Regional Distribution of All Interests

- Latin America & Caribbean: 18%
- Middle East: 3%
- North America: 12%
- Africa: 11%
- South Asia: 5%
- Central/Eastern Europe: 10%

- Western Europe: 23%
- Central/North Asia: 2%
- East/South East Asia: 8%
- Oceania: 8%
World Bank: poverty alleviation workshop

The World Bank held a one-day workshop in Washington in June 2000, to discuss linkages between Transport and Poverty. A key aim of the workshop was to present the findings from a DFID-funded study carried out by the Overseas Development Institute (ODI) for the World Bank. The report, produced by a multi-disciplinary team, aims to provide an input into current thinking on the selection of instruments for inclusion in poverty-reduction strategies. The report, together with a toolkit developed from the report findings, can be seen on the ODI website (www.odi.org.uk/pppg/poverty.html)

The development of country strategy and transport toolkits to provide practical guidance was also discussed; research findings from Bangladesh, Indonesia, Peru, Zambia and Ghana were presented and a session on cross cutting perspectives was also held.

Poverty reduction is a key goal for both DFID and the World Bank. The ODI study and the workshop were just some of the initiatives being taken to:

- improve understanding of the linkages between transport interventions and the welfare outcomes for poor households
- assist countries in the development of their strategies for poverty alleviation by providing practical advice on issues, diagnosis, analysis, guidance on public actions and evaluation.

More information on poverty reduction strategy development processes can be found at: www.worldbank.org/poverty.prsp

Livelihoods Connect

A new cross-sectoral website supporting the implementation of sustainable livelihoods approaches to development has been launched - Livelihoods Connect. It provides helpful information and promotes knowledge sharing amongst practitioners. Funded by DFID’s Sustainable Livelihoods Support Office and produced by the Institute of Development Studies, you can visit and contribute to Livelihoods Connect on the web at: www.livelihoods.org

You can also receive Livelihoods Connect’s free monthly Email Update on sustainable livelihoods by sending a blank email to: subscribe-livelihoods-update@lyris.ids.ac.uk

For further information contact: Carl Jackson, IDB
Tel: +44 (0)1273 678 263
Fax: +44 (0)1273 678 262
Email: livelihoods-connect@ids.ac.uk

Cover photograph: Children walking to school.
Rural transport policy toolkit

This DFID funded project is based on a multisectoral approach to rural transport planning. Its objective is to take a comprehensive and systematic approach to analysing rural transport needs and constraints of the rural poor and to identify the policy context within which interventions can be taken. The types of interventions include:

- Improve frequency of transport services;
- Reduce transport costs;
- Road/track infrastructure maintenance through spot improvements;
- Low-cost water crossings;
- Non-transport interventions to reduce time and effort in water and firewood collection, such as the provision of wells and woodlots;
- Interventions to address the special transport and labour burdens of women.

Data collection incorporates quantitative and qualitative research methods designed to address transport, livelihood, mobility and accessibility issues. Qualitative data collection is based on Participatory Rural Appraisal (PRA) techniques and institutional interviews of local and regional government personnel and other political groups which have a bearing on the mobility of the villagers under study. These groups include local co-operatives, NGOs etc.

Findings from surveys carried out in Zambia highlighted extremes of poverty, vulnerability and remoteness. Transport emerged as a serious concern for the rural poor, particularly with regard to impact of poor accessibility and mobility on food security, agricultural marketing and affordability of health and education. Application of the Zambian data to the Sustainable Livelihoods Framework indicates a need for rural transport planning to be implemented using a package of measures which do not undermine existing assets. Surveys have also recently been carried out in Cameroon. Findings will be compiled to provide a working framework for identification of decision-making measures and policies to increase rural mobility in Sub-Saharan Africa and beyond.

Road maintenance: people at the centre

The sustainable livelihoods approach puts people at the centre of development. Placing an emphasis on the realistic inclusion of people enables them to make decisions on maintaining and improving their livelihoods.

Coupled with trying to reach the poorer sections of communities this approach and wider influences, such as participatory approaches, has moved transport professionals in developing countries to look at the provision of transport in a more holistic, people centred and sustainable way. To capture experience on the above and give guidance to engineers and planners alike, DFID funded IT Transport Ltd. to develop guidelines for ‘Community Participation in Road Maintenance’. The three year project finished early this year and produced:

- a literature review;
- four case studies from East Africa; and,
- guidelines for planners and engineers on ‘Community Participation in Road Maintenance’.

The literature review took a broad look at people’s participation in many sectors, the aim being to distil best practice and raise issues for further investigation in the case studies. The four case studies were conducted in Kenya, Uganda and Tanzania, and covered a range of transport interventions and types of participation. The key issues raised from the above included:

- importance and type of access provided by the road had a great impact on the type of participation and people’s willingness to participate in project activities;
- homogeneity of the community was a large factor in the planning and implementation stages of projects, especially in the organisation and conduct of community works; and,
- the lack of participation in the past has lead to a reluctance of people to have a responsibility for community infrastructure.

The guidelines were developed to tackle the above issues, which were further discussed during a regional workshop. The guidelines, available from IT Transport, are aimed at transport professionals at the implementation level who can see the benefit of including people in the project process, but need ideas and guidance on how to do it. Funding is now being sought to conduct a similar exercise in Asia.

For further information contact: Marcus Wattam, IT Transport
Tel: +44 (0)1125 833753
Email: marcus.wattam@ittransport.co.uk
DFID Projects Reference: R6476: ‘Community Participation in Road Maintenance’
Theme Objective: T3
Decentralization of road administration in poor countries

A study of decentralization of road administration in poor countries has been undertaken for DFID. This included field studies in Nepal, Uganda and Zambia.

The study has looked particularly at administrative decentralization, although issues of political, fiscal and management decentralization were also considered. Different administrative decentralization models were investigated, including that involving a road fund. Recommendations are made about which models offer the greatest chance of success in terms of their ability to reflect local priorities, their achievement of market discipline, their scale of operations, and the simplicity of their decision-making linkages.

Evidence from the case studies suggests that decentralization has resulted in few of the expected advantages. Whereas there are some positive outcomes resulting from the road sub-sector reform process in central government, these changes are not yet being reflected in the decentralized bodies which, to some extent, are making matters worse. The issue is not so much a problem of decentralization per se, but more one of how decentralization has been applied in practice. Problems include a lack of local government powers to exercise political influence, insufficient financial resources, a lack of management capability, and a lack of accountability mechanisms.

Data on poverty issues are limited, but suggest that there is little evidence of decentralized systems being particularly responsive to vulnerable groups, including the poor. The results conclude that decentralization, as currently practised, tends to reinforce existing patterns of uneven development. Thus the study has not been able to establish a direct link between decentralization and improved governance or poverty reduction. More active identification and involvement of the poor in the planning and implementation processes is required if much of the above is to be addressed.

The study suggests that the basic nature of road networks makes the process of managing the sub-sector more complex than for some other types of infrastructure. Furthermore, the management of maintenance, operations and renewals is more complex than managing new works. These findings have important implications for decentralization.

For further information contact: Richard Robinson or David Stiedl
Email: RobinsonUK@compuserve.com or tashi@globalnet.co.uk
DFID Projects Reference: R7437: ‘Decentralization of Road Administration’
Theme Objective: T4

Teaching children to be safe road users

Road accident studies in developing countries typically show that pedestrians are highly vulnerable road users and that children are particularly at risk.

For example approximately one-in-five of road accident fatalities in Africa are children under the age of 15 — about twice the rate for the United Kingdom.

One way of making children safer is to provide road safety education (RSE) as part of their formal schooling — as is the case in most developed countries. RSE needs to be progressive, relevant and practical, and teachers need to be trained in how to teach it in the classroom. Over the last decade DFID have funded a number of research projects aimed at producing effective RSE resources for teachers, focussing on materials for primary school children, typically aged between 5 to 12.

TRL worked with the Ghana Road Safety Council to develop and evaluate materials for children and teachers in the final year of primary school in Ghana. This resulted in TRL Overseas Road Note 17 ‘Good Practice Guidelines’ which provides detailed advice and guidance to senior administrators and policy makers for providing RSE in primary schools (reported in issue 5). This was extended, in collaboration with the Central Institute for Road Transport (CIRT), with the development of materials for first year primary children in Pune in India (TRL report 442). More recently a British Council project funded by DFID ‘Uganda In-Country Training Programme – Developing road safety education resources for primary school children’ produced a road safety curriculum and teacher’s guide for all seven years of primary education, with materials based on the use of flip-charts - a medium particularly suited for teaching RSE to young children in poor countries.

DFID remains committed to extending this important programme to other countries, to provide resources for children of all ages, and to those who do not attend school.

For further information contact: Allan Quimby, TRL
Tel: +44 (0)1344 770898
Email: international_enquiries@trl.co.uk
DFID Project References: R6890, “Road Safety Education in Developing Country Schools and Communities”
Theme Objective T1

DFID Newsletter and KAR project details on the Internet:

This newsletter and DFID KaR (Knowledge and Research) transport project details are available on the Internet:
www.trl.co.uk/dfid/dfid-kar-transport.htm
If you experience any difficulty with receiving your copy by post or downloading from the Web, we can send you the newsletter as pdf or html files by email. Please contact:
International_enquiries@trl.co.uk.
Global Road Safety Partnership (Update)

Launched in February 1999, the Global Road Safety Partnership (GRSP) is a network of businesses, civil society organisations and relevant government ministries, working together to promote road safety world-wide.

Established under the World Bank’s Business Partners for Development (BPD) programme, it now has its headquarters in Geneva, where it is hosted by the International Federation of Red Cross and Red Crescent Societies (IFRC).

GRSP receives positive support from DFID and seeks to identify and publicise good practice and lessons learned from projects involving the business sector. GRSP is also in the process of developing and implementing new demonstration projects in the following countries:

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>Africa</td>
</tr>
<tr>
<td>South Africa</td>
<td>Asia</td>
</tr>
<tr>
<td>Zambia</td>
<td>Central/Eastern Europe</td>
</tr>
<tr>
<td></td>
<td>Latin America</td>
</tr>
<tr>
<td></td>
<td>Middle East</td>
</tr>
<tr>
<td></td>
<td>Europe</td>
</tr>
</tbody>
</table>

DFID on behalf of GRSP commissioned TRL and Ross Silcock, a member of Babtie group, to carry out a global review of road safety management. Surveys of country practices are currently underway with an aim to disseminate best practice. GRSP is always keen to learn of new examples of business sector involvement in delivering road safety programmes.

For further information contact: Brett Bivans, GRSP Co-ordinator
Tel: +44 (0)14122 7304249  Fax: +44 (0)14122 7330395
Email: grsp@ifrc.org

Under reporting of road traffic casualties

The problem of under-reporting of road accidents has long been recognised in the UK and other highly motorised countries, but it is believed to be much worse in low-income countries where incentives for reporting, e.g. legal or insurance requirements, are less enforced.

DFID-funded research by TRL has studied the extent and causes of under-reporting of road traffic casualties by comparing hospital data with official police records. The study found official statistics under-estimated the human problem, often seriously so, with reporting (i.e. the percent of hospital treated road casualties reported by police) estimated to range from between 3-12% in Dhaka, 17-33% in Hanoi and 24-53% in Bangalore.

It was recommended that road traffic casualties should be reported by hospitals in a similar manner to other major causes of illness and death. Police should give higher priority to liaising with hospitals, and allow junior officers (both general and traffic police) to report (but not investigate) road accidents. To avoid under-estimating the severity of the problem, the data should refer to “reported road traffic accidents” and adjustment factors should be used in cost benefit analyses of safety measures.

For further information contact: Amy Aeron-Thomas, TRL
Tel: +44 (0)1344 770943  Email: international_enquiries@trl.co.uk
DFID Project Reference: R 5883
“Accident Recording, Investigation & Evaluation Systems”
Theme Objective T1

Estimating global road fatalities

As part of the GRSP programme, an update of global road fatality estimates was made by TRL, co-funded by the World Bank, DFID and TRL and reported in TRL Report 445. The report also includes an estimate of the economic cost involved, regional analyses and casualty trends by age, sex and road user type.

Available data were updated for 1999 and adjusted for under reporting. The revised estimates show that about three quarters of a million lives were lost in 1999 with 86% of them occurring in low income and transitional nations where 40% of the world’s motor vehicles are located. Road deaths are on the increase in several of the low income regions whereas road deaths have fallen in highly motorised countries. The global cost in 1999 was estimated to be US$500 billion with US$60 billion incurred in low income and transitional countries.

Males were found to account for the majority of road fatalities, most of which occur in the prime of life. While females may not be the primary victim, they are often affected by the loss of a husband or father which can have devastating effects (both financial and social) on a family.

The study highlighted the limitations of police statistics and the limited use of accident data. It recommends the use of alternative safety indicators, such as the number of safety audits or number of remedial measures implemented and places less reliance on casualty statistics with more priority being given to the collection of injury data, especially by hospitals. It also urges more research to be conducted on the dissemination and application of accident data in low-income countries.

For further information contact: Goff Jacobs or Amy Aeron-Thomas, TRL
Tel: +44 (0)1344 770943  Email: international_enquiries@trl.co.uk
Investment in road infrastructure in developing countries has recently been concentrated in rural areas, where roads are relatively lightly trafficked (below 200 vehicles per day). These roads are often constructed with locally available, sub-standard materials, more susceptible than standard materials to erosion or deformation by traffic in wet weather.

Increasingly, proprietary chemical stabilisation products including ionic soil stabilisers such as sulphonated petroleum products (SPP’s) are being marketed as a cost effective solution for improving the durability of rural paved and unpaved roads. Most of the products available on the market claim to improve compaction, strength and durability of the road-building materials. TRL, in collaboration with the CSIR in South Africa, have undertaken a DFID-funded study to examine the effects of additives on a range of materials and develop a strategy whereby engineers can make rational judgement on the selection and use of such additives. Field studies carried out in South Africa and the Middle East have shown that, where additives have been used, both densities and strengths can be significantly higher than control sections containing no additive. If additives are to be used routinely, practitioners need to fully understand:

- composition of the various products (most manufacturers remain secretive about the composition of the additives)
- how and why they react with particular soils and importantly, why in some cases they do not
- suitability of standard engineering procedures to evaluate product suitability (standard tests such as CBR are only effective where significant strength changes occur)
- methodology of mix design (matching products to soils and in the correct concentrations) and the suitability of existing specifications
- environmental and safety issues (SPP’s are acid-based)
- working methods and curing procedures
- life cycle cost analysis based on controlled performance studies

Much of this information is generally made available to the practitioner by the manufacturers or their representatives. However, the advice being issued as a result of the research to date is for practitioners to seek a product performance guarantee from the suppliers when contemplating the use of chemical additives. To develop confidence in the use of these stabilisers and to formulate acceptable performance guarantee criteria, data need to be collected from properly researched and controlled field performance studies.

Better design for highway slopes in tropical soils

Tropical residual soils are formed in place by the profound weathering of parent rock and generally exhibit good strength characteristics because of good interparticle bonding and matric suction in the unsaturated zone. However, heavy downpours penetrate into the exposed soil in slope cuttings, especially on newly constructed slopes, reducing its shear strength and often resulting in major landslides and sometimes loss of life.

A recent DFID-funded research project has developed a methodology for optimising slope designs through these soils, in terms of safety (minimise the likelihood of failure) and economics (minimise construction and maintenance costs). The research suggests that safer and more economical slopes can be achieved by constructing at, or close to, the vertical in some residual soils.

- Distribution of failure probability with age of highway cut is calculated.
- Failure probabilities for highway cuts are calculated.
- Whole life cost analysis is carried out based on failure probability and construction/maintenance costs using a suitable discount rate.

The proposed methodology utilises already available software together with fundamental knowledge of how residual soils behave. The basic model for slope stability analysis is shown in the graphic. The methodology of analysis is as follows:

- Wetting band (deteriorated zone due to water infiltration) is calculated using standard geotechnical data.
- Slope analyses are run using appropriate soil properties for the wet and dry zone and the resulting factors of safety are converted into failure probabilities.
- Distribution of failure probability with age of highway cut is calculated.
- Whole life cost analysis is carried out based on failure probability and construction/maintenance costs using a suitable discount rate.

Geotechnical data for Malaysian, Kenyan and Zimbabwean soils have been used to validate the methodology with promising results. The new design approach could produce optimal highway cuts in residual soils, resulting in reduced whole life costs. In addition to producing direct savings for the highway authority, this technique can aid improved road condition and access.
Implementing HDM-4 across the world

HDM-4, the Highway Development a Management System, is software for investigating road investment choices. It will enable managers of road network assets to investigate the possibilities for providing cost-effective development and upkeep of their road system, bringing benefits to the communities that they serve.

The World Road Association (PIARC) manages the International Study of Highway Development and Management Tools - the ISOHDM Project. Its current focus is on:

- producing and disseminating product updates;
- fostering training and dissemination activities;
- fostering the growth of HDM-4 regional and international user communities;

The HDM-4 products, which include the HDM Series documents, the HDM-4 software and associated case study data sets, were released in Version 1.0 in March 2000 with an update (Version 1.1) issued in August 2000. So far, almost 500 copies of the software have been purchased.

The global distribution of interest from potential users, as shown by almost 700 registrations from 106 countries, is shown in the figure. While HDM technology is equally suitable for application in both developed and developing countries, PIARC has a particular interest in encouraging its use in developing countries and transition economies. A total of 61 of these special consideration countries accounts for 31% of the interests expressed by individuals.

ISOHDM encourages and coordinates training activities provided by local training suppliers in all regions of the world, and already training or awareness events have been scheduled in at least 21 countries.

A major training project has been the development and delivery of a broad Training and Dissemination Strategy in the Asian region. Currently, ISOHDM is promoting a similar training strategy development for the Latin American region, with TRL guidance.

The formation and growth of country or regional user groups is encouraged. These can bring benefits through coordination of local calibration and customisation efforts, publication of regional case studies and localised default data sets, and other user interactions. Organised regional user activities are starting to emerge, for example in northern and eastern Europe, Australia, Japan and in the Latin American region.

**Electronic conference on urban public transport**

Entitled “Urban public transport and sustainable livelihoods”, this electronic conference took place by email during September and October 2000. Its aim was to discuss issues related to the linkages between urban public transport and ‘sustainable livelihoods’ and to present findings from a DFID funded research project “Partnerships to Improve Access and Quality of Public Transport for the Urban Poor”, a study based in Karachi, Pakistan. A report entitled “Urban public transport and Sustainable Livelihoods for the poor” a case study: Karachi, Pakistan, is available from Loughborough University.

Approximately 100 participants took part in the first phase which was led by Dr Sohail of WEDC, who encouraged and provided the stimulus for participation by suggesting topics and ideas which emanated from the research findings and DFID’s own ideas and perceptions on the Sustainable Livelihoods approach.

Further phases included a discussion of the lessons learned and future direction of research in this area and were equally successful. The e-conference format brought together various stakeholders, such as NGO’s, researchers, government staff and consultants, to discuss practical elements behind urban transport provision, and provided an opportunity to voice comments and share experiences in relation to urban public transport services. A synthesis report will be produced and although the conference has ended, the forum will remain open for further discussions.

**HDM-4 training in Asia**

The Asian Development Bank (ADB) have let a contract for Training and Dissemination of HDM-4 in the Asia Pacific Region. The project, awarded to TRL in association with the Centre for Rural Development and Training at Wolvehampton University (CRDT), University of Birmingham and BMM, the institute of training and research in Malaysia, aims to achieve a sustainable approach to the adoption and effective use of HDM-4 in the region.

The project has three key objectives: to develop a training and development strategy for HDM-4 for the next 5 years, to develop training and dissemination materials in support of this strategy and to deliver a training programme in the Asia Pacific region.

The project is now in the second phase. A strategy has been developed and a ‘Train the Trainers’ course held at BMM for 25 selected trainers from 9 countries in the region. The project will now provide support to in-country courses to be held in these target countries, aiming to provide sustainable development and improvement of road management.

**REAAA Tokyo 2000**

The 10th Conference of the Road Engineering Association of Asia and Australia (REAAA) was held in Tokyo, Japan, in September, 2000. The main theme of the event was “Road development for the 21st Century” with particular attention given to the new challenge of optimising the allocation of investment under the critical economic situation prevailing in Asia.

Seven papers were contributed by TRL on DFID funded projects, some of which were co-funded by the World Bank and the Indonesian Government. These are listed on page 8 of this newsletter.

For further information contact: TRL
Email: international_enquiries@trl.co.uk
Recent publications

**Books**


**Reports**

Guidelines for engineers and planners for community participation in road maintenance. Available from IT Transport Ltd.


TRL 442: Sayer, I A, A Quinlivan, G Murray and J Guy, Improving road safety education (RSE) in developing countries. India

For copies of the above publications please contact TRL unless otherwise stated. Limited numbers of TRL publications on DFID-funded research are free of charge to nationals of developing countries. A full list of TRL's international publications is available on the TRL website: www.trl.co.uk/pubseas.htm

Contact addresses

DMRD, 94 Victoria Street, London, SW1E 5JJ, UK
Fax:+44(0)207 917 0972 www.dfids.gov.uk

GRSP Secretariat, PO Box 372, 17 Chemin des Orets, CH-1211 Geneva 19, Switzerland Fax: +41 22 733 03 95 www.worldbank.org/bpd

IDS, Institute of Development Studies, University of Sussex, Brighton BN1 9RE, UK
Fax: +44 (0)1273 621289 www.ids.ac.uk

IT Transport Ltd, The Old Power Station, Ardington Nr. Wantage, Oxfordshire OX11 6AU, UK
Fax: +44 (0)1235 822168 www.trl.co.uk/dfid/dfid-kar-transport.htm

ODI, Portland House, Stag Place, London SW1E 5DP, U.K.
Fax: +44 (0)207 922 0399 www.odi.org.uk

SUSTRA Resource Centre, PO Box 11501, Kuala Lumpur 50748 Malaysia, Tel/fax: +60 3 227 42509
Email: sustran@po.jaring.my www.malayakartini.com/sustran

TRL, Old Wokingham Road, Crowthorne, Berkshire RG4 6AU, U.K.
Fax: +44(0)1134 770356 www.trl.co.uk

University of Birmingham, Edgbaston, Birmingham B15 2TJ, U.K.
Fax: +44 (0)121 414 3571 5160 www.bham.ac.uk

WEDC, Loughborough University, Leicestershire LE11 3TU, U.K.
Phone: ++44 (0)1509 223285 Fax: +44 (0)1509 211079 www.wedc.ac.uk

The World Bank, 1818 H Street NW, Washington DC 20433 USA
Fax: +1 202 522 1500 www.worldbank.org

World Road Association (PIARC / AIPCR), La Grande Arche, Paroi Nord (no 6), 93655 La Defense FRANCE
Fax: +33 (1) 49 00 01 02 www.hdm.piarc.org

---

**Overseas Road Note 1 - planned new edition**

A new edition of TRL’s ORN1: *Maintenance Management for District Engineers* is planned. The revision will bring the document up to date (last revised in 1987), but how this is done is very much up to current and future users.

Is ORN1 useful? How could it be improved? What extra would you like to see? What parts of the road network should it address?

We would like to make contact with ORN1 users and others who have an opinion about it. Please email Simon Done (sdone@trl.co.uk), or fax/write to the TRL address. This is your opportunity to make your views known so that the final document provides what you as road engineers and managers really need. We look forward to your interest.

---

This newsletter is available free of charge, aimed at those who are interested in Transport related issues in the developing world. To be included on the mailing list, please send your name and address to the editor or use the application form now available on the TRL World Wide Web Page: www.trl.co.uk/dfid/orn1.html.

To optimise the dissemination process, it is important that this newsletter is reaching the right people. Please inform the editor of changes in address details or if you no longer want to remain on the mailing list.

Published by the International Division TRL, on behalf of the Department for International Development. Printed on recycled paper.