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ABSTRACT

SUB THEME: 2. Human Resource Development

TOPIC: 2.2 Towards a Regional Information Technology Network and Centres of Excellence

TITLE: **Transport Knowledge sharing initiatives for ASEAN Engineers**

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ABSTRACT TEXT

Poor knowledge dissemination and mainstreaming have been identified as major constraints to development of the ASEAN economies. The paper describes a number of global and regional knowledge sharing initiatives that are improving access to research and information for engineers and managers in the rural transport sector.

These include:-

Transport Knowledge Partnership (**TKP**) – a global network of knowledge sharing organisations and initiatives in the Transport Sector,

International Focus Group (**IFG**) for Rural Road Engineering – a forum for the sharing and dissemination of rural road research and knowledge,

South East Asia Community Access Programme (**SEACAP**) – a rural transport research and dissemination programme for ASEAN countries,

PIARC (World Road Association) Technical Committee TC2.5 on “Rural Roads and Accessibility”

1. THE NEED FOR KNOWLEDGE SHARING INITIATIVES

Most countries see an efficient transport system as an essential pre-condition for economic development. Transport is a key infrastructure component, and represents one of the largest national investments for many countries. For example, the asset value of the road network in Africa is estimated at more than US\$500 billion, with an annual requirement for operation and maintenance of over US\$12 billion. Transport services incur costs some 10 to 20 times greater than this. Saving even one per cent of the annual expenditure requirements on transport in developing and transition countries would save hundreds of millions of dollars annually. Thus, a small improvement in performance, by applying experience and knowledge, would yield large benefits in the sector, and more generally to the economy. In some ASEAN regions and communities water transport is the dominant mode. It is important that this sub-sector also operates efficiently with waterway management and inter-modal facilities that minimize total transport costs without adverse environmental and social impacts.

Impact of Transport Knowledge on Poverty Reduction

There is a link between the existence of adequate infrastructure and achievement of the Millennium Development Goals, including poverty reduction. Most poverty assessments cite access as a key aspect associated with deprivation, and the ability for the transport sector to facilitate access therefore has a key bearing on poverty incidence. However, much of the knowledge and information concerning the role of transport in development is not available to those who make policy and technical decisions in these areas. Applying appropriate knowledge to transport policy and technical development enables the sector to perform more effectively its role of supporting the national economy and social development. Being transparent and locally-based, this supports good governance and is socially-inclusive. Better-informed transport development is particularly pro-poor since it:



KNOWLEDGE NEEDS: How to deal with overloaded trucks that destroy rural roads?

- Improves access to education, health-care, employment opportunities and other facilities,
- Reduces the vulnerability of isolated rural and urban communities, and so improves security,
- Supports empowerment of communities, by facilitating social networking and physical access to democratic process,
- Contributes to economic growth, and hence to economic opportunities.

Problems with Knowledge Up-take

There has been huge investment in developing transport knowledge in the past through investment in transport projects and other mechanisms. However, inadequate access to this

knowledge has been a barrier to up-take and application. There are a number of contributory factors that account for this:

- Needs and priorities identified by ‘others’:
 - lack of involvement of developing and transition countries means that their primary ‘needs’ are not necessarily addressed
 - donor countries tend to overlook the expertise of local knowledge sources
- Up-take is poor:
 - the capacity-base for undertaking knowledge-sharing and communication is weak, under-funded, or not mobilised
 - limited knowledge-sharing between local institutions
 - difficult to identify stakeholders to apply knowledge
- Poor knowledge management
 - language is often a barrier to knowledge exchange
 - difficult to identify partners, platforms or mechanisms for supporting a knowledge base
 - knowledge is often ‘lost’ because exchange opportunities are limited.



KNOWLEDGE NEEDS: Gravel roads can be a serious maintenance problem. Where to use them? How to select materials? How to maintain? What do they really cost?

Impact of these Problems

As a result, inadequate use is made of existing knowledge, and resources are wasted. National implementation of available international knowledge could yield substantial improvements in sector performance, if systems for the exchange of knowledge could be improved. These systems require that problems are addressed simultaneously at national and international level. They also need to recognise the barriers (such as language, culture and geography) imposed on the effective exchange of knowledge.

This paper describes a number of global and regional initiatives that are addressing the current knowledge generation and sharing constraints in the rural transport sector and could benefit ASEAN engineers and other sector professionals:

- Transport Knowledge Partnership (**TKP**)
- International Focus Group (**IFG**) for rural road engineering
- South East Asia Community Access Programme (**SEACAP**)
- **PIARC** (World Road Association) Committee TC2.5 on “Rural Roads and Accessibility”



KNOWLEDGE NEEDS: How to construct a durable, low maintenance cobble stone pavement for the same price as a gravel road?

2. TRANSPORT KNOWLEDGE PARTNERSHIP (TKP)

The Transport Knowledge Partnership (TKP) is an innovative approach to making more effective use of available knowledge, and encouraging greater participation from developing and transition countries in the management and application of knowledge. It is innovative in that it seeks to work with and through existing initiatives that have been established by its partners; in some cases supporting on-going ideas and programmes and, in others, promoting new directions of activity. It is a partnership in that it seeks to bring together all transport stakeholders and give them equal voice in how TKP develops as a concept.

TKP Mission

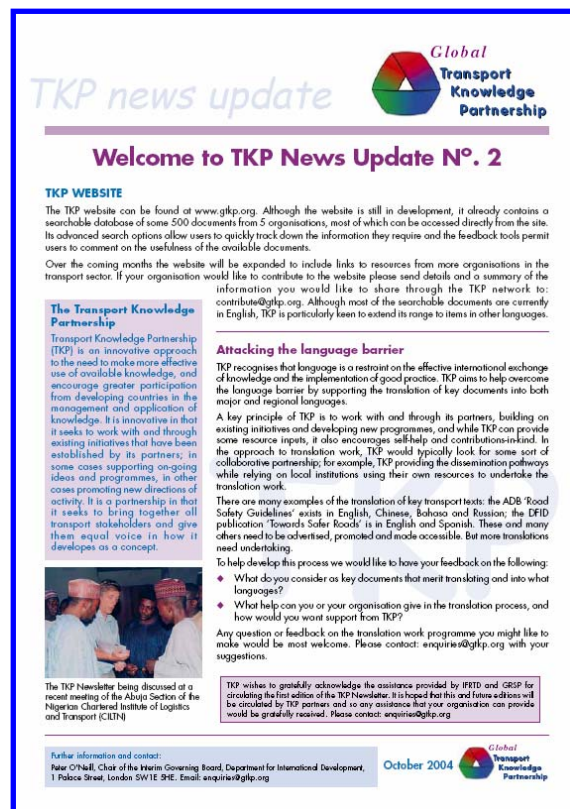
Promoting transport for development and poverty alleviation through:

- Recognising and maximising the central role of developing and transition countries,
- Maximising the sharing of information and knowledge,
- Complementing, strengthening and using existing structures, mechanisms and initiatives,
- Addressing the entire knowledge cycle, from articulation of needs to up-take,
- Focusing on practitioners, both nationally and internationally,
- Maximising the take-up and use of existing knowledge.

Scope of TKP

TKP aims to increase the capacity of poorer countries to generate, access and apply knowledge in the transport sector by supporting:

- Provision of opportunities to share, apply and adapt knowledge through:
 - involving partners from developing and transition countries in all aspects of the process of the organisation and management of transport knowledge,
 - identifying and prioritising demands from developing and transition countries for knowledge,
 - delivering knowledge directly to decision makers in poor countries, and so providing direct up-take pathways to policy, standards, specifications and technical practices,
 - providing a resource to strengthen the work of existing 'communities of practitioners',
 - maximising the use of existing global transport knowledge resources



The poster is titled "TKP news update" and "Welcome to TKP News Update N^o. 2". It features the Global Transport Knowledge Partnership logo. The text includes:

TKP WEBSITE
The TKP website can be found at www.gtkp.org. Although the website is still in development, it already contains a searchable database of some 500 documents from 5 organisations, most of which can be accessed directly from the site. Its advanced search options allow users to quickly track down the information they require and the feedback tools permit users to comment on the usefulness of the available documents.

Over the coming months the website will be expanded to include links to resources from more organisations in the transport sector. If your organisation would like to contribute to the website please send details and a summary of the information you would like to share through the TKP network to: contribute@gtkp.org. Although most of the searchable documents are currently in English, TKP is particularly keen to extend its range to items in other languages.

The Transport Knowledge Partnership
Transport Knowledge Partnership (TKP) is an innovative approach to the need to make more effective use of available knowledge, and encourage greater participation from developing countries in the management and application of knowledge. It is innovative in that it seeks to work with and through existing initiatives that have been established by its partners; in some cases supporting on-going ideas and programmes, in other cases promoting new directions of activity. It is a partnership in that it seeks to bring together all transport stakeholders and give them equal voice in how it develops as a concept.

Attacking the language barrier
TKP recognises that language is a restraint on the effective international exchange of knowledge and the implementation of good practice. TKP aims to help overcome the language barrier by supporting the translation of key documents into both major and regional languages. A key principle of TKP is to work with and through its partners, building on existing initiatives and developing new programmes, and while TKP can provide some resource inputs, it also encourages self-help and contributions-in-kind. In the approach to translation work, TKP would typically look for some sort of collaborative partnership; for example, TKP providing the dissemination pathways while relying on local institutions using their own resources to undertake the translation work.

There are many examples of the translation of key transport texts: the ADB Road Safety Guidelines exists in English, Chinese, Bahasa and Russian; the DFID publication 'Towards Safer Roads' is in English and Spanish. These and many others need to be advertised, promoted and made accessible. But more translations need undertaking.

To help develop this process we would like to have your feedback on the following:

- What do you consider as key documents that merit translating and into what languages?
- What help can you or your organisation give in the translation process, and how would you want support from TKP?

Any question or feedback on the translation work programme you might like to need undertaking. Please contact: enquiries@gtkp.org with your suggestions.

TKP wishes to gratefully acknowledge the assistance provided by IFSTD and GESP for circulating the first edition of the TKP Newsletter. It is hoped that this and future editions will be circulated by TKP partners and to any assistance that your organisation can provide would be gratefully received. Please contact: enquiries@gtkp.org

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- (financial, human and technical) through collaborative international exchange,
- encouraging the implementation of good practice,
 - The determination of the obstacles to sharing knowledge, studying the gaps in knowledge, and finding ways to overcome these,
 - The development of activities to apply and adapt existing knowledge, which may include generating new knowledge.

Approach from Knowledge Exchange

TKP aims to assist developing and transition country stakeholders to participate in and benefit more fully from the exchange and integration of international transport knowledge. TKP provides support through the provision of 'knowledge', and by funding to facilitate knowledge up-take by primary users of transport knowledge. In particular, it recognises the barrier that language imposes on the effective exchange of knowledge. The approach proposed is unique in the transport field since it puts institutions from developing and transition countries at the centre of knowledge organisation and management. TKP will align its support programmes to the demands identified by its partners in developing and transition countries. It will encourage the formation and linking of a formal structure of national and international stakeholder groups. This approach encourages formation of a consensus among national and international partners, and facilitates a clear up-take pathway for accepted good practice. TKP will support international groupings that bring together national groups, and will aim to build on and work with and through these.

Support of On-going Donor and Transport Agency Initiatives

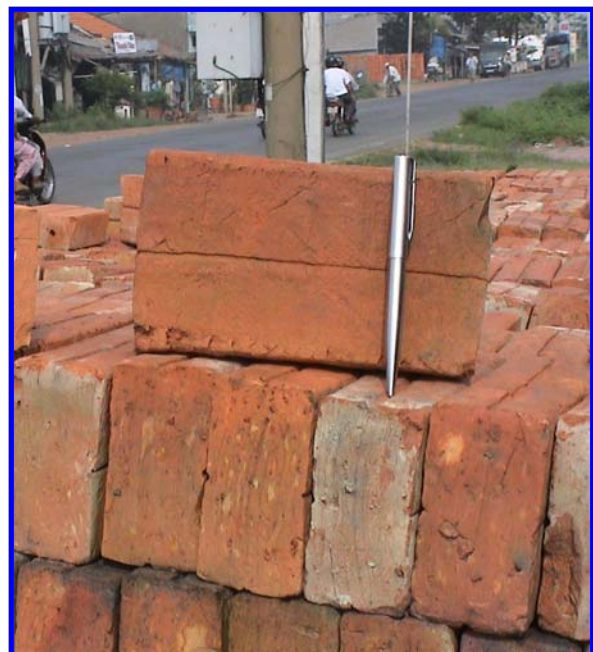
A key consideration is that TKP will support on-going initiatives of donors and transport sector agencies, and will help to release additional benefits from the substantial investments that are made by each organisation in the transport sector. As a result, TKP offers considerable value-added to existing transport investment programmes, at a management cost that is extremely small compared with the size of the sector investments being made.

Initial transport focus

The initial focus will be on road-based transport in developing and transition countries. This will cover urban and rural transport provision and operation, and the development, maintenance and renewal of road infrastructure, including tracks, trails and paths. Over time, at the request of future partners, and as increased funding becomes available, the scope could be extended to other transport modes.

Development of TKP

The interim governing board of TKP has been



KNOWLEDGE NEEDS: Is it really possible to make burnt clay bricks suitable for road paving using rice husk fuel?

appointed and the official launch workshop is scheduled for 28th February – 2nd March, to be hosted by ADB at their Headquarters in Manila.

WEBSITE: www.gtkp.org

3. INTERNATIONAL FOCUS GROUP (IFG) FOR RURAL ROAD ENGINEERING

The IFG is an established forum which contributes to the ideals of TKP in the specific sub-sector of rural road engineering and associated non-technical issues. The IFG was launched at an initial meeting in January 2002 in the UK. Further members meetings have been held in Cambodia, Ghana, Sri Lanka, and Kunming China for participants to share knowledge and experiences in the rural road engineering sector.

The IFG is a partnership of countries, institutions, and practitioners committed to the provision of sustainable transport access for the poor. IFG's vision is to be the leading platform for articulating and disseminating information on rural roads engineering within the context of poverty reduction.



KNOWLEDGE NEEDS: How to construct a durable, low maintenance bamboo reinforced concrete road pavement?

The International Focus Group aims to:

- Identify and promote awareness of priority research needs
- Facilitate coordination, resourcing and initiation of research and the application of research outputs
- Encourage knowledge sharing and mainstreaming of best practices in rural road engineering to meet sustainable transport access needs in support of poverty reduction objectives in developing countries.

The IFG is a gathering of interested Members and Partners, from the public and private sector, and from civil society, concerned with rural road engineering in the developing world. IFG operates through:

- Direct co-operation between Members and Partners,
- Technical Meetings
- The IFG Executive organisation and facilitation
- Special interest group activities
- Topic documentation generated by members
- Support for development of national focus groups

Currently documentation is being compiled on rural road surfacing options.

The next meeting of the IFG is scheduled to be held in Tanzania in March 2004.

WEBSITE: www.ifg@ifgworld.org

4. South East Asia Community Access Programme (SEACAP)

A substantial programme of DFID funded research projects is now underway in Cambodia, Laos and Vietnam under the South East Asia Community Access Programme (SEACAP). These research and dissemination initiatives follow on from the previous Infrastructure and Urban Development (IUD) Engineering Knowledge and Research (EngKaR) programme. The SEACAP programme is currently expanding from 16 to 20 projects. SEACAP builds upon the successful DFID collaborative research projects already completed in Cambodia and Vietnam on identifying ways to improve sustainable access to rural communities to facilitate access to health, education, trade, social facilities and services, thereby creating opportunity for pro-poor growth and escape from poverty.



KNOWLEDGE NEEDS: How to construct a low cost bitumen sealed road using labour friendly methods?

The objectives of the Programme are 'Livelihoods of poor and vulnerable people in SE Asia improved sustainably' and include empowering local ownership of their access. This includes initiatives that allow roads to be constructed and maintained in a sustainable way by local people using local materials, local labour and skills, local enterprises, and simple, low cost equipment. More affordable in capital and recurrent costs, these rural road solutions have become the spine of local governments' policies and this programme is designed to expand the successes of the initial research work.

The SEACAP initiatives will contribute to poverty reduction by scaling-up and using knowledge from DFID and other transport sector initiatives in support of the aims and policies of the Governments of Cambodia, Laos and Vietnam which will improve access for the rural poor, lower transport costs and create local employment and enterprise opportunities.



KNOWLEDGE NEEDS: How to design and construct low cost structures that work and last?

The use and adoption of appropriate, sustainable local resource based techniques and involvement of the communes to rehabilitate the major part of the network, provide all weather access to the poor communities and establish an affordable maintenance regime will safeguard the past and

future major transport sector investments. The current and currently planned projects are:-

Table 1 - LIST OF SEACAP PROJECTS

Project No.	Description	Country
1	Rural Road Surfacing Research, for Ministry of Transport Vietnam: Dissemination and Mainstreaming of Research	Viet Nam
2	Cambodia Transport Mainstreaming Partnership	Cambodia
3	Appropriate Road Technology in Mountainous areas of VN	Viet Nam
4	Assessment of existing rural road surfaces in VN	Viet Nam
	i) Scoping	
	ii) Full Survey	
5	Impact of rural road access on poverty reduction and growth Phase II	Viet Nam
6	Infrastructure Constraints to growth and poverty reduction in Cambodia	Cambodia
7	Sustainable Mechanism for ownership on local stakeholders	Viet Nam
8	Low-cost surfacing Phase II	Cambodia
9	Full data collection in 2 provinces	Viet Nam
10	Commune Handbook Training to Non-RT2 Provinces	Viet Nam
11	Second Year Programme	Viet Nam
12	Road Map Field Verification and Roll Out for Non-RT 2 Provinces	Viet Nam
13	Provincial Hand Book Training	Viet Nam
14	Role of the Private Sector in Rural Transport	Viet Nam
15	Community participation in the Rural Transport Sector	Viet Nam
16	Institutional, incentive and capacity analysis of the Rural Transport sector	Viet Nam
17	Local Resource Solutions to problematic rural road access in Laos	Laos
18	Capacity Development for Sustainable Commune Infrastructure	Cambodia
19	Development of local resource based standards	Cambodia
20	Development of locally made, low cost equipment for the road sector	Cambodia
21	Rural Infrastructure advisory services and research management	

Note: 1-17: Projects approved
 18-21: Intended Projects

E-MAIL: seacap@crownagents.com.vn

5. PIARC (WORLD ROAD ASSOCIATION) COMMITTEE TC2.5 ON “RURAL ROADS AND ACCESSIBILITY”

PIARC was formed in 1909 as the Permanent International Association of Road Congresses. There are currently 108 country members in this global organisation of national road authorities, international organisations, companies, enterprises and individuals working and interested in the

road and transport sector. The association was renamed as the World Road Association in 1999 to better reflect its modern role.

Two thirds of the country members are developing countries.

The Durban World Road Congress in October 2003 involved 3,500 persons and was a major knowledge exchange event for the sector practitioners. The next World Road Congress will be held in Paris in September 2007.

PIARC has a new Strategic Plan for the working period 2003 – 2007. A new Commission has been formed on Technological Exchanges and Development which will focus specifically on the needs of Developing Countries and Countries in Transition.

PIARC's work is primarily dependent on the committed voluntary contributions of its members to ensure the wide sharing and dissemination of transport knowledge and experiences. The work is organized under strategic themes.

Technical Committee TC2.5 is one of five technical committees under the Strategic Theme 2 – Sustainable Mobility:

- TC2.1 Sustainable Development and Road Transport
- TC2.2 Interurban Roads and Integrated Interurban Transport
- TC2.3 Urban Areas and Integrated Urban Transport
- TC2.4 Freight Transport and Intermodality
- TC2.5 Rural Roads and Accessibility

Technical Committee TC2.5 focuses on the circumstances and needs of developing countries and countries in transition.

The current work programme of Committee TC2.5 aims to produce guidelines on the following issues regarding rural roads and accessibility:-



KNOWLEDGE NEEDS: How to help communities provide and maintain their own sustainable access in a fair way making best use of the community's and government's limited resources?



KNOWLEDGE NEEDS: Is it really possible to grade earth roads for basic access for US\$25 per km?

- Report on the present **Social and Economic Appraisal** methodologies and indicators,
- Practice Guidance on **Design** issues that deliver cost effective solutions that are fit for purpose,
- Key elements of **Planning and Management** of rural roads using examples from countries at different stages of development,
- Report on key issues affecting the provision of **Funding** for rural roads, possible solutions, appropriate levels of funding & standards,
- Practice guidance on the appropriate **Project Management** (implementation) skills, utilising local resources wherever possible (e.g. use of seminars and teaching support),
- Practice Guidance on effective **Governance**, including measures to identify appropriate use of resources, community participation, and knowledge dissemination and mainstreaming.

Membership of the TC2.5 committee is by nomination of PIARC member country First Delegate, or by invitation.

WEBSITE: www.piarc.org

6. SUMMARY

Poor knowledge dissemination and mainstreaming have been identified as major constraints to development of the ASEAN economies. The paper has described a number of global and regional knowledge sharing initiatives that are improving access to research, knowledge and information for engineers and managers in the rural transport sector.

OTHER USEFUL LINKS:-

www.infrastructureconnect.info

www.transport-links.org

