



Knowledge Demand Assessment for the Transport and Rural Infrastructure Services Project

A Literature Review



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June 2002

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The demand for information on transport issues in rural areas in developing countries

- There is virtually no literature specifically about the demand for information on transport issues in rural areas in developing countries, although there is much tacit knowledge (Colombia Case Study¹).
- There is a substantial volume of knowledge about transport needs and much detailed case-study information is available in the literature or on web sites (The World Bank², Transport Links³), but there is little information incorporating analysis or synthesis at regional, national or international levels. The World Bank, and other sites also provide much useful information on how to assess transport needs (Lebo and Schelling in progress⁴).
- There is a general assumption about the demand for and value of information for policy makers and practitioners (DFID Transport Newsletter May 2001⁵), and information is recognised as vital for learning about the impact of development interventions in general (Thin and Good 1997⁶).
- The dissemination of information is one of the aims of many of the institutions working in this sector and the importance of knowledge sharing is emphasised in their institutional strategies (IFRTD⁷, DFID⁸). Some of these institutions have undertaken an analysis of the information needs of their target audiences to develop their information strategies (IFRTD⁹, DFID¹⁰). However, these are only described in internal documents and have not been made available to the public. Most of these strategies seem to be based on the outputs from transport research programmes, rather than an assessment of the information needs of potential users (TRL 2000¹¹). There are some new initiatives on information sharing in rural transport issues, which could contribute substantially to any future dissemination strategies (World Interchange Network¹², SUSTRAN¹³, IFRTD¹⁴).
- The literature and information that is available tends to focus on transport policy-planning processes to reduce poverty. There are many analyses of information constraints in the appraisal of rural transport projects, for example, the lack of adequate economic, social and political information to inform traditional cost-benefit evaluation of transport investments. This is used by some authors to justify the development of alternative models based on local information (Balla 2000¹⁵, Van de Walle 2000¹⁶, Lebo and D. Schelling, 2001¹⁷). There are also many methodologies, guides and articles describing the kind of information needed for transport planning, for example, sectoral approaches (EU 2002)¹⁸; participatory rural planning (ILO/SDC 1997¹⁹); integrated rural accessibility planning (Dixon-Fyle 1998²⁰, Dingen 2000²¹); and for environmental impact assessment of transport projects (UN 2001²²).
- Most authors agree that information needs are highly context specific, and an attempt to systematise knowledge about information needs (based on IFRTD's Information Strategy) and provision (based on an internet search) failed to identify any general gaps and opportunities. However, there does seem to be more information about roads than other modes of transport, and more on transport technology than social and economic factors.

Information and knowledge in livelihoods in rural areas²³

- Information and communication are critical elements of livelihoods in rural areas. Poor people need information to make decisions on livelihood strategies, and the institutions with which they interact need information to inform the policies and processes that support (or undermine) those strategies.
- Rural communities, their institutions, government and other agencies all have well developed local communication and information networks, and many people still trust what they can hear and see first hand above other information. Television and radio can reach a wide audience in many developing countries and access to the internet is growing throughout the developing world. The current emphasis on extending internet access however, runs the risk of losing communities rich, vital and experiential knowledge, which has always circulated in local informal networks, and new hybrid communication systems are needed which can integrate existing information and networks, to inform and be informed by the internet.
- Improved communication and information alone however are not sufficient for improved livelihoods. Stakeholder participation in decision-making processes, and building multi-sectoral collaboration and partnerships between them are also crucially important. This wide range of stakeholders, from rural communities to international support agencies, all have their own specific information needs and delivery preferences. Sustainable development and the elimination of poverty also demand attention to national political economic and social processes, international relations and trade.
- A recent study of information needs to support rural livelihoods in developing countries identified the information needs of stakeholders at all levels:
 - Rural poor households need information about the availability of inputs and services, market prices, and general information about the institutional and policy context.
 - Producer organisations need information on opportunities and constraints in the rural sector.
 - Local NGOs need information about existing livelihood opportunities and constraints.
 - Local government needs information about the local status in all sectors, their own and other's services, opportunities and poverty.
 - Private sector organisations need information about markets, opportunities and local regulations.
 - National NGOs need information about policies, institutions and decision-making processes.
 - National government needs information to monitor public programmes and trends in production and poverty.
 - International Donor agencies need national-level and international information on production, poverty and governance.
- The study identified seven key recommendations to improve information and communication in rural areas:
 - Determine who should pay: Information for agricultural and rural development was until recently considered a global public good to be made freely available to all, but donors and governments are increasingly relying on the private sector. There are some examples where rural communities are prepared to pay for information, but poorer farmers often lose out because they can not afford to pay. More work is urgently needed to explore this issue, to develop a new consensus on who should pay for information for poorer farmers.
 - Ensure equitable access: There is substantial evidence that if new information systems do not reach the poor, existing social, ethnic, gender, economic and political

disparities may be exacerbated. Television and radio remain much more widely accessible than the internet, especially in Africa. There are good examples in Africa and Asia where new, internet-based information services have had positive livelihoods and governance outcomes for the poor. The challenge is to apply these pilot approaches more widely and to ensure information is also integrated into, accessible through, and complements more traditional media.

- Promote local content: Rural communities trust endogenous and local information more than exogenous information, and are unlikely to adopt external solutions, without substantial discussion of locally specific examples. Improved access to locally-relevant information is essential for poverty reduction. Supporting communication between local institutions may be more important than providing new content from external sources.
- Build on existing systems: Many information systems are overly ambitious, overly complex, and over-designed. They tend to overlook the fundamental organisational processes and institutional incentives that encourage people to use them. Experience shows that the most effective systems are simple and modest, and build on existing databases and data collecting routines to provide specific information to specific users, to inform decisions for which they are accountable.
- Build capacity: There is a critical need to build capacity at all levels – international, national and local. It is particularly important to strengthen local capacity in information collection, storage and dissemination in order to bridge the gap between information providers and users.
- Use realistic technologies: Information and communication initiatives for development are expanding exponentially. Most promote the latest technology, leading to a perpetual race to keep up. It is essential to be more realistic. In developing countries the most sustainable approach is to use a combination of old and new technologies and to link them, though there are few good examples.
- Build knowledge partnerships: The new ‘network’ age makes it possible to build dynamic ‘knowledge partnerships’ between individuals and organisations at any level. Multidisciplinary knowledge partnerships that can develop mechanisms to deal with the problems of connectivity and information literacy at community level, and link with national and international systems, offer the potential for a dynamic two-way flow of information at every level.

Information and knowledge in policy processes²⁴

- Traditionally, policy-making has been viewed as a linear process, where policy makers identify a problem, then explore various possible solutions based on existing knowledge, or by commissioning research, decide on the best option, then establish the policy environment to implement it. The literature on policy processes is now shifting towards a more dynamic and complex view that emphasises a process shaped by multiple relations and reservoirs of knowledge, where the political context, the actors (networks, organisations and individuals), the message, and media all exert influence.
- According to political scientists, the policy process is essentially a political process, driven and constrained at least as much by political factors as by knowledge. The literature on anthropology describes how policy makers (and other people) are influenced by ‘discourses’ or ‘paradigms’, and tend to relate new ideas with them. Information or knowledge outside the current paradigm, or the dominant discourse, are unlikely to influence policy decisions, unless they contribute to an emerging discourse which is in the ascendant. It is interesting that the current paradigm of ‘the information age’ has politicised information itself. Information, and its generation and use, is no longer neutral. Information is often described in political terms as, for example, ‘strengthening the interests of developed countries’ or ‘contributing to the digital divide’, or (more positively) ‘empowering the poor’.
- Multiple actors participate in the policy process through a wide range of institutions and networks. Actors perceive, remember and use ideas in different ways, and various models have been developed to describe this. Economists developed the rational economic or cost/benefit model, and behavioural psychologists the stimulus-response model. More recent attempts to explain why some ideas succeed and others fail have tended to emphasise ‘irrational’ factors such as culture and values (of both organisations and individuals), the part played by informal and ‘non-linear’ decision-making processes, and the role of emotional dynamics such as anxiety and memory (again, both in organisations and individuals). Studies in organisational management and social psychology have revealed that individuals and organisations are unlikely to easily adopt new ideas, which affect their identity and values, without a crisis or very strong pressure. They are likely to be much more receptive to ideas and information which only require changes in, for example, operational procedures, practices and resource distribution.
- The degree of attention paid to circulating ideas is also determined by the way those ideas are presented. There are many academic fields that provide interesting contributions in this regard, including the literature on interpersonal communication, advocacy and marketing communication, media communication and IT, and knowledge management and research relevance. These fields have gradually shifted away from various linear theories of communication (sender – message – channel – recipient) towards more interactive models. The focus on interaction implies that there is no longer a hierarchical and clearly defined relationship between the ‘sender’ and ‘recipient’, but rather that both parties in a communication process occupy sender and receiver roles at different stages. Moreover, both parties contribute to the content and meaning of the message. In other words, the message is not fixed, but changes as it circulates between the different parties, since different actors will understand and respond to the message in different ways.

Gaps in understanding of the demand for information on transport

- While there is much tacit knowledge, there is little explicit information available in the literature or on web sites describing the demand for information on transport issues from any of the key stakeholders. Most of the current information providers are donors, research institutions or networking organisations, who have themselves decided (more or less scientifically) what the information users need.
- Further work is necessary to identify transport information needs more clearly. This could be through capturing, codifying and publishing existing tacit information; through interviews with key players and/or analysis of case studies; and/or further research (as is planned within TRISP).

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Organisations involved in the delivery of information or learning about transport in rural areas

- **Advisory Support, Information Services and Training for Employment-Intensive Infrastructure Development (ASIST):** ASIST is an International Labour Organisation (ILO) programme, seeking to contribute towards the alleviation of poverty through the use of local-level planning methodologies and employment-intensive strategies in the provision of rural and urban infrastructure. For further information see: www.ilo.org/public/english/employment/recon/eiip/asist/index.htm
- **Animal Traction Network for Eastern and Southern Africa (ANTESA):** ANTESA is a network for information exchange and regional co-operation relating to animal draft power. This network aims to unite researchers, manufacturers, development workers, institutions and the users of animal traction in the region. For further information see: <http://www.atnesa.org/>
- **Department for International Development (DFID) – Infrastructure and Urban Development Department – Transport:** DFID provides assistance in the formulation and implementation of transport policies and programmes. Their work is focused on land based movement, with particular emphasis on road travel, whether it be by foot, by intermediate means of transport or by motorised transport, mainly in the poorest countries of Asia and Sub-Saharan Africa. For further information see: www.transport-links.org/
- **Economic and Social Commission for Asia and the Pacific (ESCAP) -Transport, Communications, Tourism and Infrastructure Division:** ESCAP is the regional arm of the United Nations Secretariat for the Asian and Pacific region. Its Transport, Communications, Tourism and Infrastructure Division focuses on assisting ESCAP member countries in improving the development, management, operation, maintenance, and pricing of environmentally sound, efficient, and safe transport and communications facilities and services. For further information see: www.unescap.org/tctd/index.htm
- **Economic Commission for Latin America and the Caribbean (ECLAC) – Transport Unit:** ECLAC is one of the five UN regional commissions. The Transport Unit supports the formulation and implementation of transport policies in the region. For further information see: www.eclac.cl/transporte/
- **Economic and Social Commission for Western Asia (ESCWA) – Transport Section:** ESCWA's Transport Section promotes the formulation of sustainable regional transport policies. For further information see: <http://www.escwa.org.lb/divisions/sectoral/transport.html>
- **Institute for Transportation and Development Policy – ITDP:** ITDP is a New York based non-profit organisation focusing on promoting environmentally sustainable and equitable transportation policies and projects world-wide. For further information see: www.itdp.org
- **Intermediate Technology Development Group (ITDG) – Transport:** ITDG is a charity working with poor communities in developing countries to develop appropriate technologies. In transport, ITDG's objective is to achieve greater adoption of transport technologies, services and policy frameworks which benefit poor communities. For further information see: www.itdg.org
- **International Forum for Rural Transport and Development (IFRTD):** IFRTD is a global network that focuses on facilitating and promoting successful application of policies and practices that will result in the development of rural transport systems that satisfy the accessibility and mobility needs of rural women, men and children. For further information see: <http://www.ifrtd.gn.apc.org/>
- **Sub-Saharan Africa Transport Policy Programme (SSATP):** SSATP is a joint initiative of WB and the United Nations Economic Commission for Africa (UNECA), to improve

transport sector performance by promoting policy reform and institutional changes in Sub-Saharan Africa. For further information see: www.worldbank.org/afr/ssatp

- **Sustainable Transport Action Network for Asia and the Pacific – SUSTRAN:** SUSTRAN is an information sharing network. It promotes people-centred, equitable and sustainable transport with a focus on Asia and the Pacific. For further information see: <http://www.geocities.com/RainForest/Canopy/2853/index.htm>
- **Transportation Research Board (TRB):** TRB is a unit of the U.S. National Research Council, a private, non-profit institution. The Board's mission is to promote innovation and progress in transportation by stimulating and conducting research, facilitating the dissemination of information, and encouraging the implementation of research results. For further information see: <http://www.nas.edu/trb/>
- **Transport Research Laboratory (TRL):** TRL is a private research institution. It provides advice to governments, aid institutions and private companies on land transport issues. For further information see: <http://www.trl.co.uk/>
- **World Bank (WB) – Transport Group:** The mission of the transport group in the World Bank is to assist their clients to reduce poverty by improving the efficiency and equity of transport policy and interventions. For further information see: www.worldbank.org/transport
- **World Interchange Network (WIN):** WIN is a service facilitating the contact between people and experts. It is a network of road-related information and knowledge transfer centres. For further information see: <http://www.piarc.org/rme/index.html>
- **World Road Association (PIARC):** PIARC is a non-profit organisation to promote international co-operation on issues related to roads infrastructure and transport. Their work is focused on producing reports on best practices and recommendations in their respective fields in order to assist decision makers, road engineers and research engineers. For further information see: www.piarc.org

Some useful web sites

- Advisory Support, Information Services and Training for Employment-Intensive Infrastructure Development (ASIST):
<http://www.ilo.org/public/english/employment/recon/eiip/asist/index.htm>
- Animal Traction Network for Eastern and Southern Africa (ANTESA):
<http://www.atnesa.org/>
- Department for International Development (DFID) – Infrastructure and Urban Development Department – Transport: <http://www.dfid.gov.uk/>
- DFID - Transport Links: <http://www.transport-links.org/>
- Economic and Social Commission for Western Asia (ESCWA) – Transport Section:
<http://www.escwa.org.lb/divisions/sectoral/transport.html>
- Economic and Social Commission for Asia and the Pacific (ESCAP) -Transport, Communications, Tourism and Infrastructure Division:
<http://www.unescap.org/tctd/index.htm>
- Economic Commission for Latin America and the Caribbean (ECLAC) – Transport Unit:
<http://www.eclac.cl/transporte/>
- European Union – Transport Sector:
<http://www.europa.eu.int/comm/development/transport/en/entc.htm>
- Institute for Transportation and Development Policy – ITDP: www.itdp.org
- Intermediate Technology Development Group (ITDG) – Transport: www.itdg.org
- International Forum for Rural Transport and Development (IFRTD):
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- Transport Research Laboratory (TRL): <http://www.trl.co.uk/>
- Transportation Research Board (TRB): <http://www.nas.edu/trb/>
- World Bank (WB) – Transport Group: www.worldbank.org/transport
- World Interchange Network (WIN): <http://www.piarc.org/rme/index.html>
- World Road Association (PIARC): www.piarc.org

Appendix 1: Transport Information Matrix

Information Needs of Different Stakeholders and availability of information on the internet.

Categories of Information	International Donors	National Governments, policy makers, policy advisors, transport	Local Government	Private Suppliers (Infrastructure & Services)	Research Institutes Universities and Consultants	International NGOs	Civil Society - Local NGOs
Transport Needs¹ , access and mobility needs.	X	X	X	X	X	X	X
Rural Transport Planning² , policy, planning, strategies, design, appraisal, management, implementation, financing.	X	X	X	X	X	X	
Urban Transport Planning³ , policy, planning, strategies, design, appraisal, management, implementation, financing.	X	X	X	X	X	X	
Politics⁴ , institutional issues, transport and politics, national transport policies, regulatory framework	X	X	X	X	X	X	
Economic Issues⁵ , Costs, Public vs Private, Transport and Trade – Regional, Financing of Transport	X	X	X	X	X	X	X
Social and Environmental Issues⁶ , Poverty alleviation, Sustainability, Gender, Cultural issues	X	X	X		X	X	
Transport Technologies⁷ , Railways, Port and Logistics, Roads and Highways, Air Transport, Inland Waterways.	X	X	X	X	X	X	X
Transport Operations and Services⁸ , IMT, Public Transport, Vehicles		X	X	X	X	X	X

Key:		Information needed
	X	Information available
		Information not needed

Source: Information needed based on information from the IFRTD Information Strategy Meeting, July 1996. Information available based on internet search.

¹ WB, DFID

² WB, DFID – Transport Links, Planning Rural Roads, ASIST (accessibility planning), IFRTD, EU (guidelines), SSATP (RTTP): guidelines, models, research findings, papers, etc.

³ WB, ASIST (Accessibility planning), SUSTRAN (sustainable transport), EU (guidelines), SSATP, ECLAC.

⁴ WB, DFID, IFRT

⁵ WB, Planning Rural Roads (financing), ESCAW (regional transport), ECLAC (financing and regional), ESCAP (regional and trade), SSATP (trade and transport)

⁶ WTPP (journal), papers (environment), ITDP (sustainable transport), SUSTRAN (sustainable urban transport), ITDG (transport and poverty), ESCAP (sustainable transport), WB (poverty, sustainability, gender)

⁷ TRB (models roads), PIARC (roads), SSATP (rail restructuring), WB, Transport Links

⁸ ANTESA (IMT), ITDP (IMT), SSATP (IMT)

Appendix 2: Case Studies

1. Role of Information for Rural Transport Planning in Colombia

This case study analyses the use of information in a rural transport policy-planning process. It is based on the experience of Ana Maria Urwin, who worked for two and a half years (1998 – 2000) in the Transport Division at the National Planning Department (NPD) in Colombia. The NPD is responsible for the design, monitoring and evaluation of the social, environmental, economic and political development policies. The Transport Division is responsible for monitoring the implementation of the national policies in all transport subsectors (ports, rails, roads, etc.) and designing strategies for their improvement, although its main focus is on infrastructure development. The Division organises its work around three main tasks: policy planning, budget programming and project management.

In rural transport, the focus of the *policy planning* process over the last few years has been the decentralisation of the road network. This process has involved the continuous review of its approach and the redefinition of the strategies for implementation. The decentralisation policy is based on a Constitutional mandate and in the road sector it has been motivated by financial issues. The review of this policy has focused on the evaluation of the financial capacity of central and local governments for the maintenance of the road sector. For this, the Division has undertaken analysis on the conditions of the road infrastructure, and the investment needs and resources for its maintenance. These analyses are based on information provided by specialised government departments on roads conditions, cost evaluations and budgetary structure. The approach has been governed by policy guidelines, internal meetings and consultant reports.

In July 2000, the analyses showed that there was not reliable information about the conditions and needs of the road infrastructure at the regional level. The analysis was based on general estimates of conditions and costs. In the case of the budgetary structure, due to the diversity of financial sources at the regional level, it was not possible to obtain an exact indication of the resources available for investment on rural roads. In general, the information used at the national level was based on estimations of rural transport needs. The majority of policy decisions assumed general patterns for the evaluation of needs at the rural level. In some cases, specific analyses were undertaken by external consultants, but this was not a systematic process and the results were not always useful or implemented.

The annual process of *budget programming* involves the analysis, prioritisation and allocation of national investment resources. This process is based on the analysis of investment projects presented by government departments to the NPD. The Transport Division is responsible for the technical analysis of these projects and the allocation of the available resources among them. The project description forms, investment shares and general policy guidelines were the basic inputs for this analysis. Nevertheless, in order to be able to apply a technical criterion to these projects, the Division needed information about previous investments, investment needs and economic and social evaluation. In most of the cases this information was not available and the resources were allocated in order to meet previous financial commitments or to finalise projects under implementation.

The Transport Division is also responsible for the *project management* of specific high priority activities. In the case of rural transport, one of these activities is promoting private investment in rural roads. These projects are generally developed with the support of international donor organisations, such as the World Bank, and follow the general guidelines set by them. These process involve contracting out private consultants to undertake analysis on different topics and provide recommendations. In some cases, the consultant

reports were not used, due to a change in the government priorities or because they failed to provide suitable information.

The Transport Division bases its activities on the ability of other institutions (public and private) to provide reliable information on different issues. This analysis shows that the information needed by the Transport Division is not completely available and that the information used is not accurate. Some main points can be concluded from this analysis:

- At the national level there is lack of reliable information about the conditions and needs of rural transport infrastructure.
- There is no integrated information on local government resources for rural transport infrastructure.
- In most cases, the allocation of national investment resources for rural transport infrastructure is based on weak social and economic assessments, and does not consider previous or future investments.
- The work undertaken by consultants and contractors is not always a source of reliable or useful information for the policy-making process.

The points above show that the Division of Transport has difficulties in the formulation and implementation of adequate policies in rural transport.

2. International Forum for Rural Transport and Development Information Strategy

It has been inferred that the organisations involved in the delivering of information in rural transport issues define their research topics based on an internal analysis of the information needs of their target groups. There follows a description of an IFRTD internal document on the results of a meeting for the definition of its information strategy. This meeting was held in London on the 12th and 13th of July, 1996.

The main objective of the IFRTD information strategy is to broaden awareness of rural transport as a development issue. For this, three main strategies have been defined: (i) expanding the exchange of information to those involved in rural development issues; (ii) influencing transport planners, implementers and policy-makers; and (iii) encouraging the development of new ideas/thinking among research and development institutions.

For each of these strategies the target groups have been identified, along with their information needs, the sources of information and media for its dissemination. IFRTD decided to focus on national and international groups. They assumed that NFGs would keep contact with local organisations. The first group identified is the *National Forum Groups* (NFGs). NFGs are associated national networks that subscribe to the vision and mission of IFRTD. Their members are drawn from a wide range of organisations and disciplines. They include representatives of government agencies, multilateral or bilateral projects, universities and local and international NGOs. They are the key audience for the process of expanding the exchange of information. Their information needs include general information on the Forum's activities and other organisations in the sector. Additionally, they need information on alternatives and options for rural transport for development and implications for other sectors. Finally required is information on events on rural transport issues around the world. The main method of dissemination of this information is the Forum's Newsletter.

The countries' *Departments of Transport* have been identified as one of the target groups to be influenced by IFRTD's rural transport knowledge. It has been found that they need information on four main areas: (i) economic and social benefits; (ii) financial and technical options; (iii) access and mobility issues; and (iv) policy framework. This information is produced by research activities undertaken by IFRTD and other organisations in the sector and delivered through workshops, personal contact and the NFGs, amongst others. The other target group to be influenced by IFRTD comprises Transport Programmes in agencies and national and international NGOs. They need information on alternatives for improving rural transport programmes. This information should be produced by undertaking research projects on this issue.

The last group to be targeted by IFRTD's information strategy consists of the Transport Research Units of different institutions, with the objective to encourage the development of new ideas or thinking among research institutions. It has been identified that they have a need for new research topics, information about the benefits and deficits of ongoing research, and information about funds for research.

In January 2001, IFRTD undertook an evaluation of the Forum Newsletter with the objective to assess its impact and identify possible changes or improvements. This evaluation concluded, amongst other points, that people are interested on new topics of research, such as safety, children and rural transport, evaluation of projects, social assessment, culture and rural transport, spatial behaviour studies, strategy or sector wide initiatives and rural railways.

The following points can be emphasised from the IFRTD's information strategy:

- The information strategy is based on an internal analysis of the target groups, their information needs, the sources of information and media for dissemination.
- The dissemination of information works through National Forum Groups that represent most of the stakeholders.
- The countries' Departments of Transport are a key target group. They need information on economic and social benefits, financial and technical options, access and mobility issues and policy frameworks.
- An evaluation of IFRTD newsletter in January 2001 identified specific information needs.

3. Department for International Development (DFID) – Information Strategy for the Transport Sector

This analysis is based on a TRL review⁹ about the dissemination process of DFID funded transport research. According to this review, the objective of DFID's information strategy is to achieve greater impact in delivering affordable, safe and sustainable transport to target groups in developing countries. Therefore, action should positively influence implementation processes by informing policy makers, promoting cost effective solutions to service providers and managers, and raising awareness in users and communities of actions they can contribute.

Traditionally, DFID has been concerned almost exclusively with roads and road transport services; other modes (rail, air, ports, shipping) have not been included in their research base. The research has concentrated on road engineering issues (materials, design standards, maintenance organisation and programmes, etc.) which address how to construct roads and how they can be expected to perform. This has been accompanied by related issues such as planning and justification of roads and the safe management of traffic. These topics have expanded to include the economics and financing of roads provision, the organisational and institutional models for providing transport and a more fundamental understanding of travel behaviour and the needs of road users. These topics have been covered by different types of information, such as basic findings or outputs of a research project, the translation of project findings into guidelines, procedures and advice, and the development of training and educational material.

There are two target audiences that represent the direct users of this information. These are firstly the practising road engineers who design, build and maintain the road network; and secondly the policy and planning advisors who need to justify particular transport development programmes. At another level, there are the intermediate users of this information, who promote the use of the research findings amongst the recipient countries. These include donors, NGOs and private financiers involved in development. A third audience is the research community.

Table 1 illustrates the type of information and the target audience, according to DFID's information strategy.

In the cited review, TRL undertook an evaluation of the dissemination strategy of DFID's transport research. This evaluation identified the strengths and weakness of the strategy and proposed recommendations for its improvement. Amongst other points, it concluded that there is insufficient knowledge of whether the information needs of target audience are adequately met and that it is difficult to maintain up to date information on key individuals in beneficiary organisations. Nevertheless, it stated that there is a Network of over 3,500 contacts that receive notification of publications and events and that the process of generation and dissemination of information is based on comprehensive statistics on the demand for particular publications types and topics by geographical area. Additionally, it was identified that there is an uneven distribution of information by topics and little impact to non-English speaking countries.

Some key issues can be concluded from this review:

- DFID's transport research has been traditionally focused on road transport and infrastructure addressing engineering issues.
- The key target audiences are road engineers, and policy and planning advisors.

⁹ Document: Strategy for Dissemination of DFID Funded Transport Research, 2000. A summary of this document is included.

- The information strategy is developed by a systematisation of research outputs, not by an evaluation of information needs.

The evaluation of effectiveness of DFID dissemination of information concluded that there is insufficient knowledge about the information needs of the target audience. Therefore, it is not possible to identify if the strategy is meeting the information needs of the target audience.

Table 1: Information Requirements of Transport Community

Target Audience	Research Findings	Guidance and Tools	Policy and Planning Lessons	Training Materials	General and Source Information
Road Transport Students	√	√	√	√	√
Research and Academic Institutions	√	√	√	√	√
Road Technicians		√		√	√
Road Engineers	√	√		√	√
Road Administrators			√	√	√
Transport Planners	√		√	√	√
Transport Service Providers	√		√		√
Transport Policy Advisers	√		√		√
Donors/NGOs – Technical	√	√	√	√	√
Donors/NGOs – Administrative			√		√
Cross-sectoral Interests	√		√		√
Civil Society/Community Groups		√	√	√	√
Education Services		√		√	√
Private Financiers			√		√

Source: TRL

Appendix 3: Notes

¹ Urwin – Role of Information for Rural Transport Planning In Colombia. Case Study. The analysis of this experience concludes that (i) at the national level, there is a lack of reliable information about the conditions and needs of rural transport infrastructure; (ii) there is no integrated information on local government resources for rural transport infrastructure; (iii) in most cases, the allocation of national investment resources for rural transport infrastructure is based on weak social and economic assessments and does not consider previous or future investments; and (iv) the work undertaken by consultants and contractors is not always a source of reliable or useful information for the policy-making process.

² www.worldbank.org/transport. It includes [good practice examples](#) in rural transport projects in Madagascar, Andhra Pradesh, India, Vietnam, Senegal, Guatemala. They describe the main issues of implementation of rural transport programmes in those countries.

³ www.transport-links.org. It includes case studies in each of the topics covered by the Rural Transport Knowledge Base.

⁴ Lebo, J. and Schelling, D., Design and Appraisal of Rural Transport Infrastructure, World Bank - work in progress. The purpose of this document is to provide guidelines on the design and appraisal of projects for rural travel and transport.

⁵ DFID Transport Newsletter Issue 12, May 2001 ([PDF \(338 KB\)](#)) – Foreword. The president of PIARC emphasises the importance of the information needs of developing and emerging countries. The aim of the PIARC seminar programme is to identify the gaps in knowledge that can be addressed by research and PIARC's network of contacts provides an ideal platform for the identification of international research needs.

⁶ Thin, N. and T. Good. 1997, Social Development Policies, Results and Learning: a Multi-agency Review. The aim of this paper is to inform about approaches taken by donor agencies in developing and implementing social policies and systems, and assess the effectiveness of these investments in terms of positive social policy outcomes. It discusses the relevance, for policy-makers and practitioners, of the information produced in the evaluation of the impact of aid interventions.

⁷ IFRTD Website: www.ifrtd.gn.apc.org/about/gnet.htm. "The Forum's efforts are concentrated on sharing and using information through networks of actors from all levels of the rural transport sector. The Forum is keen to develop and use knowledge on rural transport not as pure scientific information but to promote improved policies and practices. In a context where information and knowledge are increasingly becoming a tool of power, the Forum works to make knowledge freely available, especially to those who are marginalised from global knowledge production activities".

⁸ DFID Rural Transport Knowledge Base: www.transport-links.org/rtkb/english/intro.htm. "An essential adjunct to the generation of new knowledge relevant to development is its communication in relevant and accessible form. DFID is active in sharing its knowledge such that policy makers and practitioners can use it to have a positive impact on people's lives."

⁹ IFRTD Information Strategy Meeting, July 1996. IFRTD's information strategy is based on an internal analysis of the target groups, their information needs, sources of information and media for dissemination. The dissemination of information works through National Forum Groups that represent most of the stakeholders. The countries' Departments of Transport are a key target group. They need information on economic and social benefits, financial and technical options, access and mobility issues and policy frameworks.

¹⁰ TRL - Strategy for dissemination of DFID-funded transport research 2000. DFID's transport research has been traditionally focused on road transport and infrastructure addressing engineering issues. The key target audiences are road engineers and policy and planning advisors. The information strategy is developed by a systematisation of research outputs, not by an evaluation of information needs. An evaluation of the effectiveness of DFID dissemination of information concluded that there is insufficient knowledge about the information needs of the target audience; therefore, it is not possible to identify if the strategy is meeting the information needs of the target audience.

¹¹ Transport Research Laboratory, 2000, Strategy for Dissemination of DFID Funded Transport Research. In the analysis of the information requirements of the transport community the document presents a matrix of target audience and research outputs. There is no reference of an evaluation of the information needs of this target audience.

¹² www.piarc.org/rme/index.html. The World Interchange Network (WIN) is a service that facilitates contact between people and experts on road-related information.

¹³ www.geocities.com/RainForest/Canopy/2853/index.htm. The Sustainable Action Network for Asia and the Pacific (SUSTRAN) is an information sharing network that promotes people-centred, equitable and sustainable transport. It has partners around the world.

¹⁴ www.ifrtd.gn.apc.org/ IFRTD is a global network of individuals and representatives from government, academia, multilateral and bilateral donor agencies, consultancies and technical institutions, national and international NGOs and groups of community organisations in 83 countries in Africa, Asia, Europe, and North and South America.

¹⁵ Balla, G.S., 2000, Evaluation of Infrastructural Interventions for Rural Poverty Alleviation. This paper emphasises the information constraints of the traditional methods and how policy makers have to make decisions about choosing projects without having a full perception of the benefits that will accrue. It proposes an alternative method for the evaluation of rural infrastructure projects.

¹⁶ Van de Walle, D. 2000 - Choosing Rural Road Investments to Help Reduce Poverty, 2000. This paper examines how rural road investment projects should be selected when the specific objective is taken to be poverty reduction. The document analyses the information constraints for the appraisal and selection of projects and provides an alternative method.

¹⁷ J. Lebo and D. Schelling, 2001, Rural Road Economic Appraisal Methodology. This paper discusses appraisal in the context of participatory approaches for the selection and priority setting of rural transport infrastructure interventions and projects, as well as the economic rationale of the planning process.

¹⁸ Towards a sustainable transport infrastructure: A sectoral approach in practice. Transport sector guidelines European Union, 2002. This document presents a set of practical guidelines for the formulation, implementation and evaluation of transport projects. It analyses the different phases of the project cycle and the issues affecting each of them, where information is identified as a key component in every phase.

¹⁹ ILO and SDC, 1997, Participatory Rural Planning Process. This paper presents the main issues of the Participatory Rural Planning (PRP) approach. PRP is a multi-sectoral and integrated approach that aims to consider all aspects of household access needs for subsistence, economic and social purposes.

²⁰ Dixon-Fyle, K. 1998, Accessibility Planning and Local Development. The application possibilities of the IRAP methodology. This paper explores the linkages between rural accessibility planning and the local development process. The paper provides indications concerning the likely usefulness of the IRAP tool within specific planning contexts. It also identifies areas for future work to enhance the potential of IRAP.

²¹ Dingen, R. 2000, A Guide to Integrated Rural Accessibility Planning in Malawi. This paper presents a set of guidelines for the implementation of Integrated Rural Accessibility Planning (IRAP) methodology adapted for Malawi. These guidelines are based on Malawi's experience in the transition process from central level governance towards local level empowerment.

²² Multistage Environmental and Social Impact Assessment (ESIA) of Road Projects. Guidelines for a comprehensive process, United Nations, 2001. The main focus of this study is to address environmental impact assessment (EIA) of road project issues encountered in Asian and Pacific countries, analyse them and propose ways and means by which the problems could be overcome to achieve an effective EIA implementation in the region.

²³ The information in this section is based on a study undertaken by ODI for DFID and FAO, called "Livelihoods Approaches to Information and Communication in support of Rural Poverty Elimination and Food Security" which will shortly be published on the FAO website.

²⁴ The information in this section is based on the findings of a literature review, which is part of a current research project within ODI exploring linkages between research and policy. The literature review was undertaken by Maja de Vibe and Ingie Hovland, and will shortly be published on the ODI web site.