REPOSITIONING THE RURAL TRANSPORT AND DEVELOPMENT AGENDA: CHALLENGES FOR EASTERN AND SOUTHERN AFRICA

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ABSTRACT

The purpose of this paper is to highlight the issue of rural transport as a distinct and important component of transport research and policy agenda in Africa. Drawing on the long experiences that the authors have in interacting and working with the International Forum for Rural Transport and Development [IFRTD][1], the paper argues that taking an integrated approach to addressing rural transport issues is a key path to sustainable rural development. The paper advances a holistic view of rural transport, highlighting the importance of not only focusing investments on the physical elements of transport [infrastructure/vehicles], but also in understanding the outcomes of such investments on individual men and women, households and society. Such a holistic view enables us to recognise the general and differentiated purposes for which transport is required, and the existence of a wider range of transport means and infrastructure solutions than are conventionally presumed. The paper argues for increased planning convergence between the transport sector and other service sectors such as health, education, agriculture and trade, in a way that can enable transport to play its role in accelerating the attainment of overriding policy objectives such as poverty reduction, sustainable economic growth and the Millennium Development Goals [MDGs]. The paper concludes by arguing for increased mainstreaming of existing and new rural transport knowledge through inclusion in transport curricula, cross-sectoral research and publications.

1. INTRODUCTION

Transport is a key ingredient in the development of rural areas, providing people with access to the various goods and services they require for their daily needs as well as safeguarding their livelihoods. Efficient transport enables access to markets and services, information, opportunities, places and networks that are crucial for human development. Transport investment programmes therefore have outputs that go beyond the development and or maintenance of road infrastructure, or reduction in vehicle operating costs. Important development outcomes from transport investments include poverty reduction, improved access to services such as health and education, and integration to mainstream markets and

[1] IFRTD is a global transport network of individuals and organisations working towards improved access and mobility in rural areas. IFRTD has a significant presence in the Eastern and Southern Africa region. Please visit www.ifrtd.org

political processes.

In many countries however, transport policies and programmes are often restricted to the development of physical infrastructure for transport, especially roads. Investment in transport is justified on narrowly defined economic criteria, and is often seen as a technical process through which the cost of physical movement is reduced, resulting in increased economic efficiency [Njenga & Davis, 2003]. As a result, the institutional frameworks for transport development in many countries are based on narrow technical mandates often inhibiting the kability to create synergies between transport infrastructure projects and development objectives in other sectors.

Over the last three decades there has been a tremendous growth in the body of knowledge critiquing the conventional approach to the rural transport research, policy and practice in developing countries. A more holistic perspective, that places people at the center of rural transport plans has been emerging. The IFRTD has been a key player in ensuring stronger links between rural transport investments and the broader aims of human development.

1.1 Evolution of the Rural Transport Discipline

The emergence of rural transport as transport sub-sector with its own particular set of issues that require specific policies, institutions and planning tools has only occurred in the last 25 years or so. In the late 80's, studies in a variety of disciplines started to confirm an incipient perspective that transport policies and programmes that focus exclusively on roads and a presumed growth in motor vehicles were not having the expected economic and social impacts in rural areas [for example Barwell et al 1985, Edmond and Relf 1987, and Barth and Heidman, 1987. The reasons for this included; the inability of fledging economies to maintain existing infrastructure, the over-specification of rural road standards, and limited growth of motorised transport services. A profound finding was that in the majority of cases, there was a complete disjuncture between roads and the transport patterns of the rural population.

In a ground-breaking and boldly titled book, "*Roads Are Not Enough*" Dawson J, and Barwell I, [1993], argued that the pattern of development of modern transport facilities in developing countries was stimulated first and foremost by the needs of a colonial economy to speed up the transportation of primary products to markets in Europe and North America. Other functions included the need to transport food to growing urban centres and the establishment of administrative and judicial structures. The network of infrastructure that emerged was concentrated in areas endowed with valuable primary commodities. This pattern of infrastructure development continued in the post-independent period with arterial roads opening up new "high potential" areas. In many African countries during the 1970s, transport became the largest single public investment sector, with highway construction taking the lion's share [ILO, 1979].

The highway expansion approach received strong support from multilateral and bilateral agencies, and by the late 70's, transport accounted for almost a quarter of World Bank loans and one-fifth of International Development Agency credits. [Dawson and Barwell, 1993] In addition, transport research was also heavily biased towards roads, with an estimated 94.5% of World Bank funds targeted for transport research going to the road sub-sector [Ibid]. The mid 70's saw a shift of focus from major trunk roads to rural access and feeder roads. This was a reflection of shifting priorities towards agriculture and rural development among international development assistance agencies. This incremental approach to infrastructure

expansion was however underpinned by an assumption that there would be corresponding growth in motorisation. It was in turn expected that the increased motorisation would meet the transport needs of rural communities, grow local economies and subsequently generate a local revenue base that would help maintain and expand the rural road network.

According to Howe [1997], progress towards the goal of universal motorised travel in rural areas has been very modest at best, and uneven in most cases. Dawson and Barwell, [1993, ibid] argued that a lack of consensus over the impacts of roads on local communities was a good reason to question the conventional approach to transport planning. It had for instance become evident that the local impacts of a road were determined by more variables than its length.

According to Lema and Njenga et al [2006], the complexities in understanding the impacts of rural roads led to the search for a new approach that shifted the emphasis of rural transport from an exclusive focus on roads, and towards understanding the travel characteristics of rural people. Unveiling the access needs of rural households was therefore seen as a fundamental basis for designing a rural transport investment programme.

To test this approach a pilot project was implemented in 1985 in Makete District, Tanzania. The project known as the Makete Integrated Transport Project [MIRTP] innovated the use of a household survey as a way of analysing the domestic, social and economic transport demand of a household. Similar work in Ghana, Uganda, Zambia and Zimbabwe led to the proliferation of published and unpublished studies showing the significant transport burden in rural households, These studies also initiated the notion of gender disaggregated household travel data and demonstrated the extremely high burden of rural transport that is borne by women and girls.

The notion of a transport planning approach based on household analysis challenges established tools such as cost-benefit analysis, that have years of tradition in research, policy and practice. Howe [1997, ibid] notes that the implementation of such policies implies the need to combine a much wider and heterogeneous range of investments than has traditionally been the case with road investment programmes.

1.2 Emergence of IFRTD

In order to help disseminate the emerging knowledge on rural transport and to accelerate reforms in rural transport research, policy and practice, a global networking platform, the International Forum for Rural Transport and Development [IFRTD] was established in 1992. Founder members include among others the International Labour Organisation [ILO], Intermediate Technology Development Group [ITDG, now known as Practical Action], the Swedish International Development Agency [Sida], the Canadian International Development Agency [CIDA], Swiss Agency for International Development Cooperation [SDC] and Norwegian Agency of International Development [NORAD]

IFRTD works as a global, southern driven, multi-stakeholder platform that promotes knowledge generation and sharing in the field of rural transport. IFRTD has a global membership of over 4000 people, and affiliated national networks in over 35 countries in Africa, Asia and Latin America. In Eastern and Southern Africa, IFRTD has a regional coordination office that promotes networking through several countries and in particular the

National Forum Groups (NFGs) [2] in Rwanda, Uganda, Ethiopia, Tanzania, Kenya, Zimbabwe and South Africa

The IFRTD mandate includes ensuring greater awareness of, and dissemination of information on contemporary and new rural transport issues. A key policy priority in Eastern and Southern Africa region is the role that rural transport can play in poverty reduction, access to health and education and social and economic inclusion. IFRTD in Eastern and Southern Africa continues to advance the rural transport agenda by:

- Providing visibility of rural transport and its cross-sectoral linkages, through transport and relevant non-transport conferences and publications.
- Increase the volume of high quality and innovative research work on rural transport, based on the priorities identified by researchers in the region.
- Promoting rural transport studies as a professional discipline for example within transport planning/engineering curricula as well as in rural development studies.
- Dissemination of good practice in implementation of people-focussed rural transport projects and programmes.

2. LINKING RURAL TRANSPORT TO NATIONAL DEVELOPMENT AGENDA IN EASTERN AND SOUTHERN AFRICA

In this section, we highlight two issues that are central to IFRTD's work in Eastern and Southern Africa. These are the linkages between the rural transport approach described in the preceding section, and the overarching development policy objectives of poverty reduction and achievement of the Millennium Development Goals.

2.1 Transport and Poverty Reduction

A common policy concern in all countries in the region is the role of transport in poverty reduction. According to IFAD [2007], more than 70 per cent of the continent's poor people live in rural areas and depend on agriculture for food and livelihood.

Rural areas are usually defined by sparse populations and settlements, low densities of economic activities and therefore low incomes. Many rural areas are unable to achieve the economic-rate-of-return threshold required by conventional transport infrastructure investments programmes. In addition, rural economies are unable to support the operation of conventional, market-driven transport services. A common characteristic of many rural areas in Africa is isolation, and isolation is both a symptom and an outcome of poverty.

Removal of isolation need not wait for the construction of a motorable road, or even the operation of a motorized transport service. Innovative, locally managed low-cost solutions can be important in ensuring households are able to cover the "critical distance" to important service points such as water and health facilities. Suitable low cost means of transport as well as appropriate local infrastructure solutions can help to improve household mobility and access to services. This can form the foundation for the development of a sustainable rural transport system.

In 2004, IFRTD members designed an international programme of work aimed at examining

[2] An NFG is a network of individuals and organizations in a country working towards the objectives of the IFRTD

linkages between transport policies and poverty reduction strategies in 14 countries[3]. The programme, known as “Poverty Watch” highlighted the fact that although transport is increasingly recognised as a means of reducing poverty, conceptualising, designing and implementing transport-poverty linkages remains problematic. It was also found that whilst there is considerable knowledge of the role that the transport sector plays in economic growth, and whilst there is belief in the link between economic growth and poverty reduction, the direct link between roads and poverty reduction is made by inference. In many countries, transport policies and programmes are geared towards the economic efficiency function. Good transport policies should however contribute to poverty reduction by enhancing both equity and efficiency outcomes.

Rural transport investments can contribute to pro-poor growth patterns through targeted projects that support the development of rural markets and businesses that serve and employ the poor. The sector can also directly support poverty reduction by providing employment for the poor through the operation of transport services and by appropriate use of labour based techniques in the delivery of certain types of transport infrastructure. However it should be noted that the transport sector by itself cannot induce and sustain pro-poor growth. Other incentives for example in land reforms, micro finance, small enterprise and development are needed.

In the context of rural areas, the main aim of transport is to enable access. Access is a key component in rural development because its existence or absence determines the opportunities that people have to improve their well being. Primary access priorities are in respect of services such as health, education, employment and markets for basic commodities. These are important in developing the human capital of the poor. However, better access to basic services such as health, education and water does not necessarily lead to improved welfare, unless coupled with complementary initiatives. For example, in the case of health, there must be affordable and adequate drug supplies and relevant healthcare personnel at healthcare facilities.

The flipside of transport is that it can exacerbate inequalities and deepen poverty if its negative externalities are not appropriately managed. For example poor people are more likely to suffer from traffic accidents and from HIV/AIDS prevalence along transport corridors and at hubs, and in the displacement of homes and livelihoods during the construction of infrastructure. It is vital that the transport sector pursues a socially responsible path that safeguards the rights of the poor and mitigates their vulnerability. It is important to recognise that transport by itself cannot have a decisive impact on poverty. This suggests the need for the transport sector to strengthen its policy, planning and implementation linkages with other key development sectors such as health, education, and water and sanitation, in order to deliver more effectively towards the poverty reduction agenda.

The relationship between transport and poverty reduction is therefore neither straightforward nor automatic. It is hard to trace and measure the direct impacts of transport interventions on the welfare of poor households. Access to basic services provides the platform upon which other development can take place, but does not contribute directly to household income. The

[3] Results of these studies are available on the following link: http://www.ifrtd.org/new/proj/pov_watch.php

poverty reduction outcomes of improved access are enhanced when other sectoral interventions relevant for the development of poor people are also adequately in place. Without good transport, many sectoral interventions may be ineffective. Well-staffed health clinics, for example, are of little benefit to poor people, or to health personnel, if there have transport difficulties.

It is pertinent to end this section by citing a few examples of how NFGs in Eastern and Southern African are endeavoring to address rural poverty through transport interventions.

- In Zimbabwe the NFG has prioritized to conduct research on the impact of land reform on rural accessibility. Albeit access to land having a positive effect on poverty, the latter can be perpetuated if the resettled people are not able to access requisite social and economic services such as schools, health centres and markets to name but a few.
- In Tanzania, the NFG is leading an advocacy campaign for the creation of a management and financing framework for the rural and village road network.
- In Kenya, the NFG is working with other stakeholders to monitor the implementation of the "pro-poor" aspects of the Integrated National Transport Policy" and especially in ensuring that a proposed Rural Roads Agency incorporates poverty reduction targets in its policies and operation plans.

3.2 Transport and the Millennium Development Goals

Neither roads nor transport per se is mentioned in the MDGs. However, it looks obvious that the lack of transport is a major constraint to the achievement of such goals as the eradication of extreme poverty, universal primary education, reduction in child mortality and improved maternal health care. Currently, IFRTD is implementing a global “networked” research programme on links between “Mobility and Health”[4]. The purpose of the research is to advance knowledge on the relationship between mobility and the achievement of health related Millennium Development Goals. Whereas the research is still ongoing, preliminary findings confirm links between access and maternal health, with some of the key barriers being distance and lack of appropriate and reliable means of transport and lack of coordinated planning between transport and the health sector to achieve improved access to health services.

Transport and improved mobility can lead to greater access to health care and therefore a reduction in child and maternal mortality**.** In addition, it can be a tool for promoting greater gender equity by enabling higher school attendance, especially for girls in rural areas who may otherwise spend a lot of time on domestic tasks such as the transport of water, farm produce and firewood.

The challenge of service delivery is more severe in those rural areas that are distant from roads that carry motorized transport services on a regular basis. Access to rural transport is not an indicator for the Millennium Development Goals, but it is a key contributing factor to their achievement.

Currently, there are proposals that time and distance – key parameters in access to services

[4] Visit www.mobilityandhealth.org

should be used as an indicator of progress towards MDGs. The World Bank has made significant progress in establishing a global standard for rural access planning, through the Rural Access Index**.** The Rural Access Index measures the percentage of the population that lives within 2 Km from an all-weather road (typically equivalent to a walk of 20 to 25 minutes).

Table 1 and Figure 1 below show the Rural Access Index for a number of selected countries in Sub-Saharan Africa and a comparison of the Rural Access Index for different regions respectively.

Table 1 Rural Access Index for Selected Countries in Sub-Saharan Africa

Country	**Year of survey**	**Rural Access Indicator**
Burkina Faso	2003	32%
Burundi	2003	32%
Cameroon	2001	20%
Ethiopia	2003	17%
Kenya	1997	44%
Tanzania	2000	38%
Madagascar	1997	25%
Congo DRC	2003	26%

Source: Robert P, Shyam et al, 2006

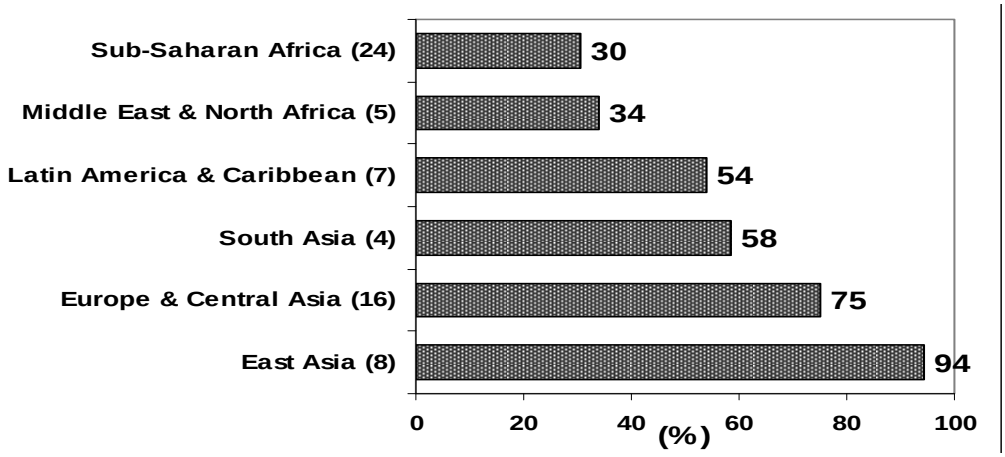

Figure1 comparison of Rural Access Index for different regions

Source: Robert P., Shyam et al, 2006 [ibid]

As can be seen, all the countries sampled have significantly more than half of the population living beyond 2 kilometers of an all weather road. And Sub-Saharan Africa has the poorest level of rural access at only 30 % compared to 94% in East Asia.

3. CONCLUSIONS

This paper has highlighted the attempts that are being made to ensure rural transport delivers to the wider development objectives of human development in rural areas. Rural transport planning is still a fledging discipline. Many of the ideas that have gone into formulating the existing body of knowledge on rural transport have happened outside the conventional lines of transport thinking. Literature on rural transport within conventional transport publications or discussion fora is patchy. Indeed, Howe [1997, opp cit] characterised literature on rural transport as having…."an almost *samizdat*, limited, and often clandestine circulation….and therefore limited to trace in library reference systems… [pg 6]

Even as rural transport evolves as a sub-sector, we find ourselves facing challenges in the development of effective rural transport systems. These include:

- ***Lack of comprehensive knowledge on the state of rural transport within countries***: Though many countries in Africa have adopted "rural" as an important policy concern, implementation strategies are hampered by the lack of detailed understanding of rural transport and travel conditions in the different rural contexts of a country. The paucity of reliable data to define priority problems and solutions is the weak link between policy intention and the actual delivery of solutions. This suggests the case for continuous research on the characteristics of rural transport in various countries. Rural household travel surveys could for example be made an integral part of national census surveys or household welfare studies.

- ***Strengthening the links between research, development rhetoric and practice****:* Whilst the general principles of holistic approaches to rural transport are well established, their translation into programmes and projects remains problematic. For example, there is a general appreciation that the time and effort burden borne by women has serious implications on social and economic development. However, good practices in gender integration in the design and implementation of rural transport programmes remains scanty. Part of the problem lies in lack of institutional and technical capacity at the local level where rural transport solutions should be implemented. Additionally there is lack of well structured mechanisms for cross-sectoral implementation in order to maximise the outcomes of transport investments in other sectors.

- ***Education***: A key challenge in developing a more people-centered approach to transport lies in reforming, through education, the understanding of the role of transport in development. From its research approach and teaching traditions, the transport sector is notoriously technocratic and top-down. If the sector is to contribute more effectively to rural development it would have to move away from the dogmatic notion that transport needs are solely dictated by market forces. Transport sector professionals need to engage more in participatory approaches, in order to understand the differentiated needs of the rural population.

IFRTD has made significant progress in establishing the mechanisms for generating new knowledge through research and disseminating through various media. These efforts need to be complemented through increased partnerships, more vigorous research and publications and through training reform in the transport curricula.

4. REFERENCES

[1] Banjo George and Richard Robisnon [2002]: Developing rural Transport Policies and Strategies; World Bank Technical Paper, World Bank, Washington D.C.

[2] Barth U d Heideman C [1987]: *Rural Transport in Developing Countries – A synopsis of findings and a framework for studies*. Universitat Kalsruhe.

[3] Barwell I., Edmonds Howe J. D and van de Veen [1985] *Rural Transport in Developing Countries*, ILO, Geneva.

[4] Barwell I., Malmberg Christina C., [1989]: Makete Integrated Rural Transport Project; The Transport Demands of Rural Households; findings from a village-level travel survey; ILO;

[5] Chiwanga M.E., Miller S. (ILO), Wiederkehr A., October 1992: Makete Integrated Rural Transport Project, Tripartite Terminal Evaluation Full Report, Swiss Development Cooperation.

[6] Department of Transport: Moving South Africa.

[7] Department of Transport, South Africa: National Land Transport Strategic Framework 2006-2011.

[8] Edmonds G and Relf C [1987] *Transport and Development*: *A discussion paper* ILO Geneva.

[9] Gilliam, K., And Shalizi, Z. [1996]: *Sustainable Transport: Priorities for policy reform. Development in Practice, Washington DC; The World Bank.*

[10] IFAD Rural Transport Portal [June 2007]: Rural Poverty in Africa.

[11] ILO [1979]: *Appropriate Facilities for the Rural Sector in Developing Countries*, Geneva.

[12] Lema C., Njenga P., Mhalila H [2006] *The Makete Approach Study: A Synopsis Paper*. IFRTD.

[13] Mbara, T (2007), *An overview of the Zimbabwe Forum for Rural Transport & Development (ZFRTD)*, Paper presented at the NFG workshop held at Bronte Hotel, Harare, 27 September 2007

[14] Mbara, T (2007), *The significance of local level rural infrastructure provision in poverty alleviation: evidence from the horse's mouth*, Paper presented at the Achieving the Millennium Development Goals in Africa: the role of Transport workshop, Cornell University, 5-6 May 2007.

[15] Njenga, P & Davis, A (2003), Drawing *the road map to rural poverty reduction*, Transport Reviews, Volume 23, No. 2, 217-241.

[16] Roberts P., Shyam K., Rastogi Cordula [2006]: Rural Access Index: A Key Development Indicator, Transport Sector Board, The World Bank, Washington DC.

[17] United Republic of Tanzania, Ministry of Communications and Transport: National Transport Policy 2003.