



Transport safety: is it a rural issue?

Developing countries are confronted with a traffic safety crisis manifesting itself in traffic accidents. One million lives are lost and 20 million casualties are registered annually worldwide. 75 per cent of the crashes are in developing countries, yet they account for only 32 per cent of the vehicle population. The World Bank estimates that accidents cost developing countries nearly \$ 100 billion. This is equivalent to double the Overseas Development Assistance (ODA) given to these countries – a huge economic loss. Improving traffic safety is therefore not a marginal consideration. Savings from safety improvements can be used for poverty reduction and development programmes.

Unfortunately, the issue of safety is usually marginalised. Instead, transport investments are exclusively used for infrastructure development – yet improved infrastructure permits higher operating speeds, leading to more accidents.

Policy makers are reluctant to devote more resources to promoting safety, arguing that accidents are unpredictable. The Government of Uganda, for instance, allocates a meagre \$6600 to the National Road Safety Council annually for Traffic Safety promotion countrywide.

Indeed the performance of public bodies in tackling accidents has been disappointing. In addition to limited resources, the institutional or bureaucratic set up of these safety agencies inhibits their performance.

Donor intervention in the traffic safety crisis has had limited success. Their emphasis on safety audits outside of the wider



Paul Starkey

Tipping the safety balance? A dangerous angle for a bus in Ghana

sociological framework partly explains the failure of some projects. They also downplay the problem of corruption. The most important weakness, however, is that donor safety programmes are neither financially nor institutionally sustainable and usually collapse as soon as the project ends.

Is safety a rural issue?

Due to the fact that the volume of traffic in rural travel is usually small and speeds tend to be low, transport experts debate whether safety is a rural transport issue at all. But safety in rural transport deserves attention, because:

- concern over safety is one of the reasons inhibiting IMT promotion in rural travel. The risk of being involved in accidents puts off potential users.
- vehicles (especially IMTs) involved in rural travel have poor safety standards and are usually in a dangerous mechanical state, yet are overloaded.

- accident rescue networks in rural areas are poor. Accident victims take several hours to receive emergency treatment. This increases accident severity.
- using inland water transport, accidents are common. This area of rural transport is disadvantaged because the vessels are often not of the required safety standards and are often overloaded.

A major problem when looking at rural safety, however, is the scarcity of the accident data with which to assess the size of the problem. Rural safety data is poor, just as police and medical surveillance is poor.

The gender factor

Accidents affect men and women differently. Statistics reveal that men are more often involved in accidents than women. This is partly because men take more risks. In Malawi, for instance,

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accident causation by gender figures reveal that men cause more accidents than women at a rate of 31:1.

Studies from Uganda, however, show that the accident burden of women is significant. Women can be left as single parents owing to accidents, and the burden of caring for relatives disabled in accidents falls to them.

It was established in the Uganda studies that concern over safety is one of the main reasons inhibiting the use of bicycles or IMTs.

A number of initiatives have been suggested to address the accident challenge. The African Road Safety Initiative, which was initiated at the close of the 3rd African road safety congress, seemed to offer a way forward but was not supported by the relevant authorities.

The Global Road Safety Partnership, fronted by donors, seems a positive step towards improving safety. It identifies the private sector as a partner in road safety unlike the previous public sector only approach. It should, however, incorporate more best practice from the South. There are home grown solutions that could address the accident challenge, given the support of policy makers.

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The Philippines

The Philippines NFG has been organized as a non-stock non-profit organization registered with the Securities and Exchange Commission with a five member Board of Directors. The NFG has entered into contracts with government and foreign-funded projects, with the general membership serving as a local experts pool.

The NFG is also collaborating with the National Centre for Transportation

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Studies (NCTS). Recent activities include donating two batches of books and materials on rural transport and development to the NCTS, discussing possible partnerships with ILO-ASIST Asia Pacific, and with the Asian Development Bank funded project with the Department of Agriculture. The NCTS has indicated willingness to look at the possibility of offering rural Transport and development as either a subject, a training course or even a degree

program and to encourage graduate students to carry out research on rural transport and development. The Philippine NFG sees involvement with the NCTS as the base from which advocacy and promotional activities are developed.

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Global road safety partnership

The GRSP is a global partnership between business, civil society and governmental organisations dedicated to the reduction of road accidents in developing countries.

Established under the World Bank's Business partners for Development (BPD) programme, the Global Road Safety Partnership (GRSP) aims to identify innovative ways to improve road safety by applying a business partnership approach. Previous efforts by governments and donors to try to improve road safety in developing countries have had limited success and many interventions simply have not been financially or

institutionally sustainable. The Global Road Safety Partnership hopes to produce solid evidence that partnerships between stakeholders offer win-win benefits for all parties and that this approach can be used throughout the world.

The GRSP strategy includes identifying and sharing lessons from projects, and aims to demonstrate that partnerships for development can be scaled up to regional and national levels. It also aims to develop and implement new demonstration projects in selected countries. Good practices arising from the GRSP partnership projects will then be disseminated.

Initial attention has focused on the following countries:

- Africa** Ghana, South Africa and Zambia
- Asia** India (Bangalore), Malaysia, Thailand and Vietnam
- Eastern Europe** Hungary, Poland and Romania
- Latin America** Brazil and Costa Rica
- Middle East** Jordan, Lebanon and Syria

nb: The GRSP is not a funding agency.

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Road safety awareness for public transport operators

The Western Uganda Road Maintenance Capacity Building Project (WURMCBP) has been supporting the Government of Uganda to rehabilitate most of the main gravel roads in Western Uganda. With improved roads, traffic will travel faster and traffic volumes should increase. There is a risk that accident rates and the severity of accidents will also increase.

To mitigate this, the project has a programme that has included road safety training for schools along the trunk road network, and construction of footpaths along sections used by many pedestrians. From traffic counts carried out along the roads, both before and after the road improvements, the most

prevalent group of vehicles and the major traffic increases are for minibuses, taxis and motorcycles. The driving behaviour of these groups is also of considerable public concern as indicated by letters and reports in the media. Thus the project has embarked on developing a road safety awareness programme targeted at public transport operators, to educate and encourage them to drive safely on the roads.

Preliminary activities have included the initial study, a meeting and the identification of resource materials. The meeting, held in Fort Portal was attended by representatives of the associations, government drivers, the traffic police in

the districts, the district road safety committees and the Chairman of the National Road Safety Council. The meeting provided an opportunity to learn and share ideas and experiences on road safety, and participants contributed to the development of the road safety awareness programme. It was decided to pilot the programme in Hoima and Masindi first.

The programme includes sensitisation workshops designed to meet the information needs of different stakeholders such as local politicians and executive members of transport associations in the district towns. Training courses for road safety officers and police

officers, and following this training on how to share the skills and knowledge learned with colleagues. Progress and results will be monitored by a workshop. Support to those involved will be provided throughout the programme. Importantly, efforts have been made to include stakeholders from outside the project area such as representatives from the insurance industry, the national UTODA and Motorcycle Association. This should both help refine the road safety programme for public transport operators, as well as support the uptake of the programme and use of the materials more broadly in the future.

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Making road sense

The World Bank and the Inter American Development Bank have funded a rural roads rehabilitation project in Peru over the past five years. Originally aimed at tertiary roads only, it also used a small part of the funding to develop a pilot project to rehabilitate and improve some paths in remote rural areas, such as Acobamba in Huancavelica.

Phase one of the project has already finished and an impact evaluation was carried out. Among the project's successes are 4,683 jobs created in the form of micro-enterprises, employing 8 to 15 people, each person responsible for maintaining 2.4 kilometres of road. Rural men and women (although fewer women) have received an income, they use the improved paths and roads more often, and the time

required to transport people and goods has been reduced. Public transport fares have decreased in a number of places and new and existing markets have flourished.

But is road rehabilitation and improvement enough? The provision of road education and raising awareness of road safety measures (good behaviour of drivers, following sign post instructions, appropriate use of the road, keeping speed limits, maintaining vehicles etc) are surely an essential part of a successful roads programme.

Last January, during a field trip from Lima to Huancavelica (an Andean city about 3,800 meters above sea level) I had the opportunity to realize the importance of this. As our 12 hour journey took us further from urban areas, the potential for dangers arising from conflict of use became

apparent. Forced to drive at low speeds owing to bad weather conditions and the late hour, we had to brake suddenly to avoid hitting horses and their drivers. Yet there were few road signs to inform motorized vehicle drivers of any potentially hazardous road conditions and no signposts for other road users. Local people, especially women and children, walk along these roads to transport firewood or to take their sheep, donkeys and alpacas to graze. Similarly, there has been no awareness raising among local people about the potential safety risks involved in road use, for example making sure they are easily visible to vehicle drivers. Solutions, such as the provision of crossing points or defined lanes for different users, did not appear to have been addressed.

With low traffic volumes in rural areas, accident frequency is low. However, when accidents do occur the results can be disastrous, as health services are often too difficult to reach rapidly following an accident.

New roads also bring exposure to new cultural patterns and socio-economic behaviour, which can expose people to new safety risks, for example diseases such as HIV.

If the benefits of new road interventions are not to be offset by the increased frequency of road accidents and risks to personal safety, then it is important to include road education and awareness raising as an important component of infrastructure intervention programmes.

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Identification of accident-prone locations

Road accidents are often concentrated over particular stretches of road or at certain intersections or junctions. This is not by chance, but because of factors such as road layout and structure, the types of traffic, road surface conditions and the behaviour of road users. Identification of these accident-prone locations is the first stage of any accident study. Detailed investigations can be taken up at such locations to identify the causes of accidents and then to suggest possible solutions.

In most developing countries, accident records are not collected and maintained in standard formats, or kept in centralised locations. Collecting the relevant information, – mainly from local police records – becomes a lengthy task. Available information will usually include: the location of an accident, date, time, number of persons killed and

injured and the types of vehicles involved. More detailed information, however, is usually missing. This includes factors such as the nature of the accident (for example head-on, rear end), type of location (mid-block, intersection, curve), weather conditions, condition of vehicles, pavement conditions, road geometry, road signs and markings. Diagrams of any sort are also usually missing. Traffic data is also essential to correlate accidents with traffic characteristics and traffic volume. In India, for example, this data is available at the Public Works Departments, for State and National Highways only.

While carrying out accident studies along a 21km stretch of a National Highway between Cuttack and Bhubaneswar, in Orissa, India, a new methodology was developed to enable existing information to be used in the identification and prioritization

of accident-prone locations. Two factors are significant in this process:

- accident frequency, defined as the average number of accidents occurring per million vehicles (passenger car units) per year at the site. This is useful for looking at traffic volume as an indicator of accident frequency. When two locations have dissimilar traffic volumes, the one that has the higher accident rate relative to the amount of traffic may be deemed to be more accident prone;
- the severity index, the average number of seriously injured or killed persons per accident over the study period.

To rate accident-proneness in Orissa locations, a 10x10 accident rating matrix was developed. The rating is based on the two parameters of frequency and severity, and provides an arbitrary but relative accident rating.

There is also the Accident Exposure Index (AEI), an alternative method of rating and ranking accident-prone locations. This is defined as the product of the annual accident frequency and severity index: the higher the value the higher the accident proneness.

While these methodologies use the quantitative data currently recorded at accident scenes, future methodologies should aim for a wider analysis of the accident scene, which will take into account qualitative data such as the nature of the incident, the types of road users involved, or the existence of road safety awareness programmes in the area, all of which remain largely ignored in the information collected at accident scenes today.

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Resources

Gender

Gender and rural transport initiative

November 2000 saw the participants and supporters of the Gender and Rural Transport Initiative (GRTI) of the World Bank's Rural Travel and Transport Programme (RTTP), convene in Nairobi to discuss progress so far, the next phase of the initiative, and the issues arising from the task of mainstreaming gender into rural transport policy.

For more information about GRTI please contact: Ezra Mbogori at MWENGO, Fax: +2634 333 422. email: ezra@mwengo.org.zw

IFRTD Gender resources

A key issue highlighted in Nairobi was the availability and accessibility of

existing information in this field. Various commitments currently under development by the international and national forum networks should address this gap.

In particular the Secretariat has made a commitment to develop the gender aspect of the IFRTD website, with designated gender pages. In particular, these will focus on the Balancing the Load programme, and any gender-related activities of the NFGs. They will also provide links to other gender resources and to the IFRTD library database which contains a considerable amount of gender and rural transport literature. With the input and assistance of IFRTD members, the Secretariat hopes to build a solid resource that will make existing gender and rural

transport research more visible and accessible.

The Secretariat is also in the final stages of editing a book based on the *Balancing the Load* programme of 1999. This will be published before the end of the year and more information will be given in forthcoming editions of Forum News.

email list

Virtual Forum for Latin America

The Latin America Forum is pioneering an email discussion group for spanish speakers. This virtual forum will provide a focal point for the discussion of issues relating to rural transport and development.

If you would like to join this E-list or find out more about the Latin America

Forum please email Ana Bravo at: ana.bravo@cwcom.net

Safety

Safety workshop

As part of the annual action plan of the Orissa Regional Forum for Rural Transport and Development (ORFRTD) it has been proposed to hold a three day national workshop on road safety in Bhubaneswar in mid-late 2001. The programme aims to involve all stakeholders and to seek collaboration and support from international and national organisations.

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Secretariat update

Priyanthi Fernando, Executive Secretary

The next issue of Forum News will include some changes. In November last year, NFG Co-ordinators formed 'editorial committees' around key themes that they felt the newsletter should deal with. They will take greater responsibility for commissioning and writing the articles. This will be co-ordinated by the Secretariat, and Kate Czuczman will take over as editor from Ros Patching. Ros has been editing the newsletter for the last five years, and played a major role in making *Forum News* the popular, easy-to-read, informative newsletter you told us it was! Thank you Ros for your enthusiasm and commitment to the Forum's work, and for your patience with our frequently over-length articles and missed deadlines!

You may also see some design changes. The

Secretariat update will no longer be a regular column, but if you need to know what we are doing, don't hesitate to contact us – in any of the ways listed below.

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*This issue:
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Forum News evaluation

Thank you to everyone who took the time to respond to the *Forum News* evaluation questionnaire that we sent out with the newsletter last year. Congratulations to Bishnu Kumar Bamma, (Nepal), Uton Rusan (Indonesia) and Mike McCall (The Netherlands) who were the winners of the book vouchers.

After more than 3 years of publication the Secretariat wanted to assess the impact of the newsletter and identify ways in which it could be improved or changed. Ana Bravo has now analysed the results and combined these with other methods of enquiry to produce an evaluative report of *Forum News* and how it provides a means for IFRTD to share information and stimulate networking.

Some of the main findings were as follows:

- Readership is 3.5 times the number of members on the mailing list due to people sharing the newsletters with

colleagues or placing it in libraries.

- Although the newsletter currently serves as both an information sharing and a networking tool, the networking aspect could still be developed. This is being addressed in part by the introduction of the resources column.
- The international perspective of the newsletter is valued, thematic issues are of more interest to readers than regional issues.
- Readers would like a longer newsletter in order to examine the issues in greater depth. The current capacity and funding levels of the Secretariat restrict this. However a suggestion could be to follow each issue with an email discussion to encourage debate on the issues raised.

For a full copy of the Forum News Evaluation report please contact the IFRTD Secretariat.