SEACAP 003

Research and Training

A Summary of Project Achievement

Presentation
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SEACAP has clearly recognised that **undertaking research and developing likely solutions is not nearly enough**. There has to be a framework within which they can be sustained, applied and developed.

Therefore Research and Training are seen as essential issues within the sustainable mainstreaming of the LVRR Standards and Specifications.

Within the wider context Research and Training are core Human Resource Development (HRD) elements and are therefore fundamental issues to be addressed in the wider context of road infrastructure sustainability in Lao PDR.

Response to Task Requirements

1. Identification of research resources
2. Assessment of resource capabilities
3. Outline of a Research Framework
4. Definition of key research topics

Research Capacity Elements

Key items necessary for an effective research programme:

- Identification of appropriate research
- Effective management
- Good information/data collection
- Good analytical and reporting capacity
- Channels for practical mainstreaming

Research Resource Capacities

DoR

- Research ID
- Management
- Mainstreaming.

DPWT-OPWTs

- Local knowledge
- Data collection

NUL (Civil Eng)

- Research definition
- Analysis + Reporting (Staff experience)
- Data collection (Equipment/Labs + Students)

Outline Research Framework

RESEARCH STEERING COMMITTEE

Lead by DoR. Identifies research issues; identifies funding; liaison with Donors.

DoR RESEARCH MANAGEMENT UNIT

Commissions research contracts; monitors progress; applies and mainstreams outputs.

CONTRACTED RESEARCH GROUPS

NUL(Civil Eng) Leads research teams; undertakes research projects; supplies key specialist input; reports research outcomes to the Research Management Unit.

DPWT-OPWTS: Local field support

Outline Strategy

Agree Basic Structure

Trial Research Projects

(Projects identified)

Review Structure (and modify if required)

Formally Adopt .

Research Topics

1. Performance of existing LVRR pavements in Lao;

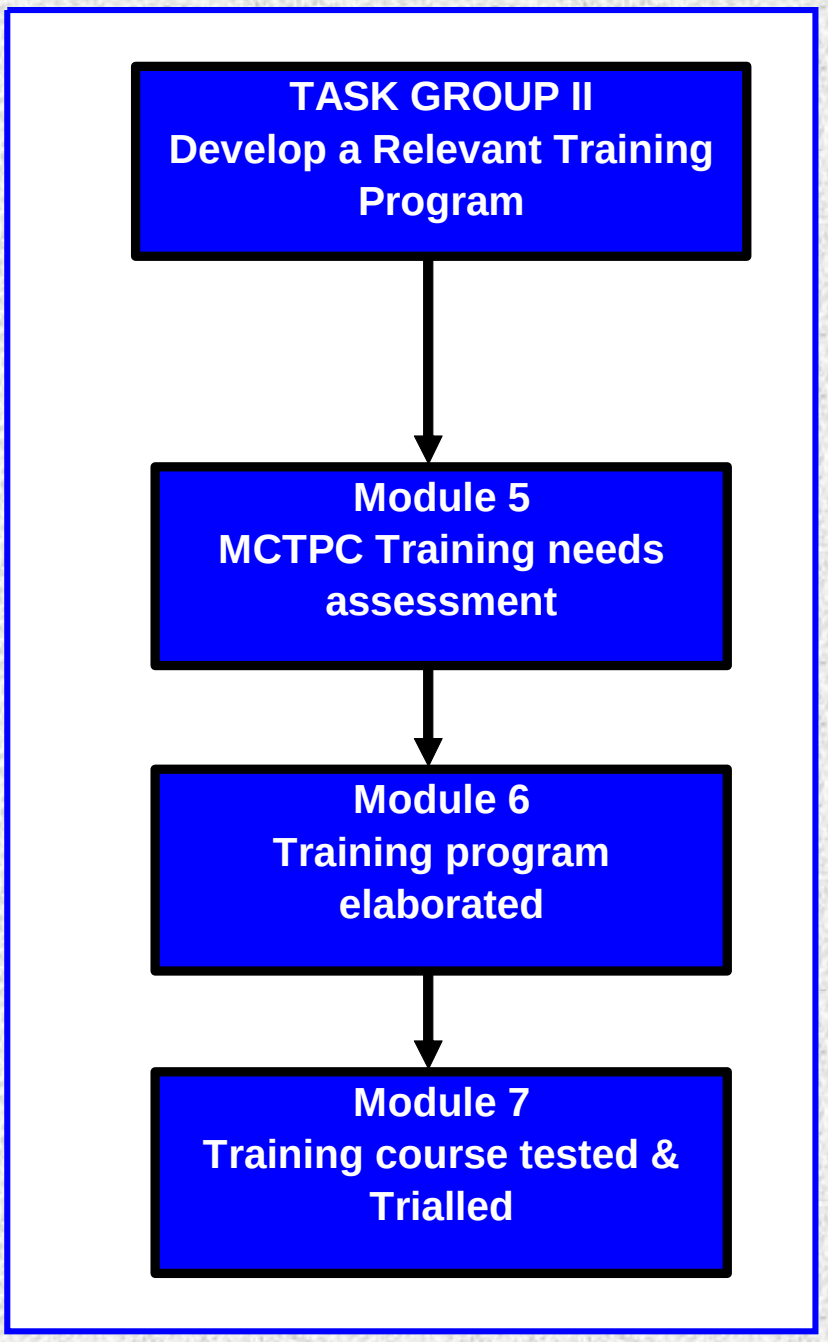
2. Monitoring of current pavement and slope trials

3. Definition of rural road traffic patterns and their likely development with time.

4. Identify Vehicle Operating Costs (VoCs) applicable for LVRR Whole Life Cost Modelling

5.Database construction and maintenance materials

SEACAP 3 Training Modules



Front Line Engineering

District engineers are frequently faced with difficult rural engineering problems to solve with limited resources and budget, with a key issue frequently being how to practice sound engineering judgement with limited funding mechanisms.

Text book, rigid design will frequently not fit actual situations and the engineer may have to, for example, solve a basic access problem with the marginal materials that exist and the resources the rural community can provide.

Training Needs

In general terms the project identified demand for in service professional training and the development of practical skills to enhance theoretical knowledge.

In project specific terms there was clear need disseminate the SC3 outcomes through an appropriate combination of formal presentation and practical exercises.

Training Modules

Training programme drawn up based on 4 modules:

1. LVRR Background
2. The LVRR Environment
3. The LVRR Design Process
4. LVRR Design in Practice – Hands-on

(Followed by a Course Evaluation)

Module 1

An introduction to LVRRs and their purpose.

Key issues relating the Road Environment its relationship to LVRR

Existing approaches to LVRR design

Module 2

Summary of key aspects of LVRR design

Introduction the concepts of:

- Environmentally Optimised Design
- Spot Improvement
- Variable Longitudinal Design

Module 3

The LVRR design process - highlighting key issues in the design process as a response to the proposed LVRR Standards and Specifications.

Introduction ot the principles of Whole Life Costs.

Module 4

A practical exercise in LVRR road design for Working Groups of participants.

A 4 km road length was used with a variable road enviornment including a length of good flat gravel with no significant deterioration, inclined and badly eroded sections, areas of good in situ soil and poor in situ soil, water crossing sites and a section through a village.

Groups worked through the exercise and then made presentations on design aspects of the road.

General Comments

Course generally met expectations and was well appreciated

More technical content was requested – particularly on drainage and materials

The course about the right length (4 days) but more time for discussion was requested.

Summary