Virtual Access – Taking the Super Highway

Information Communication Technologies (ICTs) have the potential to save people time, money and energy on unnecessary travel, and have been introduced to the rural transport sector as a non-transport solution to meeting information access needs. However the articles here suggest that ICTs not only provide a substitute for travel but can also act as a catalyst for change. ICTs have been observed to encourage greater transparency and participation in transport decision-making, to enhance the performance and efficiency of transport services, and to alter the face of mobility needs as travel patterns change to meet the new requirements of better informed communities.

Rhodri Jones Panos Pictures

Tuning in, Douentza, Mali

A Question of Time?

Making use of new information technologies within a social policy framework that embraces an alternative approach to transport, focused not on road building but on meeting the scheduling requirements of women's needs, is an exciting new and possible direction.

In work undertaken on low income women's transport patterns in Ghana, the scheduling density of women's travel and task organisation, their time poverty, emerged as a key characteristic of their situation. Transport structures and the distribution of services will require substantial transformation if they are to enable women to participate in decision making and to improve their economic circumstances through such participation and the negotiation of societal resources.

The prospect of building community transportation systems around new information technologies is a real one. Buses can be shared between rural communities and more efficiently scheduled, time can be saved through the better scheduling and organisation of the transportation of goods, and information communication technologies can be used to enforce transparency in a transport system. Necessary for example in Ghana where unofficial police road blocks requesting bribes to avoid unnecessary delay can result in transport costs reaching seven times the normal amount.

New information technologies can be used to enable communities to enter the planning and policy domain of transport. Hand held solar powered satellite linked technologies can enable women in the remotest of locations and with the greatest constraints on their travel behaviour to participate in decision making. The same technologies can also be used to enable women to more strongly enter the economic market place. Remote access to information on agricultural prices at point of sale, remote access to medical information, remote access to education, all can assist in changing the hazardous and time consuming transport and travel patterns of women to provide them with a better quality of life.

Much has to be done to improve local access to the technology but it should be social policy of the highest order. As communication technologies are developed and their use spreads it is critical that the needs of African women in rural areas are identified and included in this development though a participative approach that recognises women as potential technology users.

Adapted from an article by:
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In this issue:

Planning with New Technologies

Contrary to common beliefs, rural communities do not need transport. They need access to basic social and economic services, to schools, clinics, employment and water. Transport tends to be but a necessary cost in achieving this access. In this light, the International Labour Organisation has developed a planning tool that focuses on the 'end' rather than the 'means', focusing on access rather than transport. Integrated Rural Access Planning, or IRAP, focuses on the access of rural communities to different basic services, using time spent on achieving access as a basis for the participatory prioritisation of interventions.

These interventions include conventional transport solutions, but do not end there. The integrated nature of IRAP allows it to consider non-transport solutions, bringing the service to the user, rather than bringing the user to the service. This includes the locational planning of new services (wells, schools, woodlots), the use of ICTs to bring information to the user, and quality and capacity improvement of existing services (medical stocks for clinics, teachers for schools,

community training in pump maintenance). By facilitating access to nearby services, the need for transport to services further away is removed.

Within the IRAP procedure, data analysis and mapping form key components in the planning process. Although these steps can be carried out by hand, the increased use of computer software has made IRAP an even more powerful planning tool. Upon deciding to implement IRAP at a national scale in Malawi, for example, the government improved the data analysis procedure using SPSS, a statistical software package, greatly facilitating the entry and analysis of data. The software easily calculates the necessary Access Indicators, but also allows for any further statistical analysis that may be required by the planning team.

In the ILO Upstream project in Cambodia, increased availability of Geographical Information Systems (GIS) has allowed its use in the IRAP process, replacing the lengthy manual mapping procedure. A GIS can efficiently capture, store, update, manipulate

and display many forms of geographically referenced information, making it ideally suited for planning. It produces high quality maps that are useful for accessibility analysis and regional planning and can analyse large databases and combine them with digital map layers to facilitate spatial analysis.

Although such experiences show that the use of appropriate computer software can greatly facilitate and enhance the IRAP planning process, experience has also shown that the availability of resources and skills at the planning level can severely limit computer use.

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Networked Communities

In an experiment in knowledge delivery to the poor, the M S Swaminathan Research Foundation (MSSRF) has established Knowledge Centres in ten villages near Pondicherry in Southern India. Here local people used to travel about 10 to 15 km to Pondicherry town to get any information that they needed or wanted. By satisfying their daily information needs the new Knowledge Centres have helped villagers to save time and money on travelling to gain access to this information. For example as market prices of rice and vegetables are now provided by the Knowledge Centres the villagers do not need to visit the concerned markets to find out the prices.

The Knowledge Centres facilitate both voice and data transfer through a hybrid wired and wireless network, consisting of PCs, telephones, VHF duplex radio devices, and email connection through dial up telephone lines. This intranet style network links village nodes to a central hub in Villianur, a small town 13 kms west of Pondicherry. Where necessary a 'Value Addition Centre' at the hub processes information into more accessible formats. For example translation into local languages and the use of multi media applications to facilitate illiterate users.

The process begins with volunteer teams polling villagers to find out what knowledge they want. Popular requests include women's health information, agricultural advice, daily market prices for crops, local weather forecasts, information about festivals and functions at temples, and clear information about the bewildering array of programmes provided by the government to aid poor

families. This is all information that enables villagers to manage their time and make plans for the future. Most of the information is obtained by local volunteers, with some relevant information obtained directly from external sources by the Value Addition Centre at Villianur. For example wave conditions from a US Navy website which are fed via voice report to the fisherfolk of coastal villages.

To participate each village must provide a public room for the computer system and salaries for trained operators. In return the village receives the hardware and maintenance for the communication system, specially designed websites in local languages that convey the requested information, and training programmes for villagers who have been selected to run their local knowledge system.

Although access to timely and relevant information negates the need for some travel, it may also exacerbate or generate new mobility needs. By providing access to accurate and up to date information about local transport services, the knowledge centres ensure that the journeys that are made are more effective in terms of time, cost and choice. The centres take enquiries about travel opportunities, schedules, prices and delays, informing villagers of breakdowns so that they can seek alternative transport and avoid time wasted in waiting for services. Previously this information was only available at the nearest bus terminal in Pondicherry 10-15 kilometres away. In addition the Centres provide information on obtaining driving licences, motor vehicle licences and who to contact regarding different means of transport.

The Knowledge Centres have also been able to make a real difference to the villagers ability to influence local transport policy decision making, providing a focal point through which villagers can outline their transport needs and then identify the appropriate channels through which they should address those needs. For example the villagers of Embalam village used their Knowledge Centre's 'suggestion box' to put forward the need for more frequent bus services to their village during school hours. This was forwarded through the Centre and MSSRF to the concerned transport authorities and local member of the legislative assembly. The matter has been taken up during the assembly session and is still under consideration.

Establishing Knowledge Centres as a non-transport solution to local needs for access to information has changed the face of local mobility needs. Villagers have more time at their disposal for other livelihood tasks, know more about opportunities outside the village borders and are empowered to advantage themselves of such opportunities. For example in Embalam and Thirukanchipet, villagers now get information regarding various government schemes that are announced and approach the concerned departments to get their entitlements. To access the information they come to the Knowledge Centres but to gain benefit from this information they may still need to travel.

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Access to Health

The RESCUER project (Rural Extended Services and Care for Ultimate Emergency Relief), a collaboration of the UN population Fund, Uganda's Ministry of Health and Population Secretariat and Iganga District authorities, aims to reduce Uganda's maternal mortality rates by improving local care and referral systems.

Of the three project components; communications, transport, and the provision of quality health services, the communications system has made the most significant contribution to the success of the project. Birth attendants now use walkie-talkies to communicate with VHF radios installed in base stations, health units, the referral hospital ambulance and the District Medical office's vehicle.

Transport has proved to be more problematic as the ambulance sometimes breaks down. However the new communications technology has more than compensated for these difficulties in mobility. Health personnel are able to call and get practical advice even when no vehicle is available. Birth attendants consulting health units that in turn consult colleagues and their seniors have had faster responses to situations and have felt less isolated. The walkie-talkie technology has proved to be a great source of empowerment for the birth attendants, improving their image, building confidence in their clients and helping them to attend to more women.

The increased number of births handled by trained personnel, referrals to health units and

a 40% reduction in maternal mortality over 3 years, all demonstrate how simple technology has enabled the RESCUER project to change the health seeking behaviour and reproductive outcomes of the Iganga District.

The potential for using the communication system to address other needs traditionally met by transportation has also not gone unnoticed. Previously if a refridgerator broke down you may have to travel miles for a replacement. Now with just a radio call a technician can be sent to do the job.

Adapted from an Interview with Maria Musoke in Africa Recovery,
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Sharing Potential Transport Solutions

The first of four regional workshops on Improving Mobility for the Rural Poor was hosted by the Rajasthan Regional Forum Group in September. Working groups highlighted the importance of knowledge of technology options for poor communities, particularly women, and suggested ways in which information on use of intermediate means of transport (IMTs) from other parts of the world could be shared. The potential of knowledge centres (such as those in Pondicherry) were considered a possibility. The workshop also considered the use of GIS to develop a mobility atlas, initially for India.

Parallel to this initiative, the Transport Resource Centre (see p 4) is considering developing an IMT catalogue as a resource that can be easily shared through ICTs and more conventional information sharing systems.

For more information please contact the IFRTD Secretariat.

Rural Transport Policy Toolkit

The *Rural Transport Policy Toolkit* is a guidance manual containing a collection of tools that describe the 'how to' of policy formulation for rural transport, with a focus on five key areas:

- Stakeholder consultation and consensus building.
- Rural transport problem statement, data collection and analysis.
- Policy formulation and development of action plans.
- Implementation of policy tools.
- Application of monitoring tools.

The policy toolkit is designed for use by local transport practitioners, policy makers and researchers and was produced for the UK's Department for International Development. It is available on a CD-Rom, along with the Rural Transport Knowledge Base (also produced by TRL) and the DFID Economist Guide. The Policy Toolkit is also available on the Internet

www.Transport-Links.org/PolicyToolkit.htm

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Adding Value to Journeys

Using the concept of accessibility rather than transport in the rural development context allows planners to consider both physical and non physical aspects of communication. Clearly, both the telephone and the internet are providers of communication that reduce rural isolation, increase the value of journeys by eliminating unnecessary ones, and allow vital forms of interaction to take place over long distances. It could be argued therefore that a public telephone link to isolated communities should take priority over physical links and transport services. In developed economies the internet has been seen as an interactive communication device that reduces the need of physical access for a whole range of basic activities.

One of the lessons learnt during the RAP (Rural Access Programme) Design Phase in Nepal, was that in the longer term it was access to information and specialist services, NGOs or government departments and the private sector, that would unlock the development potential of communities, allowing them to benefit from improved physical access. As we know roads by themselves will not eradicate poverty.

Where computers and modems are not yet viable, one idea for providing that information link is an audio version of the internet provided by a voice portal. This is existing technology that can provide

on-demand interactive information and messaging services to people in poor communities, in their own language and over the telephone on a single free number. Content would depend on local needs but could include information on housing, employment, transport, healthcare and all other areas critical in helping communities to develop.

The technology platform is designed to be low cost, fully scalable and easily replicable across countries. Audio information files are stored on computer internet servers and streamed to users through an automated menu service. World Talk is a not-for-profit organisation based in the UK that is promoting the idea, piloting it in South Africa and seeking funding from a range of possible international donors. Plans are also being made for a launch in Vietnam.

Local 'country talk' operations would be run as a non-profit business. Their role is to develop local content, and relations with government departments and NGO's. Each local operation would attempt to be self-sustaining through monthly fees paid by suppliers of the information and sponsorship revenue from advertising.

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News and Events

2002 Regional Meetings

Following the outcomes of IFRTD's governance review in 2001 the network is in the transition phase of decentralising some of it's Secretariat functions into 4 regions; Eastern and Southern Africa, West Africa, Latin America, and Asia. As part of this process annual regional meetings are to be held as a focus point for addressing regional issues and formulating regional input into IFRTD's international strategy.

What follows is a brief outline of the objectives and outcomes of the 2002 meetings. For more information please contact the relevant regional co-ordinators as listed in the box at the bottom of the page.

East and Southern Africa (22–23 July 2002, Harare, Zimbabwe)

National Forum Group (NFG) Co-ordinators from Uganda, Tanzania, Kenya, South Africa and Zimbabwe, and representatives of IFRTD member institutions RTTP, ILO-ASIST, ATNESA, UN Habitat, GRTI and TRL, met to affirm IFRTD's decentralisation process, focus on priority regional issues and to strengthen networking between NFG representatives and collaborators in the region. The meeting was also an opportunity to profile the DFID funded IFRTD regional project on Transport and HIV AIDS.

Outputs included a programme for implementing the decentralisation process and improving the functioning of NFGs, definition of the role of the regional meeting and a kick-start to the search for a regional host institution. In addition the meeting formulated a regional programme of activities and projects, including the implementation of the current project, fundraising, and the production and dissemination of information.

Asia (3–7 September 2002, Colombo, Sri Lanka)

The Asia Regional meeting gathered together representatives of the Cambodia, Nepal, Sri Lanka and Bangladesh NFGs, the Rajasthan Regional Forum Group and the ingo Intermediate Technology Development Group (ITDG). Their objective was to discuss improvements to co-ordination and mechanisms of information exchange among the networks and IFRTD, to sow the seeds for an Asia regional strategy, and to discuss issues of national and regional network governance.

The meeting developed priorities for knowledge and information, and advocacy work, identifying key thematic issues for the region that included rural water transport, maintenance, intermediate modes of transport (IMTs), and intermediate public transport (IPT). The meeting also addressed issues of regional governance and developed criteria for recognising NFGs that will feed into the international IFRTD work on NFG governance.

West Africa

Over the past year IFRTD has seen accelerated growth in the formation of National Forum Groups in the West Africa Region. It was decided that efforts should be made to strengthen these networks nationally before pushing the momentum forward at a regional level. To date NFG meetings attended by the IFRTD regional Co-ordinator have been held in Cameroon, Congo (RD), Senegal, Guinea, Burkina Faso and Ghana to discuss the NFG's national strategy and contribution to the international network.

Latin America (July 31–Aug 1 2002, Lima, Perú)

Members of the IFRTD Latin America network met in Lima with the objective of creating a governance framework and networking programme to strengthen the work of IFRTD in the region and prepare for the re launch of the Latin America Regional Network on Rural Transport and Development.

The consensus was that the Latin America Network should aim to be more than an information forum and develop its capacity to influence stakeholders. The vision for the Latin America Network until 2005 is of a forum that promotes knowledge generation through different initiatives, research, exchange of experience and debate, and that will provide a focal point on rural transport issues for all Latin American countries.

Resource Centre for the Transport Sector

IFRTD is currently partnering three other organisations; The Transport Research Laboratory (TRL Ltd), Natural Resources Institute (NRI) and Intermediate Technology Development Group (ITDG) to provide and promote the DFID Transport Resource Centre, a DFID funded free advice and information service for any professionals working in the transport sector.

It allows those working on transport solutions in the developing world to access the knowledge and experience of over 40 years of expertise in over 90 countries worldwide. We aim to inform and advise those working in the development sector by providing access to a diverse knowledge base. The Resource Centre can provide specialists in the following areas:

- Road safety engineering and education
- Infrastructure design and maintenance - including low volume roads and labour based techniques
- Gender issues
- Transport planning and service provision
- Rural and urban livelihoods
- Market access
- Road prioritisation and financial planning
- Enterprise development
- Intermediate and non-motorised means of transport
- Environmental impacts
- Policy and strategic planning

Please visit our web-site http://www.transport-links.org/rcs/index.html to find out more about the service or contact Tamsin Wallwork on:
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Contact us:

The International Forum for Rural Transport and Development is a global network of individuals and organisations interested in addressing access and mobility needs as a means of eradicating poverty.

The IFRTD network encompasses over 2500 members, many of whom are also members of affiliated National Forum Groups (NFGs). The IFRTD Secretariat is a small team tasked with facilitating networking, advocacy, information and research activities among network members at national and international level.

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Remember to take a look at the IFRTD website www.ifrtd.org

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