

DFID CROP POST HARVEST RESEARCH PROGRAMME

Action Research on the livelihood impact of IMTs in Ghana's off-road settlements (R 7575)

RA Field Report K 2: Report on the first visit to Ghana January 2001 – March 2001

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This report reviews the fieldwork and activities undertaken during the second field visit to Ghana from mid January – mid March.

The main objectives and activities accomplished:

- Traffic survey
- IMT attitude survey / questionnaire
- Equipment distribution including maintenance tools
- IMT diary set-up
- School discussion on IMT attitudes including a drawing competition
- Detailed interviews with beneficiaries and other community members
- Environmental work with focus on road/path conditions and erosion
- Visits to project collaborators / involved institutions / organisations / companies and individuals for general support work and dissemination of project information where relevant

Traffic survey:

The traffic survey aims to provide comprehensive data on daily travel patterns on the major access routes of the villages. This survey supports the analysis of local travel pattern and mobility and aims to capture variations in travel behaviour for different week-days, gender disaggregate data as well as travel modes chosen for the journeys. The survey was undertaken prior to the distribution of the requested IMTs to the beneficiaries in order to capture the pre-IMT travel patterns in the villages. The traffic survey was conducted in all 5 study villages over the course of 10 days. For each village one market day and one non-market day was selected, which should reflect variations in travel behaviour on different week-days, which are associated with distinctive activities. The trafficable roads as well as major foot-paths - mostly access routes to farmland - were observed continuously over a time period from 6.00am until 5.00pm. This survey applied the same terms of reference as in the traffic survey undertaken in the antecedent project on "Access to market opportunities in Ghana's off-road communities" (R7149). The same record sheet (Appendix 1), as designed for the previous traffic count was used. Time, sex, mode of transport, load and direction of travel to and from the village was recorded. The repetition of the traffic count provides information on changes with time. Further traffic counts are planned during the wet season and towards the end of the monitoring phase, when the use of IMTs might be well established.

IMT attitude survey:

Prior to the distribution of the requested equipment to the beneficiaries, a survey on the attitudes towards IMTs was undertaken. This aimed at the provision of quantitative data on the perceptions and uses of IMTs amongst the community members, which will complement the detailed qualitative studies undertaken. The questionnaire design is attached in the appendix 2. It included a ranking activity of the different IMTs, questions on the use of the various IMTs and whether one could imagine making use of any of the transport items, as well as thoughts on anticipated changes due to the introduction of IMTs to the village. The same survey will be repeated towards the end of the monitoring and evaluation phase, when the IMTs have been introduced and have been working within the villages for a considerable period of time. This will generate useful data on changes in attitudes and perceptions towards IMTs due to the direct exposure of their attributes and use in the villages. The sampling method originally aimed at transect lines, but had to follow a rather opportunistic strategy, given the short time period available for the survey as well as general practicalities in the villages. Great care was taken to ensure an equal representation of male and female informants. A statistical sampling size of at least 30 respondent per village was accomplished. Enlarging the sampling size beyond the statistically required minimum was not possible due to short time period available for this survey.

Equipment distribution:

With help from the Ministry of Agriculture in the form of provision of a lorry and driver, the relevant equipment was collected from Accra and Kumasi Magazin and delivered to the beneficiaries. The requested bicycles were collected from Accra, while the 43 push-tucks had to be collected from Kumasi Magazin. The loading capacity of the lorry did not exceed 22 pieces of the very heavy push-trucks and two trips were necessary. The distribution was accomplished within 1 week and each village was served with the entire range of requested equipment at once. Aworabo was the first village to be equipped with their requested IMTs. The distribution was accompanied by the project officer from the Agricultural Development Bank / Fosu, who collected the first down payment for the credit. The terms and conditions of the credit were finalised with each beneficiary and were recorded for future reference. The beneficiaries were asked to sign an "IMT purchase agreement" form (appendix 3), which states that they are responsible for all maintenance. It also ensures that they are not allowed to sell the equipment or take it out of the village for the entire period of the project phase. The content of the agreement form was translated and explained to the beneficiaries individually.

The equipment distribution in the 4 study villages in Gomoa was not accompanied by official bank staff, despite prior arrangements and assurances from the Bank Manager / Akyempim Community Bank, Dawurampong. The credit payments had to be collected by project staff instead and were delivered to the bank subsequently accompanied by the signed purchase agreement forms for bank records.

Not all beneficiaries were present on the distribution date, despite prior announcement through the village head. Their equipment was temporarily stored at a village representative's house and was handed out on subsequent visits if payment was made.

The handcart for one beneficiary in Aworabo - to be manufactured by GRATIS Foundation/Tema - was not ready for collection by the time the distribution took place. It had to be delivered separately some weeks later. The delay was due to manufacturing difficulties encountered by GRATIS, who faced difficulties in obtaining the requested motor-bicycle tyres. Due to previous problems with the handcart operating on reinforced rims and bicycle tyres, the design was changed to equip the handcart with motor-bicycle wheels and tyres. They are stronger and will not puncture as easily. It was envisaged that the cart would be finished early January in order to conduct some trials before delivering it to the beneficiary. The delay in manufacture caused the handcart to be delivered without prior trials. However, to date, no problems or malfunctioning have been reported.

The push-trucks had been manufactured by artisans in Kumasi Magazin and are made mostly of scrap materials. Due to poor quality of some of the tyres used on the trucks, they had to be checked and serviced before delivery. Some beneficiaries complained about deflated tyres shortly after the receipt of their equipment. Support was given to ensure that all deflated tyres were serviced again in order to provide fully functional equipment to the beneficiaries.

A wheel spanner and foot pump was deposited in every village to support any maintenance work necessary. The tools were left in the hands of a permanently resident community member in order to ensure maximum accessibility to the support tools whenever necessary.

IMT diary set-up:

In order to monitor the use and mobility of the equipment supplied to the beneficiaries, it was decided to devise an appropriate check sheet in the form of an IMT diary. This implies that IMT activities are being recorded every evening by a selected group of designated recorders. They have agreed to make daily short visits to the beneficiaries in the evening, when they are most likely to be in their compound. They were trained in the use of the check sheet (Appendix 4) and are being paid for their support with this data collection. The IMT diary will take place in alternating months and was commenced in March. Visits to the villages in mid March have revealed that the selected group are making their rounds generally on a daily basis and that there were no major problems with the check sheets. In order to allow for absences of the IMT diary project staff from the village and at the same time ensuring a continuous daily coverage, two people are jointly looking after one group of beneficiaries.

Lome has 4 people in two groups, with each group responsible for 7 beneficiaries. The beneficiaries in Sampa are fewer and two people were sufficient to complete the rounds. Abora is equally sufficiently supplied with two people looking after the diary. Adabra is serviced by a very committed teacher with the help of a secondary school child. There are many beneficiaries in the community and it would be advantageous to engage more people in the data collection in order to spread the work load, but it was difficult to find suitable individuals. The teacher, however, feels that he will be able to make the daily rounds and the small spatial extent of Adabra is favourable. Aworabo has three people, who were willing to support us with the daily rounds and activity checks. In case of absentees, one of the other team members will take over. It is

envisaged that the daily activity charts will reveal information on pattern and extent of usage of the owner and his/her family as well as rental activities.

School discussion:

Children are active members of the community and contribute largely to transport activities. Many have used IMTs for different purposes. It is hence important to build on the experiences of the children concerning transport and IMT usage. Inter-active sessions in the Junior Secondary Schools (JSS) of all study villages except Abora - it does not have a JSS - were held. These schools are attended by boys and girls, who are usually within the age-range of 13-18 years. For the purpose of the discussion, all three grades of the JSS were combined, while boys and girls were separated into different classrooms. Frank Owusu Acheampong attended to the boys while Kathrin Blaufuss was talking to the girls following the same procedure as for the boys. The discussion focused on the previous use and experience with certain IMTs (bicycle, wheelbarrow and push-truck). The discussion included a vote on personal preference as well as usefulness (in reducing the transport burden) of each of the IMTs. A drawing competition also formed part of the discussion with the school children. They were provided with pencil and paper and were asked to draw a picture of "My village and the use of wheelbarrows, bicycles and push-trucks". The pictures were to be handed in to the head-teacher and the winners will be selected according to the best interpretation of the theme.

Detailed Interviews with beneficiaries

The detailed interviews with the beneficiaries concentrated mainly on the purchase of IMTs. Intra-household decision-making, allocation of financial resources to the purchase as well as use of the IMT and related issues formed the core of the discussions. Most of the interviews were held with the beneficiaries themselves, while additional community members were also able to voice their views and experiences with the equipment in the village. Continuous in-depth work with individual owners is envisaged for future fieldwork.

Environmental work:

This field visit saw the continuation of the qualitative assessment of road and path conditions with specific focus on erosion and gullying. Pictures were taken to record the current state and condition of relevant parts of the road. The continuous monitoring and series of pictures over time will provide suitable data for rough estimates on road deterioration. Some problem areas were examined in more detail and exact measurements of larger gully systems were taken. They will be closely monitored and measured in the future.

Part of the environmental fieldwork was accompanied by Dr Nick Chappell from Lancaster University, who came to Ghana to advise on the methodology for the environmental impact assessment as well as to oversee and discuss activities undertaken to date. A detailed inspection of the relevant roads and paths was made to identify problem areas as well as suitable strategies for their continuous monitoring.

Interviews with key informants were conducted concerning maintenance of farm paths and access roads. Information and an understanding of the timing as well as activities and extent of any road/path work were to be gained. The organisation of communal labour and user groups for farm paths was revealed including their relative responsibilities and actions. An initially designed record sheet for monthly recordings lacked application and was discarded in favour of in-depth interviews. The interviews will be held with key-informants at suitable points in time.

Visits:

NR International, Mr Ben Dadzie: In-depth discussion on the progress of the project as well as dissemination of project reports and pictures

CPHP, Mrs. Stephanie Gallat: briefing on the project progress

IT Transport, Mrs Oriel Kenny, Mr Tony Airey: discussion on projects. dissemination of information including the workshop report

GRATIS foundation: visits on various occasions to press for the manufacture and delivery of the handcart. Continuous delays due to problems with the obtaining of motor-cycle wheels and tyres made frequent visits necessary in order to ensure that continuous effort was made to obtain the relevant pieces.

Self-help International: dissemination of workshop report

V.I.P Cape Coast, Mr Larbi, Mr Anang Siaw: discussion and information dissemination on the projects. Exchange of relevant support materials and project reports. Detailed discussion on road engineering and associated environmental issues.

V.I.P. Accra. Mr Oppong, Mr Mensah-Bonsu: briefing on project progress; dissemination of workshop reports; discussion on environmental issues and impact assessment

Department of Feeder Roads, Mr Ashong: Introduction of Kathrin Blaufuss as project staff. Dissemination of workshop report.

MOFA, Mr Boamah, Mr Akoto: briefing on project progress. Dissemination of workshop reports. Arrangements for support with the distribution of the equipment i.e. lorry and driver availability

DCE, Mr Ayanful (Gomoa) and DCD Mr Hammond (Assin): enquiry about temporary storage facilities during the distribution of the equipment; dissemination of project reports; briefing on project progress

Bank: Akyempim Community Bank, Dawurampong and Agricultural Development Bank in Fosu: arrangement of project officer to accompany the equipment distribution to receive first credit payments. Arrangements of subsequent visits. Failure to comply with arrangements were enquired and discussed.

RST: to enquire about arrival dates and subsequent assembling arrangements for power tillers

Soil Research Centre (CSIR), Mr Timothy Ayamga: discussion on soil properties in project areas and purchase of relevant soil maps.

University of Legon, Prof Amatekpor: discussion on availability of soil property information in project area; environmental conditions and erosion properties.

Department of Geography, University of Cape Coast: introduction of Kathrin Blaufuss as project staff. Discussion on project progress with focus on environmental issues.

Appendix 1

Time	Pe M	Pe F	Pedestrian load type (crops, wood, water etc.)	Bi M	Bi F	Bicycle load type	Motor vehicle type/make AND load type (passenger, goods or mixed)	To vill- age	From vill- age

DFID CPHP: VILLAGE TRAFFIC SURVEY

- Notes: 1. Tick EITHER male (M) OR female (F) for pedestrians and bicycle riders.
 2. Tick EITHER 'to village' OR 'from village' (according to direction of movement).
 3. Give details of motor traffic: type of vehicle (e.g. tro-tro, mammy-wagon, lorry, motorbike etc) and if possible distinguish type of load carried (e.g. crops, wood, water).

Village name:..... Road/path type.....

Road/path links to which settlement (give name).....

IMT PURCHASE AGREEMENT

Village:

Name of purchaser:

Type of IMT purchased:

Total cost of IMT:

Terms of payment:

Initial down-payment:

(Min. 1st month's instalment)

I hereby agree that I will retain the equipment in the village and not sell it before two years from the date of receipt of the equipment.

I understand I am responsible for all maintenance and maintenance costs of the IMT.

I promise to provide, when requested, information on my farming and marketing activities and other information, which will assist in monitoring the use of this IMT.

Signature _____

Date _____

Questionnaire: Attitudes towards IMTs

1) Personal details

Community name:

Sex:

Occupation:

Place of Birth:

Home-town:

Length of stay in....:

Permanent resident: Yes () No ()

2) Exercise: Please rank the equipment: which is most useful to you?

(Photo)

Wheelbarrow ()

Men's bicycle ()

Handcart ()

Women's bicycle ()

Push-truck ()

Donkey cart ()

Power tiller ()

Car ()

3) Do you own some form of transport? Yes () No ()

If yes, please list:

4) Where do you keep the transport equipment? Village () Outside ()

If outside: where:

5) Which of these transport types have you used?

Motor transport ()

Power tiller ()

Women's bicycle ()

Men's bicycle ()

Push-truck ()

Wheelbarrow ()

6) When did you last travel by motorised transport?

1 day ago () last week () last month () 3 months ago () last year ()

more than 1 year ago () never ()

7) Exercise:

Photo with women riding bicycle

- What can you say about it?

- Can you picture yourself riding that bicycle?
Yes () If yes, for what purposes?

No () If no, why not?

- Can you picture your wife (sister)/husband (brother) riding that bicycle?
Yes () If yes, for what purposes?

No () If no, why not?

Photo with wheelbarrow:

- What can you say about it?

- Can you picture yourself using the wheelbarrow?
Yes () If yes, for what purposes?

No () If no, why not?

- Can you picture your wife (sister)/husband (brother) using the wheelbarrow?
Yes () If yes, for what purposes?

No () If no, why not?

Photo with push-truck:

- What can you say about it?
- Can you picture yourself using the push-truck?

Yes () If yes, for what purposes?

No () If no, why not?

- Can you picture your wife (sister)/husband (brother) using the push-truck?

Yes () If yes, for what purposes?

No () If no, why not?

Photo with power tiller:

- What can you say about it?
- Can you picture yourself using the power tiller?

Yes () If yes, for what purposes?

No () If no, why not?

- Can you picture your wife (sister)/husband (brother) using the power tiller?

Yes () If yes, for what purposes?

No () If no, why not?

8) Did you attend the IMT workshop in November? Yes () No ()

9) Did you apply for an IMT? Yes () No ()

If yes, which one? Wheelbarrow () hand-cart () push-truck ()

Men's bicycle () Women's bicycle () power tiller ()

Why that one?

If no, why not?

10) What changes do you think IMTs will make in this village?

Explain:

big change () medium change () small change () no change ()

11) Will there be positive impacts from using IMTs in the village?

Yes () If yes, what?

No ()

12) Will there be negative impacts from using IMTs in the village?

Yes () If yes, what?

No ()

13) Do you think IMTs will change the quantity of produce grown in this village?

Yes () If yes, will it increase () or decrease ()

No ()

14) Do you think IMTs will change life for women in this village?

Yes () If yes, will it make life easier () or harder ()

No ()

15) Do you think IMTs will change life for men in this village?

Yes () If yes, will it make life easier () or harder ()

No ()

16) Do you think IMTs will change the way you help one another to carry produce from the farm to the village?

Yes () No ()

Why?

17) Do you think IMTs will change the way you use conventional motorised transport?

Yes () No ()

18) Will the presence of IMTs in the village change the pattern of conventional transport services to the village?

Yes () No ()

19) Do you think using IMTs will have any impact on the quality of the roads-paths?

Yes () No ()

20) Do you think using IMTs will alter the quantity of firewood collected?

Yes () If yes, would it increase () or decrease ()

No ()

Name (optional):

Age:

Size of food crop farm:

Size of cash crop farm:

Max. distance from village to farm:

