RURAL TRANSPORT TRAINING MATERIALS



Module 2: Planning, Design, Appraisal and Implementation

Employment creation and labour-based technology in road works: Uganda

Session: 2.4 Part 2 – Case Study

Presentation: 2.4b









1. Introduction

Learning Objectives

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

- Describe the economic benefits of using labourbased methods in the Uganda scenario
- Develop recommendations for increasing the scope of the use of labour-based methods for feeder road works



Session Overview

- Background to the case study
- Key findings
- Recommendations for increasing the scope of labour-based methods



2. Background to the case study

Assessing the potential of employmentintensive technology in the rehabilitation of feeder roads

- The study focused on the economic aspects rather than technical aspects
 - assumption
 - most rehabilitation work on feeder roads can be carried out by labour as well as by the use of heavy machinery



Hypothesis of the Uganda study

Labour-based approaches are:

- viable
- offer high employment potential

➤and combat poverty

 greater indirect benefits to the national economy

Compared to conventional, equipment-based technology



Scope of the Ugandan study ...

- A comparative study of the use of labourbased and equipment-based methods for feeder road rehabilitation
- Carried out as part of the Labour-Based Policy Promotion Initiatives and the broader context of poverty reduction through employment creation
- Examined feeder road programmes 1993-1997
 - some used labour-based methods and some equipment-based methods
 - standard of the road works carried out was broadly similar
 - >... although some programmes involved full rehabilitation, and others spot rehabilitation



3. Key findings

- Economic growth rates (highest in the subregion) have not been matched with positive social indicators
 - reflected in poverty indices, and massive under employment = 3.8 million people
 - growth in labour force is 300,000 people per year,
 - but only 100,000 are absorbed, mostly in the agricultural sector
 - Poverty Eradication Action Plan includes increasing wage-employment and income generating activities as a way of stimulating local demand and production



- Labour-based methods and less use of heavy equipment are the best option:
 - for reconstruction and maintenance of badly needed infrastructure
 - provide productive employment
 - But! planners, project evaluators, engineers, politicians and the intended beneficiaries need evidence on which to base their day-to-day decisions



The evidence of benefits from using labour-based methods compared to equipment based methods

In direct financial terms, labour-based methods are

- 18% cheaper for full rehabilitation of feeder roads
- 50% cheaper for spot rehabilitation
- In economic terms, labour-based methods are
 - 38% cheaper for full rehabilitation
 - 60% for spot rehabilitation
- Second Second
 - the unskilled daily wage does not exceed US\$ 4
 - $> \dots$ the current [1999] rate in rural areas is US\$ 1.2



... more evidence for labour-based works ...

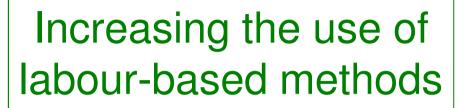
- Employment generation is higher
 - the proportion of the cost spent on wages (unskilled) = 44% - 60% in labour-based works
 - compared to 3% 8% in equipment-based works
- Indirect effects even greater than the direct effects (macro-economic model)
 - for each job directly created another 2 jobs are generated elsewhere in the economy through a *multiplier effect*
 - generate more income to households
 - increase GDP faster
 - a stronger stimulus on local private investment



Selective use of labour-based methods

- In some cases equipment-based methods are more suitable
 - .. and should not be replaced by labour-based methods
- But! huge potential for increasing the use of labour-based methods
 - such as in rural feeder roadworks
- If the financial and economic benefits of using labour-based methods are higher than equipment
 - then labour-based methods should be used as an alternative to equipment







Group Activity

What recommendations would you make for increasing the scope for the use of labour-based methods in feeder roads?



4. Recommendations for increasing the use of labour-based methods in feeder roads

- Partnership between government and private sector
 - to increase participation of small local contractors in public sector works
- Project evaluation criteria to include
 - employment creation potential
 - shadow pricing of labour
 - assessment of the indirect costs & benefits of public investments



More recommendations ...

Removal of existing bias in conditions of tender and contract provisions which favour equipment-intensive contractors

Increased use of subcontracting to provide more work opportunities for small, local contractors

Feasibility studies and designs consider the use of labour-based methods as well as equipment-based methods



More recommendations ...

Relax tight construction time constraints where possible

- the longer duration sometimes inherent in the use of labour-based methods can be more than compensated for by the greater benefits and faster mobilisation times
- Change attitudes to labour-based methods
 - inclusion of the concepts of appropriate technology in the formal training of civil engineers



Conclusion

- A switch towards more labour-based methods could generate very significant benefits for:
 - the poor in the form of employment opportunities
 - the country in terms of GDP and foreign exchange saving

