

‘I think a woman who travels a lot is befriending other men and that’s why she travels’: Mobility constraints and their implications for rural women and girls in sub-Saharan Africa

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Abstract

This article is concerned with the implications of practices, politics and meanings of mobility for women and girl children in rural areas of sub-Saharan Africa. Women and girls commonly face severe mobility constraints which affect their livelihoods and their life chances. The article reflects on their experiences in rural areas where patriarchal institutions (including the gender division of labour, which places great emphasis on female labour contributions to household production and reproduction), and a patriarchal discourse concerning linkages between women’s mobility, vulnerability and sexual appetite, shape everyday social practices and material inequalities. This compounds the physical constraints imposed by poor accessibility (to services and markets) associated with poor roads and inadequate transport in both direct and more complex ways. The article draws on field research conducted in diverse socio-cultural and agro-ecological contexts in western and southern Africa (principally southern Ghana, southern Malawi and northern and central Nigeria) to explore the impacts of relative immobility and poor service access on women and girls. Three (interconnected) issues are examined in some detail: access to markets, access to education and access to health services. Possible interventions to initiate positive change are considered.

Keywords: gender, mobility, markets, education, health, promiscuity, transport

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Introduction

In many rural areas across sub-Saharan Africa, women and girls face severe constraints on their mobility which affect their livelihoods and life chances. This article reflects on the experiences of women and girl children in rural areas where patriarchal institutions and, in some cases, a specific, if often opaque, patriarchal discourse around female sexual appetite, shapes everyday social practices and material inequalities, compounding the physical constraints imposed by poor accessibility (to services and markets) associated with poor roads and inadequate transport in both direct and more complex ways (Jackson 2001). It is concerned with the practices, politics and meanings of mobility and the ways in which mobility intersects with patriarchal institutions, to help shape male efforts to control female sexuality and gender divisions of labour. As Cresswell and Uteng (2008,2) observe, ‘narratives of mobility and immobility play a central role in the constitution of gender as a social and cultural construct’. Patriarchal constraints impact on the mobility of females from an early age. This relates not only to male concerns around the vulnerability of girls to sexual and other attacks and to their potential promiscuity, but also to gender divisions of labour, which typically place great emphasis on female labour contributions to household reproduction and, in locations where the transport gap is substantial, assign pedestrian transport of goods to females.

While the disadvantages associated with poor physical access to services may be felt by a wide cross-section of population living in remoter rural areas, there is substantial evidence to suggest that the impacts on women and their daughters are consequently particularly severe. Girl children, for instance, are particularly likely to suffer poor access to education services because of impediments to their school-going mobility, while distance and associated mobility factors may be a critical component in women’s access to maternal health services. Access to education and health both have important implications not only in terms of immediate health and educational outcomes, but also for subsequent livelihood opportunities and life chances. For many women, especially those with limited formal education, market trading presents a key livelihood opportunity, but accessing markets can be particularly challenging for women living in remoter rural areas. Other potential openings for earning off-farm income – recognised as an important factor for spreading risk and thus insuring against deep poverty - may be similarly restricted by the dual constraints of distance and travel restrictions.

I draw on my field research conducted in diverse socio-cultural and agro-ecological contexts in western and southern Africa over the last 30 years to explore the material impacts of relative immobility and poor access to services on women and girls. This research has encompassed a diversity of approaches from detailed ethnographic studies to action research and large scale surveys. However, in-depth qualitative research (principally in-depth interviews) has formed a key component of every field study. Three (interconnected) themes are examined in the article: access to markets and livelihoods, access to education and access to health services. The potential contribution of low female mobility and broader transport failures to the maintenance of inter-generational cycles of poverty, through the interconnectedness of these deprivations, is also considered.

In-depth studies of access issues conducted with women and their children living in five off-road¹ villages in the Central Region of southern Ghana over two periods (1997-8 and 2000-2003) provide illustration for all three themes. Linked research with children, their parents and teachers² in other areas of Central Region and the Zomba region of Malawi is also utilised for the education theme and interviews with medical services in Accra for the health theme. Possible interventions to initiate positive change are then considered, drawing specifically on field experience in northern and central Nigeria, Ghana and Malawi. Discussion throughout is further informed by related fieldwork in South Africa, Zambia and Kenya and by relevant literature.

Mobility and access to markets and other off-farm livelihood opportunities

In much of rural Africa, women's principal means of livelihood is through agricultural production and associated trade. In areas with poor or expensive transport services, women commonly face particular constraints in accessing markets. Often, this is not only a factor of limited availability of local markets but also of restrictions on women's mobility which affect their ability to travel.

The expansion of motorised transport and selective road improvements has led to a substantial rationalisation of the rural marketing system over the last 50 years across much of Africa. Markets along good roads easily accessible from urban areas by motorised transport have tended to grow, while markets with poor access have declined and disappeared, unless specific local conditions favour their existence (Porter 1988, 1995, 1997, 2002a). Rural women's marketing mobility may be restricted not merely by limited resources to pay fares (if transport is available), but in many cases because they (together with their children) have heavy labour obligations including head portage for male family members, and additionally because male family members are suspicious of their women-folk travelling long distances from home.

Research in five off-road villages in southern Ghana emphasised the difficulties that women traders experience in finding transport to speed and ease travel. No vehicles were based in the study villages (the few transport owners living there preferred to operate their vehicles from a paved road base, due to the high cost of maintaining vehicles which ply poor roads). Services to and from outlying villages are usually better on market days, but even so vehicles may be full by the time they reach the village in question. It can also be difficult to find a vehicle for the journey home. Even if reliable transport is available, fares charged along poor roads are often double those on good paved roads. For women, whose incomes are commonly well below those of their male family members on account of their poorer access to land and labour resources (a key problem in this region where there are labour shortages), high fares are a severe burden. Moreover, the unreliability of vehicles means that it is rare for women to risk sending their goods unaccompanied to market. Fortunately, some drivers allow the market women they transport regularly to pay the fare at the destination market after they have sold their produce, but these tend to be older long-established traders.

In all five villages some women reported deterioration or loss of produce – notably cassava, but also plantain and some fruit and vegetables- as a result of vehicle unreliability and breakdowns and the impassability of roads, especially after heavy rains. Losses are incurred due to late arrival at the market, because by this time the trader's regular 'customer' may have bought all they need from other traders. In that case, it may be necessary to sell the produce at a much reduced price in order to off-

load goods before finding a vehicle for the long return journey home. However, if such women are observed selling at prices below the town-based traders, they are likely to be admonished by the urban market queens³, who regulate these markets.

Women's relatively poorer access to credit is another major problem for many marketers. In the five Ghana study villages, few women have a bank account; *susu* (traditional rotating credit schemes) might seem an obvious alternative, but there is considerable suspicion of *susu* due to defaulting collectors (Porter and Lyon 2006). Banks are reluctant to lend to those living in less accessible locations, presumably because loan recovery is difficult. Consequently, most women depend on loans from their relatives and market 'customers' because moneylender charges are extremely high: interest rates of 15-20% per month for loans of two to three months were cited.

In addition to the physical transport-related problems observed above, women in the study villages experience other constraints. There has been a tendency to associate cultural constraints on women's mobility in Africa with Islam, but even in regions where the majority of people are not Muslim, there is often still a strong male association of female mobility with promiscuity. In this latter respect it is important to note the potentially contentious nature of women's mobility in many societies, and a particularly widespread association of mobility with female sexual misdemeanour (e.g. Hapke 2001, Silvey 2000, Seligman 2004). In the study villages, where the majority population is Christian, this was a common theme among women and men:

I think a woman who travels a lot is befriending other men and that's why she travels (Focus group discussion with men aged 30 to mid-50s, Sampa, March 2002).

She travelled to a place and returned and then within the same week she wanted to go ... again, so I said she should not go, but she still went. I was angry with her. I often stop her from travelling... we quarrel often about that. (Husband of Efuah, interviewed alone, Adabra, March 2002).

One day my husband told me not to travel, but I disobeyed him and travelled. When I came back he and some soldiers had gone to my land and destroyed all on my land. He went to the landowner to collect my money and told him not to give me the land again [land she had acquired to build a house].....Any time I wanted to travel, I needed to seek permission...If he doesn't want me to go and I go, then he would lock the door and not let me in when I returned (Mary, Abora, June 2002).

Male attitudes to mobility and a discourse that specifically associates mobility both with promiscuity and being a 'bad [uncaring] wife', clearly brings tension within the household, which may escalate into violence if women rebel. It does not prevent most women travelling short distances to local towns on a daily basis, especially since, by convention, women are the principal marketers of most household crops, but it may constrain the time they can spend at market – "he queries me whenever I stay late at market, but he does not stop me from selling" (Akua, Pekuma, January 2000). Many such women can be observed rushing home at the end of a long market day to ensure that their husband's food is ready at the customary time. Marketing thus has to be achieved within the confines of male concerns and expectations: there is an implicit view among men that their womenfolk should attend nearby markets where they are known (and consequent surveillance is ensured) and arrive home before dark. When

coupled with constraints of transport availability and cost, this clearly reduces women's potential to exploit opportunities in more distant markets where there are likely to be fewer traders selling precisely the same product, or where prices could be better⁴.

Women's ability to access markets is likely to have an especially important role to play in pluri-activity, since markets are not only utilised by women for agricultural produce sales but potentially offer access to a range of off-farm opportunities. Many women who regularly take unprocessed or processed farm produce to markets, for instance, if they have the time and available funds from their sales, may also purchase small quantities of groceries or other goods to take home for sale in the village. Moreover, market visits may bring not just immediate monetary profit but also exposure to new ideas and the opportunity to extend social networks⁵. Advantages gained in this way can help women build the capital and connections to diversify into other businesses. There is considerable evidence that pluri-activity is a highly valued strategy in many rural areas of Africa, including remote areas, for insuring against the deepest poverty, not least among women (Bryceson 1999, 2002; Gladwin et al. 2001; Canagarajah et al. 2001). While women's more restricted access to labour and land resources is sometimes recognised as a constraint on their potential for pluri-activity, cultural and physical restrictions on female mobility are probably another crucial factor reducing or inhibiting their development of lucrative off-farm enterprises. In remoter areas, where credit availability is limited and potential opportunities for making substantial profits through marketing hampered by the costs of getting to market and the hazards associated with late arrival and spoilage of goods in transit, it would seem that women will be less likely to be able to obtain such advantages. In Ghana's Central Region, mobility restrictions only *reduced* the scope of women's marketing potential, but in other regions such as Borno, in north-east Nigeria, some women's market access was severely curtailed in the context of their very restricted mobility and a decline of off-road markets (Porter 1988, 1995).

The potential significance of patriarchal institutions for women's mobility and livelihoods is occasionally evident in other studies. Canagarajah et al (2001), in their analysis of the Ghana Living Standards Surveys, for instance, find a significant difference in earnings potential in rural Ghana between female household heads and other women and suggest that this may be because female heads are freer to pursue more lucrative work opportunities farther from home. We can also hypothesise inter-generational impacts: women who make good profits at market and develop off-farm incomes are more likely to be able to afford school fees for their children, and to pay health care for their families and themselves in contexts where they expect to (or end up) paying for such items. In research in Jos, northern Nigeria, many Ibo and Yoruba women traders we interviewed gave children's school (and university) fees as a key focus of their trading activities. The linkages between gendered mobility potential and diversification (and their inter-generational impacts) would merit further research.

Girls' physical access to schools and its impact on livelihoods and life chances

Children living in remoter rural areas with poor roads and poor or expensive transport services commonly face substantial problems in accessing educational services due to a mix of factors which influence access, persistence and performance of both sexes. However, as Avotri et al. (1999) argue for Ghana, these may have a particular impact on girls' enrolment and attendance patterns. The sort of pressures girls, in particular, may experience can be illustrated by our discussions with a group we accompanied on the four to five kilometres walk home from school in southern Ghana (Porter et al.

2010). The main route from school to the villages it serves is a narrow laterite road, only plied by transport on the two local market days each week: the vehicles are full of market women and, in any case, school children cannot afford to pay fares.

Faustina, a 13-year-old pupil, always walks to and from her junior secondary school with a girl friend who lives close by. If her friend is sick she prefers not to attend, as there are places along the route where the road is narrow and the grass is high. She has heard stories of people being beheaded there and is scared to pass on her own. When she was late to school earlier in the week (because of jobs she had to finish at home), the teacher made her carry sand to school (for classroom construction) as a punishment. Another (11-year-old) girl at the same school, Effie, had lived with her sister in Tema where schooling was better, but was forced to return home because her sister was unable to pay her fees. Like Faustina she has tasks to complete before she can leave her village for school (fetching water, sweeping, refuse disposal): she takes money for food when she gets to school as there is no time to eat breakfast at home. She also fears a particular place along her route where ghosts live, and so is keen to ensure she walks with her elder brother, but he is usually ready to leave home before her (because he has fewer household tasks to perform): if he has gone ahead she runs at speed along this section. A third 14-year-old girl, Abigail, has been living with her grandmother in the village since her parents separated. Her main problem about getting to school is not so much the distance (four kilometres) she says, but the work she has to do before school and the fact that she is not given food until she returns home from school. She arrives at school tired and hungry, which makes concentration difficult. By contrast with the girls, the boys we accompanied along the same route complained more about the distance, but still found time to play (football and fights) along the way. Like the girls, they are keen to avoid being late, because of fears of punishment, but they appear to be more commonly delayed by games than household tasks.

Accompanying three schoolgirls (around the same age as the Ghanaian students i.e. early- to mid-teens) on a four kilometre route from their primary school to their home in a relatively remote area of the Shire Hills, Malawi, similar issues to those raised by girls in Ghana emerged, but with a stronger emphasis on specific fears of attack and rape. In this case the girls normally walk together, along a narrow footpath which crosses five streams. In the wet season the route is potentially dangerous because of the slippery path, steep slopes and streams in full spate. If the rains are very heavy they sometimes wait to see if water levels subside but may then have to take a more circuitous route. None of these girls have shoes for the walk to school, unlike the Ghanaian children we accompanied. One of the girls, Annie, who was fostered by her aunt, was particularly concerned about being late for school because of the household chores she had to complete before starting school.⁶ If children are late, we were told, they are sometimes allowed to join the lesson in progress but at other times are sent directly home, despite the fact that, in their case, this entails a long and potentially hazardous walk. When they are very late they sometimes feel it is wiser to play truant.

All three Malawian girls had stories about ghosts, witches, bandits, wild animals and snakes they had encountered en-route to and from school. They had once been chased by dogs, once by a 'mad man'. The eldest of the girls, aged 16, who has undertaken this journey to school since she was five years old (walking with her older siblings at first), said she had recently been chased by five older boys intent on rape. When we interviewed parents and teachers in this area, they very frequently raised the issue of rape and teenage pregnancy: we were told that most girls in this area do not

finish school because they get pregnant. The implication in some cases (illustrated further below), was not only around girls being prone to male attack, but also that girls encouraged the sexual advances of boy pupils.

In both Ghana and Malawi, girls at all ages are expected to perform substantially more house work and associated chores than boys. However, although household chores impose a common burden on children, which may impact on school attendance in both rural and urban areas, the burden is especially severe in many remote rural areas where the transport gap brings additional demands especially for girl-child labour as transporters. This is exemplified by the relatively remote Shire highlands village in Malawi (approximately eight kilometres from the paved road, on a laterite road of adequate condition to allow motor access but with no regular transport passing through) where many children are absent from school on two days each week when markets are held in nearby towns since they are required to carry firewood for sale. The (female) head teacher observed that many pupils suffer lack of concentration, ill health and illness because of these chores, but this is particularly the case for girls. Unsurprisingly, girls in this village tend to be less successful in the competitive examinations for entry to secondary school. Only five out of 30 eligible children (four boys, one girl) had been selected in the previous year, so the remaining 25 who were not selected (boys and girls) are mostly enrolled as 'night scholars' at the secondary school eight kilometres away (i.e. paying for lessons from the teachers after the school day has finished there). The night scholars (usually around 13 to 15 years old) walk to school in daylight but must return home in the dark: this poses hazards for girls. "The older girls who attend [the secondary school] because it's so far and it's a night school and they come back late with the boys, they form 'marriages', then they get pregnant and drop out...." "Girls just fall into marriage" (Focus group discussions with four mothers in their 30s and 40s).

Clearly, in remote rural areas with poor and expensive transport services, like those described above, the barriers faced by many children in accessing even a basic education are impossibly high. But girls in particular may never be enrolled at school or only attend intermittently, not least because of their required role as porters to fill the transport gap. For those girls who are enrolled, the heavy burden of household chores required of them before they leave for the long walk to school each morning seems to be ubiquitous. Fear of punishment for being late (due to the work followed by a long walk) in some cases encourages truancy, while failure to perform well at school may often be associated with exhaustion. There are also dangers associated with travelling alone along remote paths, or in the dark, such that parents living in remoter locations may prefer to withdraw their daughters from school at a young age (or not to send them at all) if they must travel alone. High rates of pregnancy, in any case, are commonly presented by parents and teachers as a prime cause of school drop-out for girls in many rural areas.

The cases above illustrate the ways in which distance and transport constraints on mobility intersect with patriarchal constraints in an education context. Parental concerns about girls' vulnerability and sexuality are intertwined with the gendered division of labour which itself often incorporates a strong (gendered) transport component. In contexts where daughters' labour contributions are commonly viewed as essential to family production and reproduction, their household tasks are required to take priority over arrival at school (on time or at all). If the journey to school is potentially hazardous, especially in terms of sexual liaisons (whether consensual or not), it can be forgone. A fear of daughters becoming pregnant is expressed by both mothers and fathers in the cases described above: it is a realistic fear that probably

encompasses both moral and material concerns. There is not only the possibility of censure within the community associated with a daughter's perceived waywardness, especially if the liaison is with an inappropriate man (already married, wrong clan, etc.), but for mothers, in particular, there is the daunting prospect of yet another mouth to feed.

In such circumstances it is hardly surprising that so few girls are able to obtain even a basic education, that early marriage and motherhood are so commonplace, and that the opportunities for women to develop a livelihood which will lift them out of persistent poverty are so few. The majority of girls are condemned to follow a life very similar to that of their mothers and grandmothers before them, competing in the same narrow economic niches for the same meagre rewards. There are potentially far-reaching implications. The linkage between fertility rates and female educational level is now well established (e.g. Ainsworth et al. 1995; Scribner 1995), but there is also evidence to suggest that girls' educational attainment has inter-generational impact through its effect on their child-rearing practices and the health of their children (Kabeer 2005).

Transport and mobility impacts on girls' and women's health and access to health services

While educational disadvantages imposed by mobility and transport impediments on girls and women are likely to be severe, the consequences of their poor access to health services may be fatal. Clearly, distance is not the only impediment to health care access – treatment fees commonly impose an even greater barrier (Airey 1992; AU/UNECA 2005) - but in emergencies (where treatment fees are waived in some places and cases) distance and transport failures may impose a critical hurdle (Murray and Pearson 2006). In Masvingo, rural Zimbabwe, access to transport was an implicating factor in 28% of maternal deaths, as opposed to 3% in urban Harare (Fawcus et al. 1996). In a rural area of Gambia, where maternal mortality rates are among the country's highest, Cham et al. (2005) cite specific cases where poor roads and inability to access transport from home to health centre or from health centre to hospital were implicated in subsequent death of the patient. While interviewing rural women recently about access to health care in Malawi and Ghana, I have been surprised how many have, without prompting, pointed out one or even two of their children around them who were born on the roadside while they were walking to the clinic (usually accompanied by female relatives). Grieco's toolkit (2005) on gender, transport and maternal mortality is highly persuasive of the urgent need for improvement in this field.

The immediate dangers of poor access in the case of emergency obstetric care are obvious, but longer term health problems for women caused by failure to access timely health care are also now gaining attention. The health and socio-economic problems associated with obstetric fistula (caused by obstructed labour) are particularly severe: women suffer incontinence and thus may be ostracised socially, consequently finding it difficult to make any kind of living (GATNET communication, Bradbury, 26/4/2006). Delays in accessing care may be caused by many different factors, including delay in treatment after arrival at the clinic, but delays in decision-making (including the need for approval of male family members) when compounded by remoteness and inadequate and costly transport are commonly a substantial contributing factor. In a recent study by Addis Ababa fistula hospital, among the causes patients gave for failure to obtain early treatment, distance figured above other factors (distance 28.2%, distance and economy 23%, poor knowledge and

distance 2.3%): the average time taken to reach the nearest road on foot was five hours (Muleta 2006).

The opportunity costs of travel time in remoter areas are also emphasised by McCray (2004) in a study of prenatal care in KwaZulu Natal, South Africa. Limited disposable time available to rural women areas on visits to healthcare facilities because of lack of basic infrastructure (notably water) in rural areas (and despite the fact that health care is free for pregnant women and children under six) has an adverse impact on uptake. The article raises an important issue concerning mobile clinics: many women did not take advantage of them because of the difficulty of physically reaching the mobile points and the clinic schedules which begin in the afternoon and result in patients waiting late into the evening when transport is scarce or unavailable for the journey home. Another recent study in the same region suggests that wherever homesteads are located over one hour of travel time from the nearest clinic, usage declines rapidly with distance (Tanser et al. 2006).

Interviews with health staff working in rural Ghana reinforce this perspective. The maternal and child health officer in a health NGO who had many years experience in remote rural areas described graphically some of the problems she had personally faced:

In Western Region we walked about seven kilometres to the people because they couldn't come to us. We worked until 6 pm, but then they found it difficult to go in the forest to go home, so they left at 2 pm. In off-road places we think they're protected with vaccinations but they're not. Some didn't get attention there are the regular child welfare clinics but she [the mother] can only take one at a time and the most precious one is the youngest. In Eastern Region at places likethere are about 230 mothers waiting. By 2 pm we've only done one third and they don't want to walk alone so they go home. You'd find six to nine-month-old children not immunised and they become too old eventually to get them under the vaccination programme. We'd get up at dawn, find drivers in the agriculture department, education, even some timber firms- when the drivers meet us they'd pick us up. But in hilly areas you have to walk. It tells on the health of nurses too. (interview, Accra, July 2003)

The role of girls in pedestrian portorage (load carrying) was raised as a factor reducing access to education, but portorage by girls and women also needs consideration as a potential health risk. Many walk substantial distances each day carrying heavy loads, often while pregnant and/or with a baby on their back. Even very young girls generally carry water, but often will be expected to carry firewood and agricultural produce too. In coastal Ghana, girls of eight or nine years were regularly encountered carrying heavy baskets, buckets and trays of cassava and maize (weighing between 10 and 20 kg): when asked whether this caused discomfort some mentioned headache and neckache, or waist pains (and it was noticeable how frequently this was the case among fostered girls) but they tend not to complain to their parents or carers. During a small load carrying survey (outside the peak season for loads) in our five off-road study villages (dawn to dusk, on one market day and one non-market day) we found all inhabitants carried very heavy loads: the maximum for girls under 18 was 34 kg, while one woman was recorded carrying 63 kgs of fuelwood with a baby on her back, over a distance of 8.2 km.

The majority of evidence about health impacts of carrying heavy loads is anecdotal, but includes reference to backache, head and chest pain, miscarriage,

deformation of the spine, osteo-arthritis of the soft tissue of the knee, etc. (Carr 1983; Mudzamba and ILO 1998, 12; Turner and Fouracre 1995; Doran 1996, 23, 61). There may possibly be inter-generational impact too (Doran 1996, 61 cites an ILO study regarding the high incidence of miscarriage among fuelwood porters in Ethiopia; Curtis 1986). In recent discussions with female health staff in a rural hospital in southern Ghana and other women in Ghana and Malawi, I found little credence placed on the significance of such load carrying for health (except possible lower back-ache in later life, where exceptionally heavy loads had been carried over a lifetime): head loading is simply considered part of a woman's 'normal' work: 'they are used to it, those living here' (senior nursing officer). However, in interviews with girl children in Ghana, headache and neckache were often raised as outcomes especially of carrying fuelwood (and sufficient to require treatment with painkillers).

Although not so immediate in their impact as access to emergency obstetric care, access to pre-natal and other health services, including family planning, clearly has the potential to significantly shape not only women's livelihoods and quality of life but also the lives of their children. With health, as with education, the particular disadvantages associated with residence in remote rural areas distant from service points are considerable, especially for women. Women's need for emergency obstetric services may put them at immediate life-threatening risk in remote locations, but distance from health centres and hospitals is also likely to reduce their ability to access a range of preventive and curative services with potential longer-term impacts. This puts them more at risk of chronic health problems with potential consequences for their ability to make a living in future. Not surprisingly, poor health is a common component of the chronic poverty scenario. Fortunately, the significance of transport and mobility impacts on women's health is gaining growing attention and an international networked research project on mobility and health in progress (www.mobilityandhealth.org) offers the promise of crucial new evidence.

Possible interventions to initiate positive change

The previous sections have emphasised the weight of disadvantage which women, in particular, may face as a result of residence in less accessible and remote areas, in terms of education, health status and economic opportunities. Interconnections between these factors may reinforce each other, thus further deepening patterns of deprivation. Consequently, it is vital that interventions are identified which can bring positive change for women and their daughters. New opportunities for mobility may have the potential to reshape women's life course in complex ways, with far-reaching consequences: an exciting but challenging prospect.

Improved accessibility has conventionally been perceived in terms of road construction or improvement. Road construction superficially appears an obvious way of counteracting the negative effects of physical distance and time spent travelling to key services by women and girls in less accessible regions. However, the impact effects of road interventions can be complex and certainly not necessarily beneficial to all women. Firstly, there is the obvious fact that roads are not enough, i.e. they must be accompanied by improved transport services (Dawson and Barwell 1993; Ellis and Hine 1998)). Low-cost, regular and reliable conventional transport services are hampered by the relatively low density of population across much of Africa. But even where good roads exist and are plied by relatively regular motorised transport services, it is very common to see women and children walking alongside the road because they cannot afford the fares.

Meanwhile, in areas away from new and improved roads, the overall impact on women may be negative. There is substantial evidence, particularly across West Africa, of market relocation following road improvements to the roadside and accompanying decline of markets which are now considered less accessible. Typically, transporters prefer to channel their vehicle operations along the better roads and urban-based traders who travel out along the improved arterial routes start to focus their activities at accessible roadside markets, only penetrating remote areas when they are short of supplies. Detailed work in two regions of northern Nigeria following the road construction boom during the 1970s and 1980s illustrated how the boom negatively affected some women resident in off-road areas: the effect appeared to be particularly marked in Muslim Borno where women were not secluded but younger married women were restricted in terms of the distance they were able to travel without experiencing censure (Porter 1988, 1995, 1997). In both Borno and the Jos Plateau, road construction appeared not only to impact on market health but also on the (already limited) range of services available in off-road villages. For instance, when a primary school at one Plateau village collapsed during the rains, it was not replaced: children were now required to walk eight kilometres to the school but could only do so when access was possible: the road was often closed during the rains. Loss of off-road facilities may be almost inevitable when, as so commonly happens, there is substantial relocation of population to the roadside, following road construction or major road improvements. New and improved roads may also bring other burdens to women in their widely ascribed role as carers, due to higher accident rates (associated with higher speeds and traffic volumes) and increased HIV/AIDs transmission at truck stops (Kwamusi 2002; Ferguson and Morris 2007).

Intermediate Means of Transport (IMT), including bicycles and motorcycles, can have an important role to play in improving mobility where conventional motorised services are poor. However, there is a substantial literature which charts how IMT ownership and use is widely male-dominated as a result of economic and/or socio-cultural factors. These may include women's more limited resources to purchase transport equipment, their restricted access to equipment belonging to male household members when the latter view IMTs as symbols of social status and prestige, women's perceived lack of physical strength to handle draught animals or push heavy carts (Grieco et al. 1996, 92-3; Porter 2002b; Flanary 2004), cultural prohibitions on women handling animals, and perceived gynaecological dangers in riding astride transport equipment (Porter and Blaufuss 2002). Association of IMTs with improved personal mobility and women's perceived increased potential for promiscuity or for empowerment may be an underlying factor affecting individual male attitudes in many cases.

The low uptake of bicycles by girls and women provides a good example of the issues. This has been observed in many parts of rural Africa, including those areas where male cyclists are common (Malmberg Calvo 1994a; Grieco et al. 1996; Mwankusye 2002; Flanary 2004). In southern Ghana we ran an action research project in which women (who had previously expressed an interest in bicycles) were offered cycles on credit. Despite the availability of women's cycles (without a cross-bar, which is sometimes suggested as a reason women do not cycle), all the women selected cycles with a cross-bar and handed them over to male family members. Most women had never had time or opportunity to learn to cycle in childhood and were too nervous to learn, despite our efforts to encourage and teach them. However, in other parts of rural Africa, including areas with substantial Muslim populations, women cyclists are becoming quite common: for instance at the southern end of Lake

Malawi, and in northern Ghana. It would thus be unwise to suggest that change will not occur: once a critical mass of cycles exists not only will repair facilities and spares be more easily found, but cultural inhibitions may gradually disappear.

The provision of cycles and motorcycles to women health workers and to NGO staff can not only make an important contribution to health service provision but may also help in improving their acceptability in the wider population. The impact of motorbikes among nurses in Navrongo, northern Ghana, is described by the maternal and child health worker cited earlier:

... all the nurses have motorbikes. They are off [to the villages] and by 2.30 they are back [at the health centre], all done. A big improvement. It's expensive but you are able to do more and it breaks the outreach size into small pieces. You can't do that when walking. [prompt] There's no problem with women riding motorbikes. In the north they're used to riding bikes, even women of 45. Down south now it's become the fashion to ride a motorbike.. that's brave.. you actually mean business...this girl is serious with her work ... there's a nutrition officer from the north in Central Region. She rides her motorbike up and down, she can even go home [to the north] and back.. after some time some people also decided they must get motorbikes.⁷

Another example where motorbikes and bicycles have had some positive impact on women is to be found in the recent massive expansion of motorbike and bicycle taxi services in some parts of rural Africa. They commonly operate from market centres and major paved road junctions into remoter areas. I have not yet come across any example of a woman driving a cycle- or motorcycle- taxi, but on the Jos Plateau, Nigeria, and reportedly also in other regions, there are some (richer) women owners who profit substantially from motorbike taxi businesses. In most rural regions these services appear to be patronised more by men than women, but younger women also use them, as Iga (2002) and Howe (2003) show in Uganda. On the Jos Plateau, despite the speed and dangerous driving of the young male drivers and the high fares (approximately double the standard bus fare), many rural women see motorcycle taxis as a lifeline when medical emergencies arise, particularly in the wet season when motor vehicles have difficulty negotiating rural roads (Porter 2002b). More recently, in an interview with bicycle taxi operators in a rural trading centre near Zomba, Malawi, when operators were asked about their women clients, they explained how they require women to sit in the middle of the carrier, astride the cycle. The majority of their clients (male and female) are resident on bush roads: the bicycle-taxis are hired to carry women back home after market or, less commonly, for visits to the clinic. While usage is obviously restricted by cost, cycle and motorbike taxis offer relative speed compared to walking, (door to door) convenience, and may provide a lifeline in emergency situations.

Other IMTs, such as hand carts, which do not improve personal mobility but can be used for transporting loads within the village area, may still offer significant advantages in terms of reducing women's time poverty. In our Ghana IMT study, the locally-manufactured push trucks obtained by women through the project were mostly operated by boy children and men, but women in the families felt some benefit. Individual interviews with women recipients and their families indicate the potential for change:

now he can just send the truck while I work in the house.... I go less to his farm now than previously. If he wanted to fetch firewood I needed to go with

him, but now he can just use the truck and the children to fetch it. (Miriam, interviewed alone, Lome, March 2002).

A lot of work done by women I can do now, because I don't carry, but I can use the truck.....Now for the firewood I can convey it to the edge of the village with the truck, but because of our custom a man shouldn't carry firewood, but with the truck I can. (Miriam's husband, interviewed alone, Lome, January 2002)

There has also been a reduction in the amount of heavy crops carried by women. One year after the introduction of the IMTs, despite some reduction in optimism, 74.7% of women in our sample survey (75 men, 75 women) felt that the IMT impact had been positive, and 62.7% that the positive change was very substantial. Just 5.3% of women suggested that change had actually been negative. In the case of pushtrucks, however, complementary pathway improvements are often necessary so that trucks can be moved into the main farming and fuelwood collection areas.

The emphasis so far in this discussion of potential interventions has been on removing constraints on women's physical mobility. However, planning focused solely on improving mobility through conventional road and transport provision may actually enhance gender biases, since benefits from such interventions tend to accrue particularly to those already mobile i.e. male vehicle owners (Masika 1997, 9). Moreover, mobility *per se* is not necessarily desirable, especially if it is required simply because of poor access to work and facilities (Bryceson et al. 2003, 43). There is a range of *non-transport interventions* which could improve access to resources and thus substitute for some mobility with substantial benefit for women, both in the context of their time poverty and, in the case of poorer women, their lack of funds to pay for transport equipment and services. Basic interventions such as installation of improved water supplies, community woodlots, more efficient wood-burning stoves and crop-grinding mills are often suggested (Malmberg Calvo 1994b; Doran 1996, 12). These would all help reduce women's labour inputs, including portorage, and are thus likely to bring improved health, greater opportunities for girl children get to school (and arrive punctually), and also potentially release time for women to travel outside the village area. Other elements of improved local service provision, particularly primary schools and health centres, are also important. The trend to decentralisation in most African countries might have been expected to bring a substantial improvement to rural service delivery, but evidence of positive change is sparse. Schools and health centres which lack equipment and adequately trained staff may offer little benefit to the communities they ostensibly serve. It is extremely difficult to recruit and retain good staff in remote areas.

The potential for ICTs (mobile phones, VHF radio, internet etc.) to allow for elements of mobility substitution in health, education, trade etc. and for more efficient use of transport in Africa is beginning to look more promising. Although concerns that the structural barriers of time- and income-poverty which currently constrain women's access to transport will similarly affect access to ICTs are regularly expressed (Schreiner 1999; Rathgeber and Adera eds. 2000; Fuchs and Horak 2006; Nite Tanzarn, GATNET contribution, 31/05/2005), recent developments, particularly in the expansion of mobile phone coverage, are very encouraging. In the context of maternity referral, Murray and Pearson (2006) relate how radio-telephones in health centres have reportedly been used to reduce average transport delays in Malawi, while in Uganda solar-powered VHF radios with a fixed base station at health centres and

walkie-talkies for Traditional Birth Attendants (TBAs) are used in the RESCUER project. Overa's (2006) study of the impact of mobile phones on traders in Ghana indicates their potential in a marketing context, saving time and transport costs, though in the case of trading advantage this depends particularly strongly on the integrity of the person taking the call! When a one minute call can cost as little as 300 cedis in Ghana, and a taxi fare costs 5000 cedis per 'drop', the potential advantage of substituting visits with a phone call, where feasible, become obvious. Increasingly, across Africa, rural service centres have call booths where even those without a phone can make calls. It is often women who are to be found operating (though probably not owning) these street-side businesses.

Conclusion

Physical remoteness and isolation often compound the effects of poverty and deprivation. For women and girl children the implications are particularly severe. This article has emphasised the interconnectedness of deprivations associated with remoteness, women's and girls' poor access to transport, basic (health and education) services and markets, and the gendered division of labour. Although transport failures play a significant role as a barrier to service access in some areas and for some women and girls, a more pervasive and fundamental issue is that of the patriarchal institutions that shape everyday social practices and material inequalities and thus constrain their mobility potential. Girls living in less accessible areas often drop out of formal education not simply because the school is too far, the transport costly or inadequate, but because the work required of them before they leave for school is particularly onerous and time-consuming (by comparison with boys). This puts pressures on them which are compounded by a long and sometimes hazardous journey to school and fear of punishment if they arrive late. Exhaustion as a combined result of heavy pre-school work duties and a long journey to school are also likely to reduce concentration in class. Time poverty, when compounded by remoteness and the necessity of a long walk or journey to services, may similarly be a key factor preventing women's access to timely health care: this has particular serious implications for maternal and reproductive health. In the case of market access, unavailability or high cost of transport probably represents a particularly substantial component of the barrier to travel, since unlike travel to school and health services, marketing usually requires transport of loads. However, the weight of demands made on women in the home seems to be regularly reinforced by male association of female travel to distant markets with promiscuity and leads to reluctance to enable women to be more mobile. For men, the potential of mobility to produce and change societies may be only too evident.

There is a range of transport and non-transport interventions which could ease rural women and girls' mobility and accessibility constraints. Of these, the recent spontaneous diffusion of motorbike- and cycle-taxis and mobile phone communications seem to offer most potential for dramatic improvement in cases where mobility is particularly crucial, notably health emergencies. Yet, despite their promise, these interventions cannot address the more fundamental problems of restricted mobility associated with gender inequality and time poverty still experienced by most women. In this context, IMT and non-transport interventions focussed on reducing load carrying for girls and women in the village area are likely to be a crucial complementary approach.

To conclude, the so-called new mobilities turn in the social sciences (Sheller and Urry 2006) has impacted little to date on either academic or practitioner spaces in

the global South. There is an urgent need for a stronger focus on gendered mobility and access issues within the gender studies and development communities: transport remains a surprisingly neglected area among gender specialists working outside Northern contexts and transport specialists are still reluctant to take on gender issues⁸. In the meantime, the prospects for the many rural women and their daughters who live in areas characterised by poor physical accessibility, inadequate transport and a socio-political context which reinforces their low mobility potential, will remain extremely poor: the potential implications in terms of inter-generational transfers of poverty are evident.

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¹ 'Off-road' connotes villages located away from a paved or good gravel road.

² This ESRC/DFID-funded study is led by the author. See www.dur.ac.uk/child.mobility/ for collaborators and other details.

³ Female market leaders in the Asante and Asante-influenced regions of Ghana are referred to as queens (see Clark 1994, 252).

⁴ However, many of the village women interviewed also felt they could be cheated by traders in larger, distant markets (particularly through manipulation of measures). Strong 'customer' relations in the closest market offer not only a more assured market for goods, but also potential benefits in terms of credit.

⁵ Bryceson (2002) argues that the family downsizing reported in many regions of Africa is being addressed by "a counter tendency on the part of women to seek wider spheres of economic and social support".

⁶ Such chores commonly seem to be especially heavy among fostered girls in both Ghana and Malawi.

⁷ The Ghana Ministry of Health, she observed, had a standard scheme with national and regional trainers, including 'peti-peti maintenance' (how to remove a plug, clean it and tighten the bolts).

⁸ Mandel's (2004) research in urban Benin is a rare exception.

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