RURAL TRANSPORT TRAINING MATERIALS

Module 5: Social and Environmental Issues
Choosing rural road investments to reduce poverty: An approach to capturing nonmonetary benefits: Vietnam
Session: 5.1
Part 2 – Case Study #2

Presentation: 5.1b (#2)

1. Introduction

Learning Objectives

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

◎ Describe the challenges faced in the Vietnam context of carrying out social and economic analysis

◎ Explain the conditions and step of the analytical framework and fund allocation approach used in Vietnam

◎ Identify the lessons learnt from the approach

◎ Analyse the extent to which the approach to assess the non-monetary benefits of road investment, could be applied in other contexts

SSATP
Africa Transport
Policy Program

Session Overview

- The challenge
- Approach
- The steps
- Reflections

SSATP
Africa Transport
Policy Program

2. The challenge

Important benefits to the poor from rural roads are not measurable in monetary terms

- A step-by-step approach was developed in Vietnam, to address this challenge
- In locations of:
  - High poverty
  - High economic potential
  - Low access

SSATP
Africa Transport
Policy Program

3. Approach

Six necessary conditions

◎ Flexibility
- consider institutional, other local inputs, complaints

◎ Pilot
- revise after 1st cycle, alter with experience

◎ All players accept
- set-up costs, time for data collection & analysis, make project proposals

SSATP
Africa Transport
Policy Program

- Fixed budget
  - available for road rehabilitation
  - all provinces compete for budget
- Project team + government devise variables & weights
- Decentralize the formula
  - provinces responsible for making proposals and bidding for the money.

4. The Steps (x8)

1. Potential variables

2. Scale & social variables

3. Weights for variables

4. Technical assistance

5. Proposals

6. Incentives

7. Fund allocations

8. Internal rate of return (IRT)

1. Potential variables

◎ Potential variables that determine efficiency gains -

- road density
- local human resource development measured % of children completing primary school
- other (complementary) development projects in area
- accessibility to social service facilities
- accessibility to other forms of transport (train, waterways)

Cont: -

SSATP
Africa Transport
Policy Program

1. Potential variables

Cont: -

- agricultural development potential as measured by unused land with agricultural potential;
- current road condition
- linkages with the existing network of road

◎ Data available from

- communes and districts
- extensive consultation

2. Scale & social variables

◎ **Focus on poverty data**

  ▪ IMRs, average incomes, literacy, share of school-age children attending secondary school, under-nutrition, etc.

◎ **A scale must be determined so that the numbers can be added up**

  ▪ because such indicators are expressed in different units

SSATP
Africa Transport
Policy Program

A challenge ...

◎ Ideally, poverty data by commune is available nationally

   - such data often exists, but there is no system to compile it nationally

◎ One possibility:

  ▪ provinces develop internal poverty ranking of their communes based on a composite index of variables (Z)

  ▪ then, content and the scale is decided centrally

SSATP
Africa Transport
Policy Program

3. Weights for variables

◎ **Scale development**

- ▪ poorest EC relative to the least poor
- ➤ scale of equity
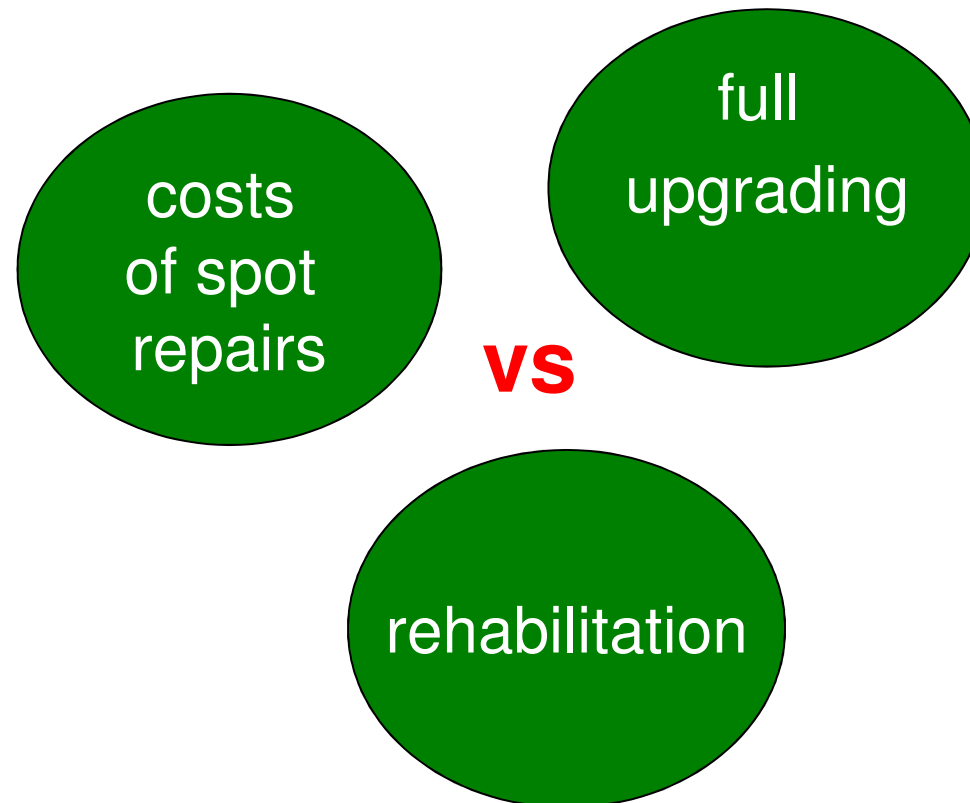
◎ **Define the weights through consultation**

- ▪ multi-disciplinary group of government, non-government Vietnamese experts, World Bank, donors

4. Technical assistance

◎ **Technical assistance to:**

- explain rules of the game
- make project plans
- comment on possible projects
- explain validation checks to be made
- explain cost-benefit ratios (see below)

SSATP
Africa Transport
Policy Program

5. Proposals

When making
   proposals, weigh up

costs
of spot
repairs

vs

full
upgrading

rehabilitation

SSATP
Africa Transport
Policy Program

5. Proposals

◉ Each province draws up a list of benefits + costs for all road links in potential sub-projects

◉ Include:
- +1 road link
- combinations of different levels of road links

6. Incentives

- Process is decentralized, so …
  - incentives are used
- Validation of the province assessments - made on a random basis
- Penalty e.g. tax on costs

SSATP
Africa Transport
Policy Program

7. Fund allocations

◎ Money is allocated to those province-proposals with the highest cost-benefit ratio

◎ Potential issue

- the best projects could all be concentrated in a few provinces …

… with subsequent concentration of budget allocations to a few areas

SSATP
Africa Transport
Policy Program

7. Fund allocations

Issue is overcome by:

1. The 2nd pot of money goes to different provinces

2. Provinces selected get a minimum of the total, e.g. 1/60th in the case where 30 provinces are participating

3. By formula:
   - ½ of budget is allocated in proportion to province size or population, and provincial index of inaccessibility & poverty
   - ½ is allocated to the remaining most cost-effective proposals

SSATP
Africa Transport
Policy Program

8. Internal rate of return (IRT)

- **IRT** is calculated for representative projects for each of the main road types (from Step 7) i.e. for **each set of sub-projects**

- A minimum acceptable IRT is set

- If projects previously rejected in Step 7 on the basis of cost-benefit ratio, have a IRT above average, then these can be re-selected for funding

- Projects with the highest IRT and best cost-benefit ratio are selected for funding

5. Reflections

On the approach

- Builds on past approaches, observations, project experience
- Focus on poverty within a public economic framework in which
    - efficiency & equity concerns are inseparable
    - information is incomplete
    - resources are limited

SSATP
Africa Transport
Policy Program

On the approach

- Tries to avoid the tendency of hard-nosed economic analysis that excludes budgets for 'social objectives'

- Recognizes the practical constraints in implementing rigorous appraisal with limited information

SSATP
Africa Transport
Policy Program

Advantages of this method

◎ Facilitates capacity building

◎ Participatory

◎ Uses local information not readily available to the centre

◎ Feasible

- through its reliance on the participation of local authorities in the appraisal of sub-projects

◎ Enables the most effective investments to be selected on basis of poverty reduction

- given information & resource constraints.

SSATP
Africa Transport
Policy Program

Integrating social + economic analysis for road investments

Group Activity

Working in groups discuss: -

A. *To what extent could the approach used in Vietnam to capture non-monetary benefits when assessing road investments, be applied in your contexts?*