MAINSTREAMING RURAL TRAVEL AND TRANSPORT IN UNIVERSITY CURRICULA: A CASE EXAMPLE

Tatenda Mbara

Department of Transport and Supply Chain Management
University of Johannesburg, Kingsway Campus, P B Box 524, Auckland Park
tmbara@uj.ac.za

ABSTRACT
The paper seeks to share experiences on mainstreaming Rural Travel and Transport (RTT) in university curricula. In 1999, the Department of Rural and Urban Planning at the University of Zimbabwe was financially supported by the International Labour Organisation (ILO) to incorporate an RTT module in its curricula. The paper starts by building a contextual framework on the need to mainstream RTT in university curricula. This is achieved by providing a perspective on transport and development citing shortcomings of the applicability of conventional transport planning and articulates the importance of enhancing accessibility in rural areas as a way of alleviating poverty. Inclusion of RTT in university curricula improves an understanding of RTT issues and dispels the superiority of conventional transport. The adage "catch them whilst young" is pertinent as students are future policy makers. Apart from training incumbents knowledgeable in providing solutions to rural accessibility problems, a resource base in terms of literature emanating from students dissertations has been established. There are however challenges related to recruiting and retaining of appropriately qualified and motivated staff which has had a negative impact on sustainability.

INTRODUCTION
Sub-Saharan Africa (SSA) "harbor the continent's greatest concentrations of poverty and hunger" (AU/UNECA 2005). Poverty is prevalent in the rural areas of Africa where approximately three quarters of the continent's people live. Clearly, any meaningful strategies to alleviate poverty need to focus in these areas. While poverty has been defined in different ways, such as income or consumption poverty, social exclusion, human (under)development, ill being, vulnerability, livelihood unsustainability, lack of basic needs and relative deprivation (Maxwell 1999), increasingly, it is being realized that the improvement of access can be an effective way of holistically addressing the different manifestations of poverty. Transport as an element of accessibility 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.

Notwithstanding the importance of transport in alleviating poverty in rural areas, very little attention has been given to this important area. There is a misconception of what rural transport entails. The objective of this paper is to define what rural transport is and to illustrate with a case example, an attempt that has been made to build the capacity for rural transport planning in Zimbabwe.

HISTORICAL PERSPECTIVE ON TRANSPORT AND RURAL DEVELOPMENT
The traditional thinking on the relationship between transport and rural development has been premised on the superiority of motorized transport. Such thinking has clearly influenced the pattern of transport development in Sub-Saharan Africa since the Second World War. According to Dawson and Barwell (1993), the development of transport in Africa was dependent on two factors; the need to facilitate the speedy movement of raw materials to the western world and the movement of food products from rural areas to the growing urban centres. Thus, in response to these needs, a network of highways was constructed. This pattern of transport development was reflected in the lending policies of development aid agencies. For instance, "transport was the largest single sector for investment during the 1970s with highway construction taking the lion's

share" (Ibid). During the same period, transport accounted for a quarter of World Bank loans and the bulk of these loans were for the construction of roads.
Continued investment in road infrastructure led to a roads building 'boom' in the 1960s. Investment in transport was justified on economic grounds and road provision was regarded as a springboard for economic development. The argument is aptly summarized by Njenga and Davis (2003), "traditionally, transport investments are seen as a technical process through which the cost of physical movement is reduced, resulting in increased economic efficiency".

As the post World War II road building euphoria continued, evidence questioning the catalytic effect of transport on rural development started to emerge. Hirschman (1958) challenged the misconception that investment in transport would result in a catalytic effect and argued for investment into directly productive activities (DPA) as investment into transport, a social overhead capital (SOC) was costly. He further argued that investment in DPA may also trigger changes in transport and concluded that transport was a promoter of change but did not itself initiate change, that is to say not a catalyst.

Wilson's (1965) analysed the effect of transport on development based on the massive transport investment that took place in the 1960s. Wilson argued that conditions which determine type of activity and level of output were a prerequisite and a road merely provides a further stimulus. He concluded that the role of transport investment in economic growth was not unique as "transport is no more an initiator of growth than any other form of investment". Further work by Owen (1964) and Boserup (1981) supported Hirschman and Wilson's evidence. Boserup argued that there was a limit to the transport infrastructure that a country can sustain and excessive supply can be counter-productive as evidenced in some poorer countries where road infrastructure is falling apart.

By the late 1970s, transport was still regarded as an important factor 'in realising the rural potential in developing countries' albeit a shift from primary to feeder roads as evidenced by the unprecedented increase in World Bank lending between 1977 and 1984 (Edmonds, 1998). By 1997, 93% of World Bank road projects were rural roads compared to 38% in 1966 (Dawson & Barwell, 1993).

Thus, until the early 1980s, the implicit assumption that investment in roads and motorized vehicles would induce development persisted. This is the period when there was a shift towards integrated rural development. Rural development became synonymous with poverty alleviation. Clearly, poverty alleviation became the key issue for international assistance. Work carried out by the World Bank and USAID during this period revealed that rates of return in road investment in Africa were generally low, roads were not prerequisites for development and in some cases they were 'positively detrimental' and albeit providing an opportunity for benefits, the richer benefited because of their ability to pay. A clear consensus on roads not being a guarantee for the poor to access the requisite goods and services emerged. Work carried out by the International Labour Organisation (ILO) and World Bank in the 1980s showed that there had been a general lack of understanding of rural transport demand as the majority of trips were undertaken on foot. These findings clearly show that rural accessibility needs to be addressed at the local level. As the majority of trips that are made in rural areas are within the vicinity of the village, it then follows that the conventional approaches to the provision of transport may not be relevant.

In response to the disappointing impacts of transport within rural communities, organizations such as the International Forum for Rural Transport and Development (IFRTD) and the International Labour Organization (ILO) have made meritorious contribution in instilling an understanding and influencing the direction of rural transport planning in the developing world. In this regard, the ILO significantly assisted in building the capacity of rural transport planning in Zimbabwe by supporting the educational programmes at the University of Zimbabwe. The mainstreaming of RTT in university curricula at the University of Zimbabwe was not an isolated event. The proposal was mooted following experiences from the rural transport study that was conducted in three districts in the country. It is therefore pertinent to briefly examine the principal findings of this study.

THE RURAL TRANSPORT STUDY (RTS)

The rural transport study (RTS) was sponsored by the Swedish International Development Agency (SIDA) with technical assistance provided by the ILO. This was the first study which addressed accessibility issues at the local level. The principal findings of the RTS were as follows:

- Most trips (approximately 85%) are undertaken on foot, within short distances and mainly within the locality of the village.
- Motorised vehicle ownership is very negligible.
- A greater proportion of the transport burden (approximately 80%) falls on women.
- The household use of public transport is confined to less frequent trips such as visits to hospitals, visiting friends and relatives in towns and cities, sourcing of farm inputs and crop marketing.

It is clear from the above findings that the planning and provision of conventional transport is not an appropriate solution. The study changed peoples' perceptions on the way they viewed rural transport planning.

Following the study, appropriate rural access interventions were implemented in the three districts. The interventions included rehabilitation of footpaths, construction of footbridges and boreholes. The latter intervention (i.e. boreholes) is a non transport solution to a transport problem as beneficiaries reduce considerably the time taken to access water facilities. The Rural Transport Study and local level access interventions that were implemented had a dramatic impact in changing peoples' perceptions on rural transport. An evaluation of impacts of interventions revealed immense benefits that accrued to beneficiaries.

WHY MAINSTREAM RTT?

In developing countries, approximately three quarters of the population live in rural areas albeit low population densities. These areas are characterised by poor people with low disposable incomes, poor transport infrastructure services provision and isolation from the main stream of economic activity inter alia.

Though many countries in Africa have adopted 'rural development' 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. There is a misconception of what rural transport entails, as transport investment in these areas continue to mainly focus on primary transport infrastructure, namely roads. While the provision of such infrastructure is important, this does not necessarily improve peoples' accessibility to goods and services. Interventions to improve rural peoples' accessibility can be effective if it is focused at the local level.

Hitherto, focus on transport development has been concentrated in urban areas. Travel and transport patterns and levels of burden incurred in rural areas differ substantially with those in urban areas. With such differences, approaches may not be the same. Howe (1998) quite rightly argued that "Our education system presents advanced technology as the answer to all transport problems…"and yet this should not be the case.

Building capacity by mainstreaming RTT at tertiary institutions is one way of sustaining the thinking towards local level planning and demystifying misconceptions on the superiority of conventional transport. In pursuance of this objective, the ILO entered an agreement with the University of Zimbabwe (represented by the author, who then was a lecturer at the University of Zimbabwe) to introduce an RTT module within the existing Rural and Urban Planning programme. The idea was to train planners knowledgeable in RTT who would influence future planning policy on rural transport.

MAINSTREAMING RTT AT UNIVERSITY OF ZIMBABWE: CASE EXAMPLE

How can mainstreaming be achieved?

At the outset, there is need to state that the teaching of RTT at academic institutions is a grey area. This is true of many universities worldwide. RTT is a side issue which sometimes is mentioned in passing or not at all. It therefore needs to be brought in the mainstream of university curricula. Njenga and Mbara (2008) made the following observation; " … 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".

Depending on the available programmes at an academic institute, RTT can be incorporated into any of the following University Departments; Planning, Engineering, Geography or Transport Planning/Studies. The teaching of RTT at institutions of Higher Learning need to incorporate activities such as research publications, advocacy, conducting seminars, field visits and building partnerships with relevant associations/institutions/policy makers.

Incorporation of RTT

RTT was incorporated as a module in an existing transport planning course in the Department of Rural and Urban Planning in 1999. Box 1 below is a succinct description of the Department of Rural and Urban Planning and how incorporation of RTT was implemented.

Box 1: Department of Rural and Urban planning

The Department of Rural and Urban Planning runs a four-year full time degree programme in Rural and Urban Planning. On the establishment, there are 15 academic members of staff but the economic challenges that characterised the Zimbabwean economy in the last decade created a very unstable staffing situation.

Thirty (30) to thirty five (35) students are enrolled every year. The Transport Planning course in which RTT was incorporated is offered as an option in the third and fourth years. Every year 10-15 students opt to specialize in Transport Planning.

Transport Planning is allocated 72 hours face to face contact with students in the 2 years. Some aspects of the course were dropped to give way to the RTT module which was allocated 18 hours. As the change to the course content was substantial, the concurrence of the Departmental Board was sought and granted.

To date, 82 students have undergone training in RTT since its inception in 1999. While a few of the students are employed in the Rural District councils, the majority have left the country for greener pastures.

The International Labour Organisation provided USD 8 000 seed money to the Department of Rural and Urban Planning to support five specific activities, namely:

- Course Development including acquisition of books
- Seminar support
- Field trip for students to one RTS district
- Support for a few student research projects

Course development

Course development took approximately six months. The objectives were for students to:

- Appreciate the magnitude of problems associated with rural travel and transport and the importance of enhancing rural accessibility in order to alleviate poverty.

- Gain an understanding of the characteristics and nature of rural travel and transport as well as the role and impacts of infrastructure and the different means of transport services that can be used in rural areas.

- Gain analytical skills on how rural transport problems can be addressed by applying appropriate planning tools such as Integrated Rural Accessibility Planning (IRAP).

The module content covers five broad themes, namely;

- *Theoretical grounding* which sets the scene and addresses issues on characteristics of rural areas, theoretical perspectives on rural development, approaches to poverty alleviation, and limitations of conventional approaches to rural transport provision.

- *Rural transport services* focuses on performance of non-motorised means of transport in rural areas, strategies to promote non-motorised transport, hubs and satellites and service delivery improvement and an overview of public transport services.

- *Rural transport infrastructure* examines institutional and funding regime for rural transport infrastructure, prioritisation of rural transport infrastructure and the role of labour-intensive methods in rural transport infrastructure provision and maintenance.

- *Rural transport planning tools:* This focuses on the Integrated Rural Accessibility Planning (IRAP) tool that is used to identify access interventions.

- *Cross-cutting issues:* The issues covered include safety, transport and gender and capacity building and its implications on rural transport provision.

Seminar support

As part of the agreement, the Department of Rural and Urban Planning was required to organize and facilitate a Seminar on 'Lessening the Rural Travel and Transport Burden'. The objective of the seminar was to raise awareness and to stimulate debate on the best way of implementing rural access interventions. The seminar attracted participants from a wide spectrum of relevant stakeholder organisations. The seminar was in a way a capacity building event. After participants were exposed to the issues affecting rural accessibility, an interesting consensus reached was that the rural travel and transport burden was primarily caused by a few decision makers taking decisions on behalf of the majority poor rural people from the comfort of their offices whilst being far removed from the problem areas. Consequently a recommendation was made for a workshop of senior Government decision makers to appreciate the importance of local level planning. The workshop was subsequently held. This was facilitated by the author with financial support from ILO. The workshop was an eye opener and senior Government decision makers who admitted the wrong perceptions of rural transport they harboured. Thus, the workshop in itself was a capacity building event.

Field trip for students to one RTS district

The 2000 class of 15 students were taken to Chipinge to assess access interventions that were implemented in the district. Students were able to share views and experiences with personnel from the Rural District Council (RDC) as well as local communities that had the direct responsibility of implementing access interventions. Access interventions that were implemented comprised of footbridges, rehabilitation of footpaths and sinking and construction of boreholes. Figures 1 and 2 below illustrate two access interventions that were visited by students in Chipinge district.

Fig. 1: Footbridge linking a village and fields

Fig. 2: Footbridge linking 2 villages

In addition to the provision of physical interventions, the RDC was also provided with seed money to run a revolving loan fund (RLF). The RLF enabled community members to access funds and buy intermediate means of transport (IMT) such as wheelbarrows, scotch carts, bicycles and donkeys. Students learned a lot from what they saw and contributed immensely to how both the implementation of access interventions and RLF operations could be improved. They recommended more of such trips as they bridge the gap between theory and practice.

One student was able to further dialogue with the communities as he volunteered to assess the impacts of these access interventions as part of the final year dissertation.

Programme output and challenges

The capacity building programme has resulted in the successful development of a course module in RTT. The module has assisted in training a cadre that is able to influence future thinking and policies on rural transport matters in the country. One positive outcome was the successful completion of eight (8) dissertations with a bearing on RTT. In addition, numerous publications, conference and workshop papers have been produced since the inauguration of the RTT module. A selection of these papers is shown in Box 2.

Box 3: Refereed, conference and workshop papers

Njenga, P & Mbara T.C, *Repositioning the rural transport and development agenda: Challenges for Eastern and Southern Africa,* Paper presented at the SATC conference, Pretoria, South Africa, 7 - 10 July 2008.

Mbara, T C**,** *The significance of local level rural transport infrastructure provision in poverty alleviation*, Paper presented at a workshop on Achieving the Millennium Development Goals in Africa: The role of transport, Cornell University 5-6 May 2007

Bryceson, D F, Maunder, D A C, Mbara T C & Davis A, *Livelihoods, daily mobility and poverty in Sub-Saharan Africa*, Transport Reviews, Volume 23, No. 2, 2003

Mbara T C & Lema C*, Community centred investment in basic rural access interventions: an entry point to poverty alleviation,* Paper presented at the 10th Regional Seminar for Labour Based Practitioners, 13th – 17th October 2003, Arusha, Tanzania

Mbara T C, *Integrated Rural Accessibility Planning (IRAP): principles and experiences in Africa* Paper presented at the Experience sharing Workshop on "Participatory Planning and Implementation for Rural Access", Morogoro, Tanzania 27-30 May 2004

Bryceson, D F & Mbara T C, *Petrol pumps and economic slumps: rural-urban movement in Zimbabwe's globalization process,* Journal of Economic and Social Geography, Volume 94, No. 3, 2003.

Mbara T C, *Cycling: an appropriate response to an economic crisis***,** Paper presented at a Velocity conference, Edinburgh/Glasgow, 17-21 September 2001

Clearly, there has been a tremendous improvement in the understanding of RTT issues in the country which is directly attributable to the conscious decision that was made to incorporate RTT within university curricula. The birth of the Zimbabwe Forum for Rural Transport (ZFRT) which is affiliated to the International Forum for Rural Transport and Development (IFRTD) is a direct result of the initiative to incorporate RTT in the University of Zimbabwe planning curricula. The ZFRT has held seminars and conducted research in aspects related to rural mobility and accessibility.

The programme had an impact in influencing the thinking and the consequent outcome of the Draft National Transport Policy. Rural accessibility is well articulated in the document.

However, there are challenges that have to be overcome. Introducing a new course or altering an existing one at an academic institute is frustrating and can be met with resistance. The process is long and cumbersome as there are many committees that are involved. Conservatives always want to protect the status quo and for some, who due to wrong perceptions, may not see the relevance of an RTT course.

There is a paucity of sufficiently trained academics in the area of Transport Planning let alone RTT. For the Department of Rural and Urban Planning at the University of Zimbabwe, the problem has been compounded by an exodus of lecturers from the institute (including the author, who was the only Transport trained academic in the Department) as a result of macro-economic fundamentals which have negatively affected the country's economy. Even members of the core group that founded the ZFRT have all emigrated. Clearly, there is a problem of sustaining the work undertaken so far as the majority of skilled people associated with RTT have left the country. It is difficult to think of a strategy that the country can adopt to fill the gap as the economic fundamentals that forced people to leave the country are unlikely to be addressed in the short term. However, such skills can benefit a country like South Africa were most of the people skilled in RTT have emigrated to. The present South African Government has placed greater priority on rural development, and improving RTT is one way of enhancing rural development.

CONCLUSION

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. Most of these services are accessed within the vicinity of the village and thus, local level transport provision is more important and relevant than the conventional approach which focuses on roads and motor vehicles. Addressing local level transport planning at academic institutions helps in training planners who appreciate the significance of rural accessibility. Unfortunately, the teaching of RTT at academic institutions worldwide is still a grey area. Mainstreaming RTT in university curricula is important to dispel misconceptions about the superiority of conventional transport and has long term benefits in influencing policy. Perhaps, by way of recommendation, a regional or continental RTT centre of excellence may be the long term solution.

REFERENCES:

AU/UNECA (2005), *Transport and the Millennium Development Goals*, with the collaboration of Africa Development Bank, World Bank and European Union

Boserup, E (1981), Population and technology, Oxford, Basil Blackwell

Dawson J & Barwell I (1993), *Roads are not enough: New perspectives on rural transport planning in developing countries*, Intermediate Technology Publications

Edmonds, G (1998), Wasted time: the price of poor access, International Labour Organisation, Geneva

Hirschman, A (1958), *Strategy of economic development,* New Haven, Yale University Press.

Howe, J. (1998), *Rural Transport and Sustainability* in GTZ Transport Working Paper, Minutes of meeting of seminar held on 6 July 1998

Howe, J (1997), *Transport for the poor or poor transport? A general review of rural transport policy in developing countries with emphasis on low income areas*, International Labour Organisation, Geneva

Maxwell S, (1999), *The meaning and Measurement of Poverty*, ODI Poverty Briefing

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

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

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

Njenga P. & Mbara, T C (2008), *Repositioning the rural transport and development agenda: challenges for eastern and southern Africa*, Paper presented at SATC 2008, 7 -10 July.

Owen, W (1964), *Strategy for mobility*, the Brookings Institution.

USAID: Project Impact Evaluation Report No 7 (Quoted in Edmonds 1998, *Wasted time: the price of poor access*, International Labour Organisation, Geneva

Wilson G W (1965), *Case Studies on the effect of roads on development*, Highway Research Record No. 115.