



Module 2: Planning, Design, Appraisal and Implementation

The use of self-help for low volume road construction: Indonesia

Session: 2.2

Part 2 – Case Study

Presentation: 2.2b

1. Introduction

Learning Objectives

By the end of the session participants will be able to:

- ③ Describe the pre-conditions necessary for self-help road projects
- ③ Analyse key policy, strategy and economic factors affecting self-help road projects
- ③ Explain the potential and limitations of such projects
- ③ Make recommendations to ensure the effectiveness of community-based self-help road projects

Session Overview

- © Background to the case study on Flores Island
- © Analysis of key issues with self-help initiatives for low volume road construction
- © Experiences from Flores

2. The Flores Project: Background

Island of Flores

- ⦿ Located in East Indonesian Province of Nusa Tenggara Timur (NTT)
 - one of the poorest and least developed regions of Indonesia
 - isolation = major development constraint
- ⦿ In Manggarai district (West Flores)
 - only ½ of the population have access to the road network.

'gotong-royong'

the Indonesian tradition for voluntary
communal self-help labour

- ◎ Many villages tried to construct local access roads using gotong-royong
- ◎ But these efforts often failed because
 - difficult topographical conditions
 - villagers lacked skills in road construction and proper tools

Self-help support in Flores

- ◎ Since **1985**, INTERCOOPERATION has assisted the Catholic Church of Manggarai in constructing district roads
 - using low-cost, labour-based methods
- ◎ **1994** an additional component was started:
 - goal = support traditional self-help efforts to build village roads & motorable tracks
- ◎ **Key measures**
 - training & follow-up of local foremen & surveyors
 - technical and financial assistance for difficult road sections beyond the villagers' capacity

After 4 years the results were ...

- ◎ 85 km of village access roads surveyed and constructed in self-help labour
- ◎ Previously built alignments made passable
 - total length of project-influenced roads was 250 km
- ◎ Recognition of the need for proper road surveying and construction by communities and local leaders
- ◎ More traffic generated
 - trucks carry cash crops to the local markets, construction materials and consumer goods to the villages
 - passenger traffic is on the rise

.... more results

Reduced costs

- US\$ 3,000 per kilometre about 1/4 of the costs of project-built earth roads (including project costs and the value of self-help labour)

Expansion of services

- on request of 4 neighbouring districts
- result - improved road surveying and construction in those districts as well

3. Analysis of key issues with self-help initiatives for low volume road construction

Self-help: the issues



Group Discussion

For self-help initiatives, discuss

- 1. Pre-conditions necessary*
- 2. Potentials and limitations*
- 3. Key policy, strategy and economic factors*

4. Experiences from Flores

1. Pre-conditions necessary
2. Key policy, strategy and economic factors
3. Potentials and limitations
4. Recommendations for road projects

1. Pre-conditions necessary for self-help initiatives

Village internal factors

⊙ Road access is a definite need

- for the evacuation of cash crops and to make use of trading opportunities
- feelings of backwardness and isolation further contribute to the need for access

1. Pre-conditions necessary for self-help initiatives

Village internal factors

- ③ Communities are able and willing
 - to provide self-help labour
 - to demonstrate commitment promoted by established self-help traditions
 - show a high degree of social homogeneity and support from local leaders
- ③ Technically & socially feasible opportunities for road projects

1. Pre-conditions necessary for self-help initiatives

Village external factors:

- ◎ A basic transport system is in place
 - network of main roads and vehicles
- ◎ Self-help efforts are supported by government attitudes and policies
- ◎ External agencies leave ownership of projects to the communities

Reflections

- ◎ Self-help achievements are often ‘invisible’
 - less glamorous than conventional projects and so underestimated
- ◎ Self-help is a viable option
 - in the face of lack of public funds
 - ... often the **only** option!

More reflections

- ◎ External support affects the commitment of communities
 - encourages and motivates communities
- ◎ Low-budget NGOs can support self-help initiatives
 - road construction can be implemented at extremely low project costs
 - ... if local communities are ready to contribute self-help labour

More reflections

- ◎ Road maintenance is most likely if
 - roads are built under self-help schemes
 - considered important for the local economy
 - responsibility will not be taken over by an external agency
- ◎ Chances of sustainability high
 - communities accepts technology & skills which proved useful

More reflections

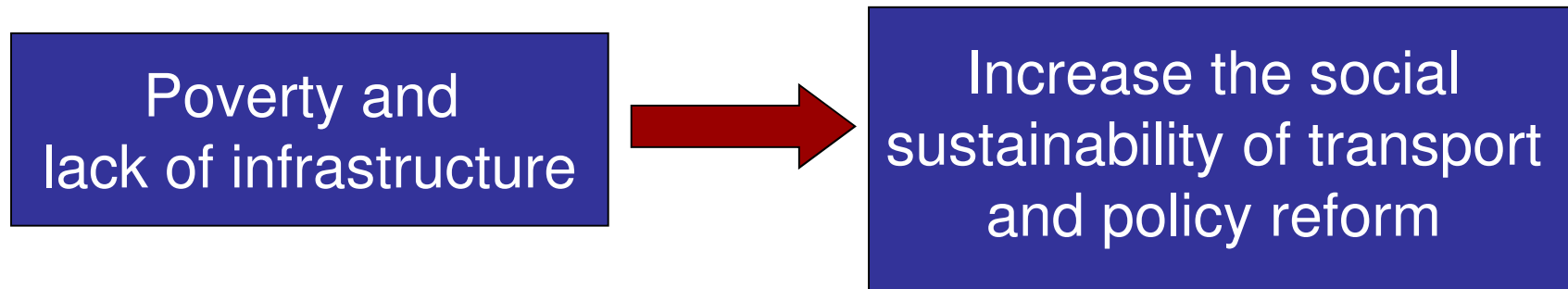
🌀 A step towards empowerment

- experience of completing a local access road successfully
- enhances an attitude of self-reliance when facing further challenges in local development

🌀 Factors that undermine self-help!

- paid work
- incentives
- the prospect of generous external support

2. Key policy, strategy and economic factors



Key Strategies

- ③ Mobilisation of local communities
- ③ Promotion of self-help schemes
 - offer smaller-scale infrastructure
 - provide effective and affordable service
 - offer the only feasible approach at present

Key principles of economics and rational planning should be observed

- ③ Focus on ‘needs for access’ rather than ‘needs for mobility’
- ③ Develop low-cost roads for remote communities
- ③ Adopt ‘phased development’
 - begin with minimal standards to save on construction costs
 - later, as traffic increases - make improvements
 - ‘efficient response to effective demand’
 - in tune with community participation through self-help labour

Key principles of economics and rational planning should be observed

Invest in projects that give the highest return

- provides a reasonable level of access & mobility for people living along main roads
 - ... without neglecting people living at a distance from the existing road network

3. Potential and limitations of self-help initiatives

- ⊙ Potential where it is impossible for governments to meet major needs for motorised access in the foreseeable future
- ⊙ Comparisons between self-help achievements and conventional road construction and the existing road network are misleading
- ⊙ Self-help initiatives vary with the kind and degree of available external support

3. Potential and limitations of self-help initiatives

- ◎ Significance of past achievements should be assessed in local terms only
- ◎ External support should promote self-help and assess community's commitment & potential for self-help
- ◎ Statements to support/ deny the potential of self-help must be based on field surveys

4. Recommendations for road projects

Low-cost, labour-intensive road projects can support self-help initiatives.

If pre-conditions are favourable, supporting measures =

- ③ Training of project staff
 - participatory road planning, surveying, design
 - construction of ultra-low-cost structures
- ③ Develop & disseminate appropriate low-cost solutions to frequent infrastructure problems
- ③ Offer villages:
 - inclusion of village representatives in training
 - technical advice to the villages' own road projects, checking and correcting planned alignments
 - grant or loan of tools

More recommendations ...

If pre-conditions for self-help support are sufficient in a country/ region – then set up projects designed to promote self-help in road construction.

Key principles:

- © Project only reacts to requests for support
- © Project assists the communities
 - in discussing the purpose
 - possible alternatives of roads, needed inputs, feasibility, etc.
- © Project activities only start after a community has proven its willingness and capability to provide voluntary labour
- © The community decides on the pace of implementation