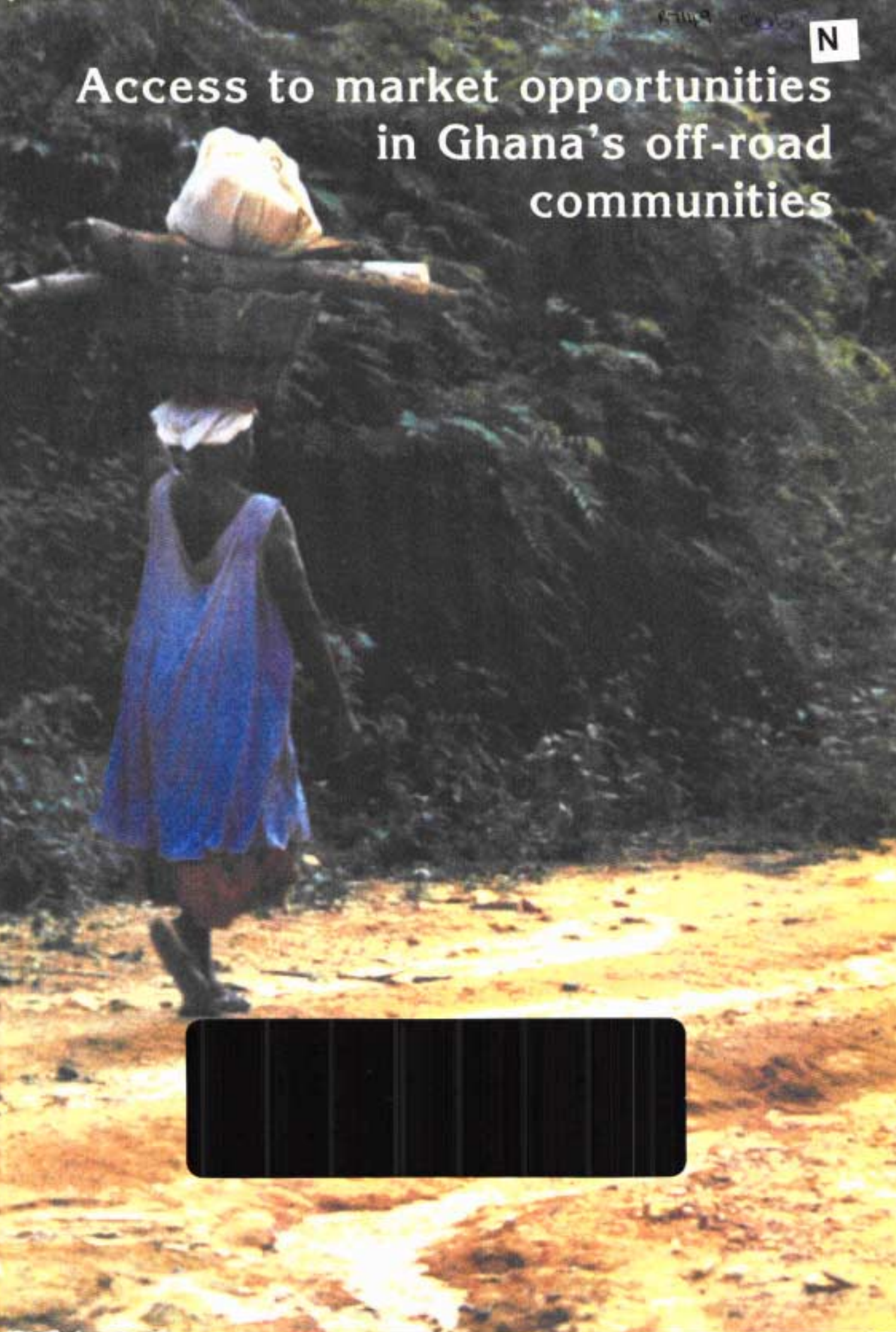


Access to market opportunities in Ghana's off-road communities



DFID Crop Post-Harvest Programme

Reports submitted under project R7149

Access to market opportunities in Ghana's off-road communities

Project Team

Dr Gina Porter, Centre for Overseas Research and Development,
Department of Geography, University of Durham, UK
r.e.porter@durham.ac.uk

Dr Roderic Dutton, Centre for Overseas Research and Development,
Department of Geography, University of Durham, UK
r.w.dutton@durham.ac.uk

Dr Einir Young, Centre for Arid Zone Studies, University of Wales, Bangor, UK
e.m.young@bangor.ac.uk

Mr Fergus Lyon, Department of Geography, University of Durham, UK
f.lyon@durham.ac.uk

Mr Frank Owusu Acheampong, P.O. Box 3712, Kumasi, Ghana

Dr Wayo Seini, ISSER, University of Ghana, Legon, Ghana
sadaocgh@ghana.com

Dr Albert Abane, Department of Geography, University of Cape Coast, Ghana
csucc@ghana.com

Marketing Constraints and Potential Interventions

**Gina Porter, CORD,
University of Durham**

**ACCESS TO MARKETING OPPORTUNITIES IN
GHANA'S OFF-ROAD COMMUNITIES: A REVIEW
OF CONSTRAINTS AND POTENTIAL
INTERVENTIONS IN GOMOA AND ASSIN
DISTRICTS, CENTRAL REGION**

Gina Porter, Centre for Overseas Research and Development, Department of
Geography, University of Durham (r.e.porter@durham.ac.uk)

Report submitted under project R7149: Access to market opportunities in Ghana's off-
road communities

PART 1

**MARKETING CONSTRAINTS FOR WOMEN AND MEN IN
OFF-ROAD SETTLEMENTS: CASE STUDIES FROM
GOMOA AND ASSIN DISTRICTS, CENTRAL REGION,
GHANA**

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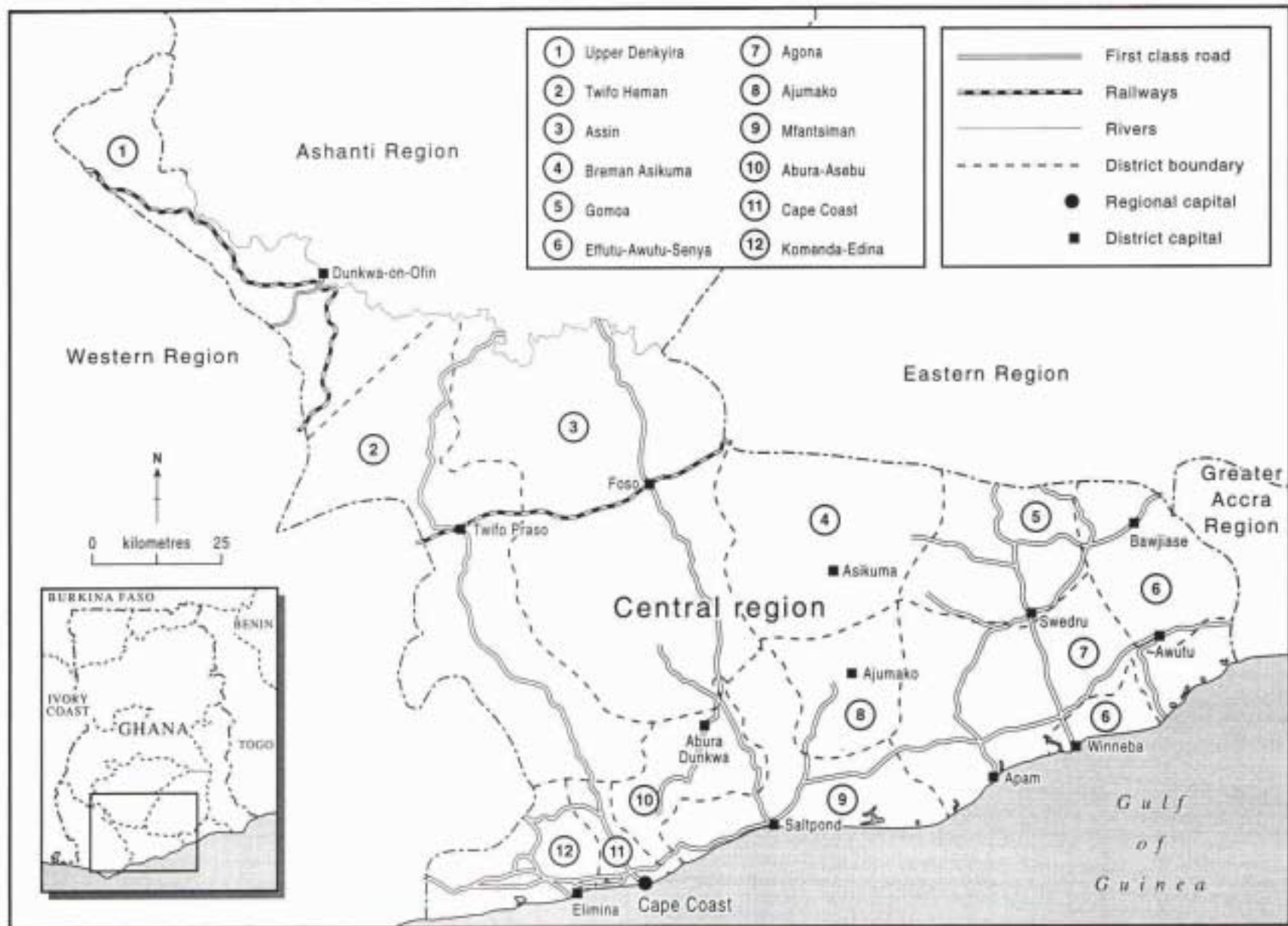
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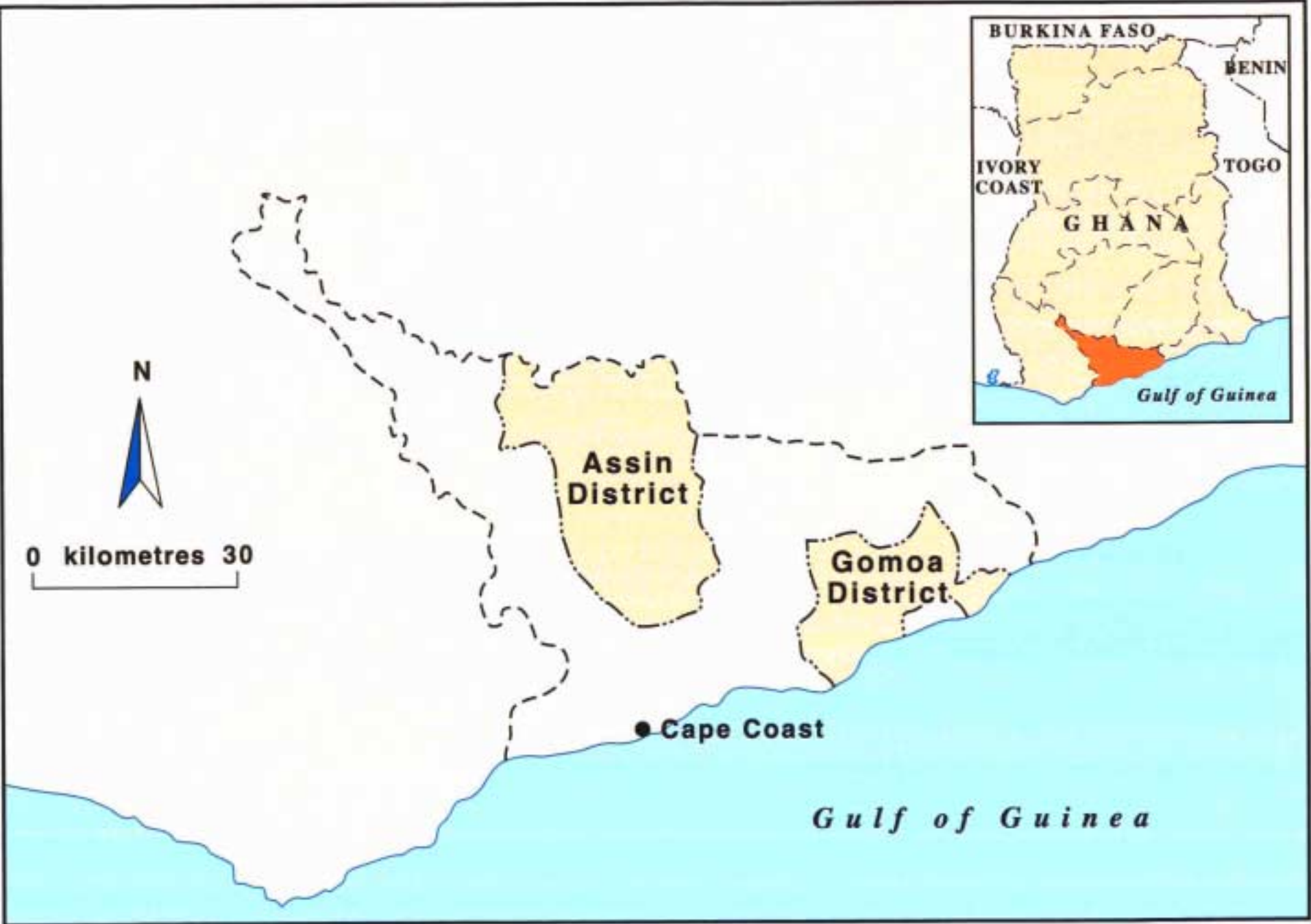
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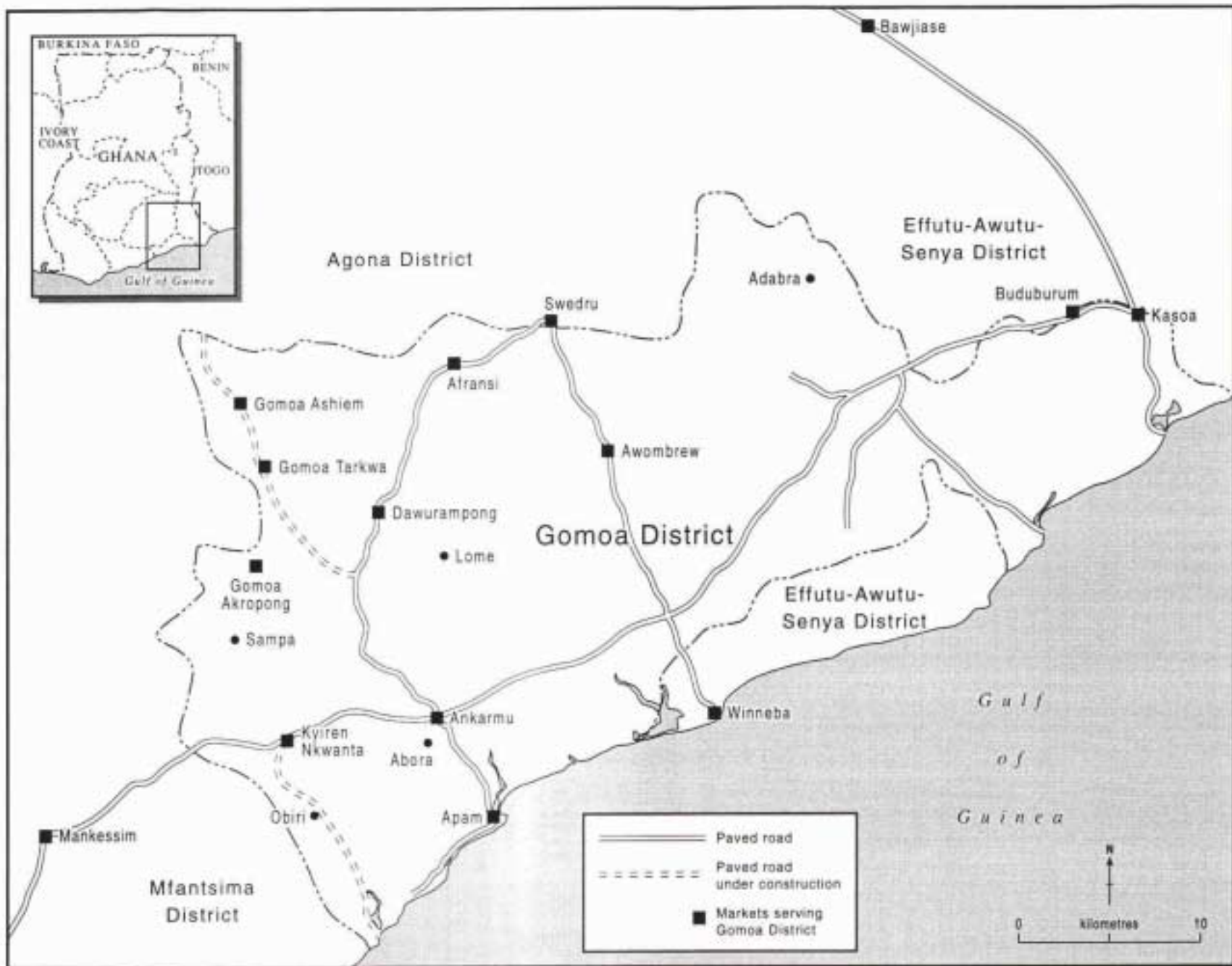
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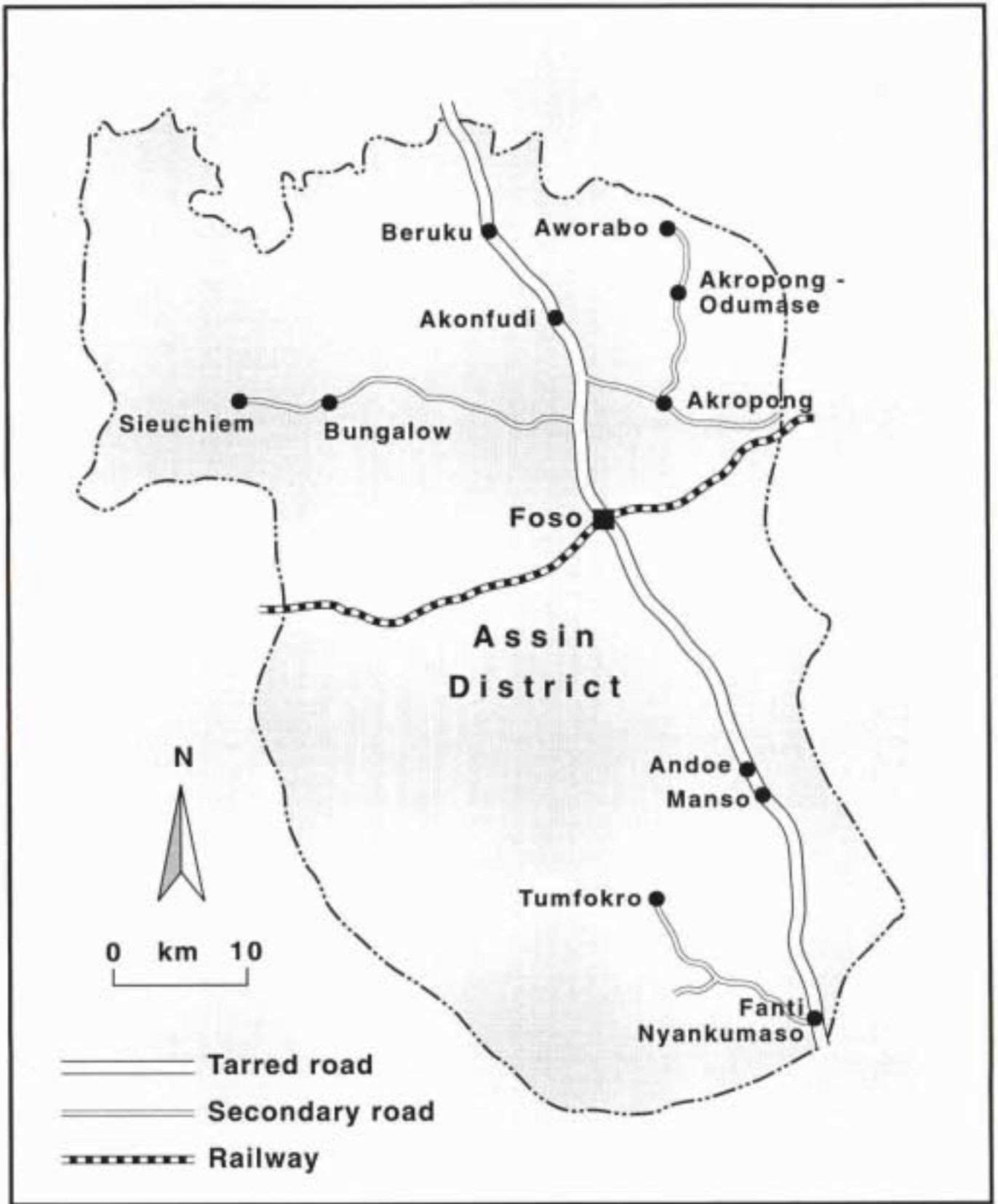
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EXECUTIVE SUMMARY

1. This paper reports on part of the work conducted in a 13 month study of access to marketing opportunities in Ghana's off-road (i.e. away from the paved road) settlements. It is concerned with *constraints* on marketing for women and men and focuses principally on access studies in four off-road settlements in Gomoa district and one settlement in Assin district, Central Region.
2. Literature focussing *specifically* on settlements away from the paved road is remarkably limited, though the World Bank's Sub-Saharan Transport Policy Programme is now drawing greater attention to the critical importance of accessibility.
3. The methodology employed in this paper is almost entirely qualitative. Insufficient resources and time prevented extensive surveys. Moreover, the work is viewed as a pilot study and thus the emphasis on a qualitative methodology was deemed appropriate. In-depth individual and group interviews were conducted with women and men in off-road settlements in May, September and November 1998. Additional interviews took place at markets, transport stations, and in various district, regional and national offices. Information collected was reviewed with the project's Consultative Group and at district workshops in February 1999.
4. The study districts and villages are described. Gomoa has lower rainfall and slightly more hilly topography than Assin. The economies of both districts are principally based on agriculture. Gomoa, in the coastal savanna, grows principally maize and cassava, Assin in the rainforest has a stronger cash cropping focus and is a major cocoa producer. In both Fanti-speaking Gomoa and Twi-speaking Assin, women are the principal produce traders. The study villages in Gomoa are generally much closer to the paved road (two to seven miles) than in Assin (15 miles). It is not only in 'remote' settlements that accessibility is a problem for farmers and village-based traders. Facilities in all the study villages are limited.
5. Rural road conditions in Central Region tend to be poor, though the network is relatively good in Gomoa. Grading can have a major impact on access and perceptions of accessibility, as observed in two of the survey villages where grading occurred between visits. Transport services then tended to improve in frequency and reliability.
6. Conventional motorised transport services to the villages are very restricted when roads are bad, particularly during the rainy season, and are mostly dependent on vehicles based at the paved road. Owners and drivers are almost always male. Vehicle types operating off-road are mostly tro-tros (minibuses) and taxis.
7. Drivers/owners avoid bad roads and fares are estimated to be about twice as high on unpaved roads as on paved roads, though the price varies according to specific conditions of individual earth/gravel roads. When an earth road is graded, fares are sometimes reduced. Women in some villages have to walk to market because they cannot afford the fare, even if a vehicle is available.

8. Vehicles deteriorate rapidly on poor roads. Second-hand tyres, in particular, may last less than two weeks. Spares are generally available, but only in major centres (i.e. mostly outside the survey districts). Many are counterfeit copies and soon break. Other driver/owner problems reported include high booking fees at loading stations, high GPRTU registration fees, theft of passengers' goods, bribes required by police along the roads, high insurance costs, high fuel prices and petrol dilution (the latter particularly in off-road areas).

9. Off-road residents find transport services highly unreliable, though they are generally better on market days than at other times. Sometimes vehicles are full by the time they reach villages en-route to market and it may be difficult to find a vehicle when returning home from market.

10. A few off-road villagers own vehicles, but keep them at settlements on the paved road, because of road conditions around their villages.

11. Some villagers report deterioration or loss of produce - notably cassava, but also plantain and some vegetables and fruit - as a result of vehicle unreliability and the impassability of some roads, particularly following heavy rain. Losses are also incurred due to late arrival at market.

12. Non-motorised transport in off-road areas consists principally of headloading (which is ubiquitous). Bicycles are few in number and almost wholly owned by men (often purchased from hunting profits). Only one woman in the survey villages owned a bicycle. Women cannot usually afford bicycles. Men rarely loan their bicycles to their wives and only one case was found of a woman who had ridden her husband's bicycle to market. Only two of the survey villages had handcarts: these are also owned by men and are hired out.

13. Cape Coast and Accra-based officials suggest there is some resistance to non-motorised transport in coastal Ghana, though cost is also recognised as a factor inhibiting ownership.

14. Discussions in off-road villages suggest many (younger) women would welcome the opportunity to own and use bicycles, but are generally too poor to purchase them. Most have never ridden a bicycle.

15. A small traffic survey in the off-road villages on one market day and one non-market day confirmed the overwhelming significance of pedestrian traffic and headloading.

16. Cultural constraints do not inhibit women's access to motorised travel or their pattern of marketing visits.

17. A number of off-road settlements have lost their weekly markets in the survey districts, including two of the five study villages. This loss increases distances travelled to market for some off-road populations. One off-road village, however, has revived its market by selecting an uncommon market day. The impact on women tends to be particularly great when off-road markets die, since they are the principal traders and have fewer funds than men for travel to distant places.

18. Village women who sell in more distant markets face perceive problems from cheating, particularly by urban traders. They thus prefer to sell as close to home as possible. Many cannot, in any case, afford to travel to distant markets.

19. Poor market information in off-road villages is not seen as a major impediment. Villagers generally obtain information from neighbours and relatives. Lack of information from extension agents - who rarely visit some off-road farmers - is seen as a more serious issue.

20. Access to credit is more difficult for off-road residents. Fellow villagers tend to be poor, susu is mistrusted in many villages, and rural banks prefer to loan to salaried workers resident in settlements along the paved road (probably due to difficulties of recovering loans from defaulters without bank accounts resident in inaccessible locations.)

21. The impact of decentralisation of MOFA, Department of Feeder Roads etc. on conditions in off-road villages can not yet be assessed.

1 INTRODUCTION

1.1 Background

This paper is concerned with the marketing problems faced by villagers living in settlements away from the paved road, termed for convenience in this report 'off-road' settlements. It provides a review of marketing constraints in five off-road settlements in Central Region, Ghana: four in Gomoa district, one in Assin district. These settlements were selected for detailed research following a preliminary field visit to off-road settlements in May 1998. Originally, the intention was to restrict research to Gomoa district, but government officials in the regional headquarters at Cape Coast strongly recommended that we also consider the situation in Assin district, where access conditions were perceived as a major problem for off-road villages. Following a field visit to Assin district, discussions there with district administrative officers who were extremely keen that the access study be extended to their district, and further consultation with our consultative group, we decided to extend the research but, given time constraints in the project, to limit the work to just one off-road settlement in Assin.

The report commences with a brief discussion of the access issues for off-road settlements, methodology, background information on the two districts, and a review of conditions in the settlements selected for research in each district. This is followed by an examination of firstly physical constraints on marketing for men and women in the settlements concerned, and secondly cultural and institutional constraints. A wide range of issues are considered including road conditions, transport availability and cost, shortage of local rural periodic markets, problems of credit which limit trade operations, and market organisation and practices in distant markets which hamper trading. A subsequent report reviews potential strategies for improving access and provides some tentative guidelines.

1.2 Access issues for off-road settlements

Work in the development literature which focuses specifically on settlements located away from paved roads is surprisingly limited, despite the fact that such settlements are frequently markedly poorer than road-side villages in the same region. Moore (1979), Airey (1985a and 1985b), Barwell et al. (1985), and Ahmed and Hossain (1990) are among the few researchers who have drawn attention to differences between conditions in roadside and off-road locations. Recently, however, a series of village-level travel and transport surveys have begun to give greater attention to the critical importance of accessibility (notably the World Bank's Sub-Saharan Transport Policy Programme - SSATP) and it is anticipated that work in this field will expand, given stronger emphasis in recent development initiatives by DFID and other funding agencies on very poor people in low income countries.

This paper focuses specifically on the produce marketing problems of off-road producers and traders, but there are a number of other problems associated with off-road residence, including access to agricultural inputs, extension services and credit, to health facilities (a problem very frequently emphasised by villagers), to schools and, perhaps most significantly of all, to the political process itself (Porter 1997, 1998). In various ways all these issues can impact back on agricultural production, and onward linkages also occur through to agricultural marketing. Access is a more complex factor than it may initially appear to be in researching rural

deprivation.

1.3 Methodology

The research reported here is based primarily on intensive participatory studies in five off-road settlements conducted by Gina Porter and Frank Acheampong Owusu, with assistance from Faustina Ekwam (in Fanti speaking Gomoa) and Ahmed Appiah (in Twi speaking Assin district). Preliminary work in each village commenced with group discussions with the village Chief and elders. In-depth interviews were conducted in the villages, using checklists, with a range of residents and visitors (the latter mostly comprising drivers and traders). These included men and women farmers, crop processors and machine operators, cooked food sellers, produce traders (almost always also involved in farming), vehicle owners and drivers, bicycle and cart owners, and Unit Committee members (after the June 1998 elections).

Group interviews were also conducted with men, women and mixed groups. An attempt was made to interview groups of different age sets, and varying socio-economic status, but this was found, in practice, to be difficult to achieve, since people often joined and left groups according to their interest and other calls on their time. Moreover, wealth ranking in the villages proved complex.

The individual and group interviews in the villages were held at intervals over the year: in May, September and November 1998, followed by further discussions at the workshops in February 1999. This seasonal review proved important, not only because of changes in weather, crop production, processing and trading activities over the year, but also since access conditions in two of the villages changed fairly dramatically following grading of local roads.

'Perambulations' and transect walks were taken along routes from each village and a small one day survey of traffic into and out of each of the off-road villages was also conducted in November 1998 with the assistance of four Legon undergraduate and postgraduate students. Further work in the off-road villages was conducted by Roderic Dutton (re storage and processing, January 1999) and Fergus Lyon (re group formation, February/March 1999). This is reported separately.

Additional work on access issues was carried out with vehicle owners, drivers and traders in markets frequented by Gomoa and Assin traders: this consisted primarily of in-depth checklist interviews conducted at intervals over the year by Frank Acheampong Owusu. Dr Albert Abane (Department of Geography, University of Cape Coast) supervised one-day market surveys using a semi-structured questionnaire in Mankessim, Assin Odumase and Andoe. Interviews also took place with GPRTU officials at their various stations in the Assin and Gomoa areas and at national headquarters in Accra. Dr Wayo Seini (ISSER) collected price information on vehicles, bicycles etc., spare parts availability and prices in Accra and Kumasi (see Appendix).

Other interviews were conducted by Gina Porter and Frank Acheampong Owusu with staff at the district administrative offices in Apam (Gomoa) and Assin Foso (Assin), with Feeder Roads, Highways Department and Ministry of Agriculture and Food staff in Assin Foso, Winneba, regional headquarters in Cape Coast and national headquarters in Accra, and

GRATIS staff in Tema. The material collected was discussed with the project's consultative group in Accra in May and September 1998 and at the district workshops in Gomoa and Assin in February 1999.

2 THE STUDY DISTRICTS AND VILLAGES

2.1 Gomoa district

Gomoa district, in Central Region, is one of Ghana's poorest coastal districts (Hewawasam et al. 1996). It was created out of Effutu-Ewutu-Senya district when the current decentralisation programme started in 1988 and is the second largest district in the region. Gomoa is located very largely in the coastal savanna belt; the climate is characterised principally by a bimodal rainfall distribution and a mean annual rainfall of between 70 and 90 cm along the coast, and 90 to 110 cm in the northernmost area where savanna gives way to semi-deciduous forest. The topography is gently rolling, mostly under c. 350 feet, but with occasional hills of up to c. 750 feet.

Gomoa is principally an agricultural district and the main crops grown are maize (often the major cash crop), cassava (grown both as a food crop and, generally to a lesser extent, as a cash crop), peppers and tomatoes (both the latter grown as cash crops and, in the case of green pepper, sometimes as an export crop). Maize occupies the largest acreage according to the District Development Plan (May 1996) but yields are below the national average (Young 1998). The Development Plan refers to the high potential for grain production and the development of large-scale export production of pineapples and pepper. However, current constraints include unreliable rainfall, lack of credit for farmers, fluctuation in agricultural prices, high input costs and poor roads.

Labour shortage is also a problem in many areas: youths have migrated out of Gomoa to the forest zone where they are engaged in cash crop cultivation. This can be linked to the currently limited agricultural production in Gomoa and suggests a vicious circle whereby labour migration is encouraged by the relatively underdeveloped state of agriculture and labour shortages help perpetuate low productivity. Communal labour parties (nnoboa) for agricultural work are still common in this area and a bush-fallowing cultivation system without the use of any fertiliser is widespread. An estimated 16% of the active labour force in the district migrate regularly to the forest zone to cultivate cash crops. (Further details on the agriculture of Gomoa and the selected survey settlements are provided in Young 1998).

While farming is undertaken by most men and women in rural Gomoa (even in coastal settlements), men tend to have primary access to land, and farm more extensively than women. Women are the principal agricultural produce traders, however, travelling extensively both within and outside the district to market their own and their husbands' produce and returning home with other items which have been purchased for resale in their village area. In addition to trading, most women are involved in farming (sometimes on their own account, sometimes in conjunction with their husband) and a host of household activities including water and fuelwood headloading and the headloading of most of their own and their husband's produce

from the fields to the village.

Four villages located off the paved road were selected for detailed study: Adabra, Lome, Sampa and Abora. A brief resume of the characteristics of each village is provided below. All are primarily Fante villages, though stranger farmers from other parts of Ghana (notably Volta Region) are also resident in each of the villages.

2.1.1 Adabra

Adabra is located in north-east Gomoa, in a region of moderately good rainfall and mixed gravel/sandy loam soils. The settlement's farmers grow maize, cassava, pepper, yam and some tomatoes and groundnuts for sale, with maize and cassava as the principal crops. The farmers here have ample land and most also have sufficient labour. Men and their wives generally farm together on the same land. Ewe and other stranger farmers have settled in the village, providing additional labour. They pay for land with a lump sum and then by the hectare, in order to avoid sharecropping.

Adabra is approximately five miles from the nearest tarred road. The track which connects it to the tarred road was badly eroded in May with many potholes. It was reported then that the road out of Adabra is sometimes impassable in years of heavy rains for long periods, notably in June and July. Local chiefs had apparently made requests to the district administration for assistance with road improvement in the area. The road contract was reportedly awarded at one point but the contractor absconded before the road was built.

Up to about 25 years ago Adabra was an important market centre. Nowadays the village is relatively small (particularly by comparison with Sampa and even Lome) and the poverty of its inhabitants is indicated by such features as the predominance of thatch roofs and general lack of infrastructure. The loss of the market is much regretted and blamed on deterioration of local roads. In May 1998 local women complained particularly about the cost of taking goods to market at Kasoa fifteen miles away (the main market centre for this area), saying they had insufficient funds to pay transport fares, even when the road is motorable, and thus were forced to headload their wares at least as far as the Accra road junction, five miles away. On other occasions, they complained, when they have funds for transport, all the vehicles passing through the village may be full.

By September 1998 there had been a remarkable change in perceptions of accessibility in Adabra among both men and women, as a result of grading of local roads in June, limited rainfall since the road grading had occurred, and the occurrence of the main maize harvest which, though lower than normal due to low rainfall, still brought sufficient money into the local economy to enable most women to pay the fare to Kasoa (which remained at the May price) and the frequency of vehicles passing through the settlement to increase. Women travel with their produce and pay the driver after they have sold it. Accessibility is not, for the moment, seen as a major issue and by November minor season cultivation was reportedly encouraged by the road improvement.

The change in conditions at Adabra emphasises the need for seasonal studies of transport and accessibility, since perceptions can change substantially between seasons, depending on the

amount of money in circulation in the local economy and the changing state of local roads (dependent, in turn, on such factors as the point reached in the agricultural cycle, the amount of rainfall recently received and road improvement programmes in progress).

2.1.2 Sampa

Sampa is located in western Gomoa, north of the Accra-Cape Coast road in an area of clay/gravels with moderate rainfall. It is larger and somewhat more prosperous than the other off-road settlements selected for detailed study and has some substantial buildings, including the chief's palace. According to the census of 1984 it had a population of 472. A wider range of crops are cultivated here: tomatoes, oranges, palm oil, sugar cane and pepper, in addition to maize and cassava. Maize, cassava and oranges are all produced in sufficient quantities to attract regular visits from local wholesale dealers.

Sampa is situated about 5 miles from the main road: the first mile from the main road was once tarred (reportedly in 1956) but is now badly eroded. The remainder, apart from a small tarred section at Sampa Junction, is untarred with corrugations. Along steeper sections of the road there is severe gulying and the road becomes very narrow. It is impassible after heavy rains. The road was last repaired three years ago when the children of a local chief paid for a grader in order to make the road motorable for their father's funeral. In May 1998 the current Chief had recently been to Accra to request assistance from the Minister of Roads and Transport and had been promised help 'at some time in the future'. In September 1998 the situation had been somewhat improved by the grading of roads in the vicinity, though the road out of Sampa itself was still difficult.

It is usually easier to find transport by taxi rather than tro-tro (minibus) from the junction to Sampa because the tro-tro owners often say that there are too few goods and passengers at Sampa to make their journey worthwhile, given the nature of the road. Two women produce dealers bulk much of the local produce in Sampa and take it to market, because many women there cannot afford the fare to market, particularly if they have only a small amount of produce to sell. These and other Sampa women mostly travel to Kyiren Nkwanta, five and a half miles away and their closest market centre, to sell their produce. Some also visit the markets at Mankessim and Kasoa (west and east of Gomoa, respectively) along the main Accra - Cape Coast road which bisects the district.

2.1.3 Lome

Lome and its associated temporary farm settlements are located in an area designated by the Gomoa district administration's maps as a 'Potential Agricultural Region'. The area has moderate to good rainfall in a bimodal distribution and soils are a mix of gravels and sandy loams.

Lome village area reportedly has about 4000 people resident (the census figure for 1984 is 1,310) and is located just under 4 miles from the nearest tarred road along a narrow graded track with some corrugations and other signs of erosion. Associated with the main, fairly large, settlement at Lome are about 20 temporary farm settlements where shifting cultivation has been practised by Lome farmers for around 40 years. Access from Lome to the temporary farm settlements is by footpath only: motor vehicle access is impossible.

Farmers at the temporary settlements sleep in barns ('osan') during the farming season, returning only at weekends to the parent settlement. The temporary settlements are occupied by men and their wives: about 20 farmers or so may be based in each. Women return to Lome when there is less work for them to do.

Lome women spend a great deal of time at and after harvest carrying crops between the temporary settlements and the parent village. Maize is the principal crop grown because cassava is too bulky in its unprocessed state to justify head loading to Lome. According to the farmers, if they had a corn mill at the temporary farm they would grow cassava and process gari. Maize is headloaded daily to Lome by women in the harvest season. Apparently there used to be storage barns at intermediate points, but these are no longer utilised because of theft: nowadays barns must be either in Lome or at the temporary settlement. Some farmers remain in the temporary settlement after harvest to guard the maize crop and to grow tomatoes, garden eggs and pepper in the minor season. (Tomatoes are carried back to Lome every four days, peppers preferably within one day of harvest and a maximum of three to four days).

Produce is taken beyond Lome by women to local markets, notably Dawurampong (four miles away) and, to a lesser extent, Swedru (about thirteen miles away). Many years ago, Lome had its own market (on Tuesdays and Fridays) which apparently dealers from Swedru and even Accra patronised. It reportedly declined due to the movement of nearby settlements to the tarred road, and the consequent expansion of Dawurampong market (also held on Tuesdays and Fridays). There is now some talk of reviving the market at Lome since vehicles do not always come to Lome to take its women to other market centres. However, this seems unlikely to occur without careful planning and concerted action on the part of local inhabitants.

2.1.4 Abora

Abora, the fourth settlement studied, is located just south of the main Accra - Cape Coast road in an area of somewhat difficult clay soils and relatively low and sporadic rainfall. The improved 110 day maize variety is cultivated in this area; this grows well but is susceptible to weevils. Other crops grown include cassava (for home consumption) and recently a number of farmers have started cashew production. Fuelwood, sold in local markets to fish smokers, is a major income earner for women.

In 1984 Abora had a population of 221. This is the smallest and poorest of the four settlements studied and, indeed, is poorer than many other Gomoa villages. No one, for instance, owns a grinding machine - women have to take their maize to the settlement at the tarred road for grinding; there are no stores or kiosks; and physical infrastructure of all types is very limited. Over half of Abora's production is reportedly sold outside the village but no one apparently cultivates more than about six poles, due to shortages of funds and poor rainfall.

Abora is only 2 miles from the tarred road at Apam Junction and provides evidence of the difficulties that even settlements a short distance from good transport can experience. It is located on a rough narrow track which is reportedly totally impassable in periods of heavy rain and for up to three days afterwards. The village elders have made the decision to move to a new site, three quarters of a mile closer to the main road, in order to ease their access

problems. The fact that the settlement has few facilities makes the decision to move feasible, though the relocation will apparently occur over a long period since villagers do not generally have the funds to build new houses.

2.2 Assin district

Assin district, Central Region's largest district, is located in the rain forest zone in an area of rolling topography (not dissimilar topographically to Gomoa), mostly under 400 feet. It has a higher rainfall than Gomoa though the pattern remains bi-modal, with the main rains in April-July and the minor rains in September-November (the minor farming season). Assin has a much stronger emphasis on cash crops than Gomoa, particularly cocoa. According to Akyeampong (1996:89) Assin has become Ghana's leading cocoa producing district. The cocoa farms of men are generally much larger than those belonging to women, though some women have substantial interests in cocoa. Other cash crops include palm oil and citrus fruits. According to the District Plan, food crops grown in the district include maize, rice, cowpea, groundnuts, cassava, yam, cocoyam and plantain. Forest products including timber and a wide variety of non-timber products are grown for sale (Assin District Assembly 1996).

As in Gomoa, women are the principal foodstuffs traders in Assin. Cocoa is sold by men and women farmers directly to the buying stations. Only one off-road village in Assin was studied in detail, Aworabo in the north east of the district. Consequently less detail is available for the district as a whole.

2.2.1 Aworabo

Aworabo is located 15 miles from the paved road on an earth road which is only accessible with a four-wheel drive vehicle in the wet season. Its local market, Akropong Odumase is five miles away, and ten miles from the paved road. Access to other markets in Eastern Region, to the north, notably Oda, is easier than to Akropong and Fosu, but villagers at Aworabo want to trade in the markets of their own district.

The village, which has a Twi-speaking population of c.700, is (like all the Gomoa off-road centres studied) principally a farming settlement. It concentrates on cocoa, with rice, maize, cassava, oil palm and plantain as secondary crops. Cocoa is grown on loamy soils, oil palm on sandy soils and rice in the riverine swamp areas. The land is generally considered fertile so very little fertiliser is used.

There is ample land for farming here - everyone farms - and consequently settlers have also come in from other areas, including Gomoa. Land is owned by the stool, rather than individual families, and the Chief is custodian. Women are allocated land by their husbands. Stranger farmers used to pay for land directly, or through share-cropping, but the sharecropping arrangement has temporarily ended due to a legal dispute. Labour is also available, though the Chief, a major cocoa farmer, has imported labourers from northern Ghana. Group work parties, *nnoboa*, are found as in Gomoa. Many of the farms are very large and the average holding is substantially higher than in Gomoa, at 10-15 poles.

Agricultural production appears to be relatively high by Gomoa standards, but marketing, apart from cocoa is clearly a major problem. There are cocoa buying stations for COCOBOD (formerly the government's sole buying agency) and CASHPRO in Aworabo. COCOBOD used to supply inputs to the farmers, notably pesticides and production information. Other cash crops - such as surplus maize and cassava - are sold by village women or directly to traders who come to the village. Crop processing within Aworabo is limited: there is some processing of gari, palm oil and palm kernel and maize.

2.3 Summary: differences among Gomoa and Assin settlements

To conclude this section, the off-road villages selected for study vary considerably in terms of wealth and access. The villages in Gomoa are generally only a matter of three to six miles from the paved road, whereas the village in Assin is much further (15 miles) away. Regarding assets it seems that some villages are substantially wealthier than others, in terms of physical infrastructure. Estimating wealth is extremely complex, but a survey of vehicle, radio and battery-operated television ownership (consumer goods much valued in the villages) provides one small indication of the diversity and emphasises the relative wealth of Aworabo in Assin, compared to most off-road villages in Gomoa, despite its distance from the road. This can be attributed to factors such as the more reliable, higher rainfall and high fertility of the area which allows a stronger focus on cash crop production, particularly cocoa.

Ownership of selected consumer goods in off-road settlements.

Village	Abora	Sampa	Adabra	Lome	Aworabo
Radios	4	?	10	?	Over 30
Working radios	0	?	10	?	about 10
TVs	0	?	2	8	4
Working TVs	0	?	2	7	3

In other respects the villages are very similar, notably in terms of their lack of basic facilities and services (apart from basic education), as the following table illustrates.

Facilities/services in the off-road villages surveyed

Villages	Abora	Sampa	Adabra	Lome	Aworabo
Schools (and no. of teachers)	1 primary (3)	1 primary (4) 1 JSS (3)	1 primary (6) 1 JSS (3)	1 Nursery (3) 1 primary (6) 1 JSS (5)	1 primary (4) 1 JSS (3) 1 private primary (3)
Electricity	no	no	no	no	no
Water supply	poor ponds, pipe at new site	borehole (20 c per bucket) and river	borehole (20 c per bucket) and pond	two standpipes and stream	borehole (20 c per bucket) and stream
Health: traditional birth attendant	0	2	1	6	?
health post	0	0	0	0	0
clinic	0	0	0	0	0
Post office	0	0	0	0	0
Credit sources	relations (scarce, save in case of sickness)	relations	relations and susu	bank, resident traders	Akoti rural bank, relations

3 ROAD CONDITIONS

3.1 Central Region

Central Region has a relatively good road network compared to northern Ghana, for example, but the condition of roads is frequently very poor. In a recent survey of road conditions in Ghana, only 2% of all roads (including earth and paved) in Central Region were classified as 'good', compared to 67% classified as 'poor' and 31% as 'fair' (Wilbur Smith Associates 1998).

3.2 Gomoa district

Gomoa district appears from casual perusal of road network maps to be relatively well provided with roads, but the majority of these are classified as 'gravel', and on inspection are frequently found to be indistinguishable from earth tracks, since in the rolling topography of Gomoa the gravel surface is rapidly lost during the rains and gulleys appear. Grading makes an immediate but relatively short-term improvement. Within one wet season rapid deterioration of newly graded roads can occur.

3.3 Assin district

Assin district has one main first class highway which runs north-south, connecting Cape Coast and Kumasi. The vast majority of villages in this district are located on earth or gravelled roads which frequently become impassable in the rainy season. Since rainfall is higher in this district than in Gomoa, the impact of rains on the unpaved roads is even greater.

4 TRANSPORT AVAILABILITY AND COSTS: MOTORISED TRANSPORT SERVICES

4.1 Service frequency and organisation

Motorised transport services from and to off-road villages are extremely restricted and mostly dependent on vehicles coming in from the paved road, rather than on off-road village based transport. Vehicles are privately owned and often owner driven or driven by a relative of the owner. Almost all drivers in Ghana are male: the Deputy General Secretary at the national GPRTU office in Accra could think of only 2 or 3 women who drive commercial vehicles in Ghana: the union has women members who are transport owners but they are reportedly not very active.

4.2 Vehicle types

The most common vehicles operating to the villages are minibuses (tro-tros) and passenger cars used as taxis for the transport of passengers and goods. Taxis generally charge higher rates than tro-tros over the same distance. Few large lorries travel extensively off the paved road. Motor cycles and mopeds [mobylettes] are remarkably rare; a major contrast with Francophone regions of West Africa - see Dawson and Barwell 1993:42. (There are motor cycles on sale in Kumasi and Accra but many of the customers are, apparently, Ivorians)

4.3 Driver avoidance of bad roads

Transport charges are mostly higher per unit distance along unpaved roads and when road conditions are very bad drivers will not take their vehicles along such routes. A car owner at Sampa who keeps his taxi at Mankessim restricts his driver mostly to the main tarred roads and certain roads are absolutely barred, including Brofo to Manso. The GPRTU station master and taxi owner at Apam Junction will not allow his driver to ply the Abonkwo and Akropong routes in the rains. Another taxi driver there avoided the Abora and Abonkwo roads. In northern Gomoa the Oguan and Dunkwa roads are also avoided by drivers, and in southern Gomoa Mumford to Dago. According to the Andoe GPRTU chairman, some drivers in Assin district will not take vehicles on the Bankyease, Nkranfo and Ajumako roads. The

roads served by Andoe station are all untarred but some of the roads are graded approximately every two years: unfortunately, after six months they have already badly deteriorated.

Others ply such roads with reluctance or as one driver remarked, 'on humanitarian grounds'. They argue that they have to charge more on such routes because of the damage to their vehicles. They also calculate that if they take traders to such places, the traders do not lose, despite high transport costs because of the low produce prices there.

4.4 Transport pricing on paved and unpaved roads

It is difficult to draw any clear pattern of pricing rates for a particular kind of road and distance, though charges appear to be approximately double those of paved roads on unpaved road. The standard charge by tro-tro is around 100 cedis per passenger per unpaved road mile (compared to about 50 cedis per paved road mile). Rates along the main Cape Coast - Accra road where there is plenty of competition are, thus, substantially lower than along unpaved roads in Gomoa district. For example, it costs 600 cedis to travel from Sampa to Kyiren Nkwanta along 5 ½ miles of bad, mostly unpaved road, yet only 1000 cedis to travel the c.24 mile journey from Sampa to Mankessim (joining the Accra- Cape Coast paved road after 5 miles) and 3,200 per person from Oda (Eastern Region) to Accra (about 65 miles).

The GPRTU fixes prices along major routes and increases are agreed nationally (in 1998 a 20% increase was agreed). Although only about 80% of drivers belong to the Union, according to the national office, and there are many non-members in rural areas, they still have to abide by national rates set by the GPRTU. The GPRTU station manager interviewed at one Gomoa branch (Swedru) stated that drivers have to charge more on bad roads, but 'the union ensures that drivers do not take undue advantage of the bad nature of the road to exploit traders or farmers. Hence we help the drivers in fixing the prices with the traders before they set off.' At Andoe GPRTU, 'the union fixes the prices by using the rates approved by government and also taking the nature of the roads into consideration. Load charges are arranged by the drivers and the traders. Charges are the same for all seasons.' According to the Deputy General Secretary at the GPRTU national office, the national union gives guidelines but the regional offices calculate rates for rural areas.

At the project workshop at Assin Fosu in February 1999 some debate about the costs of off-road travel arose among women traders and the local GPRTU organiser regarding the failure of the drivers to reduce rates when roads are graded. The GPRTU representative provided an example of the recent grading of the Fosu-Odumase road, however, which has led to a reduction in passenger charges from 1,200 cedis to 1,100 cedis. The traders had other examples of roads (e.g. the Senkyim road) along which prices had not been reduced.

4.5 Owner/driver costs and problems

Discussions with drivers led generally to an immediate recital of the costs of travel over poor roads. Some vehicle owners who regularly ply off-road routes reportedly have to replace (second-hand) tyres every month. (A tyre for a passenger car can cost up to 200,000 cedis when purchased new, 40-65,000 cedis second hand.) The GPRTU station master cum taxi owner at Apam Junction estimated that he had purchased 30 second-hand tyres in the past year; some tyres last less than two weeks. He purchases tyres in Accra because they are cheaper

there. Ball joints and tyre rods also have to be regularly replaced. Spare parts are generally available but only in centres like Swedru, Kasoa and Mankessim (serving Gomoa) and Oda and Foso (serving Assin). Often it is necessary to travel to Accra or Kumasi (in the case of Assin) to obtain less common spares. Drivers suggested that many of the parts are second hand and may be counterfeit copies of known makes which last for less time. Other problems reported by drivers interviewed in Gomoa and Assin included fights among passengers (for instance regarding which route to take to a particular place), theft of passengers' goods (drivers have to contribute to replacement costs, reportedly up to 2/3 of the cost of the missing item depending on the circumstances of the loss), bribes to policemen along the road (estimated at 1-2,000 cedis per round trip on one 12 mile route), high booking fees at the loading station (500 cedis per trip at Apam Junction and a registration fee of 120,000; one mammy wagon driver cited a rate of 10-15% of total sales), insurance (360,000 cedis per year reportedly for a tro-tro) high fuel prices and dilution of petrol by sellers. These latter problems, of course, are common to transporters along all routes, though dilution of petrol with kerosene is reportedly more common in the remoter villages, where there are also few pumps.

4.6 Unreliability of services

Turning to the farmers and traders who use these services, there is much complaint about the unreliability of vehicles (not surprising in a country where most vehicles imported are already second hand) and the difficulties of finding a vehicle prepared to go to remote villages. Urban-based traders tend to look for a driver with a reliable vehicle with whom they can make a regular arrangement to visit remote places when it is impossible to find the produce they want to buy in more accessible villages (see Clark 1994:167-8, 209-11). Off-road dwellers, however, have the initial problem of finding a vehicle - any vehicle - which will carry their goods. Given the unreliability of vehicles, it is rare for a trader to send her goods unaccompanied.

4.7 Market day services

On local market days services to off-road villages in the market's vicinity are usually better than average: the driver may arrive at the village and load the vehicle with goods the evening prior to market or very early on market day, and then picks up his passengers (all the drivers encountered have been male) and brings them back from market home to the off-road village at the end of the day. Some off-road traders with little money pay a driver they know well after they have sold their goods. Large trucks do not generally visit these off-road settlements.

Details are presented below for the four settlements in Gomoa in turn, followed by Aworabo in Assin district.

4.8 Transport availability in the survey villages

4.8.1 Adabra

At Adabra the residents are totally dependent on outsiders for motor transport. One man, a farmer, owns a car which he bought three years ago from the proceeds of his cassava and gari production. A year later he had enough money to purchase the engine. At first he operated the vehicle as a taxi from Adabra (it is driven by a brother), but the road was so bad that he decided to move it to a base at Liberia Camp near Accra. On Kasoa market days there are

usually plenty of vehicles passing through, particularly now that the road has been graded, though if there are heavy rains the road may be closed and cassava, in particular, can be spoilt unless processed as gari. Given the weight to price ratio of cassava it is less profitable to headload than maize. Sometimes, all the vehicles are already full before they reach Adabra. On non-market days there are usually occasional vehicles passing through the town to Swedru and in the harvest season mammy wagons and tro-tros are brought in by stranger traders for the collection of maize. The teachers at the school - who prefer to live in settlements near the main road about 5 miles away - complain bitterly about the problems of access: they usually have to walk to and from school. It costs 700c by tro-tro from Adabra to Kasoa market (a distance of about 15 miles, five of which are untarred) and 1,200 cedis per sack of cassava.

4.8.2 Sampa

Sampa residents, like those at Adabra, are dependent on outsiders for transport services: no cars are kept in the town. Of fifteen women asked in September whether they had used motorised transport in the past seven days, only five had done so (mostly to travel to their local market at Kyiren Nkwanta), although this is the season when much maize is sold. On the evening before market days at Kyiren Nkwanta four or five taxis or tro-tros may come to Sampa to load their vehicles. They set off for market with the traders at dawn and bring them home again when all their goods are sold. There are apparently a number of different cars which may or may not come. On non-market days only two or three vehicles visited the settlement, at most, and usually it was necessary to walk to the road junction about a mile away to find a vehicle, since they generally only came on non-market days if chartered.

It costs 600 cedis per person and 1,000 cedis per minibag of maize to travel to Kyiren Nkwanta by tro-tro (about five and a half miles, virtually all along poor, unpaved road), 1000 cedis per passenger by taxi. The journey to Mankessim (about 24 miles away, including five miles of unpaved road) costs more: 1,000 cedis by tro-tro and 1,200 by taxi; consequently most women travel to Kyiren Nkwanta to sell their maize. There are many women in Sampa, however, who do not have sufficient money for transport and walk to Kyiren Nkwanta market regularly with their own and their husbands' produce (a greater number than women who travel by vehicle), some even headloading cassava (the heaviest crop grown). They return with a smoked fish and other items for sale in the village. It takes, they say, about one and a half hours when carrying a load.

Sometimes women who travel to more distant markets are unable to find transport to take them home. Women who expect to be away overnight ask their husband for permission to do so. Occasionally, absence without permission may result in a suspicious husband following his wife 'to see what she is doing'. Husbands say they do not like the inconvenience when their wives are unable to return home and thus not available to prepare supper.

4.8.3 Lome

Lome is more fortunate than the previous two settlements in having one vehicle - a (Toyota) tro-tro - stationed in the village most nights, though the vehicle is actually owned by a man resident in Swedru. This vehicle is used for a wide variety of journeys and has no regular route. No one in the village owns a vehicle of any sort. On Dewuramong market days, six to ten vehicles - mostly tro-tros - reportedly come to Lome to pick traders up, and a further

three to five arrive on Swedru market days (Monday and Thursday). On Sundays, two vehicles leave Lome but do not return in the evening. The cost of travel to Dewurampong, the closest market, four miles distant (and almost all along unpaved road), is 300 cedis per passenger by tro-tro (a sum which seems to be within the reach of almost all women residents), 400 cedis by taxi. A minibag of maize will cost 5-600 cedis on the same route by tro-tro and 7-800 cedis by taxi. Almost all women seem to be able to afford the tro-tro fare to Dewurampong. In Lome, as in the other settlements, women are unable from time to time to return home the same night if they travel to distant markets to sell their produce. They are expected, as in Sampa, to obtain the prior permission of their husband.

4.8.4 Abora

Abora also has a vehicle stationed in the village at night: in this case a taxi owned by a woman trader who is resident in the village. However, the taxi works from the paved road, and merely makes an early morning run to the road and a late evening run back to the village, when the driver has completed his work for the day. Other transport only comes to the settlement if someone from outside has reason to make the journey to Abora, for instance dealers who come to purchase crops. Consequently, even on local market days, the usual mode of transport for Abora's own traders travelling to the paved road is on foot. It costs 200 cedis to travel by tro-tro or taxi the two miles from the nearest market centre at Apam Junction to Abora, and about 3000 cedis per load (depending on size). There is no motorable road, merely a narrow four mile long footpath, to the coastal market centre and district headquarters at Apam, and consequently only pedestrian traffic in this direction. Since Apam is a major fish smoking centre and market for fuelwood, traffic along the footpath is heavy.

4.8.5 Aworabo

In Aworabo, Assin district, the Chief has a vehicle (a tro-tro) and he keeps it at Prifi Praso with a relative because the road to Aworabo is so bad. Apparently a number of other men do the same. No vehicle is stationed in the village, despite the fact that there are a number of fairly large cocoa farmers here. The road deters traffic so that on many days there are no vehicles passing through. Women frequently have to head load produce to market. They will employ other women to help them carry produce to market and from the farm: at a charge of c. 6000 cedis per bag of cassava. There is a market at Akonfudi for example which is only accessible from Aworabo on foot. The fare to Odumasi market, 5 miles away, when transport is available is 500 cedis (again supporting the general picture of 100 cedis per mile off-road). Women in Aworabo have no difficulty in finding money for transport, just the problem of transport shortages.

According to villagers, produce often spoils before they can get it to market: this is particularly the case with cassava and plantain. When possible, pawpaw grown here is transported to Accra, but after a short time it spoils if no transport is available. Women here used to go to major urban centres to sell cassava, but since the road has deteriorated they no longer go, though dealers visit the village from time to time. In this fertile area with its high agricultural potential such losses are a very serious deterrent to increased production.

Women producer-traders also point to the substantial losses they face as a result of late arrival

at markets due to transport problems. They lose sales to better located women who arrived earlier and thus are able to sell first. This is a probably an important issue for many off-road traders, though there is no reference to the problem in the trading literature.

5 NON-MOTORISED TRANSPORT USE

Non-motorised transport, apart from pedestrian headloading (which is ubiquitous), is remarkably rare in Gomoa, has generally been obtained within the last few years, and is almost wholly owned and operated by men. In Assin a similar picture obtains, except that bicycle ownership appears to be slightly higher.

5.1 Male domination of non-motorised transport equipment

Once transport involves equipment it has a tendency to become a male preserve in Ghana as in other regions of Africa. Current non-motorised transport types comprise only bicycles and hand carts, but mostly consist of bicycles purchased by men for cash out of farming or hunting profits (these are areas where small game is still common and hunting widespread). Few women, to date, have ever ridden a bicycle and, if so, are generally young women who have mostly done so within the village centre, 'for pleasure'. Men do not generally loan out their bicycles to their wives. Hand carts are principally found in the district capital, Apam, and hardly encountered in rural areas (though two of the study villages had carts).

5.2 Possible resistance to non-motorised transport in southern Ghana

Discussions with staff at the Feeder Roads Department in Accra and Cape Coast indicated that there may be some resistance to non-motorised transport in coastal Ghana, though purchase cost is also an important question, particularly since these items are generally obtained as cash purchases. A basic bicycle of Chinese/Asian manufacture (such as the Phoenix brand) costs from about 120,000 to 150,000 cedis and a new bicycle tyre costs around 12,000 cedis. The new tyre may well last less than six months on poor roads and tracks. Second-hand tyres can be obtained much more cheaply from vulcanisers, but are reckoned by those with sufficient funds to purchase new tyres to be a bad investment since they are very rapidly spoilt. In some villages certain bicycle owners hire out their bicycles at a rate (generally 100 cedis but 200 cedis in Sampa) per five minute interval! Details of non-motorised transport availability and use are presented for the five study settlements below.

5.3 Non -motorised transport use in the study villages

5.3.1 Adabra

In Adabra just six men own bicycles and in September 1998 all except one (the primary school headmaster's, which he mends himself) were reportedly off the road. There is no bicycle repairer in the village. By November three had been mended. Women in Adabra say they can neither ride nor afford to buy bicycles, though some have occasionally borrowed a husband's to ride within the village. However, a woman at the satellite village of Kuma Akora rides her husband's bicycle more extensively and said she had used it once to travel to Kasoa market with 2 rubbers of maize when she had no transport money. She enjoys riding the bicycle and

'when people see me (on it) they commend me'.

One man owns a small four-wheeled hand cart which he purchased for cash from a local manufacturer in Accra and rents out at between 1,500 and 3000 cedis per day (according to load and distance) to men and women (who use it mainly to transport crops to neighbouring villages and from their farms to the village). The cart cost 150,000 cedis and third-hand tyres from the vulcaniser cost 8-10,000 cedis per tyre. They have been changed several times since purchase of the cart eighteen months ago. Nonetheless, the owner is pleased with his investment.

5.3.2 Sampa

In Sampa there are only three bicycle owners, all men, and as in Adabra their wives only ride the bicycles very occasionally ('for pleasure') and only within the village. Women say they are simply too poor to buy bicycles. Owners in Sampa hire out their bicycles to other men at c. 200 cedis per 5 minutes. They are hired for cycling to nearby settlements. There are no hand-carts in the settlement.

5.3.3 Lome

Lome has about ten bicycles, again all owned by men. These are mostly the standard Chinese/Asian makes, but two men have apparently recently purchased mountain bicycles with gears which are much admired. However, one has already broken. Some of the bicycles are rented out to young boys in town and seem to have been purchased with this in mind. According to discussions with women in Lome, husbands do not usually loan their bicycles to their wives, though the women were unclear about the reasons (they noted that many women do not know how to ride). Very occasionally women get the chance to try riding round the village for pleasure, when a bicycle has been brought into town for hire. The Chief's niece, a major trader in her 40s, described how she had taken such a bicycle on one occasion and ridden it to the next village, 'just for fun'.

One bicycle owner at Lome, a hunter/farmer who has an unusually sturdy Raleigh with a double cross-bar, said that he loans his bicycle to his wife and she rides it occasionally to a nearby farm but 'because she has a child on her back she cannot take it very far'. He admits that she would like to use it more, but argues that he needs it himself. He never loans it out, which may partly explain why it is in such good condition. He purchased the bicycle for cash, new, five years ago at Swedru, the nearest major town, and paid 80,000 cedis for it: bicycle prices have risen substantially over the last few years. He buys second hand tyres at 4,500 cedis per tyre from Swedru (sending money with any of the drivers who come to Lome) and has to change his tyres every two months; fortunately, Lome has its own bicycle repairer who repairs the spokes when they break. The bicycle is used for riding to the paved road and onwards to nearby centres such as Afransi and Apam Junction, but also nearly every time the owner goes to his farm. He uses it in this case for carrying small quantities of goods (carrying some things on his head, others on the bicycle) but observed that the footpaths are potholed in places, making cycling with a load difficult. When harvesting is in full swing headloaders are employed (mostly women) rather than the bicycle.

Lome also has two small hand carts. These were made by the owner himself, a mason/farmer,

in the village about a year ago. The wheels are solid and made of wood (unlike the standard manufactured cart), and rubber tread has been pasted on. They cost the owner 55,000 cedis in total for the two carts in construction costs. Like that at Adabra, these carts are hired out to men and women who use them to take their maize over the four miles to the junction (for which a charge of 6,000 cedis is made for a full load), or from their farm to the village (charged at between 2,500 and 5,000 cedis, depending on the distance). However, the carts are principally used for transport of construction materials during house building, since only those who do not have relatives available to help carry their produce will pay to hire the cart. (Relatives are simply given a small portion of maize for their assistance.) The owner or his brother always accompanies the cart when it is hired out.

5.3.4 Abora

In Abora there are no hand carts, but the village now has three bicycle owners (five years ago there were none): one man (a hunter), one schoolboy (whose brother in Takoradi had purchased it for him) and the only woman cycle owner encountered in the district. The latter, an ADRA (Adventist Relief Agency) 'motivator', is purchasing the machine, a Chinese 'Hero', at a total cost of 130,000 cedis on installments through her work. She had had the bicycle for one year at the time of first interview in May 1998 and for the previous two months it had been out of use due to loose bolts, a broken pedal and a split inner tube. She did not have the 12 - 18,000 cedis estimated repair cost and had not received assistance from her employer for the repair. She blamed the damage to the bicycle on the fact that she loans it out often to friends and the village children (without charge). In September her bicycle was still broken. The hunter, who has a Phoenix cycle, purchased it new two years ago for 105,000 cedis cash, travelling to Accra to make this purchase. He uses the bicycle to transport game to the village and to the roadside for sale. He loans it out regularly, almost every day, without charge to his (male) friends, but never to his wife. When it breaks down he makes simple repairs himself, but otherwise must take it to the nearest mechanic, located at Apam Junction. He has recently seen a three-wheeler tricycle on television and has an ambition to purchase one.

5.3.5 Aworabo (Assin district)

In Aworabo there are six male bicycle owners - all young men - and no women owners. As in some of the Gomoa villages, bicycles are hired out at 5 minutes for 100 cedis. Apparently no woman has ever hired a bicycle, and this idea caused much laughter among the group of men and women interviewed on the topic. (Though the District Chief Executive at Foso says he has seen women there riding bicycles. There are no carts whatsoever.

6 NON -MOTORISED AND MOTORISED VILLAGE BASED TRANSPORT: A SUMMARY

Village based transport: motorised and non-motorised ownership

Village	Abora		Sampa		Adabra		Lome		Aworabo	
	M	F	M	F	M	F	M	F	M	F
Private car	0	0	0	0	0	0	0	0	0	0
Taxi	0	1	0	0	0	0	0	0	0	0
Tro-tro	0	0	0	0	0	0	0	0	0	0
Bicycle	2	1	2	0	6	0	5	0	6	0
Motorbike	0	0	0	0	0	0	0	0	0	0
Handcart	0	0	0	0	1	0	2	0	0	0

The above table provides a summary of motorised and non-motorised transport in the survey villages. It is important to note that the table refers to vehicles which are owned by villagers and are based in the villages. At Lome there is one vehicle, a tro-tro which is based mostly in the village, but is owned by an outsider.

7 RESULTS OF A TRAFFIC SURVEY

A small village traffic survey was conducted in November 1998. This involved identifying the three main routes out of each of the off-road villages. Student enumerators were stationed at each of the three routes and counted inward and outward traffic on one day when villagers normally attend a major local market and one day when little movement to markets is likely to take place. Counting started at c. 6 a.m. and finished at 5 p.m. and thus does not capture all movement to and from the village, but gives some indication of the relative importance of different modes of transport. The results are presented for each settlement in turn.

Abora traffic survey: (market day at Apam) 22/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Apam Junction	42	26	11	0	6
Footpath to Apam	76	100	0	0	0
Footpath to Brofoyedur	9	63	9	0	0

Abora traffic survey: (non-market day) 18/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Apam Junction	56	53	5	0	4
Footpath to Apam	29	21	0	0	0
Footpath to Brofoyedur	14	14	0	0	0

Sampa traffic survey: (market day Kyiren Nkwanta) 20/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Sampa Junction	85	74	2	0	25*
Road to Akropong	117	93	1	0	0
Footpath to farms	46	69	0	0	0

* 23 Taxis and tro-tros, 2 motor bikes

Traffic survey Sampa: (non-market day) 19/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Sampa Junction	34	39	0	0	19
Road to Akropong	39	155	0	0	5
Footpath to farms	91	131	0	0	0

Traffic survey Adabra: (market day Kasoa) 27/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Kotsi Junction (Kasoa-Accra road)	85	57	36	0	65*
Road to Duafo etc.	166	101	32	0	67**
Footpath to Kuma	80	53	14	0	0

* 60 taxis and tro-tros, 5 motor bikes

** 63 taxis and tro-tros, 4 motor bikes

Traffic survey Adabra: (non-market day) 23/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Kotsi Junction (Kasoa-Accra road)	98	77	22	0	56
Road to Duafo etc.	133	106	19	0	51*
Footpath to Kuma	59	71	11	0	0

* 47 taxis and tro-tros, 4 motor bikes

Traffic survey Lome: (market day Dawurampong) 24/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Dawurampong	55	74	1	0	39*
Path to Oguaa	104	88	1	0	0
Footpath to farms	108	192	0	0	0

* Almost all vehicles are tro-tros

Traffic survey Lome: (non market day - Saturday) 21/11/98*

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Dawurampong	70	91	0	0	40
Path to Oguaa	68	73	0	0	0
Footpath to farms	85	201	0	0	0

* The surprisingly high number of vehicles on this non-market day is related to the fact that a number of funerals were taking place that day - Saturday is the day for funerals in this region.

Traffic survey Aworabo (Assin): market day 25/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Odumase etc.	150	91	1	0	30*
Footpath to Nkukuasa	159	85	0	0	0
Footpath to Ayitey and farms	274	269	0	0	0

*26 motor vehicles (mainly taxis and tro-tros), 4 motor bikes

Traffic survey Aworabo (Assin): (non-market day) 26/11/98

	Ped. Male	Ped. Female	Bicycle Male	Bicycle Female	Motor vehicle
Road to Odumase etc.	178	76	2	0	21*
Footpath to Nkukuasa	144	106	0	0	0
Footpath to Ayitey and farms	230	249	2	0	0

* 19 motor vehicles (mostly taxis and tro-tros) , 2 tractors.

It would be unwise to attach too much weight to the surveys: they took place on only two days at one point in the year, in a period when there had been little rainfall for some time and consequently roads were relatively passable. Nonetheless, they suggest the overwhelming significance of pedestrian travel. Pedestrians were counted as they travelled to the farms etc. in the morning carrying cutlasses and headpans, and returning home in the afternoon with mixed head loads including harvested crops and firewood. The counts were made outside the village, beyond local water sources, in order to exclude travel for water which would have given far higher pedestrian counts. (The figures would be even higher, but a decision was taken to exclude large groups of school children making small excursions with school teachers to farms outside the village - school teachers used children at break time in Aworabo, for example, to carry cocoa into the village, and in Sampa to do work on their farm.)

Bicycles, the surveys suggest, are generally few and ridden wholly by males: they appear to be rarely taken to the farm. Motor vehicles counted per day never exceeded 60 and frequently the vehicles appear twice in the counting, as they travel into and out of the village: this is particularly the case for Abora, Lome and Aworabo where the only motorable road stops at the village, there being no through route to other villages. The vast majority of vehicles counted were tro-tros and taxis, though an occasional mammy wagon or lorry passed through Adabra. The tractor noted at Aworabo belongs to the Cocoa Research Station nearby and was counted twice, going into and returning from the village. Few motorbikes were encountered.

8 CULTURAL AND INSTITUTIONAL CONSTRAINTS ON ACCESS TO MARKET

Marketing constraints can not be viewed only in terms of physical access: cultural and institutional constraints may be substantial. In some Moslem areas such as northern Nigeria there are serious cultural constraints on women's access to markets. In Gomoa and Assin few such constraints were reported, though there are some Moslems living in the settlements (Lome has quite a substantial mosque). Sampa was the only community where any reservations were expressed about women's travel for trade. Here some older men at the Chief's palace observed that women must inform their husbands before they go to market. Sometimes women have difficulty getting transport to return to the village and their husbands 'get worried because they want the wife home to prepare supper. Sometimes men chase to find the woman...he has to follow her to see what she is doing'. However, women are able to stay overnight if they travel to distant markets, so long as they ask permission.

8.1 Market location

Market location is an interesting issue in the context of accessibility and has both physical and institutional components. In the course of research it emerged that a number of off-road settlements in Gomoa and Assin have lost their rural periodic markets in recent decades. The decline and death of off-road rural periodic markets has been observed in other parts of West Africa, and links noted with the construction of new paved roads and traffic expansion, both of which encourage the growth of roadside markets and associated decline of less accessible markets. In northern and middle-belt Nigeria, traffic became firmly concentrated on the new paved routes in the 1970s and 80s and traders and drivers became very reluctant to visit off-

road markets, so long as they could obtain sufficient produce at the roadside. The situation was exacerbated by SAP which reduced funds for road maintenance and new vehicles (Porter 1993). It is ironic, perhaps, that many infrastructure studies refer to improved market access as one of the main effects of road construction (Cobb et al., and Moore et al., cited by Howe and Richards 1984). For the poor who remain in off-road communities the converse is often the case. There is little discussion in the literature of the implications of off-road market decline for off-road villagers and production, but in my work in northern Nigeria the impact on women traders was found to be very severe, since they have less capital for vehicle purchase and travel to more distant markets and there may be further cultural constraints on their movement to markets (Porter 1995). In Gomoa and Assin similar problems of market decline were observed.

8.1.1 Gomoa district

Among the off-road settlements studied in depth, Adabra and Lome had once had their own weekly markets. Up to 25 years ago, the village of Adabra was an important market centre but the market declined and died, reportedly due to the deterioration of local roads. Other settlements with poor access in Gomoa have also lost their markets. At Kwame Adwer, for instance, located three miles off the main Swedru-Apam road, villagers described how their market died only around ten years ago. It was once a large wholesale market for cassava, maize, citrus fruits and plantain. It was established in 1969, and thrived for some years, but the road to Kwame Adwer deteriorated and vehicles stopped visiting the settlement. Sometimes traders came and could not find a vehicle to cart the produce away and so they stopped coming. The road was improved a year ago and there are now plans to reestablish a market in a new site on the edge of the village. No weekly markets located away from the paved road now exist in Gomoa district.

8.1.2 Assin district

In Assin district the story is similar, though here a few off-road markets still survive. The continued existence of off-road markets in Assin can perhaps be attributed to two factors, firstly the fact that the district is very large and has only one major paved road, and secondly the fact that there are major cash crop producing areas off-road, including substantial cocoa areas. Although cocoa is marketed at special buying centres, rather than through markets, the proceeds of cocoa sales give farmers more disposable income than those in many off-road rural areas, and local markets thus serve a relatively large demand for consumer goods. The market at Akropong Odumase, for example, which Aworabo farmers like to visit when transport is available, thrives, despite its location ten miles from the paved road. It attracts traders from a wide area and, in addition to foodstuffs, a good range of consumer items such as new and second-hand clothing, cloth and shoes are on sale. However, the majority of Assin markets are now located along the main Cape Coast - Kumasi road, and it is clear that these are the focus of the vast majority of foodstuffs trading in the district.

The story of Akropong Odumase market is interesting and possibly instructive: a Tuesday/Friday market in the settlement died about 20 years ago and for eight years there was no market. Then, because of the problems villagers in the area faced in travel to distant markets, the residents decided to try to reestablish the market. This time, however, they selected Wednesday as their market day, because no market in the area met that day and the

competition from other Tuesday/Friday markets (8 out of 12 of Assin's main markets are currently held on these days) was considered too strong to bring outside traders to Akropong Odumase on those days. The advice to select Wednesday apparently came from a market queen in Oda (Eastern Region) who used to visit the village. There are other off-road markets in Assin which have not revived, however, due to severe access problems. For example, Asibrim (near Aworabo), a village which is often totally inaccessible from Aworabo due to the poor road, used to have a large market which served surrounding villages including Aworabo. The market finally died in 1985 and the village only has a small daily market now. This village used to have three vehicles which were used by their owners to take residents to other markets, notably Odumase, but the road has deteriorated to such an extent that all the owners have sent their vehicles to paved road settlements. Vehicles do not normally come to the settlement at all nowadays, so the villagers have to headload their produce to surrounding villages where transport is (sometimes) available.

8.1.3 The impact of market loss on women

Produce traders in Gomoa and Assin do not face restrictions on their movements in the way women in northern Nigeria are limited, but it is clear that marketing has become a more arduous task for some, possibly many, off-road women as a result of the decline of off-road markets. They have to travel further to market as a consequence of the 'rationalisation' of the market network and must thus either pay more to reach market or headload their produce. If they arrive late at market - a common occurrence given the state of rural roads and the shortages of off-road transport - they may well be unable to sell all their produce. It may be anticipated that the loss of off-road markets has led to increased spoilage, and possibly, in some locations, to reductions in production, though this would be very difficult to ascertain.

8.2 Market organisation and trade practices

Market organisation and trade practices in distant markets can pose further problems for off-road residents. One of the disadvantages many of the rural women interviewed mentioned that they face in distant markets is the problem of dealing with unfamiliar traders and an increased likelihood of being cheated over the use of measures. The problem of non-standard market weights and measures is widespread in West Africa (see the project literature review). In Central Region the debate concerns the varying size of the tin (olonka) used to measure maize and other products, and the way the 'rubber' (a plastic bucket) is deformed to increase or decrease its size, according to whether the trader is buying or selling. The rubber is often used in the villages, the olonka more commonly in the markets. In Lome village, women do not even wish to sell their maize at the nearest market in Dawuramong, preferring to sell to buyers who come in from Swedro, Dawuramong and Winneba. They argue that Dawuramong traders cheat them at that market, treating them as 'villagers', but will not dare to do so in Lome, so although the price in Lome is lower (it was 2,300 to strangers, 2,200 to villagers, for instance, when selling the same day in Dawuramong at 2,500) they do better to deal on home ground. For women with very little to sell this obviously makes sense in any case, because of the 600 cedi fare to Dawuramong.

A majority of women interviewed, throughout the Gomoa off-road villages, said they only dealt in the nearest market, despite the fact that better prices might be obtained in larger, more distant markets. At Sampa, for example, most women go to Kyiren Nkwnata to sell their

produce, despite the fact that prices are better in Mankessim. Although Mankessim market is further away (c. 24 miles, as opposed to 5 ½ Kyiren Nkwanta) the fare is only 1000 cedis per person, compared to 600 cedis to Sampa (because most of the journey to Mankessim is on good paved road) and it would seem that, even taking transport into account, substantially higher profits could be achieved there. Sampa women argue that their focus on Kyiren Nkwanta is because of cheating by Mankessim traders, though it is clear that there are also strong 'customer' relations between Sampa women and Kyiren Nkwanta traders, which offer other benefits in terms of credit and possibly a more assured market for their goods. Also, many traders have to extend credit in order to sell their produce and, in such a context, it is essential that one knows the creditor's residence in order to be able to expose defaulting creditors to friends and neighbours. In Adabra when women were asked about trying other markets for better prices they simply said, 'Kasoa is our market place'. Some women (in Abora, notably) are just so poor that they cannot afford to trade anywhere unless they can reach the location on foot.

In addition to suspicions about cheating over measures, there also appear to be some tensions between producer-traders and town-based traders retailing in the main markets in Gomoa area, caused by the fact that producer-retailers may sell at lower prices than their town-based counterparts. This can happen because the producers are usually keen to sell all their goods before they leave the market, particularly if they have travelled some distance. They may then sell their produce at lower prices than the town-based traders, to the displeasure of the market queens.

In Assin the emphasis on local marketing due to problems with cheating may be less pronounced, though since detailed work was only conducted in one village, it would be unwise to make generalisations. The area has long had contact with external traders through the cocoa and palm oil industry, so possibly producer-traders here have more confidence in dealing with outsiders. Nonetheless, when weights and measures were discussed at the workshop, Aworabo farmers complained about cheating when traders from Accra come to the village to buy maize: 'the trader takes 3 measures out of 10 (to cover their costs)'.

8.3 Market information

Market information, it might be assumed, is less substantial and less current in off-road areas than elsewhere. However, remarkably little concern was expressed about this potential disadvantage among men and women in off-road villages. Women generally remarked that they obtained information about market prices and conditions from their friends and neighbours who have been to market. They have no time to listen to radio broadcasts of price information, and point out that they generally do not have a working radio in any case (see table 1), and that by the time one reaches market the prices will have changed. In the context of their emphasis on and preference for selling only in their local market, as discussed above, the lack of concern about market information is not too surprising.

There is greater interest, however, among off-road residents in obtaining information on production and storage issues and here they perceive themselves to be at a disadvantage. Men, in particular, observed the lack of contact with MOFA extension agents who rarely visit. At one village an extension agent lives very close to the village but apparently never advised

local farmers! Part of the problem (though not perhaps in this case) is the fact that extension workers lack transport to travel to farmers. They are dependent on walking or finding local transport, which is generally poor in off-road areas. They say that often they simply do not have funds to travel to remote villages. MOFA no longer pays them T&T apparently, and they have been promised motorbikes but these have not yet arrived. Presumably there is less likelihood that MOFA will check on the activities of their employees in less accessible villages.

8.4 Access to credit

Access to credit is an issue which concerns most farmers and traders, but in off-road areas the problems of obtaining credit appear to be greater than in more accessible locations. This has implications for both production and marketing. The difficulties faced by farmers in remoter areas of Ghana in obtaining formal credit for storage and processing has been observed (ASIP 1993) and may well be linked to such issues as the cost of loan recovery (see project literature review). The difficulties faced by women in obtaining formal credit are, as is well known, particularly great. In all the villages studied difficulties in obtaining credit was raised as one of the main problems faced by both women and men: this arose in discussions about agriculture, about ownership of transport and IMTs, about processing equipment and about marketing.

Villagers are generally dependent on relatives for loans (see table 2) since the cost of loans from moneylenders is extremely high, possibly around 100% over 9 to 12 months or even more. Interest rates of 15-20% per month for loans of 2-3 months were cited by Assin women market traders. Most people are unable to obtain major loans from fellow off-road villagers, since they are equally poor.

The rural banks prefer to lend to salaried employees since their loans can be deducted directly, and most villagers, particularly women, do not have a bank savings account (with the exception of Aworabo cocoa farmers). At the Assin workshop rural bank staff observed that farmers needed to know more about how to do business with the banks and, in particular, emphasised the importance of having a savings account with the bank.

Traders are often involved in complex credit arrangements. At Sampa an elderly woman farmer/trader - the second largest maize dealer in town - described how she goes to Kyiren Nkwanta to sell maize that she has bought from other women and men in the village, some purchased with cash, some on credit (at a higher price). At the time of interview she paid 2,200 per rubber of maize with cash and 3,000 per rubber with one month's credit. She sells at market mainly for cash (reportedly at 2,400 per rubber).

At Abora where many men and women make pestels, these are sold at Apam Junction at 2800 cedis for cash, but 3000 cedis on two weeks credit to people who are not 'customers'. Customers apparently do not pay for credit. Some women in this village are so poor that they can be seen buying even a 200 c piece of fish on credit. The Chief described how some Accra people give loans to farmers in Abora to grow maize. Unfortunately, this leaves farmers in debt in bad years when the crop fails: he estimated there were more than 10 families in serious debt in the village as a result of the poor rains (though some families use the cultivation loan

for immediate consumption due to poverty). In Sampa children were observed queuing to buy kenkey which they paid for with maize cobs. This bartering is apparently common from July to December when money is short. Adults apparently also barter at this time.

Informal saving (and associated credit access) through susu associations is not commonly favoured in the villages, due to problems of defaulting collectors. Only Adabra had (two) successful susu associations operating and these were run by middle-aged Ewe men (stranger farmers from Volta Region). They operate over one year, from January to December; members (who include men and women) pay 1000 or 2000 cedis or occasionally a higher sum every week. (The cart owner, for example, paid in 5000 per week). The money is shared out at the end of November in time for Christmas. Contributors can obtain a loan at an (unspecified) rate of interest. One of the susu collectors, 'Accra Boy' described how he founded the susu group in Adabra's Ewe satellite village Kuma Akora and the group has expanded to include people from Adabra itself and a number of local settlements. There are now approximately 260 people (more men than women) in his group. He keeps the money at his house so that it is available when people come to get a loan. A loan of 100,000 cedis borrowed over 3 months will, he reports, cost 10,000 cedis. Some people have used the susu loans to buy bicycles and one man has reportedly purchased a tro-tro (based at Kasoa, not Adabra).

In Abora we were told that people do not have money to support susu collection: 'perhaps four ladies come together and do something for a few days, but we don't have a monthly one with a card' (Chief, November 1998). Elsewhere in Gomoa there was substantial scepticism about susu.

Although susu collectors are sometimes unreliable, even the rural banks are not immune from problems. Abora village put the proceeds from its village farm, which are used for community development work, into an account at Apam Rural Bank. A worker at the bank embezzled the funds and, since that time (3 years ago) the village has kept its funds with their treasurer in the village, though they are considering moving the money to Dawuramong rural bank.

9 MARKETING CONSTRAINTS IN OFF-ROAD SETTLEMENTS: A REVIEW

Women and men who were resident in the off-road survey villages in both Gomoa and Assin were emphatic about their access problems at the start of the field programme in May 1998. The off-road villages in Gomoa were all relatively close to the road by Assin standards, but it was clear that access issues were considered a major impediment to women's agricultural marketing, particularly in the rains and thus probably had a dampening down effect on production levels. It is not only in 'remote' places far from the town where accessibility is a serious problem for farmers and village-based traders. The principal access issue was usually seen to be the state of the road, particularly when talking to men in the villages, but women were quick to elaborate about access with reference to the shortage of vehicles, the problems of vehicles already full when they reach the village and the losses sustained as a result of vehicles failing to arrive at all, or arriving late to take them to market so that by the

time they arrive their 'customers' had already purchased the goods they need from other traders. The fact that transport costs substantially more than on paved roads (possibly twice as much per mile) is an added cost for all off-road producers who sell in major markets.

The impact of grading has a major immediate impact on accessibility as shown by the change in perceptions at Sampa and Adabra between May and September 1998. Once the road is relatively smooth and easy to negotiate, following grading, vehicles based at the paved road tend to visit off-road settlements along the route more frequently and are unlikely to break down so regularly, so the reliability of transport services also improves. Unfortunately, the effects of grading are usually lost within a year.

Remarkably few motor vehicles are owned by off-road residents and those which are owned are normally kept in settlements along the paved road. Bicycle ownership is also very low and, as with the case of motor vehicles, almost all are owned by men. Other forms of IMT such as carts are met only rarely and, again, are male owned and operated. Women are not limited in their movement to markets by cultural conventions, but shortage of funds for transport and vehicle access are serious impediments to their mobility for trade (and other purposes). The disappearance of local off-road markets has probably compounded the problems of access.

Off-road residents suffer constraints, not merely in terms of their own physical access to markets and its high cost, but also may face other disadvantages as, for example, in the way they may be treated by traders in larger markets, their reportedly poor access to credit and the infrequency with which they receive assistance and information from MOFA extension agents. The populations resident in off-road villages surveyed in this study were clearly poorer than in roadside settlements along the main paved roads, though there was insufficient time available in this short project to assess the extent of wealth variation.

Finally, it is important to briefly refer to the potential impact of the **decentralisation programme** in progress in Ghana. The programme aims to increase popular participation and promote development in Ghana through the devolution of a wide range of activities and responsibilities to Ghana's 110 districts. District Assemblies are given the responsibility for the overall development of the district and a role in the formulation of the district composite budget. Each District Assembly is meant to incorporate under one authority the 22 line departments and agencies now deconcentrated by law to district level. Deployment of staff from national and regional headquarters is still in progress, but problems are already emerging, given the shortages of professional staff now needed at each district headquarters. The influx of staff has already had a major impact on these centres, and the further change may be anticipated. So far as off-road communities are concerned it could be envisaged that devolution of power to district level will bring greater opportunities for improvement, though there are dangers of the development of an even greater gulf between inaccessible locations and the expanding district centres. The shortage of funds and staff is a further cause for concern, particularly in the context of road maintenance and improvement and agricultural services. The impact of decentralisation within the two districts discussed in this paper is not yet clear.

Concern has been expressed at the district administrations in both survey district about the difficulties faced by their off-road populations. There has been a tendency to think of improvement until recently, however, mainly in terms of road improvement. Given the fact that both districts have energetic staff and an interest in seeing rapid change, there seems to be potential for developing new strategies. Part II of the paper reviews a number of potential strategies for improving off-road market access, apart from the obvious road improvement solution, which may offer feasible opportunities for improving conditions of some of the most disadvantaged people in the districts selected for study.

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**APPENDIX: SHORT REPORTS BY DR WAYO SEINI, ISSER,
UNIVERSITY OF GHANA, LEGON**

**1. COSTS AND AVAILABILITY OF MOTORISED AND NON-
MOTORISED VEHICLES IN KUMASI AND ACCRA**

2. CONSULTATION OF NARP DATABASE

**1. COST AND AVAILABILITY OF MOTORISED AND NON-MOTORISED
VEHICLES IN KUMASI AND ACCRA**

KUMASI

BICYCLES:

A cursory survey in Kumasi, the main city in the Ashanti Region with a lot of marketing centers revealed that both brand new bicycles and second hand ones are readily available with the sale of brand new ones dominating the market. This is especially so with most shops located in and around the main shopping center, Adum, Asafo Market, Roman hill and Alabar. Most of the dealers in second hand bicycles can be found around Roman Hill and Alabar.

The types of bicycles sold, both second hand and new ranged from simple Phoenix bicycles to complex mountain and racer bicycles with prices ranging between 140,000.00 and 250,000.00 cedis respectively. The prices are thus very dependent on the make and generally the more complex the bicycle the higher the price. The second hand bicycles were also priced from 50,000 cedis plus. Their price trend varied similarly as that of the new ones but in their case, age was also factored into it. A Phoenix bicycle which is about 5 years old would cost about 50,000 cedis whilst a race bicycle of the same age would cost about 140,000.00 cedis. All in all however, the final price one pays for any bicycle depends on how hard one is able to bargain especially for the second hand ones.

Most are imported from such countries as China, South Korea, Taiwan and Japan. Inquires from the dealers revealed that whilst the Phoenix bicycles were mostly patronised by people from Northern Ghana, the mountain and the racer bicycles were patronised by people from all over the country.

MOTORBIKES:

Most of the motorbikes that can be found in the market are second hand, imported from Taiwan, South Korea, Japan and China. Most of the dealers can be located at Alabar and Roman Hill with a few scattered around shopping areas in the city. Only a few shops deal in brand new motorbikes. Their prices vary with make, capacity and the age of the bike.

Some of the prices of the more common motorbikes by type and age are given below:

Type	Capacity(cc)	Age	Price (cedis)
Honda mountain type	250	5 years plus	2,800,000.00
Yamaha mountain type	125	"	2,500,000.00
Yamaha normal	125	"	2,000,000.00
Yamaha (women)	50	"	1,600,000 - 2,000,000
Yamaha (men)	50	"	1,800,000 - 2,400,000
Piaggio			600,000 plus
Rajout	100	brand new	\$1700
Quinquin	100	brand new	\$1500

Again the prices of these motorbikes are bargainable and the price one pays depends on how hard one bargains. The prices of the brand new ones are almost fixed. Interview with the dealers revealed that the Yamaha (men) and (women) are mostly patronised by Ivorians. The

rest is largely for the local market with people from all over the country. Dealers also said that most of their imports are now from Japan and China as they make the best motorbikes.

BUSES AND OTHER CARS

Dealers in second vehicles are scattered all over the central part of the city with most of the imports coming from Europe and Asia. A few companies e.g. Toyota Ghana dealt in new ones.

Prices vary with make, age, capacity and type. Generally the older the car is, the less expensive it is and the cars of Japanese origin are also more expensive than those coming from Korea. Some of the prices are given below:

Make/type	Age	Price (cedis)
Ford (van)	5 years plus	9,500,000
Hyundai Grace(van)	"	8,000,000
Hyundai Grace (15 seater)	"	10,000,000
Nissan Urvan (van)	"	15,000,000
Nissan Urvan -15 seater	"	16,000,000
Mazda (van)	"	14,000,000
Toyota Hiace (van)	"	15,000,000
Toyota Hiace-15 seater	"	16,000,000
Daff mummy truck	10 years plus	30,000,000
Mercedes truck	"	28,000,000
Mercedes -350D	"	9,000,000
Toyota tercel (5 door)	5 years plus	8,000,000
Toyota corolla (5 door)	"	8,000,000
Opel Kadett (4 doors)	"	8,000,000
Diahatsu (4 doors)	"	8,000,000

CARTS

A visit to the Kumasi ITTU revealed that there are 2 main types of cart being manufactured for the transportation of foodstuff among other things. These are the Push carts and the Donkey carts. The push carts which are human driven is patronised locally and nationwide whilst the donkey carts are patronised mostly by people (mostly farmers) from Northern Ghana and Burkina Faso. Each cost between 180,000 and 220,000 cedis and again how much one finally pays depends on his/her bargaining power. All the materials used in making the carts are locally available and it takes about 3 hours to make one cart with 4 people working full time.

ACCRA

BICYCLES:

The situation in Accra as far as the prices of bicycles are concerned are about the same as was in Kumasi. The range of bicycles sold are about the same with similarly located dealership areas and shops. In Accra, most of the dealers are located around the commercial areas of Adabraka, Kokomelemele, Kaneshie, Tesano, Abeka, and Accra Central.

Their prices vary with make with a starting price of 120,000 cedis for the simple phoenix to, 250,000 plus for a relatively more complex mountain bicycle costing 250,000.

Some second hand one are also sold with prices varying with type and age.

They are also imported largely from Asia.

MOTORBIKES:

Majority of motorbikes dealers can be found around Adabraka, Kokomelemele, Kaneshie, Tesano and Abeka and they are imported as well from Taiwan, South Korea, Japan and China. Only a few Companies deal in brand new motorbikes one of which is Rana Motors. For the second hand ones prices vary with make, capacity and the age of the motorbike whilst that of the new ones are virtually fixed and hardly bargainable.

On the whole however, the prices of the motorbikes were about 100,000 cedis less on the average, than those in Kumasi for the same make and age excluding the brand new ones.

Some of the prices of the more common motorbikes by type and age are given below:

Type	Capacity(cc)	Age	Price (cedis)
Honda mountain type	250	5 years plus	2,650,000.00
Yamaha mountain type	125	"	2,300,000.00
Yamaha normal	125	"	2,000,000.00
Yamaha (women)	50	"	1,500,000 - 2,000,000
Yamaha (men)	50	"	1,600,000 - 2,400,000
Piaggio			600,000 plus
Rajout	100	new	\$1700
Quinquin	100	new	\$1500
Yamaha	125	new	\$2350
Suzuki	125	new	\$2300

Again the prices of these motorbikes are bargainable and the price one pays depends on how hard one bargains.

BUSES AND OTHER CARS

Dealership in second hand vehicles as in Kumasi are scattered all over the central part of the city with most of the imports coming from Europe and Asia. There are however more dealerships in Accra than in Kumasi. A few companies e.g. Toyota Ghana, Nissan Auto Parts, Rana Motors and Motherland Ghana Limited deal in new ones.

Prices vary with make, age, capacity and type with older cars costing less than relatively new one of the same make and capacity. As in Kumasi, cars of Japanese origin are generally more expensive than those coming from Korea of the same age and capacity. Some of the price are given below:

Make/type	Age	Price (cedis)
Ford (van)	5 years plus	8,000,000 plus
Hyundai Grace	"	9,000,000 plus
Hyundai Grace (van)	"	7,000,000 plus
Nissan Urvan (van)	"	13,000,000 plus
Nissan Urvan -15 seater	"	15,000,000 plus
Mazda (van)	"	12,000,000 plus
Toyota Hiace (van)	"	12,000,000 plus
Toyota Hiace-15 seater	"	13,500,000 plus
Daff mummy truck	10 years plus	35,000,000 plus
Mercedes truck	10 years plus	30,000,000 plus
Mercedes -33 seater	"	15,000,000 plus
Mercedes -270D (van)	5 years plus	12,000,000 plus
Toyota tercel (5 door)	"	8,000,000
Toyota corolla (5 door)	"	8,000,000
Opel Kadett (4 doors)	"	8,000,000
Diahatsu (4 doors)	"	7,000,000
Kia Besta (half van, without aircon)	new	\$11,800
Kia Besta (half van, with aircon)	"	\$12,800
Kia Besta (full van, without aircon)	"	\$11,500
Kia Besta (full van, with aircon)	"	\$12,500
Kia Besta (12 seater)	"	\$16,500
Kia Pregio (12 seater)	"	\$14,500
Hyundai Grace (12 seater)	"	\$16,000
Hyundai (26 seater)	"	\$29,000
Nissan Urvan (15 seater, without aircon)	"	\$20,000
Nissan Urvan (15 seater, with aircon)	"	\$21,000

The price of these vehicles also vary with how hard one bargains or how rich you are perceived to be. On the whole however, prices of vehicles especially the second hand ones, tend to be a bit lower in Accra than in Kumasi.

CONSULTATION OF NARP DATA BASE

The NARP data base had only abstracts on projects in various stages of completion on agricultural marketing in Ghana. There weren't any specific projects relating to Gomoa and Assin districts.

The projects that were listed in the NARP data base were:

(a)

Title: Marketing studies on cassava, yam, cocoyam.

Objective:

1. To trace the marketing channels
2. To identify constraints in the marketing chain
3. To study the price trends

Institute carrying out the research:

Crops Research Institute

Researchers involved:

1. Ampong
2. Anchirinah
3. O-Apau

Achievement:

Work still in progress.

(b)

Title: Marketing and utilization studies on citrus and mangoes in the semi-deciduous forest of Ghana.

Objective:

1. To learn about the main channels of distribution of these crops as well as the constraints farmers face in the disposal of their produce.
2. To observe price trends through out the year

Institute carrying out the research:

Crops Research Institute

Researchers involved:

1. Dankyi
2. Anchirinah
3. O-Apau
4. Ansere-Bioh
5. Anno-Nyako
6. Osei

Achievement:

Work still in progress.

(c)

Title: Determination and orientation of cassava chip production in relation to national and international markets for food consumption and animal feed in Ghana.

Objective:

1. To assess the market potential for improved cassava chips
2. Analyze the types of technologies appropriate to different market requirements
3. Develop and test improved technologies
4. To assess the requirements for finance

Institute carrying out the research:

Natural Resource Institute

Researchers involved:

1. Westby

Achievement:

Market for improved cassava chips have been assessed. If cassava was used to substitute 50% of the maize in poultry rations for 8 months of the year, there would be annual demand of 58000 tonnes of chips. In addition to these developing feed markets, there is the traditional kokonte market. An examination of this market has shown that: (i) the market is stratified, with different consumer groups preferring different product types but there are no price differentials (ii) demand for and supply of kokonte are seasonal (high demand and high prices in rainy seasons), (iii) storage losses due to insect infestation are high and (iv) it is regarded as an inferior food and demand is at least partially dictated by its low price.

(d)

Title: Relieving post-harvest constraints and identifying opportunities for improving the market of fresh yam in Ghana.

Objective:

Characterise the principal yam marketing systems operating in Ghana; identify the major constraints; quantify the severity of post-harvest losses within chosen case study areas and invest appropriate technical solutions to the latter designed to improve the effective handling and marketing of fresh yam.

Institute carrying out the research:

Natural Resource Institute

Researchers involved:

1. Bancroft

Achievement:

Analysis suggest that during the early part of the season, significant quality depreciation of yams is associated with harvest infestations, harvesting damage and exposure to sunlight in the market place. Such loss of quality can lead to price discounting of 25 - 40 % with absolute losses in the lace being less than 10% during the early season.

(e)

Title: Marketing studies on cowpea and soybean varieties.

Objective:

1. To trace the marketing channels
2. To identify marketing constraints
3. To examine price movements

Institute carrying out the research:

Crops Research Institute

Researchers involved:

1. Dankyi
2. Anchirinah
3. O-Apau
4. Anfers-Bioh
5. Adu-Dapaah

Achievement:

Work still in progress.

(f)

Title: Postharvest handling of yams in markets in Accra and Nkwanta Districts

Objective:

1. To investigate the cultural practices of the various handlers to identify the factors contributing to the losses.

Institute carrying out the research:

Biotechnology and Agriculture Research Institute

Researchers involved:

1. Bansa

Achievement:

The major causes of yam spoilage were identified as poor storage conditions and facilities on the farms and markets, microbial damage, activities of insects, ants and mammals. Physiological damage such as sprouting, respiration and dehydration as well as harvesting methods and transportation and handling related to marketing were also identified.

For access to the data used in these projects, one has to contact the researchers involved at the receptive research institute.

PRODUCTION OF MAJOR CROPS IN ASSIN-FOSU AND GOMOA DISTRICTS IN THE CENTRAL REGION - 1996 (IN METRIC TONNES)

CROPS	ASSIN-FOSU DSTRIC	GOMOA DISTRICT	TOTAL CENTRAL REGION	TOTAL NATIONAL
Maize	7,690 (1.15)	3,190 (1.20)	90,900	1,007,610
Rice	340 (1.23)	0	740	215,720
Cassava	65,229 (11.20)	25,348 (10.80)	632,891	7,111,182
Yam	1,915 (5.35)	326 (5.26)	20,419	2,274,789
Cocoyam	9,682 (4.70)	0	75,277	1,551,818
Plantain	6,769 (6.25)	0	49,906	1,823,395

Source: PPMED (Agric. Statistics and Census Division)
Ministry of Food and Agriculture. December, 1996

* Yield figures (metric tonnes per hectare) in parenthesis

PART II

STRATEGIES FOR IMPROVING MARKET ACCESS IN OFF-ROAD SETTLEMENTS IN GOMOA AND ASSIN DISTRICTS, CENTRAL REGION

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 - 2.3 Experiments with simple grading equipment
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REFERENCES

APPENDIX: IMT PHOTOGRAPHS USED IN THE VILLAGE STUDIES

ACKNOWLEDGEMENTS

EXECUTIVE SUMMARY

1. The paper reviews a range of potential interventions which may possibly assist in improving conditions for off-road residents (with particular reference to access to marketing opportunities).
2. Better maintenance and improvement of access roads and paths to markets and farms is an obvious - though not the only - route forward. Road maintenance funds are limited, and evidence from the survey districts suggests grading alone may be more cost effective than more substantial roadworks which include gravelling.
3. Experiments with sectional improvements (paving) on steep sections of earth roads, together with spot improvements may prove effective in improving overall access along some routes.
4. Conventional grading equipment is expensive and prone to frequent breakdown in the districts. Experiments with simple grading equipment drawn by tractors would seem appropriate.
5. Village men and women undertake limited road maintenance towards neighbouring settlements. Fines are imposed on villagers who fail to participate. Paths to farms are usually maintained by men in the survey villages.
6. Financial contributions are sometimes requested by village roadmenders from passing traffic. 'Free riders' are considered to take unfair advantage of village maintenance efforts.
7. Villagers tend to perceive that their road belongs to the government, once the Feeder Roads Department has undertaken road works along it. Greater consultation in villages in areas where roadworks are planned will be necessary to ensure continued village commitment to road maintenance.
8. Subsidies to transporters prepared to offer regular services on selected off-road routes could assist villages which have relatively infrequent, expensive and unreliable services. Loans to off-road villages for the acquisition of community vehicles could be a complementary or alternative strategy, but would need to take into account recurrent costs.
9. IMTs may have considerable potential for improving off-road access in Central Region, but are currently little used. There may be 'cultural' and topographic impediments to their use, as suggested by government officials in Cape Coast and Accra, but women in the off-road study settlements seem very positive about their potential.
10. Pictures of selected IMTs were shown to separate groups of men and women and subsequently to relatively homogeneous groups of women (selected according to age and economic status). Hand pushed carts and tricycle carts were seen to have particular potential by women because of their capacity and stability, though some difficulty could be experienced in negotiating these along farm tracks. Younger women were generally more interested in bicycles than older women, though still often ranked bicycles lower than tricycles and carts.

11. The shoulder pole and donkey cart were rejected by both men and women. The shoulder pole was considered too heavy for the neck and impossible to use when carrying a baby on the back (though the physical problems of headloading were widely acknowledged by women). Animal-drawn vehicles were rejected because there is little tradition of animal husbandry in this region. An experiment with bullock carts at the Cocoa Research Station in Assin was unsuccessful (the terrain was too rough and the animals ate the young cocoa pods). Here tractor-trailers are favoured, but would be too expensive for widespread use in villages.

12. Many men (but only a few women) observed that conventional motorised transport would be of much greater use than IMTs.

13. Village paths are already generally maintained by villagers but will need widening if IMTs are to serve village to farm as well as village to market use. Where land is taken and economic trees have to be removed for path widening, it will be necessary to pay compensation to owners.

14. Many villagers - especially women - are too poor to purchase individual IMTs (or, of course, more expensive motorised vehicles). Group initiatives seem an obvious solution, but problems with group credit repayments, use and maintenance of IMTs have been experienced in northern Ghana. In the survey villages both women and men could foresee potential conflicts arising out of joint ventures. One suggestion to reduce conflict was family ownership of IMTs. Further research on cooperation and group formation was commissioned to explore whether traditional group activities might be extended into group transport initiatives.

15. The potential for electronic communication to improve access to market information seems limited in the survey villages. Women are generally satisfied with current information obtained from friends and neighbours and often only wish to trade in their 'own' market. Few women have access to their own radio or time to listen, and price information is likely to be out of date before they arrive at market. If community FM stations offered better coverage of local markets and general market information on demand, perhaps there might be a greater incentive for women to club together to buy a radio and batteries. Mobile phone coverage in Ghana does not yet extend beyond the boundaries of major cities and telephone lines in the two survey districts are restricted to district headquarter towns.

16. Off-road villagers are more concerned to obtain improved information about crop production and storage than market information.

17. It may be possible to revive a few off-road markets through careful selection of market day and by advertising at the paved road.

18. Village-based processing and improved storage would reduce losses and improve value-added prior to transport. A selection of interventions are discussed in a companion report.

19. A multi-strand strategy involving a range of initiatives will be needed to improve access to market opportunities for off-road villagers.

1 INTRODUCTION

The constraints on marketing for women and men in off-road settlements in Gomoa and Assin in Central Region, Ghana, are substantial and comprise both physical and institutional constraints, as described in Part I of this report. Part II reviews a range of interventions which may possibly assist in improving conditions. The discussion which follows is based on detailed qualitative field research in the four off-road settlements in Gomoa district (Abora, Adabra, Sampa and Lome) and one off-road settlement in Assin district (Aworabo), all described in Part I of the report, Section 2.

The majority of this work was undertaken with Frank Acheampong Owusu, with the assistance of Faustina Ekwam and Ahmed Appiah in Gomoa and Assin respectively. Potential interventions considered include extended village road/path maintenance and improvement, Intermediate Means of Transport (IMTs), cooperative transport arrangements for motorised transport and IMTs, improved communications technology, and alterations to the market network through the establishment of additional markets. The potential for improving conditions through village-based processing and crop storage are reviewed in detail in a separate report by R. Dutton.

2 EXTENDED VILLAGE ROAD/PATH MAINTENANCE AND IMPROVEMENT

2.1 Grading and gravelling

One of the most obvious means of improving access to market opportunities for off-road populations would appear to be to improve access both to markets and to farms through better maintenance and improvement of existing roads and paths. District road maintenance is clearly restricted by funds available. However, the evidence from the survey districts suggests that grading *per se* is probably more cost effective than gravelling roads, since gravel is rapidly lost, particularly from steep surfaces, in higher rainfall areas. The impact of grading on access, as seen at Sampa and Adabra, can be remarkable. This is particularly likely to be the case with villages on through routes like Sampa and Adabra since traffic is likely to expand once the road is improved; the impact may be less marked on villages at the end of a road, such as Abora and Lome, where road improvement may be accompanied by less expansion of traffic.

2.2 Sectional and spot improvement

Recent experiments with surfacing of especially steep road sections need monitoring; this may be a cost effective means of lengthening the life of rural roads and maintaining access at points where otherwise surfaces can become extremely slippery and dangerous. Spot improvements along earth roads similarly seem to make good sense. With the decentralisation of Feeder Road Department activities to the district level it may be easier to organise grading schedules, where the district has access to a working grader. Unfortunately, graders in Central Region seem to be frequently out of action due to mechanical problems.

2.3 Experiments with simple grading equipment

There would appear to be a strong case for experiments with simpler grading equipment drawn by tractors (see Airey and Taylor 1993). The World Bank's Village Infrastructure Project (see World Bank 1997) could be the vehicle whereby some improvement of these types could be effected, since there is some provision for feeder road rehabilitation and for improvement of village tracks and trails, particularly those linking villages with main roads.

2.4 Village maintenance

Given the limited funds available at district level to support road maintenance, the question of expanded maintenance by villages also needs to be considered. Villagers in the survey settlements undertook some routine road maintenance, with responsibilities assigned to men and women in all the villages in a similar pattern, as shown below. Generally, women carry sand and gravel materials to fill the pot holes along rural roads, while men weed and take their shovels to make the repairs. Women may provide the workers with food. The normal practice seems to be either to maintain the road half way to neighbouring villages (as between Akropong and Sampa), or to maintain the road in one direction only to the next village (as at Abora). At Abora villagers mend the road down to Apam Junction about three times per year; here men dig out the sand and gravel and women carry it to the road, but sometimes women reportedly fill the potholes in addition to carrying the patching materials.

Fines (2000 cedis at Sampa) are imposed in the villages on all those who fail to take part in the road mending exercise when the gong-gong is beaten. At Lome villagers mend the road down to the next village at Nduem, about 3 miles west. At times they have reportedly contributed to the hire of a grader (4000 cedis per man, 2000 cedis per woman), but it takes a long time to collect sufficient funds. At Sampa a former Chief's family paid for a grader one year so that mourners could attend his funeral.

2.5 Questions of road 'ownership'.

Once roads are maintained by government, as at Adabra, they are perceived to belong to the government rather than to the community: Adabra men go to mend the occasional pothole within the town and if the road is very bad they may mend some potholes towards the next villages in both directions, but they see this as a 'government job'.

2.6 Village farm path maintenance

So far as the farms are concerned the standard practice seems to be for men to do the weeding along the footpaths which lead towards their farms. The gong-gong is beaten at times in the village and then the men go to clear the paths. However, women at Sampa insisted that they clear footpaths to the farm with their hoes, not men.

2.7 Summary of village men's and women's responsibilities for maintenance

Road and path maintenance in the survey villages by men and women.

	Abora	Sampa	Adabra	Lome	Aworabo
Road maintenance to next village	men and women	men and women	men and women	men and women	young men and women
Path maintenance to farms	men only	men only according to men, women also, according to some women.	men only	men only	men only

2.8 'Free riders'

One of the problems villagers see with village road maintenance is that of the perceived 'free riders' - traders and others from elsewhere who are able to travel the road without contributing to its maintenance and improvement. This issue was also raised by Mr Mensa Bonsu of ASIP at a project consultative group meeting (Interim Report no. 2). This is not a problem regarding foot paths to farms and less of a problem where the village is at the end of a road (as in the case of Abora and Lome). Sometimes vehicles are stopped by villagers working on the roads and asked for a contribution towards their work

2.9 Increasing villagers' sense of 'ownership'

If road maintenance by villagers is to be extended it will be necessary to ensure that villagers have a sense of ownership in the road. When roadworks are planned by the Feeder Roads Department it will be important to have much more consultation with villagers along the route, so that subsequent maintenance is not simply left to the Department (see literature review, Section III: 26, including work by Airey and Wattam 1998). If local contractors - now widely used by Feeder Roads - use local labour rather than bringing in their own labour (as seems to be the case on many road contracts) this may also encourage a greater sense of local ownership.

3 THE POTENTIAL FOR IMPROVING CONVENTIONAL PRIVATE TRANSPORT SERVICES

3.1 Transport subsidies

Off-road transport creates problems for villagers because of its relative infrequency, lack of

reliability and the substantially higher charges per mile (see Part I of this report, Section 4).

Drivers are unlikely to reduce their charges, given the high costs of operating along poor roads. There would seem to be a strong case for subsidising transporters who are prepared to provide a *regular* service along routes to selected off-road settlements. However, this would need extensive consultation with the GPRTU and other interested bodies.

3.2 Community vehicles

An alternative, or possibly complementary, approach to subsidies would be to assist off-road villages with loans for the acquisition and maintenance of community vehicles. Only one example of a community owned vehicle has been found operating in the survey districts (though some GPRTU branches own vehicles collectively; see Lyon project report on groups). This is a minibus owned by the Methodist church at Akropong Odumase in Assin District (purchased through contributions by church elders and a bank loan). This originally was used to provide a service for the general public each day to the district headquarters at Assin Fosu at standard commercial rates. Unfortunately, the bus broke down and was off the road for some time due to lack of funds for repair costs and, when mended (following further contributions from the elders), a decision was apparently taken to use it on another (paved) route from Fosu because of the poor road to the village. Recently the road has been graded so the bus may perhaps return to its original route. This case emphasises the recurrent costs of running vehicles in off-road areas and the need for ensuring funds are available to support regular maintenance. Church groups may well offer a suitable base for operation of such services, if they are prepared to offer a service to the whole village, though there may be some reluctance among district administrations to support group activities which are church based.

4 THE POTENTIAL FOR INTERMEDIATE MEANS OF TRANSPORT

4.1 IMTs and the Village Infrastructure Project

An exploration of IMT use was felt to be particularly appropriate for this access study in Gomoa and Assin because of the recently established World Bank-financed Village Infrastructure Project, which targets poor farmers and rural communities, and is focused on development of basic village-level infrastructure that can be sustained by beneficiaries. Among its four components is a rural transport infrastructure element which includes a pilot programme to develop IMTs 'to increase the efficiency of evacuating produce from farms to villages and onwards to markets'.

4.2 IMT use in Ghana

IMT use is relatively low in Ghana and, among officials in Accra and Cape Coast, IMTs seem to be somewhat pessimistically perceived as unlikely to be acceptable in the coastal areas (in comparison with northern Ghana). It is said that they are probably unacceptable along the coast for 'cultural' and topographic reasons, and because of the large quantities of goods which have to be transported. The results of the small study of IMT acceptability in the off-road study villages in Gomoa and Assin reported below are, however, more encouraging, particularly with reference to women.

4.3 Assessing attitudes to IMTs in the survey villages

Photographs of five different types of IMT, selected from a set provided by the International Forum for Rural Transport and Development (IFRTD), were initially shown to a group of eight to twelve women and men of varying age and economic status in each of the five off-road study villages. The aim was then to repeat the exercise with different, smaller groups of homogeneous socio-economic status and age, in order to check the findings. Some difficulty was experienced with the smaller groups in maintaining homogeneity in age and socio-economic status, however, since as is so often the case with group discussions in villages, people tended to leave and join at will, according to interest and responsibilities. In the event, because of these problems, the exercise was pursued further only with women, who are the main transporters of goods to market.

Villagers were asked to comment on each of the pictures, and then to put them in rank order according to their potential value for use among that group in the village. The five photographs (see appendix) were selected to illustrate a range of transport options and were shown in varying order: the 'Kencart' (a large-mesh container on wheels, shown being pushed by a woman), the tricycle-cart (shown piled high with goods and ridden by a man), the wheelbarrow (shown by itself, laden with what appears to be crop residue), the bicycle (shown with a long flat rear metal carrier and a man, presumably the owner, standing by), and finally a shoulder pole (shown with a heavy load being carried by a man). A sixth photograph of a donkey cart was subsequently included and reviewed in a second set of group discussions because, although draught animals are not commonly used in coastal Ghana, and there is little tradition of animal husbandry, there is a substantial interest in their potential among MOFA VIP coordinators.

Mr Oppong (one of the coordinators), at a project consultative group meeting in September 1998, reported that pilot programmes using draught animals are underway in some areas of southern Ghana, including Greater Accra and Volta Region and that there is a University of Ghana donkey breeding project.

4.4 A summary of IMT preferences among off-road village women

Particular emphasis was placed on learning about attitudes to IMTs among women, since women undertake most of the crop marketing in Central Region. A summary of preferences is provided below. In the first (mixed age and status) group discussions it was generally possible to establish a clear ranking of preferences among the five IMTs discussed.

Ranked IMT preference among off-road village women

	Abora	Sampa	Adabra	Lome	Aworabo
Kencart	1	1	1	2	3
Tricycle cart	1	2	2	3	1
Wheelbarrow	4	3	3	4	1
Bicycle	3	4	4	1	4
Shoulder pole	5	5	5	5	5

4.5 Gomoa district

In Gomoa, the Kencart was the most favoured IMT among women in all villages, with the exception of Lome, where the bicycle was ranked first. It was perceived by most women to be a really valuable means of transport for crops from field to village and also onwards to nearby markets. When, the groups were asked about potential difficulties in negotiating the cart along village paths, they generally responded that the cart could be parked on the junction with the nearest broad track and would still ease their work considerably. In the two villages which do not have carts currently, it was suggested that the paths could be easily widened to allow passage of the cart, but in one of the villages where there is a small hand cart, Adabra, this was considered less of an option, and in the other village which has two home-made carts, Lome, there were some reservations about access, probably in both cases reflecting past experience with the carts.

The tricycle-cart was generally the popular second choice, especially with older women, and seen as having a good potential, like the cancerate, for both farm to village and village to market transport. The wheelbarrow tended to generate less interest and comment than either the Kencart or the tricycle-cart. The bicycle, by contrast, attracted considerable debate. Its long carrier was usually admired, but only in one village (Lome, see below) was the bicycle ranked above the cancerate or tricycle. Elsewhere, it was generally ranked fourth, behind the cancerate, tricycle and wheelbarrow, by both younger and older women, because of such factors as its perceived restricted load-carrying capacity, the unevenness of farm paths and the need to tie the load on the bicycle as opposed to simply putting it inside the Kencart basket.

Interestingly, women did not anticipate any opposition from men if they had bicycles to ride, but many (especially older women) were rather uncertain as to whether they would be able to learn to ride them. (It is possible that if women obtained bicycles, for instance through a loan scheme, these would be commandeered by men. Women's ownership would have to be firmly established and a training programme made compulsory so that women were confident about riding bicycles).

By contrast with the bicycle, the carrying pole was rejected everywhere. It was immediately and unanimously condemned by women in every village as being obviously uncomfortable, too heavy and a device which would make it impossible to carry a baby on one's back while transporting goods. The details of perceptions of IMTS for each village are provided below.

4.5.1 Adabra

In Adabra the Kencart was the preferred IMT among women, identified as being particularly useful for moving crops from farm to village. On being asked about the feasibility of using the cart along narrow farm paths women said they would load it at the nearest major track or road to the farm, which is the usual practice when people hire the current four-wheel cart. (This cart is often in use every day at harvest time and there is reportedly need for more carts.) Widening paths was not considered a sound option since 'you can't just weed anywhere'.

The tricycle and wheelbarrow were also seen as farm to village transport, but as less satisfactory than the Kencart for this purpose. The women liked the bicycle which they ranked fourth. They noted the useful size of the carrier and observed that none of the bicycles in their village had this. The shoulder pole was firmly rejected, however, on the grounds that the load would be too heavy for the neck and that if carrying a baby on the back it would be impossible to carry the pole as well. (It was acknowledged that headloading is very damaging to the neck - 'you get neck pains, it even goes to the waist'. Women say they just buy a rub and massage their neck when it is particularly painful.)

4.5.2 Sampa

In Sampa the Kencart was ranked first, the tricycle second and the wheelbarrow third with respect to their usefulness to women. Women liked the Kencart because they could use it for transporting goods both from the farm and to market (which is just over 5 miles away). Women here report that men generally widen the footpaths and undertake general maintenance. They do this at approximately three monthly intervals, so the carts would be able to pass through to most farms and nearby villages. The tricycle-cart was seen as having a potential role particularly for moving goods to market: 'even if she doesn't know how to ride, she can put her goods [in] and find someone to take it'. The wheelbarrow was seen more as a farm to village transporter, though one member of the group, a larger produce dealer said that if her car didn't come, she could put her goods in it and take it to the junction herself.

Bicycles were considered impractical for journeys to market with produce, particularly cassava because of its weight: 'bicycles cannot carry a heavy load'. The paths to the farms were also considered too rough for bicycle riding, though 'some young ladies might use it to go to the farm, but it is men who could use it more than women'. The middle-aged dealer observed that most women have no idea how to ride a bicycle, though young women might learn and use it for pleasure. She could not see how anyone would be able to carry a load and ride as well! Another woman trader said, very firmly, that what she needed was a motor, not a bicycle!

The carrying pole drew shouts of laughter from the women and the observation that 'carrying is better than tying your load to a stick'. They could not imagine any benefits from distribution of the load in this manner and said they would never use anything like it, though

they complain of chest, waist and head as well as neck pains from headloading. (The common remedy in this village, they say, is to buy 50 cedis worth of paracetamol, then go and sit down somewhere and chew them. At another village in this area women described how they prepare an enema from herbs collected from the bush and a little pepper and ginger and use this when the pain from headloading is particularly severe.)

4.5.3 Lome

In Lome the bicycle, followed by the Kencart, were considered by women to be the most useful machines. The bicycle, they observed, could be used to travel to Swedru if no transport arrived, or to go to the next village or their farms. No one in the village had such a long carrier on their bicycle. They reckoned they could fit the 5 rubbers of maize they usually transport as one headload on the back of the carrier and even a goat or sheep could be tied across it. No objections from men were anticipated to women riding bicycles. It is possible that the views of the group here were somewhat influenced, however, by the Chief's niece who had obviously enjoyed her one experience of cycling tremendously.

Women in Lome thought the Kencart would also be suitable for farm to village transport of crops, since their paths are quite wide when they have been weeded, and even to take crops to the paved road. However, they pointed out that there is a stream outside the village which has to be crossed to reach many of the more productive farmlands and this would be impossible to negotiate with a cart when in full spate. The tricycle and wheelbarrow were also considered to be potentially useful but the shoulder pole was dismissed as impractical, since maize and cassava if carried by this means would put too much weight on the neck.

4.5.4 Abora

At Abora the tricycle-cart and Kencart were preferred by the group of women interviewed. The tricycle was seen as particularly useful for taking maize to the grinders (in Abora there is no grinding mill in the village so women walk two miles along the road to Apam Junction to grind their maize about two or three times per week). The Kencart was seen to be useful for moving produce from farms to granaries (which are mostly built in the village at Abora) and firewood to Apam along the footpath.

When asked about the problems of negotiating narrow footpaths the women said they would widen the path (though it is actually men who generally do footpath weeding). Both tricycle cart and Kencart were seen as preferable to a bicycle, because it would not be necessary to tie on the load. Nonetheless, the bicycle carrier was admired and it was observed that the bicycle could be used by children if the women themselves couldn't ride it. The one woman cycle owner encountered in the study villages, an ADRA motivator who lives in Abora, appears to be a useful role model: a number of young girls have learnt to ride on her bicycle. She says that when women see her on it they 'admire me and fancy it and at times are surprised; old ladies even encourage me'.

The wheelbarrow was less favoured but only the carrying pole, as in the other villages, was disliked. The women said they would fall down if they tried to use it, 'it weighs you down'. Headloading is considered a better option than the pole, though physical neck problems associated with headloading are acknowledged.

4.6 Aworabo, Assin district

In Aworabo, the conclusions varied somewhat from the Gomoa groups. The tricycle cart and wheelbarrow were strongly favoured here. The wheelbarrow was admired because it could be used to carry fermented cocoa and cassava from the farms to the village. The Kencart was considered particularly appropriate for large quantities of cassava, but the tricycle cart was seen to be likely to have more advantages than the Kencart. There were strong doubts expressed about the stability of the bicycle, particularly among the older women. As in Gomoa the shoulder pole was disliked, 'only men can use it; it's for men'.

4.7 IMT studies with homogeneous groups

Subsequently, when an attempt was made to work with groups of women of similar age and socio-economic status, the photograph of the donkey cart was shown in addition to the five photographs previously discussed. In Aworabo in Assin district unfortunately it was not possible to find relatively homogeneous groups of women for additional interviews.

4.7.1 Abora

A group of four young women, all farmer-traders selling food, pestles and firewood on a small scale, were interviewed at Abora. They were not in the previous group discussions and were keen to learn ride the bicycle and envisaged riding it to Apam Junction, even for bringing firewood from the farm, if the path was clear; they would park the bicycle at the junction if the path was difficult. However, they still ranked the Kencart first.

The donkey cart photograph caused much laughter, though they thought it a 'fine idea'. However, Abina questioned: 'If you don't understand the language of the horse, how does it move'. They knew no one in the village with any experience of animals. The table indicates the slight difference in perspective between the younger women in this group and the mixed group where the older women probably had a stronger influence.

Variations in ranked IMT preference, Abora

	Mixed women's group, Abora	Group of women under 30, Abora
Kencart	1	1
Tricycle cart	1	4
Wheelbarrow	4	3
Bicycle	3	2
Shoulder pole	5	5

4.7.2 Sampa

In Sampa a small group of three elderly women cooked food sellers, not previously interviewed, ranked the donkey cart higher than the shoulder pole but dismissed both as totally unsuitable for them. They were very strongly in favour of the tricycle cart because of its stability.

A group of three young women, all in their late teens and early twenties, all farmers with young children, who traded mostly on behalf of their mothers had only slightly different perceptions.

The Kencart was obviously generally highly favoured, in Sampa as in Abora, the older women preferring the tricycle cart simply because they would not have to push it.

Variations in ranked IMT preference, Sampa

	Mixed women's group, Sampa	Elderly women's group, Sampa	Young women under 30, Sampa
Kencart	1	2	1
Tricycle cart	1	1	3
Wheelbarrow	4	3	2
Bicycle	3	4	4
Shoulder Pole	5	6	5
Donkey cart	n.a.	5	6

4.7.3 Lome

A group of six young women petty traders interviewed in the market place at Lome were less interested in the Kencart than in the tricycle cart and bicycle. Two older Moslem women petty traders here were overwhelmingly in favour of the tricycle and Kencart and viewed the bicycle with firm disfavour, while still seeing it as preferable to the remaining three options.

Variations in ranked IMT preference, Lome

	Mixed women's group, Lome	Elderly women's group, Lome	Young women under 30, Lome
Kencart	2	2	3
Tricycle cart	3	1	1
Wheelbarrow	4	4	4
Bicycle	1	3	2
Shoulder Pole	5	5	6
Donkey cart	n.a.	6	5

4.7.4 Adabra/Kuma Akora

At the Ewe satellite village Kuma Akora, about half a mile from the main Adabra settlement, it was possible to work with three groups of elderly, middle-aged and young women, all of whom were involved in petty trade. Their observations can be compared with that of the initial group of mixed Ewe and Fanti women interviewed in the main settlement.

Interestingly, among middle-aged women and young women, bicycles were very popular in Kuma Akora. This could possibly be related to the fact that bicycles are much more common in Ewe areas of Volta Region. Moreover, there is an Ewe woman in another satellite village close by who rides her husband's bicycle and has even ventured to market on it (see Part 1 of the report, Section 5.3.1).

Among elderly women, as was commonly the case elsewhere, the bicycle is less popular than other interventions, though this was the only case in which the bicycle was ranked even below the shoulder pole and donkey cart (neither of which were considered by any group to be remotely sensible as a means of transport).

Variations in ranked IMT preference Adabra/Kuma Akora

	Adabra mixed group	Kuma Akora elderly women	Kuma Akora middle-aged women	Kuma Akora young women under 30
Kencart	1	1	2	3
Tricycle cart	2	3	4	1
Wheelbarrow	3	2	3	4
Bicycle	4	6	1	2
Shoulder Pole	5	4	6	6
Donkey cart	n.a.	5	5	5

4.8 IMT preferences among women by age

To conclude this section, viable IMTs for women are perceived to include carts on the lines of the Kencart and tricycle cart, which are seen as useful for moving substantial amounts of goods around the village, along some of the broader farm paths to the village and, in the case of the tricycle cart, to nearby markets. Bicycles are likely to be a feasible option for younger women, who often take only small quantities of goods to market, and generally expressed an interest in learning how to ride, but are clearly unsuitable for older women who have never ridden a bicycle. The shoulder pole and donkey cart were both viewed as so alien to local practices as to be totally unsuitable for adoption.

4.9 Men's IMT preferences

Men were also asked about their views on the IMT photographs. The overall picture was as follows:

Ranked IMT preference among off-road men

	Abora	Sampa	Adabra	Lome	Aworabo
Kencart	3	3	3	2	5
Tricycle cart	1	1	2	1	1
Wheelbarrow	4	4	4	5	3
Bicycle	2	1	1	3	2
Shoulder pole	5	5	5	5	5

Men viewed the Kencart generally much less favourably than women, except at Lome where it was considered a useful piece of equipment which would be relatively easy to push. At Abora they pointed out that it would only be useful for the road to Apam Junction: they also sell goods at Apam, which is accessible only by narrow footpath. Also, it would be difficult to push over long distances. Similar comments were made at the other villages, though the Kencart's stability was noted at Adabra. At Aworabo (Assin district) men considered the Kencart totally unsuitable because of the long distance to market and the narrowness of farm paths. (Among women there was similarly less interest in Aworabo in the Kencart than in Gomoa villages).

The tricycle cart was overwhelmingly popular among men - even more popular than among women. Its stability and the potential size of load were noted with favour. The only possible difficulty was seen to be negotiating the tricycle along narrow paths. The bicycle was almost as popular among men as the tricycle: some men, of course, already own bicycles in these settlements.

The wheelbarrow was seen in most villages by men as just a tool for construction and 'community work' in the village, though in Aworabo it was also seen to have a potential role when gathering cocoa fruits. Its lack of stability was pointed out in Lome and Adabra.

The shoulder pole was universally condemned, as among women in the study villages. Comments indicated that it would be too heavy and unsuitable on narrow roads and far more tedious as a means of carrying goods than headloading.

4.9.1 Men's view of draught animals

Men were subsequently asked about the potential value of draught animals: the donkey cart was generally dismissed as being totally unsuitable in southern Ghana. A male car owner and large farmer interviewed at Sampa observed with reference to the donkey cart, 'That would be no use. These things are used in the Saharan area, no one could use it here. No one here is trained to cater for these types of animals'.

4.10 An experiment with bullock drawn carts in Assin district

At Aworabo in Assin we were told about an experiment three years previously when the Cocoa Research Station brought something similar drawn by a 'cow'. It was used to transport cocoa to the fermenting point. According to villagers two of the four cows purchased died, and the other two were sent away. When we followed this story up at the Cocoa Research Station, we were told that they had introduced two bullock-drawn carts, each drawn by two bullocks, but the terrain was found to be too rough and the carts overturned frequently.

The Animal Research Institute at Achimota was thought to have introduced the experiment. They helped instruct the Cocoa station workers about how to look after the animals, which had been brought down from Northern Region. Apparently there were also problems because the bullocks ate the young cocoa pods on the trees. After one year the experiment was brought to an end, two of the bullocks were eaten and two sent back to the north. The Cocoa Research Station staff were strongly in favour of tractor-trailers which do not, they report, overturn.

However, at around 30 million cedis, they will be beyond the means of most farmers. The power tiller is probably a more feasible alternative (at c. 4 million cedis - see Gomoa district workshop proceedings, comments by Mr Nicol, MOFA Agricultural Engineering).

4.11 Summary of attitudes to IMTs among off-road village women and men

To conclude, it is clear that some IMTs elicited considerable interest among villagers, notably the tricycle and (among women) the Kencart, though many men, and a few women, emphasised that a conventional motor vehicle would be of far more use. The overwhelming dismissal of animal drawn vehicles by respondents (and the experience of the Cocoa Research Station at Aworabo) suggests it could be extremely difficult to achieve sustained use of animal-drawn IMTs in Central Region.

Given the very small sample taken in this study it is difficult to make generalisations, but variations in attitudes to IMTs were evident among women according to age in the study villages and it would be probably important to take age into account when introducing IMT programmes. Elderly women are often among the poorest in such villages and their perceptions and needs may require special attention.

4.12 Designing an IMT programme

Any IMTs introduced would need careful testing even prior to limited pilot programmes in the study area. Obviously pilot programme would need to look closely at local terrain, and would need to train local mechanics to do basic maintenance.

IMTs which serve both farm to village transport needs and village to market needs would probably be particularly attractive to villagers, given the enormous burden of farm to village transport, but this needs further investigation. At the workshop in Gomoa, farmers seemed to think that village to market transport should have priority.

Some commitment from villagers would be needed if IMTs are to be used on farm to village paths regarding the investment of village time in widening selected farm paths, for IMTs like the Kencart to be used to most effect. Villages in the two study districts already undertake regular path maintenance, so this should not be a major issue, though where land is taken and economic trees are removed to widen the path some compensation may be required.

The comparison of views in Gomoa and Assin indicates the significance of local conditions to IMT acceptability: denser tree cover in Assin makes large carts less appropriate. The garden power tiller, which has been successfully tested in some parts of the forest zone as a tool for short-haul light transport, crop processing and soil tillage (World Bank 1997), may have more substantial benefits for villagers in Assin, particularly, than the IMTs discussed above. However, it may well be difficult for women to gain control over the use of such equipment precisely because it is motorised.

4.13 IMT purchasing and access issues

A major issue linked to the introduction of IMTs in off-road villages is the question of how they would be purchased, given the relative poverty of these villages (discussed below), and who would have priority of access if a programme is introduced. Men who own bicycles currently only rarely loan them to their wives (only one case was found of a wife being allowed to take her husband's bicycle to market). There has been a tendency for men to be the main beneficiaries of IMT schemes (Bryceson and Howe 1993) and it will be difficult to ensure that women gain access to IMTs unless the programme is specifically targeted at them. The next section focuses specifically on women, because they are the principal crop marketers, and because women so often face particular problems in access to transport due to their low incomes and very limited access to formal credit.

5 WOMEN'S ACCESS TO CREDIT AND THE POTENTIAL FOR GROUP OWNERSHIP OF INTERMEDIATE AND MOTORISED MEANS OF TRANSPORT

5.1 Credit provision for women

Only one woman in the study villages has become a transport owner, through dint of careful saving of her earnings from grocery trading. The taxi-car owned by this middle-aged woman in Abora was obtained locally for 3.5 million cedis on a 'work and pay' arrangement and is driven by a friend's son. When she has paid for the taxi in full, her ambition is to sell it and buy a minibus. She knows of no other woman who owns motor transport, but this did not deter her from purchasing her vehicle (which she decided to buy because of her problems reaching market from Abora).

This is clearly an exceptional case: most women in Gomoa and Assin districts have little likelihood of ever accumulating sufficient funds on their own to purchase even a cart or bicycle (see Part I of this paper: Section 8.4 and the literature review, Section III: 32-34). The provision of credit at Rural Banks specifically for individual women petty entrepreneurs would seem to be the ideal solution to this problem. Unfortunately, many of these women are illiterate and would have great difficulty coping with bank administration. An improved susu approach may well be a more realistic if less satisfactory solution to the savings and credit problem, with the emphasis on training of susu collectors. Aryeetey and Aryeetey (1996) provides some useful ideas in this field.

5.2 The potential for group initiatives

Group initiatives are extremely popular with donors, partly as a result of the successes of the Grameen Bank and other initiatives in Asia. The Village Infrastructure Project document (World Bank 1997) envisages donkey carts, cycle trailers and light transport trailers powered by garden tillers being made available to farmers' associations, for example. Consequently, it is necessary to consider the potential for group ownership not just of IMTs but also of conventional motorised vehicles. However, it is important to point out that there is a fairly widespread concern among the women interviewed in all villages that groups would have difficulty in amicably sharing any machines purchased on a group basis. They said that if they hired such a machine out, for instance, they would be suspicious that the money was going to someone else. In the poorer villages, even joint purchase was considered to be beyond

women's means.

5.3 Village attitudes to group ownership

5.3.1 Adabra

At Adabra women merely laughed at the idea of joining together to purchase a vehicle. They simply could not envisage ever having sufficient money, even if all the women in the village joined together, to purchase a vehicle. No woman in the village admits to or knows any other woman who has a bank account though they all belong to one of the two susu groups.

5.3.2 Abora

Abora's women felt similarly disadvantaged, despite the examples of their woman taxi-owner and woman cycle owner (see Part I of the report, Sections 4.8.4 and 5.3.4) - both were viewed as remarkably fortunate. Women in the village, as at Adabra, could not envisage ever managing to find enough money to purchase vehicles or IMTs even on a group basis. Many are in serious debt (see Part I of the report, Section 8.4).

5.3.3 Sampa

In Sampa, which appears to be a richer settlement, there are no susu groups: women tend to save individually, however, and a few women admitted to having bank accounts. There is a 31st December Women's group in town to which many women belong and thus the concept of joint action is perhaps, to some extent, accepted. Here it seemed there might be an opportunity for some of the better-off women to group together and purchase a market vehicle. Alternatively, it is possible that individual women would have sufficient funds to follow the example of Abora's woman taxi owner.

5.3.4 Lome

At Lome, by contrast, there are neither women's groups (except those associated with the churches) nor susu groups. There is no 31st December Women's group in the village. When women were asked whether they had ever thought of clubbing together to purchase a bicycle or other such item, one woman argued that if they come together in this way, perhaps one person would take the machine. However, another woman said that if they all agreed then it should be workable. In another group discussion women thought rotation of equipment among group members would be one way of coping with group ownership. They had never considered any type of group purchase and doubted they could afford to buy a bicycle even if all the women clubbed together. Men commented here that group ownership could well lead to conflict when everyone wants to use the machine at the same time: they thought it would only work if the co-owners were relatives and living together in one house.

5.3.5 Aworabo, Assin district

Again there was little enthusiasm for group ownership among women. Women would probably be unwilling to contribute to a shared enterprise, they thought, though it might work using the church groups: but then would all benefit be just for the church? (There are about six church women's groups but no susu groups or 31st women's group in Aworabo). Some women thought the solution might be to buy as a group but hire the equipment or vehicle out as a commercial enterprise.

5.4 The need for ground work on group enterprise

This suggests that, in many villages, poverty or lack of experience with group enterprises may inhibit development of women-owned/run motorised transport and IMTs and that substantial ground-work would be necessary to ensure the success of any such arrangement. In northern Ghana, where the bicycle trailer was introduced, major problems have been experienced in recovering loans from groups (Feeder Roads/United Consultancy 1997). A World Bank project designed to provide bicycle trailers ran into difficulties because it was based on the assumption that people already owned bicycles. Most farmers certainly could not afford both bicycles and trailers. Maintenance is, of course, another problem when groups have joint ownership of a piece of equipment (Dawson and Barwell 1993:50).

5.5 The importance of trust in group enterprises

These discussions on the potential for group ownership suggested the need for more detailed research, with specific reference to questions of trust, and how trust might be built among women in villages where group enterprise is not widely attempted. It is important to note that susu groups operate in some villages, and that group-based work parties for communal village tasks and for agricultural work (nnoboa) are still common. Research was thus commissioned from Fergus Lyon, in order to explore the potential for cooperation and group formation. The results of the work are presented as a separate report.

6 THE POTENTIAL FOR ELECTRONIC COMMUNICATIONS TO IMPROVE ACCESS TO MARKET INFORMATION

The concept of improving access to market information through electronic communication seems, in principal, another useful approach by which women's marketing activities could be assisted in places where physical access is often difficult. However, studies in the survey villages are discouraging, at least as regards short-term change.

6.1 Satisfaction with current price information in survey villages

The research conducted in Gomoa and Assin suggests that women are generally satisfied with the quality of market information they receive. This is obtained from other villagers who have visited the local market on the previous market day. Most women tend not to be interested in hearing about prices obtainable in more distant markets. They say they prefer to deal in their own local market, where they are known and perceive themselves less at risk of being cheated (particularly through the use of under-size measures by dealers, and through the extension of credit to defaulting customers who cannot be shamed by exposure to known friends and relatives). Moreover, many women argue that they simply do not have the funds to visit more distant markets. This situation contrasts strongly with that reported by Asante et al. (1997) where (mostly male) farmers listen to radio price reports (see the project literature review, Section III: 29-30).

6.2 Mobile phone coverage

For those few larger dealers in off-road Gomoa and Assin settlements who travel more

extensively and would benefit from broader market information, mobile phones are not, as yet, an option because the network coverage extends only to the boundaries of the major cities and there are no telephone lines in Gomoa and Assin extending beyond the district headquarters.

6.3 Radio broadcasts of market information

Community FM radio appears to offer the most feasible option currently for dissemination of detailed market information and, indeed, the Apam station reportedly does provide such data in English and Fante, but, it seems, only for major cities such as Accra and Cape Coast. Discussions about radio in the four villages indicate that few women own radios (see Part I of the report), and those who do rarely have time to listen to them because they work long days on the farm and are unlikely to be at home when the information is broadcast.

6.4 Village access to broadcast information

A resume of discussions focussing round price information are presented for the villages in turn.

6.4.1 Adabra

At Adabra there were about ten radios in the village, all owned by men. In September 1998 many of the radios were out of use, because the owners did not have enough money to replace the batteries; by February 1999 they were all reportedly in use again. Women generally wait to hear the price at Kasoa market before they take their maize: there is usually someone going to Kasoa for some reason or other. They say they would not consider marketing elsewhere, in any case: 'Kasoa is our market place'.

6.4.2 Sampa

Few women at the richer settlement of Sampa have their own radio. Only the dealer in a group of 15 women interviewed on this question possessed one and she pointed out that as, like most women, she is out from 6 in the morning to 6 at night in the farm she does not have time to listen to see if they give price information. [Another elderly woman in the group remarked that she had heard about prices when passing by someone's radio and advised the dealer to listen].

6.4.3 Lome

At Lome some women have radios and thought that their husbands and children might hear the market prices (in English) on the radio; but, like the women at Sampa, they are generally out early at the farm and thus are unlikely to obtain price information by this means. The main way they learn about local market prices is when someone goes to market to sell.

6.4.4. Abora

In Abora no women own radios (and only four men). They say the market price information if available is only in English (the Community FM station at Apam which broadcasts in Fante has broken down). This apparently used to provide some information on markets. Given the poor harvest in 1998 the lack of price information is seen as immaterial - they generally go to ask the price at Apam market before taking in their maize.

6.4.5 Aworabo, Assin district

There are many radios (perhaps 30 altogether) owned by men in Aworabo, but women say they have no time to listen and, in any case, conditions will have changed by the time they get to market.

6.5 The potential impact of improving broadcast market information

Perhaps if Community FM stations offered better coverage of local markets and broadcast more general market information - for example about wholesaler demand - at night, groups of women might find some incentive to join together to purchase a radio and batteries, and take it in turn to listen, on a rota. Perhaps this would lead to more ambitious marketing expeditions among better-off women. For the majority of women with little money to pay transport costs, however, such expeditions are unlikely to be an option unless coupled with concerted group action to improve transport availability in the village and reduce its costs to women. Moreover, given the volatility of market prices and the prevalence of 'customer' relations it is likely that most producers will continue to patronise local markets.

6.6. The need for other kinds of information

Off-road villagers, as reported in Part I of this report (Section 8.3), are more concerned to obtain production and storage information than price information. Perhaps the best intervention in this respect would be improvements in the pattern of visits by front-line staff and improvement in their training. There appears to be need for much closer supervision of extension agents, and specific emphasis on the provision of information to small farmers including women (who seem to have little contact with the extension service). The front-line MOFA staff encountered in the districts were male: a drive to recruit female staff could assist in efforts to reach women farmers. Improved transport to off-road villages would presumably encourage greater contact with MOFA staff, though funds for transport would still be needed by extension workers. Decentralisation in MOFA may assist the process of increased supervision, since the extension department is no longer a separate entity, but the overall level of staffing also needs attention. (There are plans to improve the extension worker:farmer ratio. In Gomoa in 1995 the ratio was only 1:4653 compared to a national average of 1:2000, according to the District Development Plan).

7 INTERVENTIONS IN THE MARKET NETWORK

7.1 Decline of off-road markets and strategies for revival

As discussed in Part I of the report (Section 8.1), a number of small off-road periodic markets have died over the years in Gomoa and Assin districts. This has increased the distance off-road villagers have to travel to market. The story of one off-road village in Assin which has managed to revive its market was recounted in Part I (Section 8.1.2). The strategy employed is probably highly instructive: the choice of a day for the market on which few other markets meet, and the fact that the market is only held on one day per week (whereas established markets in this region are commonly held two days per week). When establishing a new off-road market, advertisement is probably also vital. In one Nigerian off-road village the strategy employed to promote a new market was to advertise on the nearest paved road junction with large signs indicating the day the market met and that stranger traders were welcome. It was

surprisingly successful. Those villages like Adabra where the death of a traditional market is considered a major loss to the community might consider such an approach to assist in establishing a new market. To look for initial funding from ASIP or the district assembly for market structures before establishing the viability of a market would be unwise; experience in Nigeria suggests that an approach to market establishment which merely emphasises physical infrastructure is unlikely to be successful. Off-road markets are more likely to be successful in areas where agricultural production is relatively high.

8 IMPROVING CROP STORAGE AND EXTENDING VILLAGE-BASED PROCESSING

A separate report by R. Dutton makes preliminary recommendations concerning a number of potential interventions which could assist off-road farmers by reducing losses in storage, increasing profits, and improving value added prior to transportation to market. Interventions discussed include community maize threshers (shellers), a range of cassava processing equipment and inventory credit, but the report stresses the need for further on-site research in the villages to find the most appropriate machinery for local conditions (R. Dutton 1999:34).

9 CONCLUSION

Off-road communities in Central Region, Ghana, face very substantial problems as regards access to markets. Improving access there can be probably best envisaged as a multi-strand strategy involving a range of initiatives. These could include the following:

1. Extended earth road maintenance and improvement
 - an emphasis on grading not gravelling
 - paving of steep slope road sections
 - spot improvements
 - simpler grading equipment
 - greater consultation with villagers to encourage village 'ownership' of roads and thus more maintenance by villagers
 - use of local labour on village roads
2. Improvements in conventional transport services to off-road villages
 - subsidies to transporters who will provide regular services
 - assistance with credit for purchase/maintenance of community vehicles
3. Expanded use of IMTs
 - focus on expanding IMT ownership among women who are the principal crop transporters (wherever vehicles are unavailable) and the principal crop traders.
 - careful 'fitting' of IMT type to age/requirements of user. Carts and tricycle carts seem to be of interest to women of all ages, bicycles more to younger women.
 - draught animals are unlikely to be acceptable without major efforts to change attitudes (thus possibly better avoided).

- areas of hilly terrain and dense tree cover will need special attention. The power tiller is probably useful in the forest zone, but there may be impediments to women gaining access because it is motorised.

4. Improving women's access to credit

- improvements to informal credit organisation are probably more viable in the short term for improving credit access for most women than looking to greater assistance from formal institutions.

5. Given the perceived difficulties of group purchase, use and maintenance of equipment, there is need for further work on ways of building trust for effective group formation.

6. An emphasis on improving information to off-road villagers about crop production and storage (rather than market information)

- closer supervision of agricultural extension agents, more women agents, increased staffing.

7. Some encouragement of new/revived off-road markets through careful selection of (one) market day and advertisement (not through infrastructure provision).

8. Improvements to village crop storage and expanded village processing through provision of appropriate (village-tested) equipment

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APPENDIX: IMT PHOTOGRAPHS USED IN THE VILLAGE STUDIES

headlo10.gif



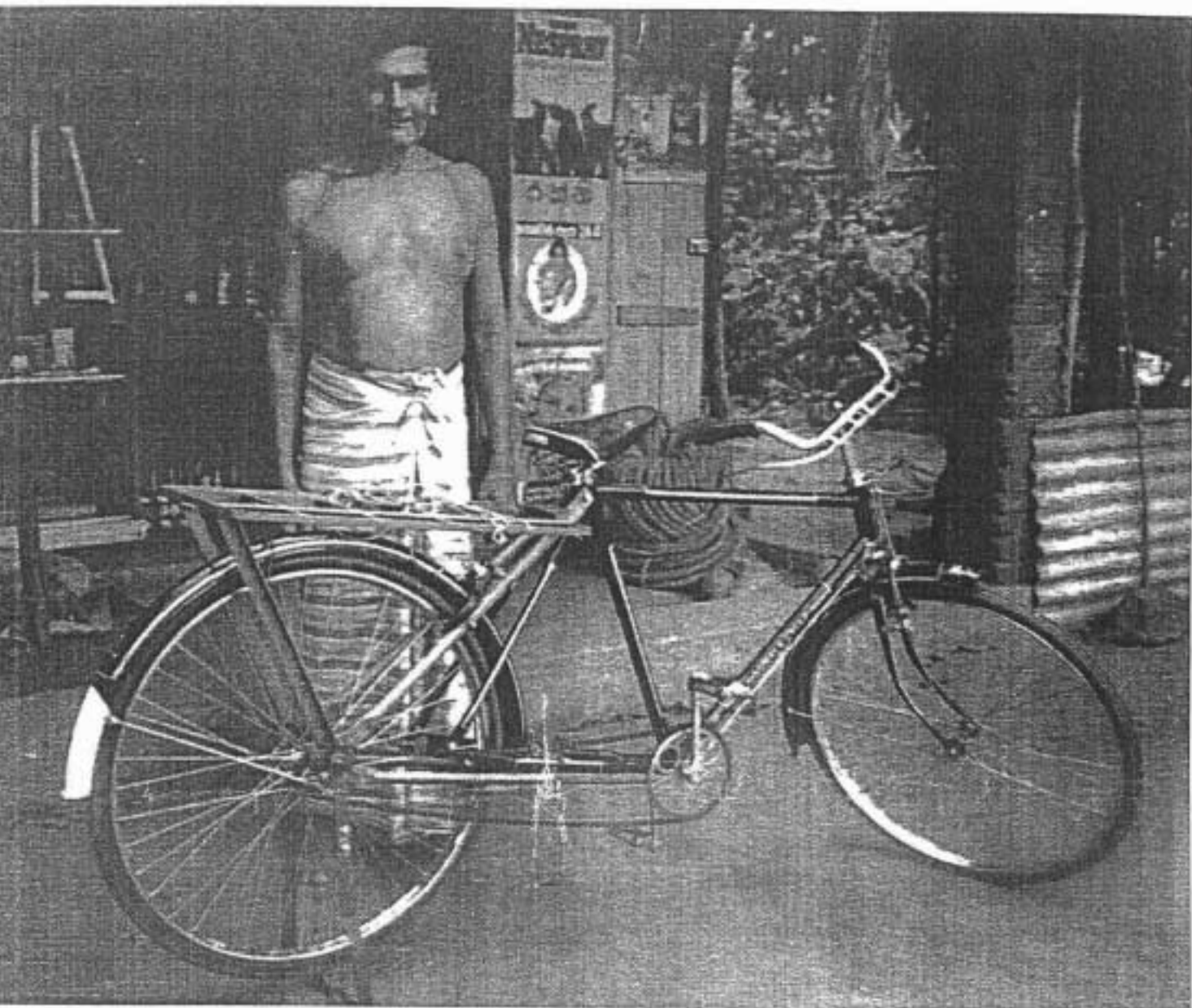






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