

SEACAP 019

**Development of Local Resource
Based Standards in Cambodia**

Ministerial Technical Summary

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In Association with

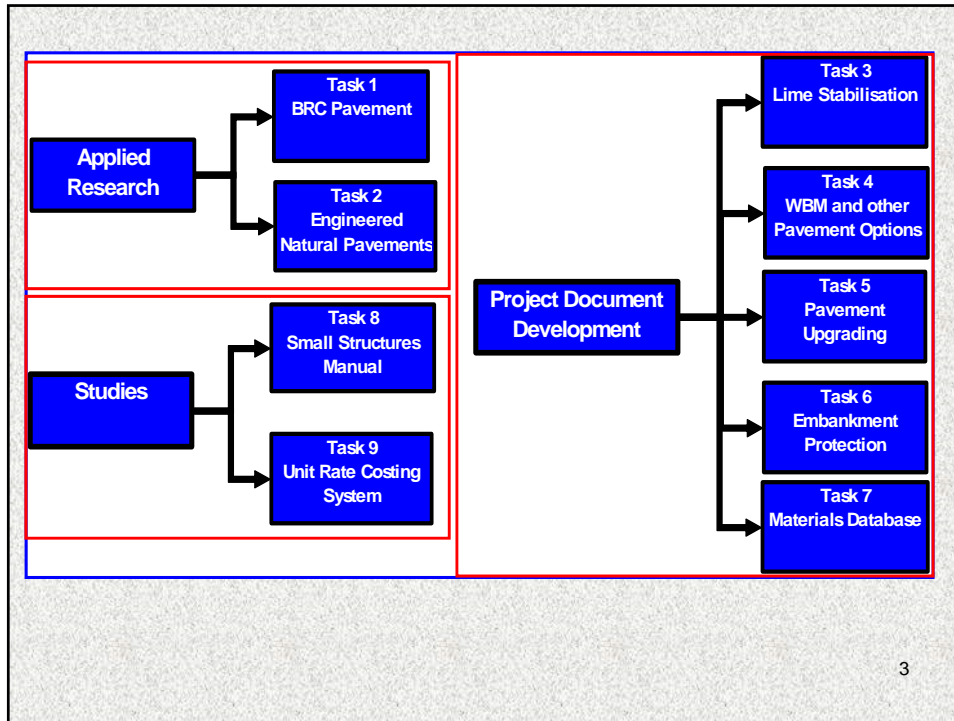
KACE and Intech Associates

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SC19 Project-Aims

The refinement and mainstreaming of important cost-saving, sustainable and locally appropriate techniques in road construction leading to the improvement of current rural road design and maintenance standards and guidelines.

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SC19 Outcomes

Series of Technical papers

Technical Paper No 1 - Bamboo Reinforced Concrete Pavements

Technical Paper No 2.1 – Behaviour of Engineered Natural Surfaced (ENS) Roads
Technical Paper No 2.2 – Experimental Evidence in Cambodia on ENS Roads

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Technical paper No.3: Modification and Improvement of Natural Construction Materials

Technical paper No. 4: Rural Road Pavement Options

Technical paper No. 5: Rural Road Upgrading – Economic Issues

Technical paper No. 6: Study of Road Embankment Erosion and Protection

Technical paper No. 7: Pilot Road Materials Database for Cambodia

Technical paper No.8: Low Cost Structures Manual Review and Edit

Technical paper No. 9: Unit Rate Costing System Review

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Post SC19 - The Way Forward - Keeping Momentum

Rural Road Research Outcomes

SEACAP
ILO
NRDP

Cambodian Rural Road Engineering Knowledge Base and Institutional Capacity

Necessary Science-based Research (SEACAP 19 Recommendations)

Development of Road Engineering Capacity at Central & Provincial/District level

Dissemination and Practical Application - a Framework of Standards & Specifications

Key Aims: Standards & Specifications

The development and mainstreaming of appropriate rural road **STANDARDS** firmly based on Road Function (Road Task) and Available Resources

The development and mainstreaming of a range of **SPECIFICATIONS** for rural road designs that can satisfy the requirements of the **STANDARDS** in a sustainable manner

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The Road Task

Recognition of the overall importance of the **road task** is essential for appropriate road network development

- ❑ An agreed level of **access** (dry weather – all weather)
- ❑ Carry identified **types** of traffic (including non-vehicular)
- ❑ Have the capacity to deal with determined **amounts** of traffic
- ❑ Perform satisfactorily with its **physical environment**

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Road Task Standards

ISSUES

- Traffic
- Social Purpose
- Safety
- Environment
- Economics
- Legal framework



ROAD TASK STANDARDS

- Road capacity
- Road geometry
- Strength requirement

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Framework

Administrative Classification

Technical Standards

Design Specifications
(Options to satisfy the Road Tasks)



Task-based Road Standards

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Essential to establish and maintain the balance between the task a road is required to undertake and its designed capability



Summary Issues

- Designs or options need to meet road task requirements (Task-Based)
- Designs based on available material, human and construction resources (Resource-Based)
- Designs appropriate to the road environment (Environmentally Optimised)

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Associated Issues

- **Specification Compliance**
- **Quality Control on Construction**
- **Asset Management**

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