gTKP
Rural Transport Initiatives

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Rural Transport Theme

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

Overview

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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).

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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

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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.

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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

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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
Local labour can construct durable, low cost structures for Low Volume Rural Roads using stone, brick, gabions, timber as well as concrete.
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.
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
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?
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](http://www.gtkp.com)

**SEACAP Southeast Asia Community Access Partnership:**

[www.seacap-info.org](http://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](mailto:rob@intech-consult.demon.co.uk) & [rob.petts@gtkp.com](mailto:rob.petts@gtkp.com)