



global Transport Knowledge Partnership

gTKP

Rural Transport Initiatives

Robert Petts

Rural Transport Theme Champion



Overview

Rural Transport Theme

- **Current Activities**
 - **Core activities**
 - **Specific Initiatives**
- **Future Plans**





The Rationale

Considerable potential exists to improve Rural Access & reduce Poverty by:

- **Ensuring existing knowledge is compiled and accessible to decision makers, practitioners & media**
- **Defining Good Practice & providing Case Studies**
- **Identifying knowledge gaps**
- **Mobilising resources to close knowledge gaps**
- **Ensuring that knowledge is mainstreamed through standards, specifications, procedures, education, training, demonstration and mentoring programmes**
- **Promoting sustainable use of local resources (labour, materials, enterprises, communities).**



Rural Transport Core Activities

Compilation & dissemination of transport knowledge:

- Web pages on key topics
- Signposting of key documents, CDs
- Newsletters
- Web Discussion Groups
- Transport Power Points
- Professional papers & articles
- Events: seminars, workshops
- Technical enquiry service

A screenshot of the gTKP website. The header features the gTKP logo on the left, a search bar with the text 'Keyword Search' and a 'Go' button on the right, and a navigation menu with items like Home, Extranet Home, About, Core Themes, Knowledge Centre, Events, Discussion Groups, Projects, and Contact. The main content area is titled 'Rural Transport' and includes a 'Summary' section with a brief overview and a 'Useful links' section. A small image shows a dirt road winding through a rural landscape. On the right side, there is a 'Related Pages' section with a list of links including 'Basic Access', 'Community Maintenance', 'Financing and Management', 'General Road Maintenance Retrospective', 'Innovations and Techniques', 'Intermediate Means of Transport', 'LV Rural Road Maintenance', 'Maintenance', 'Project Profiles', and 'Rural Accessibility Planning'. The footer contains the text 'Core Themes'.



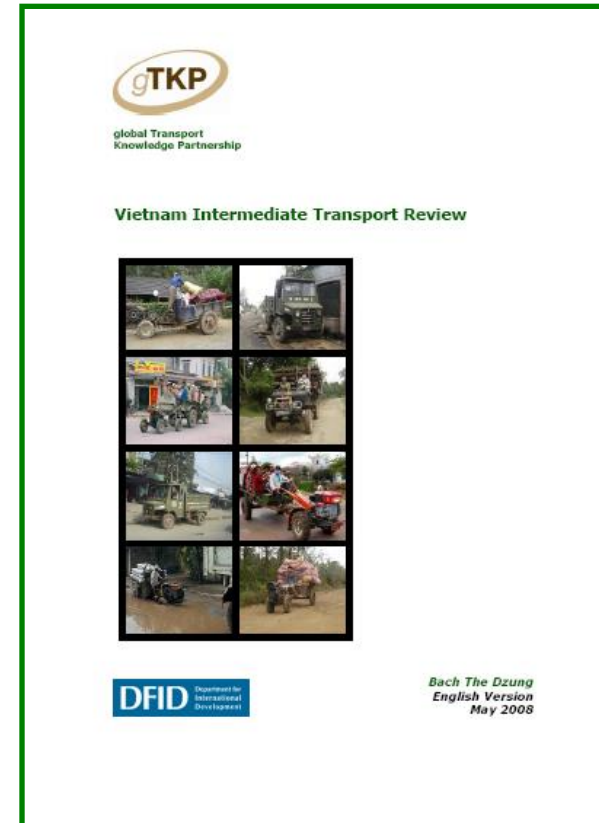
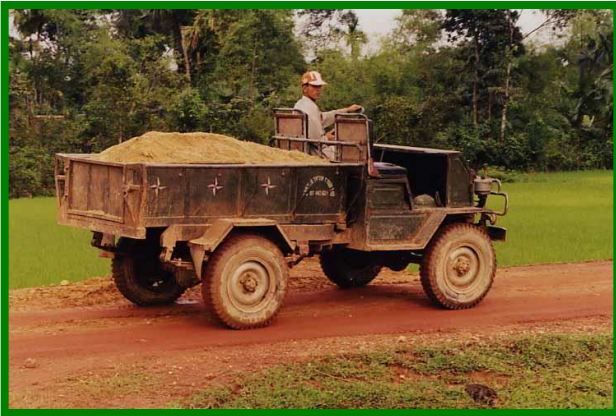
Specific Current RT Initiatives

- **Vietnam Intermediate Equipment Review (published)**
- **Vietnam Burnt Clay Brick Review**
- **‘Green Road’ Technologies Review**
- **Develop the IFG Technical Information Notes (TINs)**
- **Cooperation with SEACAP & AFCAP**



Use of Intermediate Equipment

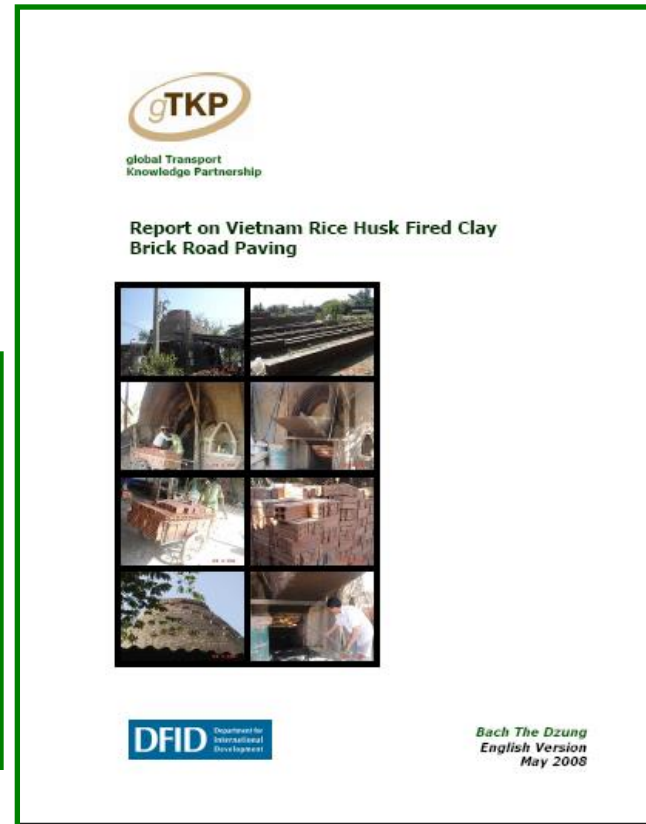
- Introduction of low cost, locally made or fabricated transport equipment can lower transportation costs for the agricultural and roads sectors
- Suitable support, regulatory & fiscal framework required





Rice Husk Burnt Clay Brick Paving

Report on the use of rice husk fired clay bricks in small scale village kilns to produce low cost, low maintenance roads in areas with lack of hard stone resources.





Sector dependence: Bitumen, Cement

Current bitumen & cement based binders & sealers have some disadvantages for developing countries:

- Fossil fuel based
- High capital cost centralised plant
- Energy intensive production
- Long product transport distances
- High and increasing costs
- Strain on scarce foreign exchange resources
- No benefit for local economy
- Large carbon footprint





Green Roads

Many agro-industry products and waste streams have potential to replace Imported Bitumen and Cement:

- Forestry and Paper Industry waste streams
- Vegetable oils and vegetable oil residues
- Non edible oils from new bio-fuel industries
- Residues from staple food production e.g. rice, maize and cereals
- Fibrous wastes e.g. sugarcane bagasse, seed oil and palm oil residues
- Lignocellulosic fibres such as sisal and coir
- Ash from combustion of high cellulose wastes

Need not compete with food crop land use

Unlike bio-fuel they would be a one-off application

‘Cottage’ industry and local resource attractions

..... Green Roads report being finalised





Planned Activities/Outputs

- **International Low Cost Structures Manual (with SEACAP)**
- **International document on Surface/Paving Options**
- **Road Maintenance Review**
- **Prioritise Knowledge gaps and ORN review**
- **E-mail discussion groups**
- **Follow up on Green Road technologies**



Low Cost Structures Manual (draft)

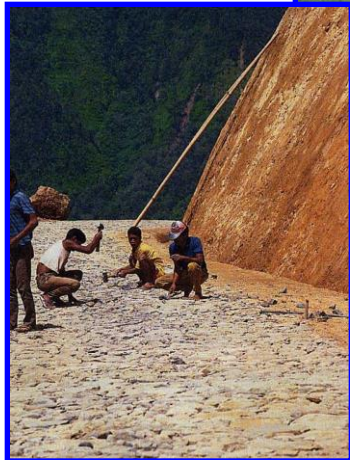
Local labour can construct durable, low cost structures for Low Volume Rural Roads using stone, brick, gabions, timber as well as concrete





Surface Options Guidelines (proposed)

From Engineered Natural Surfaces (ENS) through a menu of surface options using a wide range of proven low cost, labour based surface/paving options for spot improvement and whole link upgrades



SEACAP
Practitioners
Meeting, Laos, 2008



Road Maintenance

The 'Final Frontier' !

- Complex range of factors currently constrains performance in most countries
- New tools and approaches required
- Maintenance considerations must be included at the **STARTING POINT** for planning Rural Transport infrastructure initiatives

ຊ່ວຍບູລະນະຮັກສາທາງຫຼວງແມ່ນຊ່ວຍຊາດ
Love your Nation, Maintain the Roads





Questions for the Future

- **How can we be more effective in Rural Transport Knowledge management?**
- **How can we improve up-take and mainstreaming of the RT knowledge?**
- **How can we mobilise more resources to continue the gTKP initiative in a sustainable way?**



Further Information

Currently there are two important dissemination forums supporting Low Traffic Volume Rural Roads (LVRR) knowledge in South East Asia:



global Transport Knowledge Partnership:

www.gtkp.com

SEACAP Southeast Asia Community Access Partnership:

www.seacap-info.org

Further information on Rural Transport can be obtained from the above websites and the gTKP Rural Transport Theme Champion:

rob@intech-consult.demon.co.uk & rob.petts@gtkp.com