



## **Module 2: Planning, Design, Appraisal and Implementation**

# **Community Participation in Rural Transport Infrastructure**

**Session: 2.1**

**Part 1**

**Presentation: 2.6a**

# The Training Modules

Module 1. Policies and Strategies

This Module

Module 2. Planning, Design, Appraisal and Implementation

Module 3. Management and Financing

Module 4. Rural Mobility

Module 5. Social and Environmental Issues

## Module 2. Planning, Design, Appraisal and Implementation

Session 2.1 Participatory rural planning process

Session 2.2 Design of rural transport infrastructure

Session 2.3 Rural road economic appraisal methodology

Session 2.4 Labour-based works methodology

Session 2.5 Small scale contractor development

This session

Session 2.6 Community Participation in Rural Transport Infrastructure

Session 2.7 Participatory Survey Techniques for Rural Transport

# 1. Introduction

## Learning Objectives

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

- ③ Define key terms associated with community participation and project steps
- ③ Critique the factors affecting community participation
- ③ Describe strategies for increasing community participation in the steps of a RTI project

# Session Overview

- © Definitions of terms
- © Factors affecting community participation
- © Project steps for community participation

# Background

- ◎ Many roads are commonly built of earth or gravel
  - which are cheaper to construct but relatively more expensive to maintain
  - suppress the travel and transport benefits
  - limit their developmental impact and the possibility of further improvement
- ◎ DFID contracted IT Transport Ltd. to research and produce  
**'Guidelines for Community Participation in Road Maintenance'**

# The guidelines ...

## ③ Aimed at

- transport planners and engineers wishing to engage communities/ groups in the rehabilitation and maintenance of RTI

## ③ Present a number of options for community participation

## ③ Developed over 3 years from research in Uganda, Tanzania and Kenya

- also draw on worldwide experience from other development projects engaging communities in the sustainable maintenance of communal resources

## ③ Core questions

- Who participates and why?
- Who benefits?
- What are the prospects for long term sustainability?

## 2. Definition of terms

### Community

#### ☉ Legal/ administrative

- defined by local government's legislation
- recognises a hierarchy of communities
- codifies administration in terms of traditional or political structures

#### ☉ Social

- defined by community
- reflect the differentiation by prevailing social, economic and cultural norms
- may be reinforced by residential segregation

#### ☉ Geographical

- defined in geographic or planning terms
  - natural features or levels of demand/supply for catchment areas



# Rural Transport Infrastructure (RTI)

## ☉ Community participation in the maintenance of transport infrastructure

- more cost effective
- improved cash income opportunities
- skill development
- greater sense of ownership
- routine maintenance suits the skill profile of farming communities
- ... and can be adapted to fit in with the agricultural calendar

## ☉ Lack of local government funds

- community participation is increasing for maintenance of feeder roads
  - lack of road construction skills & materials limit the effectiveness of unskilled community labour

## Types of Participation



### Ranking game

*Rank the different types of participation in order of the degree to which communities are actively involved*

# Types of participation

Participation Type	Characteristic
Passive participation	People participate by living in the area of the project. They may be told what is going to happen or has already happened but will have no other input.
Participation for material incentive	People participate by being paid for labour in food or cash, for a pre-determined project. This may be as a 'community' or as groups.
Participation by resource contribution	People participate by contributing a resource such as labour or money, to a pre-determined project.
Participation by consultation	People participate by being consulted (perhaps with options) on projects where the majority of the decisions have been made. Their view may/may not be considered.
Interactive participation.	People participate by joining with external professionals in analysis of their situation, developing action plans and determining common projects.
Spontaneous mobilisation	People participate by taking their own initiative independent of external professionals to change their situation. This may lead to self-help projects or requests to other institutions for assistance.

### 3. Factors affecting community participation

- ③ Amount of people who will benefit
  - must be a large homogeneous group
- ③ Level of access needed
  - road maintenance must match this
  - e.g. dry season access for motorised transport
- ③ Ability of the community council
  - to enforce local labour-levy by-laws and organise works
  - ... but, labour-levy by-laws are often unpopular and are not enforced

## © Previous RTI work

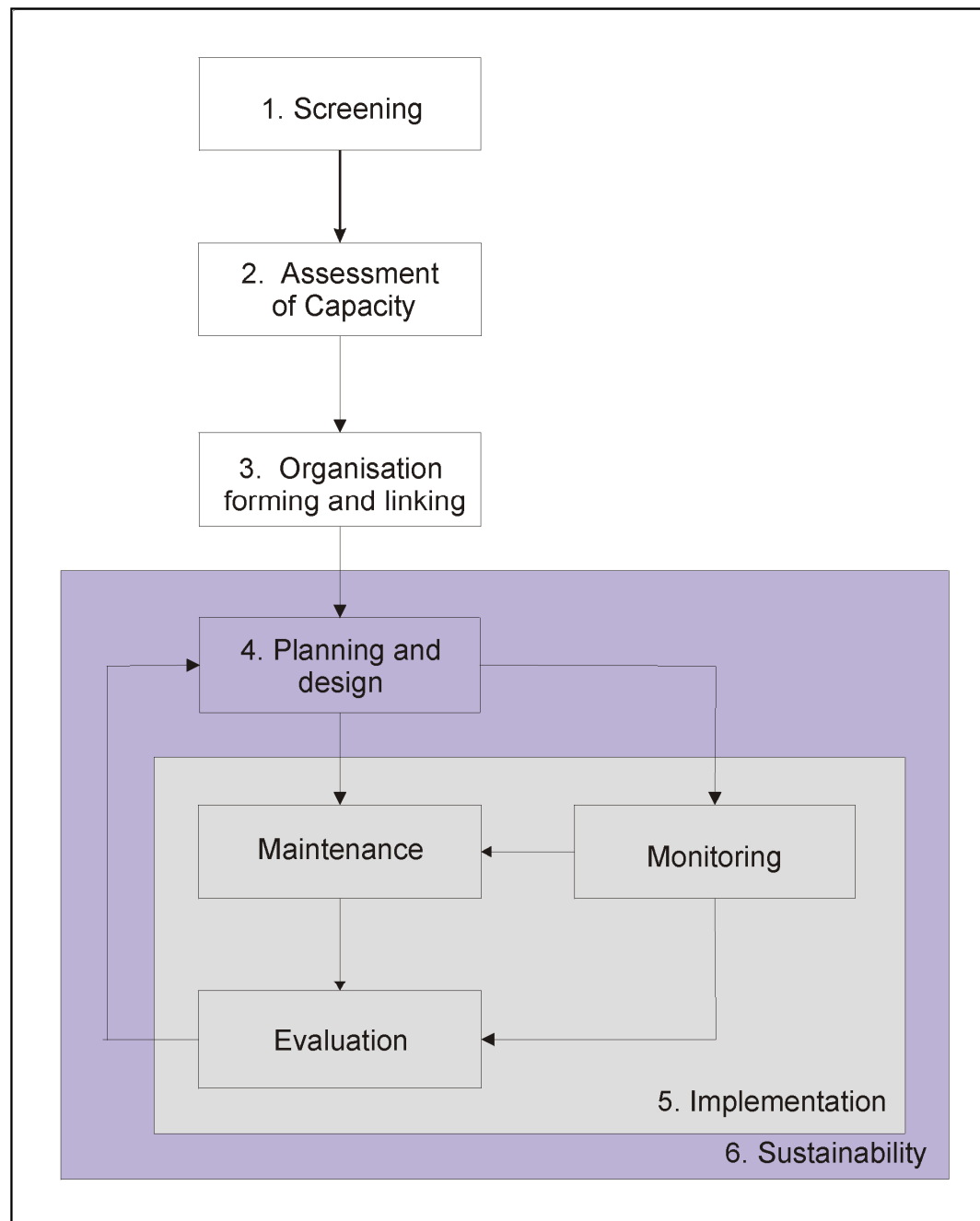
- level of consultation with the villagers affects their willingness to participate

## © Construction method

- large plant and machinery with experts and imported labour disempowers the community
  - undermines its ability to conduct further works
- labour-based techniques and manual tools reduces the organisation and time scale of road construction at the community level
  - community can identify with and apply these techniques to their own activities

## 4. Project steps for community participation

- © The process to engage communities in community participation consists of
  - several major steps
  - set within the context of sustainability



## Project steps for community participation



### Group Discussion

*What is the purpose of each step?*

*What issues should be explored at each step?*

*What methods can be used to explore issues?*



## A. Screening

### ③ Purpose

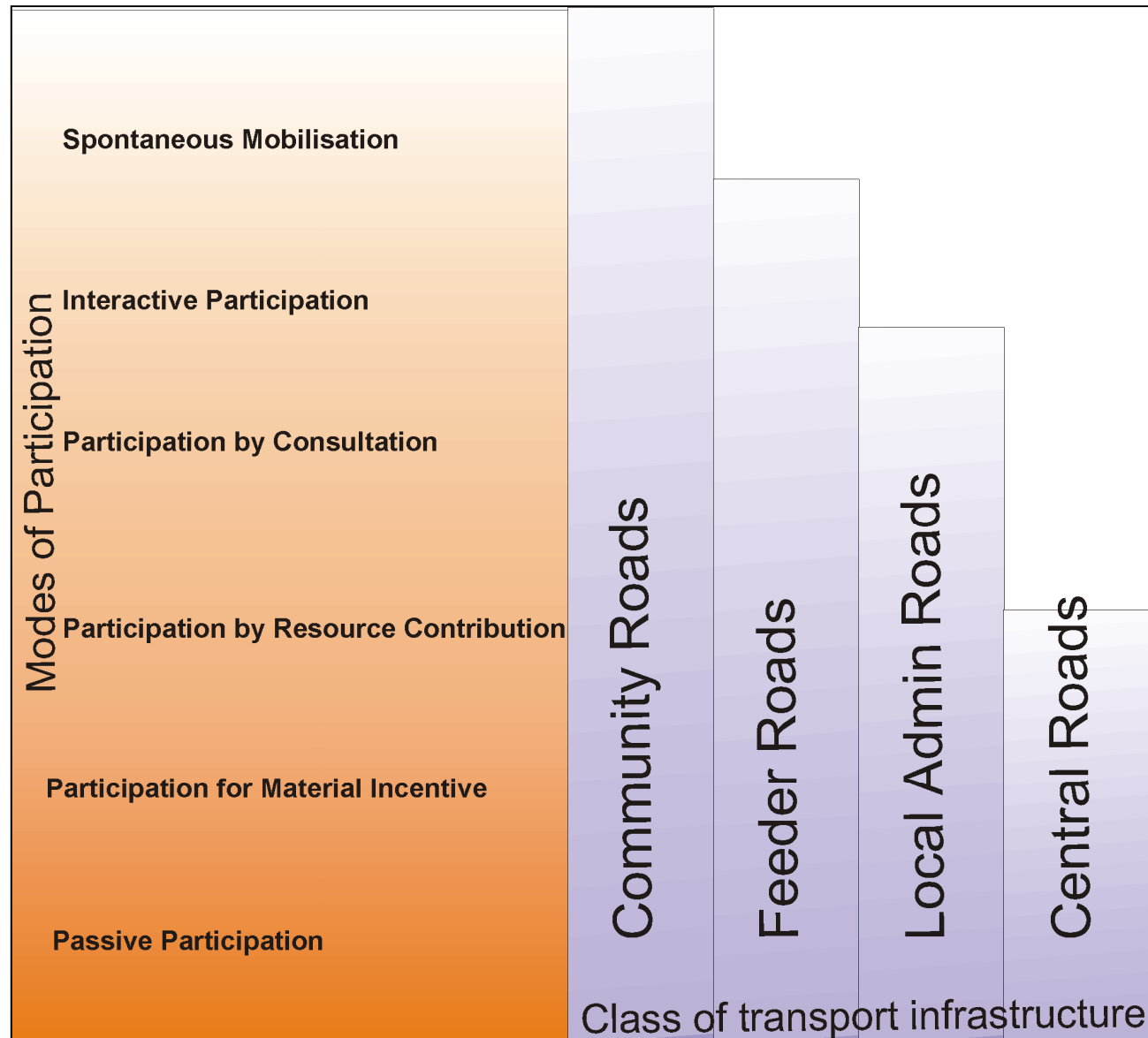
- assess if road maintenance is a **priority** to the community
- assess if project **lends itself** to community participation

### ③ Methods for assessing community needs

- quantitative surveys to participatory techniques

### ③ The range of participation modes decreases as the size and importance of the road increases

# Participation type against road classification



## B. Assessment of Capacity

- ③ Sustained capacity of the organisation and a community to participate is often an assumed project risk
- ③ Community level capacity can be explored:
  - Community organisational capacity
  - Natural resources
    - timber, soil, gravel and rock deposits can be used for maintenance
  - Human resources
    - labourers, supervisors, technicians or monitors can cut project costs
  - Financial resources
- ③ Assess the capacity within the sub groups
  - men, women, children, old, young, etc.

## C. Organisation forming and linking

### ⊙ Representation of the community in committees is essential:

- planning and activities of the project may be biased towards a minority of the population
  - due to inadequate knowledge of the range of individual travel and transport patterns
- long term sustainability will be undermined if only these minority needs are addressed

### ⊙ Administrative or community sub-committees may not have the capacity to represent the community

- restructure or revitalise

## C. Organisation forming and linking

### ⦿ Committee revitalisation

- election with seats allotted to specific groups in the community e.g. men, women, traders and farmers
- training
- e.g. introduction to road maintenance bookkeeping, project monitoring and evaluation

### ⦿ New committee

- position in the existing council structure and legal standing
- sustainability of committee when the project finishes

## C. Organisation forming and linking

### ☉ Form links

- between planners, engineers, government and non-government offices

### ☉ Appreciate what other sectors e.g. health, are planning

## D. Planning and Design

### Physical

#### ☉ Community representatives

- knowledge of the local area and the problems they face
  - valuable in deciding and prioritising which roads can be improved
- use a map drawn by the villagers: roads, rivers & services e.g. schools and clinics

#### ☉ Project improvements can lead to increase in traffic accidents

- need for an awareness of traffic changes
- accident black spots should be discussed
- ... and ways to decrease them: signs, traffic calming measures.

#### ☉ Engineers and architects

- present their ideas to the community in the form of drawings, artists' impressions and models

# Management

- ③ Level of infrastructure effects level of community participation
  - trunk road - community may only be involved in the review meetings
  - path or track - community organises contributions, labour, meetings ....
- ③ Set the parameters for implementation
  - how many meetings are required at what intervals, how many people are required for how many days, etc?



# Management

🌀 When planning works using community labour consider:

- number of people in the community who are able to work
- time of year and seasonality - is it a busy time of the year?
- when are the traditional times of year for community work?
- who is organising the labour?
  - often easier to let the community committee organise this kind of labour

# Management

- ◎ An increasing number of projects are obliged to pay communities for their labour
  - particularly if past projects paid for labour in cash or food
- ◎ The management of labour inputs is best left to the community
  - a trained engineer/ works supervisor should be involved in the supervision of works
  - agree parameters and timetable for these contributions before implementation
    - possibly in a contractual form

## E. Implementation

Four aspects:

Advertising  
of works

Contractors

Assessment  
of tenders

Choice of  
construction  
technique

## Contractors

- ◎ Large contractor using skilled and unskilled labour
  - construction and rehabilitation of roads
  - may train local labourers
  - use them again in subsequent works
- ◎ Petty contractor using unskilled and semi-skilled labour
  - routine or periodic maintenance works
  - community members employed on a semi regular basis - grass clearing, drain/ culvert cleaning
  - labour-based techniques - participation of these can be expanded to periodic works such as re-surfacing or earth works repair

# Contractors

## © Community contractors

- a kind of petty contractor
- conduct routine maintenance: grass cutting, drainage clearance

## Contractors

☉ Sustainability of petty and community contractors is questionable

- many formed and directly contracted as part of a project

☉ Constraints to continued work:

- lack of funds
- poor tools
- lack of status and ability to competitively bid for jobs

## Contractors

### Strategies to address these problems:

- ③ Break job into **smaller contracts**: allows smaller contractor to compete
- ③ Enact a local **by-law** to allow small contractors to be registered
  - despite their lack of resources: allows them to bid for contracts
  - set up these links before the project finishes
- ③ Seed money or revolving **funds**
  - aid contractors to purchase/hire equipment to conduct works
- ③ **Training** of small contractors in how to run a business
- ③ Directly **employ contractors** initially to allow them to gain experience and capital
  - introduce competitive bidding once they are established

## Advertising of works

© Local newspapers and invitations to tender

© Other media:

- more contractors will see the advertisement
- community will be alerted to the fact that works will be commencing in the area

© Advertisement - encourage female applications

- women contractors have often been more effective and produced a better quality of work than male led contractors



# Assessment of tenders

© Technical and financial basis

© Participation of communities

- number of local people to be employed
- use of local materials
- gender desegregation
- choice of construction method

## Choice of construction technique

### Labour based methods more favourable:

- ③ A greater number of local people can **earn money**
- ③ **Community** is more involved
  - take responsibility for the infrastructure
- ③ Usually **train** even the unskilled labourers
  - skills can be used in continued maintenance or other jobs
- ③ Labour-based gangs can work on a **number of sites** at one time
  - allowing use of a 'lengthman/ contractor' system
- ③ Contractors can be **village based**
- ③ Maintenance works can be done on **piecework rates**
  - to allow community members to conduct other tasks such as child care or farm work

## Choice of construction technique

- © To enable **women** to participate planners must consider their wider needs
  - working hours, crèche, feeding of children, toilet facilities .....

## F. Monitoring and Evaluation

1. Physical

2. Social and economic

3. Community Participation

# 1. Physical

## Monitoring

- ☉ Qualified engineer carries out the more quantitative elements
- ☉ Community participation is limited

## Evaluation

- ☉ Community can play a great part
  - as users can assess quality & standard of the work
  - know if the contractor has been using local labour
  - if part of the works needs changing they can often assess this more quickly than the engineer in charge

# 1. Physical

## Evaluation is done in two stages:

- Meetings with the local committee to present and discuss progress on the works
- Site visit to show the committee members why a piece of works had to be done that way

## 2. Social and economic

### For central government roads

⦿ Conventional economic methods that rely on traffic counts are appropriate

- community participation is limited to community members being employed as traffic counters
- if trained, community members can become enumerators for questionnaire surveys
- weaknesses of questionnaire surveys is the accuracy of data
  - if the respondent is familiar with the enumerator this may produce more accurate results

## 2. Social and economic

### Smaller roads with more pedestrians & bicycles

- ◎ Conventional economic methods not appropriate
- ◎ Use household questionnaires, participatory techniques, local administration records
  - community's participation is passive
  - but can participate more actively in the collection and analysis of data
- ◎ If the planning of a project is done using participatory techniques - ranking and mapping
  - the results can be revisited by the community and assessed next to the current situation



### 3. Community Participation

- ◎ New to many planners and engineers
  - learning from experience
- ◎ The monitoring of community participation
  - collecting information on number of meetings, their attendance, by which stakeholders, etc.

## G. Sustainability

- ◎ Continuation of the community participation after the project is often neglected
  - many committees set up for the project finish working with the project
- ◎ Maintenance is a long-term activity
- ◎ If community participation has proved to be useful it needs to be sustained
  - needs willingness on the part of the community
  - ... and the engineers, planners, local officers
  - the project needs to encourage 'ownership' by the community

# Can encourage continued participation by ...

## Routine meetings

- once every four months

## Agenda

- maintenance activities lend themselves well to this, due to their cyclic nature
- planning, implementing and assessing future and past activities
- representatives from other organisations should attend and contribute & guide the meetings agenda

## Reporting back

- copied back to the project/your office