

PIARC COMMITTEE C20: APPROPRIATE DEVELOPMENT

**PIARC (World Road Association) World Road Congress, Durban, South
Africa,
19 – 25 October 2003**

Research and Innovation needs

International Focus Group on Rural Road Engineering (IFG)

by

**Francis Marmo¹, Ahmad Waheed², Zhang Yongwen³ and
Prof. Eugênio Vertamatti⁴**

1. TanRoads, Tanzania National Roads Agency, PO Box 11364, Dar Es Salaam, Tanzania
2. World Vision International, Walayat St., Herat, Afghanistan
3. Yunnan Highway Planning, Prospecting and Design Institute, 9 Shijixiang, Tuodong Rd., Kunming 650011, Yunnan, China
4. ITA - Technological Institute of Aeronautics, Geotechnical Department, CTA - ITA – IEI, S.J. dos Campos - São Paulo, 12.228 – 900, Brazil

KEY WORDS: Rural Roads; Research; Knowledge Sharing; Innovation

**PIARC (World Road Association) World Road Congress,
Durban, South Africa, 19 – 25 October 2003**

International Focus Group on Rural Road Engineering (IFG)

By

**Francis Marmo¹, Ahmad Waheed², Zhang Yongwen³ and
Prof. Eugênio Vertamatti⁴**

1. TanRoads, Tanzania National Roads Agency, PO Box 11364, Dar Es Salaam, Tanzania
2. World Vision International, Walayat St, Herat, Afghanistan
3. Yunnan Highway Planning, Prospecting and Design Institute, 9 Shijixiang, Tuodong Rd, Kunming 650011, Yunnan, China
4. ITA - Technological Institute of Aeronautics, Geotechnical Department, CTA - ITA – IEI, S.J. dos Campos - São Paulo, 12.228 – 900, Brazil

Abstract:

An International Focus Group (IFG) has been established to provide a forum in which key technical issues relating to the planning, design, construction and maintenance of rural roads can be discussed and advanced. The IFG focuses on initiatives aimed at improving the cost-effectiveness of the provision and maintenance of rural access and other low volume roads including earth, gravel and low volume paved roads. By addressing issues fundamental to the provision and maintenance of low volume rural roads and tracks that serve the accessibility needs of people living in rural areas, the groups work complements and supports poverty reduction initiatives targeted at these communities.

The IFG comprises technical experts, engineers and other international figures well known in the field and representation now extends over twenty countries across Africa, Asia and South America.

The IFG's primary function is to thoroughly examine technical, economic and social issues arising from and related to rural roads. It provides a focus for the improvement of opportunities for the dissemination of information, knowledge and experience. Members contribute their views and experience on various topics through presentations and discussion both of broad policy issues and detailed engineering topics. Participation in the IFG has many advantages, including opportunities to:

- *build regional and international partnerships and friendships*
- *exchange ideas, experiences, information and data*
- *strengthen local knowledge with new information*
- *build on existing local knowledge and research*
- *promote wider acceptance of research findings*
- *identify knowledge gaps, priorities and needs*

This paper sets out the aims and objectives of the group, its structure and operation and details its future vision and position within the international arena.

International Focus Group on Rural Road Engineering (IFG)

1. Background

The International Focus Group on Rural Road Engineering (IFG) is a partnership of countries, institutions and practitioners committed to the provision of sustainable transport access for the poor. Its origins lie in earlier stakeholder workshops convened to discuss several rural road engineering research projects being conducted by a number of developing countries.

The vision of the IFG is to be the leading platform for articulating and disseminating information on rural roads engineering within the context of poverty reduction

This vision is endorsed in the IFG mission statement which states that the group will strive for sustainable transport access needs in support of poverty reduction objectives in developing countries by:

- Promoting priority research needs
- Facilitating application of research outputs, and
- Mainstreaming best practices in rural road engineering

The IFG is about knowledge sharing, knowledge generation and knowledge networking. The work of the IFG aims to support pro-poor policy formulation, and to strengthen the capacity of individuals and local institutions in developing countries to make better use of the knowledge they already possess and the knowledge they can access through the IFG network. The IFG provides a new and enhanced opportunity for practitioners to access relevant information and provides opportunities to support and build consensus for reform at national and international level. The IFG provides a platform for identification of knowledge needs, and development of appropriate solutions with clear implementation pathways in rural road engineering. The IFG is thus a partnership promoting the generation, management, dissemination and uptake of knowledge and solutions by, and for, engineers and practitioners in developing countries.

2. Membership of the IFG

There has been sustained growth in country representation in the IFG since the group's inaugural meeting in January 2002, when 9 countries were represented. At the most recent meeting of the IFG (Colombo, Sri Lanka, in June 2003) representation had grown to some twenty countries (**Africa**: Ethiopia, Ghana, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zimbabwe; **Asia**: Afghanistan, Bangladesh, Cambodia, China, India, Laos, Nepal, Sri Lanka, Thailand, Vietnam; **South America**: Brazil and from **Europe**: Germany, Norway, Sweden, U.K.).

Participating institutions and practitioners come from a wide range of interests and backgrounds. These include:

- Government (managing and implementing Ministries and agencies)
- National and international research institutions
- Training and educational institutions
- Technology Transfer Centres
- National stakeholder groups
- International funding agencies and other international bodies
- NGO's
- Private sector consultants and contractors
- Professional bodies and associations

3. Technical context

The technical content of IFG's work covers engineering aspects of the four road classes typified in the rural environment. These are:

- Access paths and tracks
- Earth roads
- Gravel roads
- Low-volume sealed roads

Whilst the focus of IFG is on rural road engineering issues, strong attention is also given to sustainability issues, and the impact of rural access on poverty. This is clearly reflected in the range of interests covered by IFG, that includes the following main themes:

Rural Accessibility - Planning and Management

- Design and construction of rural roads and low cost structures

Rural Accessibility - Delivery

- Maintenance and management of rural roads
- Regional and local experiences
- Sustainable access

Rural Accessibility – Engineering Innovation

- Technology choice : (Labour based works, gravel and earth roads, approval standards, compaction techniques)
- Quality management of labour-based and other road works
- Innovation in materials, standards and methods
- Low cost road surfacing technology
- Low cost structures

Cross-Cutting Issues

- Communication, training, and uptake.
- Institutional and policy issues
- Environmental, socio-economic, and gender issues
- Financial and costing issues.



Figure 1 IFG Organisation

4. Organisation of the IFG

The IFG is barely 18 months old (at June 2003) but with the increased interest from many sources, and hence increasing demands and expectations on the IFG, a permanent and formalised arrangement for its governance has been agreed and was endorsed at the Colombo meeting. The outline organisational structure is shown in Figure 1. This structure will be implemented at the next IFG meeting (provisionally scheduled for Yunnan in March 2004), with the consequent 'roll-out' of a formal constitution and the appointment of an Executive Council and Secretariat.

5. International links

The IFG is one of several international organisations that take a specific interest in rural roads and access. Whilst each organisation has its own niche, the IFG will pro-actively seek to work collaboratively and transparently with these other groups and structures.

The IFG has already been working closely with PIARC Technical Committee C20 (Appropriate Development) over the last year or so. Where possible the groups time their meetings to coincide at the same location, for example the last meetings of both groups took place back to back in Colombo, Sri Lanka. The synergies between the two groups are strong, and there are clear and tangible benefits to both groups in having a close association. The proposed PIARC Commission on Technological Exchanges and Development (TEDCOM) offers similar opportunities for productive collaboration.

A specific aspect of international linkages is the relationship of IFG with the up-coming Transport Knowledge Partnership (TKP). At present the TKP is at the planning and design stage but when it is implemented TKP promises to provide a new paradigm in the organisation of research by enabling institutions in the South to develop their own programmes. Furthermore, this provides greater opportunities for the up-take and application of research.

Any organisation with an interest in the future of transport research will want to be involved in the development of the TKP. The recent IFG meeting in Colombo has endorsed the principle of the TKP, and looks forward to the ways in which it can support, contribute and benefit from this initiative.

6. National support

Membership of IFG is open to all stakeholders who have a genuine interest in rural road engineering. The IFG is actively promoting the formation of national interest groups that can sustain local support and, most importantly, provide the mechanism for up-take and mainstreaming of research and best practice. A critical ingredient for such national groups is the endorsement of their ideals and purpose by Government. This suggests either 'embedding' the national interest or national focus groups within Government, or establishing the Group on a credible and authoritative basis with which Governments can relate.

Such local groups have been formed in Ghana, Tanzania and Uganda. The IFG is now setting out the guiding principles that will help others establish similar national focus or national interest groups on rural road engineering.

7. The work of IFG

IFG meetings have been convened in the UK, Cambodia, Ghana and Sri Lanka. Each has provided a forum for the presentation of technical papers on key current issues and experiences.

The IFG dissemination platform has several components:

- A web-site that is currently 'attached' to DFID's transport links site (www.transport-links.org/ifg.htm)
- CDROM media that document the IFG meetings
- IFG Newsletter and Proceedings
- Technical papers and other presentational materials (either as hard copy or in electronic format posted to the site or on a CD-ROM)

The web-site provides interactive facilities for discussion and help. A new development on the site (www.transport-links.org/ifg-bra) is a 'tool-box' for minimising the cost of basic rural road access. This innovative site allows IFG members to post their own engineering solutions, experiences and advice, and provides a resource for members to 'mix and match' advice and techniques that better meet their specific local requirements.

As well as continuing to develop these activities, the current IFG work programme will also engage in the following tasks:

- Strengthen its relationship with PIARC Technical Committee C20 and develop links with similar national or international organisations with complementary aims, e.g. TEDCOM.
- Assist with the establishment of national interest groups, and provide guidelines in support of this aim
- Work with the national interest groups in support of the TKP initiative
- Develop the IFG constitution and organisation structure

8. Conclusions

The IFG was born out of a shared interest in rural road engineering research. It has clearly fulfilled a need, having quickly established its position as a leading network for the exchange of information and knowledge, and for advocacy of rural road issues. The IFG is consolidating this success through re-structuring its organisation, and formalising its constitution and procedures. It is also actively supporting a strong national support framework, as well as effective international links with other transport interests, including PIARC.

9. Acknowledgements

This paper has been written on behalf of the IFG membership, and reflects the nature of the debate, discussions and agreements that have been reached during the three formative meetings of IFG held in Colombo, Accra and Siem Reap.

On behalf of the membership, the authors gratefully acknowledge the invaluable support that the IFG has received from numerous sources including governments, their agencies and organisations, donors and the programmes that they support, NGOs, and the PIARC Technical Committee C20 on Appropriate Development. The authors also wish to thank the Chairman and the Secretariat, who through their dedication and commitment have ensured the unflinching success of IFG meetings and the clear progress towards the achievement of its goals. Lastly, the authors wish to thank the members themselves for their continuing support, participation and enthusiasm for the aims and work of IFG.

The continuing and growing commitment of these and others has contributed immeasurably to the strong and sustained development of the IFG.

Contact IFG at: ifg@transport-links.org