#### **2. In what way can they be defined as 'poor'?**

The findings of the baseline survey carried out in the first phase of this project highlight the fact that the majority of farmers in the three target Districts are small-scale producers with limited access to livelihoods resources such as land or animals. In particular, farming in Kasese District is characterised by small plots of land located in remote parts in mountainous terrain. Nevertheless, although their access to land may be slightly better, the majority of farming communities in Iganga and Katakwi can equally be classified as poor.

According to the Plan for Modernisation of Agriculture 'Poverty is mainly a rural phenomenon as 48% of the rural population are below the absolute poverty line', i.e. poverty is primarily a rural problem.

#### **3. What livelihood problem or opportunity are they experiencing and how many people are affected?**

Either lack of available transport or high cost have been indicated by the majority of male and female villagers interviewed as part of the baseline survey as their main household travel and transport problems (i.e. 71% to 98%). This is reflected in the degree to which farmers use human portage for transport of crops from the field to the home and from there to the market (i.e. the vast majority). Especially women carry heavy loads of produce.

As already indicated, farmers in Kasese District are particularly affected by remoteness in that vehicle use is very limited in the hilly parts of the District. Practically, all the farmers living in the mountains suffer from remoteness.

Although bicycles are used in Iganga and Katakwi District this mode is only suitable for transporting small loads over shorter distances. As agricultural production becomes more advanced and commercialised this mode of transport represents a constraint for the development of the farming system. For heavier loads and longer

distances, ox-carts are more suitable and cost-effective.

According to the Uganda Participatory Poverty Assessment Project (UPPAP), lack of market access is one of the principal causes of poverty in the country. The project is attempting to alleviate this particular livelihoods constraint through providing farmers with appropriate means of transportation with which they can access agricultural markets.

At the same time, although the project has a strong focus on marketing activities and related transport requirements it is important to consider the means of transportation to be tested as multi-purpose. In addition to marketing, farmers require transport for agricultural production activities, domestic purposes and other Income Generating Activities (IGAs). In order to be economically viable for farmers, the means of transportation need to be used for as many purposes as possible, including hiring them out.

**4. What contribution will the project make to this, over the timeframe of the project?**

The principal activities of the project are related to action-research in order to test and validate the most appropriate means of transportation under the farming systems encountered in the three target Districts.

During the course of the project, it is expected that farming communities in nine sub-counties will benefit through the use and testing of more appropriate and cost effective means of transportation such as donkeys, and ox-carts.

However, the major impact is only likely to take place after the end of the project once the means of transportation have been validated. By 2007, it is expected that there will be at least a 20% rise in the acquisition of Intermediate Means of Transportation (IMTs) by farmers in a minimum of five Districts of Uganda.

**5. What external factors need to be in place for impacts to be sustained and extended after the project has ended?**

GoU needs to continue its pro-poor policies to guarantee long-term sustainability of project impacts. The Plan for Modernisation of Agriculture, which states the importance of Intermediate Means of Transportation (IMTs), has recently been started with major donor commitment.

As a consequence, it is expected that the project impacts can be sustained in the long-term.

**6. What other initiatives (research or development) would the project complement / add value to.**

As already indicated the project covers an area which has been highlighted in the Plan for Modernisation of Agriculture. Improved means of transportation including the use of IMTs has been indicated as important to improve market access.

The project also adds value to initiatives targeting the improvement of the transport infrastructure in that community access roads would be better utilised.

**7. On what basis was the proposed project identified?**

Previous CPHP funded research by the Natural Resources Institute in collaboration with the Agricultural Policy Secretariat identified more appropriate means of transportation as a prerequisite to improve community access to marketing opportunities. This led to the development of a proposal based on which the baseline survey in phase I of the project was carried out. The baseline survey clearly identified the need for more appropriate means of transportation in farming communities.

**8. Who stands to lose from the work if it is adopted or implemented on a large scale?**

Some villagers who currently earn income from human portage may lose out in the medium to long-term as a result of this research project. Although not many villagers who undertake this activity have been encountered during the course of the baseline survey it is possible that small numbers of poorer households are engaged in it at least on a part-time basis. As a consequence, it needs to be analysed during the second phase of the research to what extent these members of the community are likely to lose out and what mitigation measures can be envisaged for them.

Also, intermediary traders are likely to lose out as a result of the project if farmers have better access to markets. Improved availability of transport will allow farmer groups to better consolidate their crop loads and directly access markets. As a result, their bargaining power will be strengthened and intermediary traders can be by-passed. This may include small-scale middlemen operating at local level.

## Appendix 2: Gender Analysis

### **1. How does the research problem / opportunity identified affect men and women differently?**

According to the baseline study, both men and women are involved in the production and sale of agricultural crops. However, it appears that men are more likely to be in charge of selling higher-value food crops or traditional cash crops.

Household assets and resources tend to be controlled by men in that household heads are considered to be the owners of the assets. The baseline survey revealed that asset ownership by women is only more prevalent in the case of female headed households.

Women are particularly affected by the availability of transport or the lack of it, in that they spend substantial amounts of time for domestic and agricultural transport. In particular, this involves human portage (e.g. head or back loading) of heavy loads (e.g. 30kg and more) over long distances.

### **2. How will expected project results impact differently on women and men?**

The use of donkeys has been identified as a means of transportation to alleviate women from carrying heavy loads especially in mountainous areas such as Kasese District. As experience shows from other parts of sub-Saharan Africa these animals can be easily handled by women.

The use of oxen and ox-carts tends to be a male domain in many countries including the parts of Uganda where they are already used (e.g. Teso). However, it is expected that their introduction will indirectly alleviate the transport burden for women in that more household transport needs will be covered by carts. In addition, women or women groups may be able to hire ox-cart transport for productive purposes.

### **3. What barriers exist to men's and women's involvement in project design, implementation, and management decisions?**

Administrations and organisations tend to be dominated by men, as a consequence of which women are less likely to be involved in the early stages of a project when contacts are being established.

Nevertheless, during the first phase of this project (i.e. in particular the PRA of the baseline survey) it has been possible for both men and women farmers to provide inputs relevant for phase II. Certain exercises have been carried out only with women.

In particular, it is envisaged to encourage women groups to participate in this second phase of the project during the course of which means of transportation will be tested and monitored in the communities.

## Appendix 3: Stakeholder Analysis

**Table 1a: Coalition Members - Interests and Impact**

<b>Proposed Coalition Members</b>	<b>Key Interest in the Project</b>	<b>Potential Impact of the Project</b>
Farmers and CBOs	<p>Farmers have stated the lack of appropriate means of transportation as one of their livelihoods constraints.</p> <p>As a result they have a strong interest to participate in this project</p>	<p>The majority of members of farming communities are to gain as a result of the project in that improved transportation will allow them better access to markets. In addition, the means of transportation are likely to be used for other purposes such as alternative income generating activities or domestic transport.</p>
Local NGOs and Service Providers (e.g. Youth with a Mission, Karughe Farmer Partnership, Multi-Purpose Training and Community Empowerment Association), local artisans, SAARI, extension services	<p>Due to their involvement and background in farming communities they have a strong motivation to assist farmers' groups.</p>	<p>Participation in the project will improve their knowledge base as regards improved farm technologies.</p> <p>These will be made available to the benefit of poor farmers.</p>
Transport Forum Group (TFG) (Kampala)	<p>TFG are committed to improving rural transport through networking, research, and dissemination of knowledge.</p>	<p>TFG's participation in the project would, on the one hand, allow them to forge new partnerships, and on the other hand improve their knowledge base to the benefit of poor farmers.</p>
International Research Institutes (NRI, TRL, and SRI)	<p>Institutes such as NRI, TRL, and SRI have a long-standing reputation for research and development work. Their interest in the project is the generation of new knowledge which can be disseminated to the benefit of the poor in developing countries.</p>	<p>New knowledge generated will be disseminated to the benefit of poor people in other parts of Uganda and the wider region.</p> <p>Transfer of technical know-how to local partners, in particular TFG.</p>

**Table 1b: External Stakeholders – Influence and Impact**

External Stakeholders	How can they influence the project	Potential Impact
DFID Crop Post-Harvest Research Programme	<p>Having identified improved market access for poor farmers as a priority, CPHP have commissioned and provided funds for this research.</p> <p>They can provide steering and guidance throughout the project life.</p>	<p>CPHP will disseminate improved knowledge to the benefit of poor rural households in Uganda, and other developing countries.</p> <p>They can also encourage uptake of findings by Government, NGOs, private sector, and donors (including other DFID departments)</p>
Government of Uganda through the Secretariat of the Plan for the Modernisation of Agriculture (PMA), NAADS, and Local Government	<p>PMA Secretariat can influence the project by encouraging GoU Departments to assist the project in its implementation (e.g. contributions of MAAIF veterinary and LG officers).</p> <p>Support of Local Government is important for the success of the project. In some cases it is possible that LG Departments will actively participate in the project whereas they may become an external stakeholder in other cases.</p>	<p>Likely to use project findings for the implementation of the PMA. As a result, in conjunction with NAADS they are major agencies to be targeted for up-take.</p> <p>Contacts have been established with LG Departments in order to inform them of project and sensitise them regarding uptake of findings.</p>
Other Donor agencies (e.g. Belgian Development Cooperation) and NGOs (e.g. Sasakawa Global 2000, and ActionAid).	They can contribute with human or financial resources to the implementation of the project (e.g. expressed interest to support the project in Kasese District).	Likely to use research findings for the implementation of their strategies (hence up-take potential)



**Table 2a: Proposed roles of coalition members in the project**

<b>Stage of Research Process</b>	<b>Proposed coalition member</b>	<b>Proposed role(s) in project</b>	<b>Justification of role</b>
<b>Identification (CN stage)</b>	NRI and TFG	Jointly prepared concept note, in consultation with TRL	<p>Knowledge of farming and transport issues in Uganda</p> <p>Interest and experience in agricultural and transport research to the benefit of the poor</p>
<b>Design and development (PMF stage)</b>	NRI and TFG	Jointly prepared project memorandum in consultation with TRL, SRI, and Kendat	As above
<b>Implementation and Monitoring</b>	<p>TFG,</p> <p>Local NGOs (i.e. KFP, YWAM, MATCEA) and Service providers (e.g. artisans, vets)</p> <p>Farmers / Community Based Organisations</p>	<p>TFG will provide co-ordination with regards to implementation and participatory monitoring. This includes inputs on the ground during the distribution of IMTs, and contributions to participatory monitoring exercises.</p> <p>Will compile data generated during participatory monitoring exercises.</p> <p>Local NGOs and service providers will support farmer groups in acquiring, using and testing newly acquired means of transportation. This includes training of farmers groups.</p> <p>Participatory Monitoring will principally be undertaken by farmer groups in partnership with the above named District based NGOs.</p>	<p>TFG have good knowledge of transport issues in Uganda and have been able to establish a good partnership with other stakeholders before the research started and during the course of the baseline study.</p> <p>Local NGOs have direct contact with farming communities. Although they may require some capacity building they are well placed to undertake PM&amp;E with farmer groups.</p> <p>They are the principal beneficiaries (i.e. clients) of the project and as such have a major role to play in implementation and monitoring of the</p>



	International research institutes (i.e. NRI, TRL, SRI)	<p>Intl. research institutes will provide strategic guidance, training, and contribute to analysis / preparation of project outputs.</p> <p>NRI has management role.</p>	<p>project.</p> <p>Have experience and know-how in managing and undertaking agricultural and transport research in developing countries.</p>
<b>Evaluation</b>	<p>TFG,</p> <p>Local NGOs (i.e. KFP, YWAM, MATCEA)</p> <p>Farmers / CBOs,</p> <p>International research institutes (i.e. NRI, TRL, SRI)</p>	<p>TFG will provide co-ordination with regards to participatory evaluation, including contributions on the ground in partnership with local NGOs and farmer groups.</p> <p>TFG will compile data generated.</p> <p>Local NGOs will undertake participatory evaluation in partnership with farmer groups and TFG</p> <p>Participatory Evaluation will principally be undertaken by farmer groups in partnership with the above District based NGOs and TFG.</p> <p>Intl. research institutes will provide strategic guidance, training, and contribute to preparation of project outputs.</p> <p>NRI has management role.</p>	<p>As in box above</p> <p>As above</p> <p>As above</p> <p>As above</p>

**Table 2b: External Stakeholders and Relationships with Coalition**

Stage of research process	Degree of participation		
	Inform	Consult	Collaborate
<b>Identification (CN stage)</b>		APSEC / PMA Secretariat have been consulted	CN has been developed in collaboration with CPHP
<b>Design and development (PMF stage)</b>		PMA Secretariat have been consulted	PMF has been developed in collaboration with CPHP
<b>Implementation and Monitoring</b>		<p>Project is being implemented in close consultation with the CPHP - RO.</p> <p>PMA and LG: both will be further consulted regarding their priorities and interest in collaboration</p> <p>Belgian Development Cooperation have been consulted</p> <p>NGOs such as SG 2000 and ActionAid will be consulted for potential collaboration</p>	<p>PMA Secretariat have collaborated in baseline study through making veterinary officer available. LG officers have also contributed to baseline study.</p>
<b>Evaluation</b>		Participatory Evaluation will be undertaken in close consultation with CPHP – RO, and PMA Secretariat, And local Government	Also, collaboration with PMA and LG if they make available their officers for this exercise.

## **Appendix 4: Participatory Monitoring and Evaluation Approach**

### **Defining PM&E in the context of project ‘Improved Food Crop Marketing through Appropriate Means of Transportation’**

Project-based monitoring and evaluation (M&E) broadly serves two purposes: to provide a basis upon which lessons can be learned during and after the project cycle, and as a means to measure and account for performance during and after the project cycle. Participatory M&E (or PM&E) reflects these same purposes, but places emphasis on who initiates and undertakes the process, and who learns and benefits from the findings. The departure of PM&E from so-called ‘conventional’ M&E approaches therefore reflects the actors involved, moving away from a pre-determined, extractive process run by project managers and/or outside experts, to one which engages all key stakeholders in the determination, implementation and utilisation of information.

In Uganda, three main trends have been identified which bear relevance to the way in which this project is structured, and the approach, role and function of its PM&E. Firstly, the importance of understanding poverty, recording and responding to the needs of the poor (supported through the PPA process) is a central pillar of the government’s strategic planning framework. This is exemplified in the Poverty Eradication Action Plan (Uganda’s PRSP), with monitoring managed by a Poverty Monitoring and Analysis Unit (PMAU) within the Ministry of Finance, Planning and Economic Development. The PMAU coordinates a network of government, NGO and civil society stakeholders engaged in PEAP monitoring, and is strongly linked to PPA process. Secondly, decentralisation and privatisation (exemplified in NAADS) reflects an aim of enabling the poor (previously ‘beneficiaries’ of development assistance, and now ‘clients’) to determine priorities, control and utilise funds to demand services at the local level. Thirdly, institutions and institutional relationships are being recognised as central to development effectiveness, and thus attention is shifting from the products and services produced and delivered, to include a better understanding of the actors involved, how they interrelate, and for what varied purposes.

These trends provide more than a context for this project, both in terms of the extent to which they influence the way in which the project is developed and implemented, and through the feeding of lessons from the project back into policy processes. Numerous individuals, groups and organisations have a stake in the project, in the sense that they stand to be affected by it and/or have an influence over its process and outcome. Thus, an effective PM&E system needs to be based on a multi-level approach that recognises (and where possible, harmonizes) the different, often competing information needs of these various stakeholders. It is important to stress that PM&E should not be interpreted as M&E only with and by end-users (as has been commonplace), which overlooks the key roles and responsibilities of other stakeholders in the design and implementation process.

PM&E, as with ‘conventional’ approaches to M&E, recognises the separation, although inter-relationship between the ‘M’ of monitoring and ‘E’ of evaluation. Within the context of multiple actors, with various and differing interests and linkages, it is important to retain a focus on the key question ‘what information is required, for whom, by whom, and where it is positioned with regard to the implementation of an initiative’. Within this context, monitoring relates primarily to the ongoing assessment of the performance of these various stakeholders. This can include both self-assessment, and assessment by others. In the case of evaluation, this reflects the assessment of impact or change, i.e. the effect of the initiative against its stated aims at various levels.

A further dimension for both M and E is its focus, namely the balance between criteria for the purpose of accountability, and those for learning. Central to participatory M&E is the need

for the participant stakeholders to themselves determine these criteria for accountability and learning, depending on their own perceived needs. These criteria then need to be negotiated between the various stakeholders, reflecting needs at various levels. Having determined these criteria, the approaches taken and methods used can be selected and rationalised. Central to the workability of such a system is the need for clear allocations of responsibility, time and budget for each M&E action.

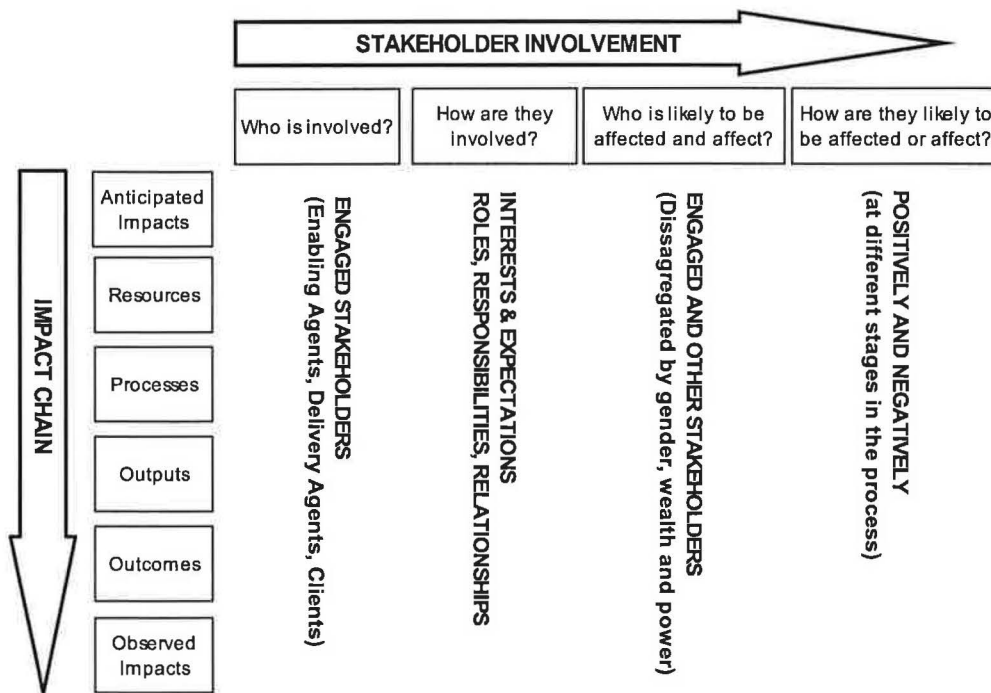
**Approach**

**Stakeholder Involvement**

The development and implementation of a workable multi-level PM&E approach within the context of this project relies upon a strong and inclusive project planning process. This must include both clear aims, a map of how they are to be reached (impact chain), and a clear identification of those that have a stake in the project: their composition, key interests, influences and potential impacts including a negotiated process of establishing roles, responsibilities and interrelationships<sup>2</sup>.

As outlined in Figure 1, the interests, expectations, roles and responsibilities of all stakeholders need to be identified in relation to the project’s impact chain, reflecting the process to achieving its aims. Whilst not all of these issues need to be addressed at each stage along the chain, the framework provides a basis for mapping who has interests and needs, and is involved at various points.

**Figure 1. Framework for identifying stakeholder involvement along the impact chain**



NB. The mapping of these issues can in part be carried out through a workshop in which the majority of stakeholders are represented. However, it is recognised that it is rare for all stakeholders to be present at single events, and thus it is expected that

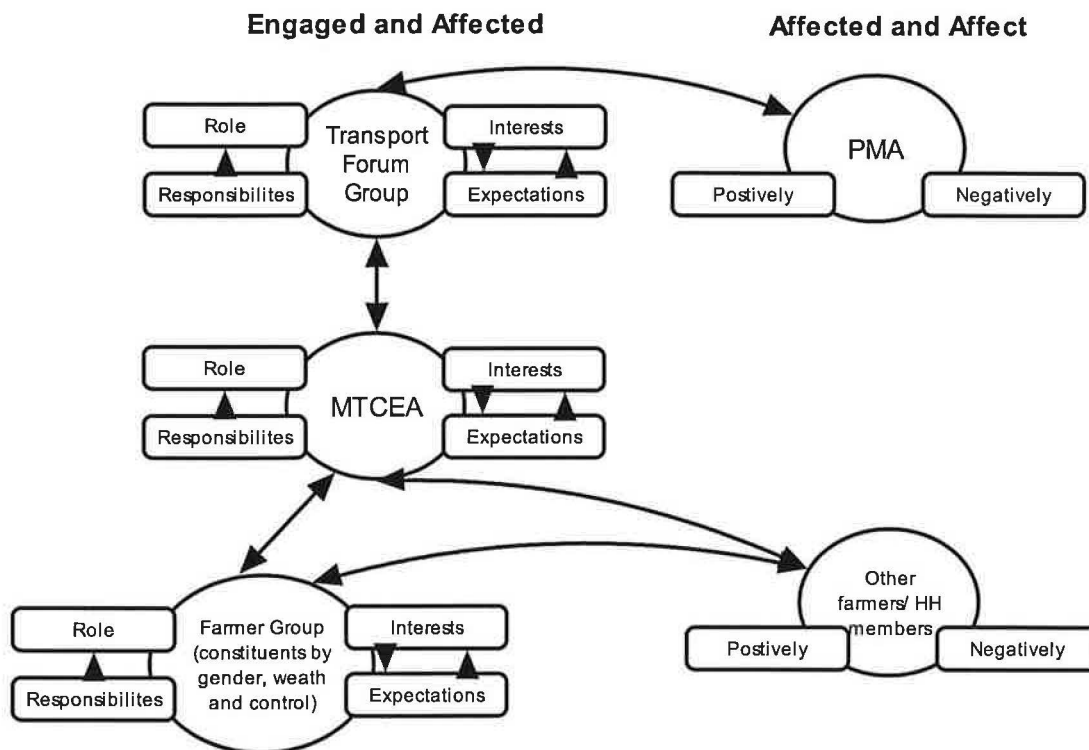
<sup>2</sup> It is understood that this is to be initiated through a stakeholder workshop (i.e. Golden Milestone workshop) early in Year 2 of the project.

this will have to be built on through subsequent meetings held at district, sub-county and target community levels.

**Information Needs**

The involvement of these stakeholders needs to be mapped together, as a basis for identifying information needs at various levels. Figure 2. Illustrates some of those engaged and likely to be affected by the project. The roles established by each engaged stakeholder will reflect their contribution to the project’s objectives within the context of the impact chain, and the responsibilities will outline their activities or tasks in contributing to the role. Likewise, their interests and expectations will be affected during the project process, as a product of their relationships with other stakeholders, and in the extent to which they fulfil their role. Further, others not engaged in the project’s implementation will be affected by it (such as increased labour availability), and may in turn affect it (such as policy changes)

**Figure 2. Stakeholder Network Map (Example)**



Stakeholder	Information Needs	Checks & Other Factors
Role	<ul style="list-style-type: none"> <li>Do we need to review this?</li> <li>If yes, what do information do we need?</li> <li>Who will collect this information?</li> <li>How will it be collected?</li> <li>How often will it be collected?</li> </ul>	<ul style="list-style-type: none"> <li>Is this information helping us better understand what we are doing?</li> <li>Is this information helping us better understand the way it is affecting ourselves and others?</li> <li>Is there other information that we should collect to help us?</li> </ul>
Responsibilities		
Interests		
Expectations		
Support received from others		
Support given to others		

Whilst it is likely to be undesirable for all involved to want to collect information on all of these factors, it is necessary to begin by asking the question of what crucially needs to be reviewed or measured. Where it is considered useful, a series of follow up questions reflect

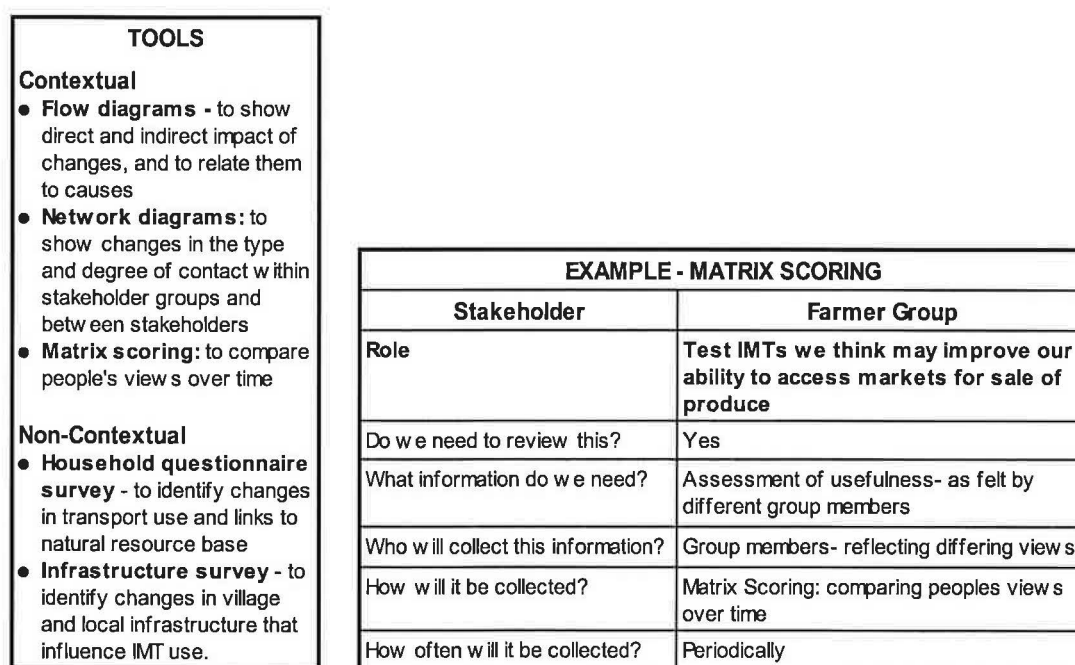
the diagnosis of how the M&E will be achieved: what information, who collects, how collected and how often collected. The checks on these can be considered at various stages as a basis for reviewing whether or not the right things are being assessed, and whether or not time is being wasted in this process.

Each stakeholder will need to engage in this process of needs identification, and the results will have to be negotiated between the stakeholders based on the realisation that different stakeholders have different claims, concerns and issues. It is likely, for example, that the perceived information needs of certain stakeholders will involve others doing the data collection (for example, the Transport Forum Group may want farmers groups to gather information on the extent and nature of their utilisation of the intermediate-means of transport). Thus, a balance will need to be struck between information use for each stakeholder's *own purposes* and that for *other's purposes*. This will be facilitated through the prior identification of clear roles and responsibilities at each level.

### Information Collection

Having determined what information is required by different stakeholders, tools will need to be developed for its collection. These tools will vary in form depending on the nature of the information, from contextual (such as changes in preferences) to non-contextual (such as changes in transport costs). Figure 3. illustrates some of the tools that may be used, and the example of why one tool (matrix scoring) might be used.

**Figure 3. Possible Information Collection Tools**



Where stakeholders do not have experience of participatory investigation, and in the adaptation and utilisation of PM&E tools, avenues will be sought for capacity development. Clearly, an effective PM&E system cannot function if those involved are not imbued with the principles of participation, nor if they are not familiar with the tools.

### Resource Requirements

The resources required to develop and implement a flexible and inclusive PM&E approach will depend on the variety of indicators and tools selected, the way in which it conducted, and relatedly, the capacity of those involved. Resource requirements, including finance, time

availability and human resource in terms of level of commitment, effort and capacity need to be considered at the outset. If it is recognised that experience and knowledge of PM&E practices amongst the various stakeholders is low, and the budget is constrained, expectations will have to be tempered. Thus, reviewing the resources available will feed back into the decision-making process of PM&E prioritisation.

### **Conclusion**

PM&E should be a socially negotiated process, not just a framework, method or set of tools. Thus, the approach outlined above must be seen as a starting point through which stakeholders can articulate their expectations and interests within the context of a project which has clear objectives. Central to the development of a truly participatory M&E approach will be the extent to which all key stakeholders are able to influence the decisions made on what is done: including who determines roles and responsibilities and who determines criteria for success.

## Appendix 5:

### Project Logframe: R8114 - Improved Food Crops Marketing through Appropriate Transport for Poor Farmers in Uganda (Updated April 2003)

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Risks and Assumptions
<b>Goal</b>			
Poor people benefit from new knowledge applied to food commodity systems	<ul style="list-style-type: none"> <li>- By 2002, increased number of poor households, in two countries, who use improved storage and agro-processing techniques in an environmentally sustainable manner.</li> <li>- By 2002, increased numbers of poor households, in two target countries, benefit from improved marketing and credit systems.</li> <li>- By 2005, increased contribution to nutrition of poor households from own produced food.</li> <li>- By 2005, increase in income from the sale of fresh and processed crops by poor households, in two countries.</li> </ul>	<p>National and local adoption rate surveys</p> <p>National food security data</p>	Poor people invest benefits to improve choices and options for livelihood strategies.
<b>Purpose</b>			
Strategies developed and promoted, which improve food security of poor households through increased availability and improved quality of food and better access to markets.	<ul style="list-style-type: none"> <li>- By 2005, cost-effective marketing and credit systems validated to enable small-scale producers to add value to harvested crops.</li> <li>- By 2005, new knowledge adopted by target institutions.</li> <li>- By 2005, end users in target countries are aware of knowledge programme outputs</li> </ul>	<p>Annual Research programme reports.</p> <p>External refereeing</p> <p>External O/P reviews</p> <p>Target institutions' reports</p>	<p>Resource managers, producers and processors are able to adopt new knowledge</p> <p>Enabling environment exists for widespread adoption of new knowledge.</p> <p>Capabilities of target institutions maintained at least at current levels.</p> <p>Food production constant or increasing</p>
<b>Outputs</b>			
<p>1. Building of capacity for Transport Forum Group offices to manage and backstop rural transport development research projects at national and regional level</p> <p>2. Knowledge and information on agricultural production, post-harvest and marketing, economics and technical aspects of IMTs and their use by poor farmers, and poor farmers' livelihoods in three Districts</p> <p>3. Best practices on promotion of validated means of transportation</p>	<p>Assistance to local TFG to set up office</p> <p>Strengthened networking mechanisms</p> <p>Kick-start workshop</p> <p>Training of TFG researchers in PRA methods</p> <p>Conceptualised partnership arrangements</p> <p>PRA's conducted in three Districts</p> <p>Household questionnaire and data base created</p> <p>Questionnaire survey carried out in three Districts</p> <p>Local partnership arrangements</p> <p>Strengthened local networking</p>	<p>Workshop report</p> <p>Quarterly project reports</p> <p>Communications (electronic or otherwise)</p> <p>Fieldnotes</p> <p>Questionnaires</p> <p>Database</p> <p>Survey reports</p> <p>Evidence of communication (electronic</p>	<p>Target institutions invest in the uptake and application of research results.</p> <p>As above</p>



	<p>mechanisms</p> <p>Intermediate Means of Transportation introduced into communities 18 month after start of project</p> <p>Participatory Monitoring and Evaluation mechanism</p> <p>Technical brief, issues paper, policy briefing paper</p>	<p>or otherwise)</p> <p>Contracts with farmer groups</p> <p>PME framework and forms</p> <p>Documents published three months after closure of project</p>	
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Activities	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<p>1.1 Assistance to the Uganda Transport Forum Group for Rural Transport and Development to set up a local office</p> <p>1.2 Kick-off workshop</p> <p>1.3 Visits by TFG members to similar CPHP funded projects in Africa</p> <p>1.4 Training of Ugandan blacksmiths in cart manufacturing in Kenya</p> <p>2.1 Baseline study using participatory and quantitative techniques</p>	<p>TFG office set up within first quarter after project start;</p> <p>Workshop involving national and international stakeholders organised within three months after project inception</p> <p>Visits by TFG Co-ordinator to Kenya and Ghana during the first 4 months of the project</p> <p>At least five blacksmiths trained in Kenya during last quarter of year 1 of project</p> <p>Participatory and questionnaire baseline surveys carried out by TFG, NRI, TRL, and Silsoe Research Inst. In collaboration with local partners during the first 12 months of the project</p>	<p>Office infrastructure and equipment operational, TFG Assistant hired.</p> <p>Workshop report and documents</p> <p>Visit reports</p> <p>Evaluation report</p> <p>Working documents</p> <p>Review</p> <p>Survey report on three Districts</p>	<p>Project partnership continues to hold throughout the life of the project..</p> <p>Local communities, research and extension services, and NGOs actively participate in fieldwork.</p>
<p>3.1 Golden Milestone Workshop</p> <p>3.2 Training of stakeholders in Participatory Monitoring and Evaluation</p> <p>3.3 Acquisition of IMTs to be tested</p> <p>3.4 Distribution of IMTs to be tested</p> <p>3.5 Participatory Monitoring</p> <p>3.6 Periodic partnership meetings</p> <p>3.7 Evaluation survey</p> <p>3.8 Compilation and analysis of data;</p> <p>3.9 Final project workshop</p> <p>3.10 Dissemination of findings, networking, and raising awareness of project.</p>	<p>Workshop organised during first quarter of year 2 of project</p> <p>Training documents</p> <p>Purchase (or manufacturing as applicable), and distribution of IMTs in communities of three Districts mainly during first half of year 2 of project</p> <p>Monitoring by farmers, local partners and TFG, on-going July 2003 – March 2005</p> <p>Quarterly meetings by TFG and local partners</p> <p>Evaluation survey using participatory and quantitative methods,</p> <p>Analysis completed by February 2005</p> <p>Workshop organised in March 2005</p> <p>Awareness raising, on-going</p> <p>Policy briefing paper published by June 2005</p>	<p>Workshop report</p> <p>Reports on purchase, distribution, and monitoring, of IMTs; Contracts,</p> <p>Monitoring documents</p> <p>Minutes of meetings</p> <p>Working documents</p> <p>Fieldnotes</p> <p>Working documents and reports</p> <p>Workshop report</p> <p>Communication</p> <p>Evidence of communication</p> <p>Paper</p>	<p>As above</p>

**Appendix 6: Budget of research project R8114: Improved food crops marketing through appropriate transport for poor farmers in Uganda (revised version - 27 March 2003)**

	FY 02/03	FY 03/04	FY 04/05	Total
<b>Staff costs (including overheads) (3.5% inflation on fee rates assumed)</b>				
<b>NRI:</b>				
Principal Scientist, Agric Economist, Project leader, 83 days @ £581	15,687	15,033	19,294	50,014
Senior Scientist, Social Anthropologist, 75 days @ £342	11,970	10,619	12,823	35,412
<b>Transport Research Laboratory:</b>				
Transport Economist, 45 days @ £370/day	10,660	3,830	5,945	20,435
<b>TFG Project Co-ordinator, 186 days @ £200/day</b>	10,400	13,869	14,285	38,554
TFG Administrator, 36 months @ £150/month	1,800	1,863	1,919	5,582
TFG Sociologist, 45 days @ £100/day		3,090	1,545	4,635
TFG Gender Specialist, 45 days @ £100/day		3,090	1,545	4,635
David O'Neill, Silsoe (17 days @ £470) (It is assumed that Mr O'Neill's travel expenses will be covered by Kendat project)	3,980	2,750	2,750	9,480
<b>TFG Secretariat</b>				
Computer / Printer	2,000			2,000
Telephone Connection	500	1,200	1,200	2,900
Contribution to rent	1,800	2,500	2,700	7,000
Stationary	500	1,140	1,400	3,040
<b>Workshops</b>				
Workshop 1	5,000			5,000
Workshop 2		8,000		8,000
Workshop 3			8,000	8,000
<b>Surveys</b>				
<b>PRA field expenditures:</b>				
PRA 1 (6 weeks, 4-person team)	8,820			8,820
Partnership building and participatory M&E		8,000		8,000
Partnership building and participatory M&E			5,000	5,000
Local Sociologist/consultant (report writing)	2,000	0	0	2,000
<b>Statistical survey field expenditures:</b>				
Statistical survey 1	3,000			3,000
Statistical survey 2			3,000	3,000
Technical monitoring of IMTs (72 days @ £60)	1,440	1,440	1,440	4,320
<b>Purchase of Equipment and Animals</b>	5,000	15,000		20,000
<b>Farmer Exchange Visits (Uganda/Kenya)</b>	1,000	2,000	0	3,000
<b>International Travel</b>				
1 flight Uganda - Ghana, TFG	800		0	800
3 flights Uganda - UK, TFG	700	700	700	2,100
7 flights UK - Uganda/Kenya, NRI	1,400	1,400	1,400	4,200
6 flights UK - Uganda/Kenya, TRL	1,400	700	700	2,800
5 flights Uganda - Kenya, TFG	250	500	500	1,250
Allowances in Ghana (7 days @ £70), TFG	490		0	490
Allowances in Kenya (25 days @ £70), TFG	350	700	700	1,750
Allowances in the UK (21 days @ £80), TFG	560	560	560	1,680
Allowances in Uganda/Kenya (135 days @ £70), NRI	3,150	1,750	1,750	6,650
Allowances in Uganda/Kenya (84 days @ £70), TRL	1,960	490	490	2,940
<b>Incidental travel costs (e.g. travel to and from airports, visas)</b>				
Incidental travel, TFG	500	500	500	1,500
Incidental travel, NRI	500	500	500	1,500
Incidental travel, TRL	500	500	500	1,500
<b>UK Travel (Visits to UK research institutes)</b>				
UK Travel, NRI	300	300	400	1,000
UK Travel, TRL	300	300	400	1,000
<b>Dissemination / Publication</b>			4,000	4,000
<b>Annual total</b>	<b>98,717</b>	<b>102,324</b>	<b>95,946</b>	<b>296,987</b>
<b>Grand Total (Financial Years 1 - 3)</b>	<b>296,987</b>			