

# **Community Participation in Road Maintenance**

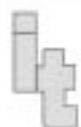
## **Guidelines for Planners and Engineers**

**1<sup>st</sup> Edition**

**DFID Research Scheme Number: R6476  
Scheme Title: Community Participation in  
Road Maintenance**

**August, 2003**

Prepared for the  
Department for International Development  
By



**I.T. Transport Ltd.**  
Consultants in Transport  
for Rural Development

## Foreword

---

These guidelines are aimed at transport planners and engineers alike, wishing to engage communities or groups of people in the rehabilitation and maintenance of transport infrastructure. The guidelines have been developed over three years from research conducted in East Africa, specifically Uganda, Tanzania and Kenya. They also draw on worldwide experience from other development projects engaging communities in the sustainable maintenance of communal resources.

The maintenance of communal resources and particularly transport infrastructure has been neglected in the past and a cycle of re-construction or rehabilitation has evolved. To break this cycle many projects and programmes are focussing on the development of sustainable more realistic approaches to maintenance. These guidelines form part of this approach and cover the more common community participation options for all levels of road throughout the project cycle. They do not claim to cover all the options and it is hoped that they will provide guidance as well as stimulate new ideas, which we would like to hear about.

The authors would like to take this opportunity to thank the Department for International Development (DFID) for funding this work as well as all the Government, Donor and Community representatives in East Africa who helped us with our field research. We hope you enjoyed participating as much as we did!

Please note this document is an output from a project funded by the UK DFID for the benefit of developing countries. The views expressed are not necessarily those of DFID.

---

# Contents

---

<b>Foreword</b> .....	<b>i</b>
<b>Contents</b> .....	<b>ii</b>
<b>1 Introduction</b> .....	<b>1</b>
<b>2 Definition of terms</b> .....	<b>2</b>
Community .....	2
Participation - The rhetoric and the reality .....	3
Maintenance.....	3
Transport infrastructure.....	4
<b>3 Factors affecting community participation</b> .....	<b>6</b>
Group Homogeneity .....	6
Importance and type of access .....	6
Administrative strength.....	6
Infrastructure history .....	6
Capacity to conduct maintenance.....	7
<b>4 Project steps for community participation</b> .....	<b>8</b>
Step 1 – Screening.....	9
Step 2 - Assessment of capacity.....	9
Step 3 – Organisation forming and linking .....	11
Step 4 – Planning and design .....	12
Step 5 – Implementation .....	14
Step 6 – Sustainability.....	18
<b>Annex 1 – Checklist for capacity issues</b> .....	<b>A1</b>
<b>Annex 2 – Steps in forming a Roads Committee</b> .....	<b>A2</b>
<b>Annex 3 – Useful references</b> .....	<b>A3</b>

# 1 Introduction

---

Road maintenance is of crucial importance in Sub-Saharan Africa because of the inherent characteristics of their road networks. Low levels of development mean that levels of traffic are low, which in turn means that it is difficult to justify expensive paved roads. As a result many roads are commonly built of earth or gravel, which are cheaper to construct but relatively more expensive to maintain. These higher costs invariably result in inadequate maintenance regimes, which suppress the travel and transport benefits and limit their developmental impact and the possibility of further improvement. This vicious circle stifles economic growth, and programmes such as the Integrated Roads Programme in Tanzania have recently started to focus on the sustainable maintenance and spot improvement of existing roads, to break the circle. In other African countries, this has involved communities taking more responsibility for the road linking them to a major national road. This trend and the general need to develop participatory approaches prompted the DFID to contract IT Transport Ltd. to research and produce 'Guidelines for Community Participation in Road Maintenance'.

These guidelines are aimed at transport planners and engineers alike, wishing to engage communities or groups of people in the rehabilitation and maintenance of transport infrastructure. They present a number of options for community participation and are by no means prescriptive, but aim to stimulate and provide ideas to suit other projects. The guidelines have been developed over three years from research conducted in East Africa, specifically Uganda, Tanzania and Kenya. They also draw on worldwide experience from other development projects engaging communities in the sustainable maintenance of communal resources.

In the first phase of the research a literature review identified both the paucity of written material on the subject and highlighted the limited number of projects with practical experience of utilising community participation in road maintenance. Nevertheless, it was possible to draw from this limited project experience four case studies for further examination in the next phase of the research. These were the Kathekani Rural Transport Project in Kenya, the Arusha Village Contractors, the Village Travel and Transport Programme in Tanzania and the Western Uganda Road Maintenance Project. The case studies used a participatory methodology, which involved a range of techniques from mapping to semi-structured interviews. Although, the projects were distinctly different and so required slightly different approaches the core questions remained the same:

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

From answering these questions and the others that arose as the work progressed, the authors have been able to gain an insight into the way that communities view their environment and specifically the transport infrastructure it embraces. This has enabled us to develop these guidelines in a realistic way that will hopefully assist transport planners and engineers in the development of more sustainable transport systems.

The guidelines start with a short discussion that defines participation and maintenance, setting the framework for the following chapters that will guide the reader through a number of realistic options for the engagement of communities in road maintenance.

## 2 Definition of terms

During the last few years there have been many publications and much has been spoken on the linkages between communities and their participation in the maintenance of transport infrastructure. In this explosion of interest it seems that these terms have been overused and often abused to fit the needs of the user. The following chapter defines some of these terms and expands on their meaning and the context in which they are used.

### Community

Even a briefest of literature searches suggests that the concept of a community varies between projects, sectors, regions and countries. In general three different types of community can be identified in terms of their legal/administrative, social and resource characteristics.

#### Legal/administrative communities

These are usually defined by a country's local government legislation, which recognises a hierarchy of communities and codifies their administration in terms of traditional or political structures. It may also be the case that both traditional and elected structures exist side by side and these provide alternative channels of communication and potential confusion or conflict for outsiders trying to identify and work with the local 'community'.

#### Social communities

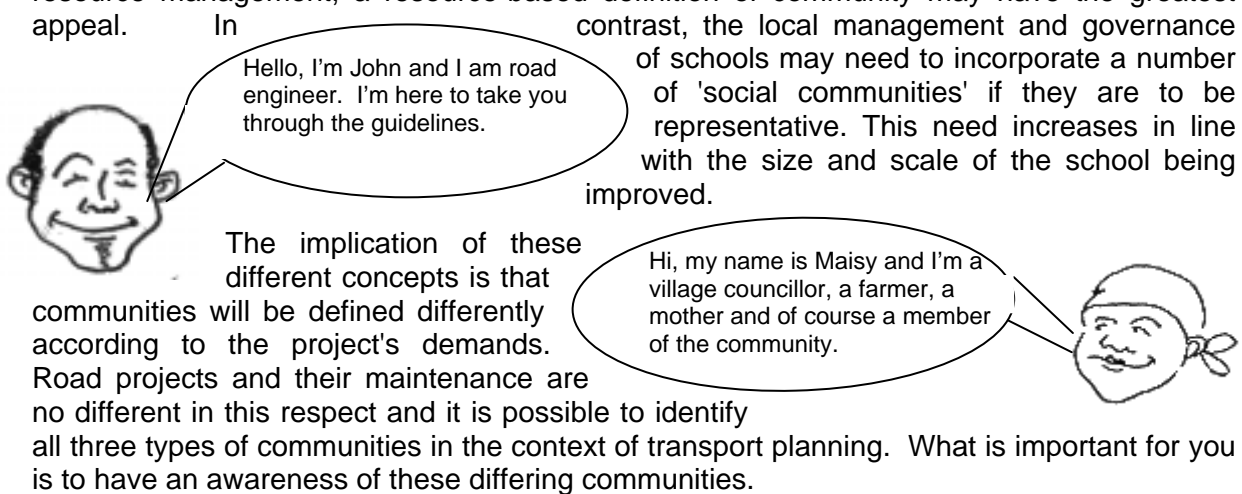
These are defined by the members themselves and reflect the differentiation of the rural population by prevailing social, economic and cultural norms, which may be reinforced by residential segregation. In this perspective, the community can be seen as having a common characteristic or bound by its common interests. Examples of these may be traders, farmers, and local administrators.

#### Geographical communities

These might be defined in geographic or planning terms and for example natural features or levels of demand/supply might be used to identify communal interests or catchment areas. Thus, in water supply and irrigation projects or other programmes concerned with natural resource management, a resource-based definition of community may have the greatest appeal.

In contrast, the local management and governance of schools may need to incorporate a number of 'social communities' if they are to be representative. This need increases in line with the size and scale of the school being improved.

The implication of these different concepts is that communities will be defined differently according to the project's demands. Road projects and their maintenance are no different in this respect and it is possible to identify all three types of communities in the context of transport planning. What is important for you is to have an awareness of these differing communities.



## Participation - The rhetoric and the reality

In simple terms a dictionary suggests that participation is the active involvement of a community to take part or share in an activity. To elaborate, the following typology shown in Table 1 is suggested.

This list is neither exhaustive nor progressive, so it is possible for a project to include one or more of these participatory modes in its planning and implementation stages. Indeed it might be argued that all projects are participatory since they invariably involve a degree of passive and commonly material incentive participation.

**Table 1: Types of Participation**

<b>Participation Type</b>	<b>Characteristic</b>
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 or 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.

## Maintenance

In an ideal world transport infrastructure would be constructed, regularly maintained and infrequently rehabilitated. However, construction rich and maintenance poor budgets have encouraged a cycle of frequent rehabilitation, as ineffective maintenance regimes have shortened the life of newly constructed roads. Therefore, although it is recognised that efforts are being made to improve maintenance regimes, the authors include rehabilitation as a type of maintenance in the following typology:

**Table 2: Road Maintenance Typology**

Routine maintenance	Operations such as vegetation control, shoulder rebuilding, pothole repair are required to be carried out one or more times per year on a section of road. These operations are typically simple and on a small scale, but are widely dispersed. As such they usually require unskilled or semi-skilled labour and this can be estimated and planned for on a regular basis.
Periodic maintenance	Operations such as resurfacing that are required on the road after a number of years. These operations are normally large scale and require specialist equipment and skilled resources to implement, and usually necessitate the temporary deployment of those resources on one road section at a time. These operations are costly and require specific identification and planning for implementation, and may require design.
Emergency Maintenance	Emergency operations needed to repair road sections, culverts and bridges damaged by natural calamities – floods, storms, earthquakes or traffic accidents.
Road Rehabilitation	The restoration of a road after deterioration due to a poor maintenance.

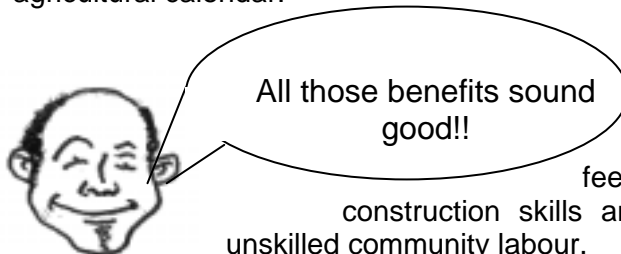
## Transport infrastructure

There are a number of definitions of transport infrastructure that differ between countries within the East Africa Region and sometimes within the countries themselves! The type of infrastructure can range from waterways to roads, however, for the purposes of the guidelines we will concentrate on roads. Although the guidelines could equally apply to other types of infrastructure. The following broad classification will be used to distinguish between roads.

**Table 3. Classifications of road**

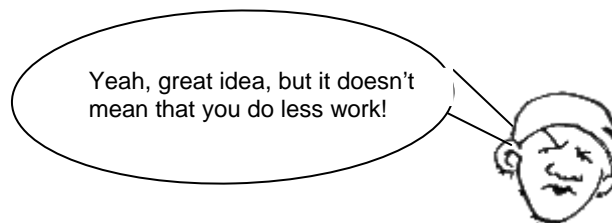
Classification	Linking	Vehicles Per Day	Primary Transport Modes	Usual surface	Ownership
Community roads, tracks and paths	Villager to service	<5	Foot Bicycle	Earth	Village administration
Feeder roads	Village to larger road or village	<5	Foot Bicycle	Earth	Local central administration
Local Administration Roads	Local urban centre to local urban centre	5-50	Bicycle Motorised	Earth/Gravel	Local central administration
Central Government Roads	Large urban centre to local urban centre or other large urban centre	100 +	Motorised	Gravel/tarmac	Central Government

Given these definitions, the context in which they are used is one of diminishing government resources and donor fatigue in supporting the build and rehabilitate cycle of infrastructure maintenance. It is argued that if communities participate in the maintenance of transport infrastructure, not only would this be more cost effective but it would also have important developmental spin-offs. These would include improved cash income opportunities, skill development and a greater sense of ownership. For central government and important local roads, the benefits of community participation particularly apply to routine maintenance, which suits the skill profile of farming communities and can be adapted to fit in with the agricultural calendar.



However, the lack of local government funds means that community participation is increasingly applied to the periodic and emergency maintenance of community and feeder roads. In this situation, the lack of road construction skills and materials can limit the effectiveness of unskilled community labour.

It is in this context of the widening popularity and use of community participation that the following chapters summarise our findings.



### 3 Factors affecting community participation

The following chapter highlights the most significant factors that determine the likely success of community participation in road maintenance.

#### Group homogeneity

Within a community there will be a number of different social and economic groupings. These groups are not exclusive and often inter-linked; for example a maize farmer may be a woman managing her husband's coffee farm and a member of the village council. From the research it is clear that for community participation to be successful and sustained there needs to be large homogeneous group within the community that accrue a benefit from having good roads. Box 1 gives an example of this from Mbinga.

#### **Mbinga coffee growers**

In Mbinga District, Tanzania the majority of the population grow coffee. With the collapse of the Coffee Co-operative a number of private buyers have started to buy direct from the farmers. To help these buyers to get to the villages the communities maintain the road to a dry season level of access for motorised transport.

#### **Box. 1 Mbinga Coffee farmers**

#### Importance and type of access

The Mbinga case also highlights the fact that the community maintains the road to match its need for a particular level of access - dry season access for motorised transport. If sufficient people do not feel such a need for example if the majority of the people walk or headload crops to a nearby market, it is likely that the community will be reluctant to participate in other than footpath and footbridge maintenance.

#### Administrative strength

In most East African communities there are by-laws in place that require rural households to carry out a certain number of days labour for the benefit of the community. The ability of the community organise these works shows the strength of the administration. This was apparent in some of our research communities where there was a history of organised participation in road maintenance. If people defaulted on the work they usually had to pay a fine or carry out the work at a later date. This had even led to a change in the labour levy system and some wealthier households were regularly paying a 'fine' and this was being used to pay someone else to do the work – a kind of local taxation.

Unfortunately, these positive role models are not common and in many rural communities these labour-levy by-laws are unpopular and not enforced.

#### Infrastructure history

Previous work carried out on the communities' transport infrastructure has a profound impact on its willingness to participate. If work has been done on the road and there has been little or no consultation with the villagers, they feel the responsibility for the road has passed over to the organisation conducting the works (Box. 2). Therefore the willingness of communities to participate further is reduced.

#### **Missionary road**

In Mbinga, Tanzania a District road was improved with money from a local Catholic Mission. The machinery was brought in from the local town of Songea and it was very clear that the improvement was a present from the church. After three years the road is now in a poor state, and the villagers are waiting for the Mission to improve it again.

#### **Box. 2 Missionary road**

## Capacity to conduct maintenance

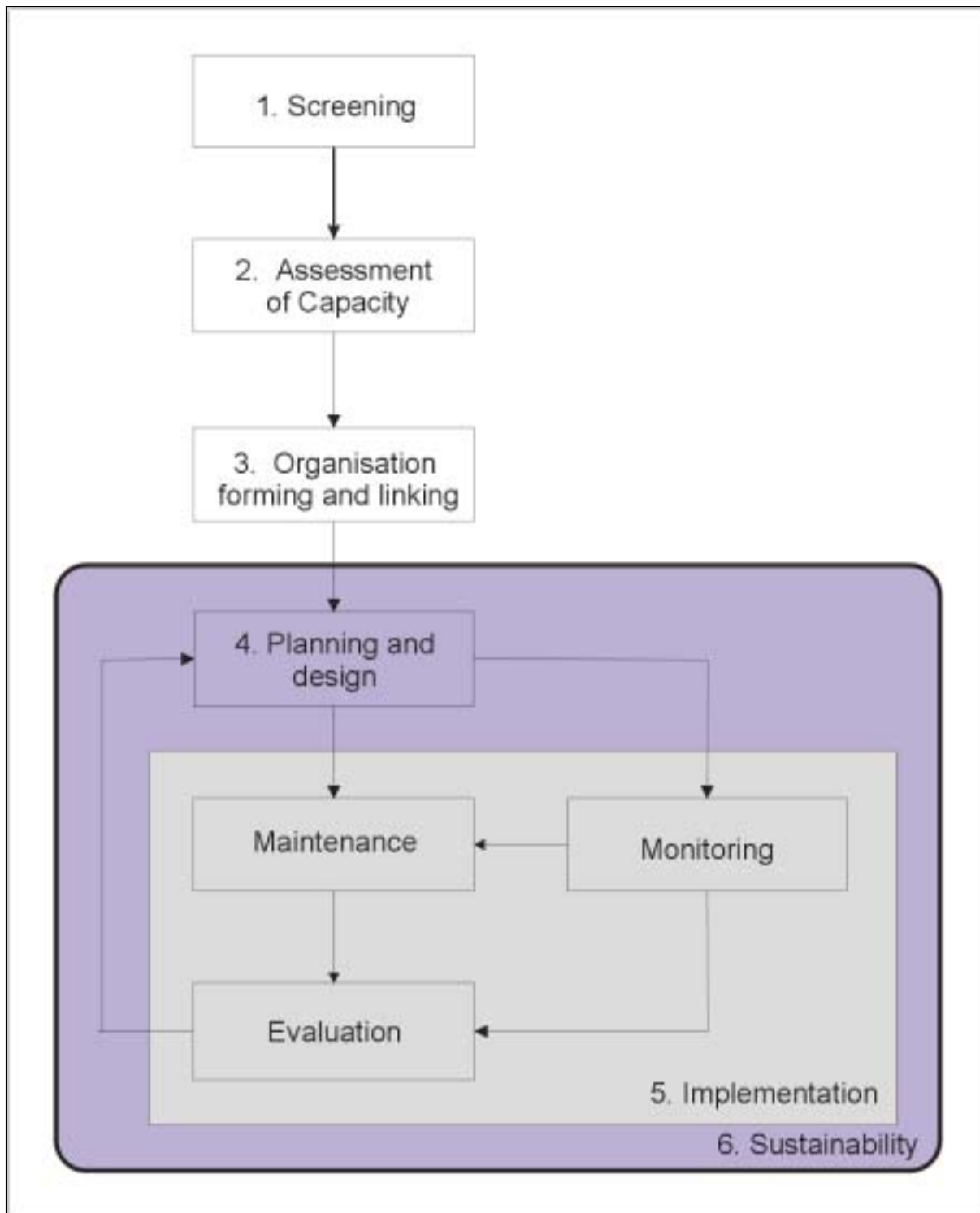
The construction method used can greatly effect the willingness of communities to participate in road maintenance. If a road has been worked on using large plant machinery with a number of experts and imported labour, it dis-empowers the community and undermines its ability to conduct further works. In contrast, the use of labour-based techniques and manual tools like the hoe and slasher reduces the organisation and time scale of road construction at the community level and they can identify with and apply these techniques to their own activities.



What are labour based techniques? There must be a reference in the annexes.

Our research suggests that these factors are important in predisposing or sensitising communities to participate in the maintenance of local transport infrastructure. They form an important backdrop to project planning and have been incorporated in the next chapter which seeks to actively engage communities in road maintenance with a view to establishing long-term sustainable systems.

## 4. Project steps for community participation



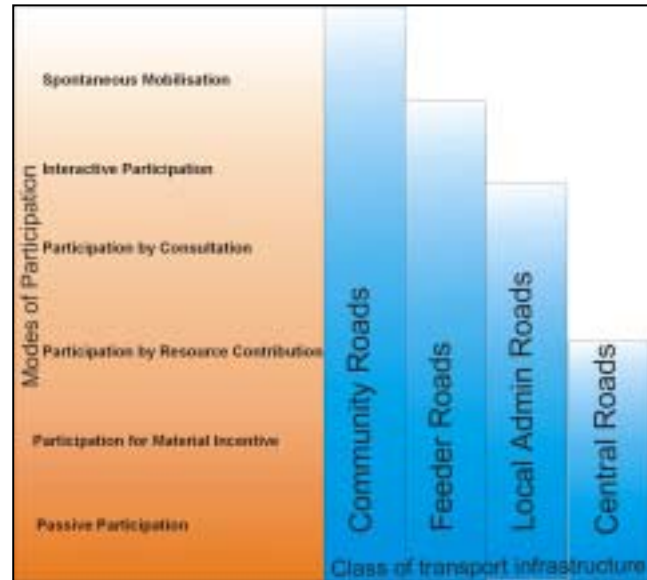
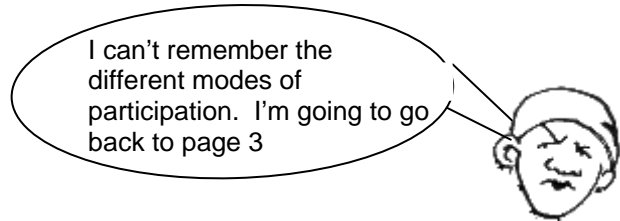
**Figure 1. Project steps for community participation.**

The following section will guide the reader through a number of steps that can be taken in engaging communities in community participation. The following figure summarises the process that is described in more detail below.

## Step 1 – Screening

Screening is the first step in the process of community participation. Screening serves two purposes: firstly to assess whether road maintenance is a priority to the community; and secondly to assess what types of community participation may be appropriate to your project. By doing this it enables a more realistic dialogue with your peers and the community.

There are many different ways of assessing community needs that range from quantitative surveys to participatory techniques. The majority of community development officers will be versed in these methods and may already have community plans or requests. At this stage the type of project you are planning will not have the fine details or work plans but the basic structure will be in place, e.g. trunk road maintenance not feeder road spot improvement. As we can imagine, the range of participation modes decreases as the size and importance of the road increases. Figure. 2 gives an indication of the modes of participation that can be expected. This is by no means prescriptive but gives an indication of what might be expected.

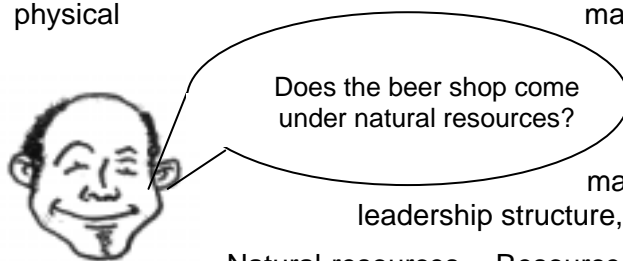


**Figure 2. Participation type against road classification.**

From these two assessments you can gauge the communities willingness and intent to participate as well as what type of participation you can expect in your type of project.

## Step 2 - Assessment of capacity

The sustained capacity of your organisation and a community to participate is an essential but often assumed project risk. For example many communities will be willing to participate once, but on the longer term they may be less willing. Also, is your organisation capable of responding to the needs of the community on a longer term? It must also be considered that your organisation does not stop at your office door, so does the chain of financial and physical management have the capacity as well.



At the community level, capacity can be explored in the following areas:

Community organisational capacity – In many villages there will be a council and/or leadership structure, how strong and active are they?

Natural resources – Resources that are available within the local area such as timber, soil, gravel and rock deposits can be used for maintenance.

Human resources – The use of local people either as labourers, supervisors, technicians or monitors can cut project costs and increase community responsibility and participation. How many people are able to participate? What skills do they have? Is there a history of participation?

Financial resources – Many community members will already pay taxes what scope is there for additional taxation or a one off payment.

Within all the above factors there is a need to assess the capacity within the sub groups in the community e.g. men, women, children, old, young, etc. as they will all have different strengths and weaknesses that should be considered and can enhance the project design.

There a number of methods for assessing the above that include interviews, questionnaire surveys and participatory group techniques. These are briefly described below and a full checklist of indicators is given in Annex 1.

### **Staff interviews**

You may have already used communities in building or planning activities and if not the community development department will have certainly interacted with some communities. This experience will indicate which communities have the best record in community participation and at what level. Interviewing the key people in your own and other relevant departments will give you an idea of the relative levels of community willingness and commitment to community activities.

### **Questionnaire survey**

A questionnaire survey is often conducted for a project's baseline data, and for a road project they will usually collect information on travel and transport patterns, as well as livelihood indicators. A simple analysis of this data can reveal the strength and capacity of a community to participate. For example income or expenditure is often collected in household surveys, this will give an indication of the communities capacity to pay for road improvements. More indirectly, travel to administrative centres can indicate interest in community matters.

### **Participatory techniques**

The use of participatory techniques can often give an insight into the community that cannot be gained from the above approaches. If participatory techniques are to be used for needs assessment then capacity assessment can also be included (Box. 3). The use of focus groups over a number of sessions also enables a relationship to be developed, which is essential for sustained participation.

The capacity of your organisation can be done along similar lines using interviews and participatory techniques; a simple checklist is given in Annex 1.

#### **For the traders**

The village of Kathekani decided through a participatory exercise that the building of a drift across a seasonal river would remove a constraint to their travel and transport activities. The community constructed the drift with technical assistance. A year on the drift was washed away, by floods. However, the whole of the community were less willing to help in the construction, as the traders using bicycles in the village had benefited more than many others in the community. However, this was resolved and the drift constructed.

#### **Box. 3 For the traders**

### Step 3 – Organisation forming and linking

From the capacity assessment, knowledge of the administrative or community leadership structure will be gained. Within this structure there will be a number of sub-committees that deal with different sectors, including village infrastructure. From the capacity assessment stage it will be clear whether or not they are capable of representing the community and participating in the project. If the committee is not capable then they may need to be revitalised or completely restructured.

The representation of the community in these committees is essential on two counts. First, inadequate knowledge of the range of individual travel and transport patterns in a community mean that the planning and activities of the project may be biased towards a minority of the population. Secondly, if only these minority needs are addressed then it is likely that long term sustainability will be undermined.

This may mean that the committee needs revitalising, which could be a simple election with seats allotted to specific groups in the community e.g. men, women, traders and farmers. It could go further to incorporate training that committee members might need to participate more effectively in the project and generate group homogeneity. This may include an introduction to road maintenance including its costs and physical constraints, bookkeeping, and possibly project monitoring and evaluation. Annex 2 gives an example of this from Uganda.



I met your council a couple of years ago when the bridge was washed away. Isn't that enough?

Uganda.

If the community feel a new committee is needed then the main issue is how well it fits into the existing administrative structure and what legal standing it will have. The other issue is how sustainable will the new committee be once the project finishes. Ways of encouraging this are discussed further on, but at this early stage there may be a need to develop links with other organisations to aid long-term sustainability.

In many local administrations there will be official channels for the approval of projects. As a planner or engineer you should have an understanding of these channels and links, their strengths and their limitations. One of these limitations may include a lack of communication between the community representatives and your office, as seen in Box 4. These links can be improved through the above steps as well as ensuring you or a representative attends meetings.

No, it isn't. We have regular meetings about roads, we should invite you as well.



Other links that can be formed are between your office and other government and non-governmental offices. If access problems are to be addressed an appreciation of what the water or health sectors are planning is essential. Also, links with non-governmental organisations can also prove useful, as many will have first hand experience of working with communities.

## Step 4 – Planning and design

The previous three steps can all feed into or be an integral part of the planning stage in a project. The majority of the information collected can be used to shape the way in which the process of participation is going to continue into the more detailed design and implementation stages.

To maintain the trust and relationship with the community that has been developed so far, their inclusion in the planning stage is vital. This should include both the planning for physical activities as well as managerial aspects.

### An engineer?

In a group discussion with villagers in Mbinga, the issue of a lack of technical knowledge within the village was raised. It was suggested that the District Engineer should be contacted. The response was that they did not know there was a District Engineer and certainly no body they could contact to ask for help.

### Box. 4 An engineer?

### Physical

Community representatives may not have high levels of technical knowledge but they will have knowledge of the local area and the problems they face. The first step in the planning process is to decide and prioritise which roads are to be improved. Traditional methods such as economic assessments are well used and documented. The majority of these rely on motorised traffic counts and



This mapping sounds pretty simple, but I wonder if Maisy is up to it?

Don't worry John I know these roads better than you do. I have lived here all my life.



economic growth centres and so are acceptable for larger roads, but not for roads with lower volumes of traffic.

In both cases and especially the later the community can play a significant role in ensuring the most important roads (for the users- Box 5) are chosen and prioritised.

A quick and simple way of achieving this is by using a map drawn by community members, showing roads, rivers and services such as schools and clinics. From this a ranking of the roads can be given against criteria given by you and the community. If your process so far has taken a participatory path this may of already been done and if not it is easy to introduce. Other methods such as accessibility planning can also provide a quick and understandable ranking of road improvements. Such methods are well documented and can provide sound reasoning to prioritisation lists that may be disputed later.

### Villagers priorities

The village of Miyau in Tanzania has a feeder road running through its centre and a number of other tracks that connect to it. One of the tracks leads to the primary school and provides a link to other villages. In a group exercise it was felt that the school track was more important to the villagers than the feeder road. Not surprisingly the villagers maintain the track to a better standard than the feeder road.

### Box. 5 Villager priorities

**Road safety**

The Western Ugandan Road Maintenance Project set up a number of Roads Committees to enable interaction with the community. Through discussions post road improvement it became apparent that the faster running surface made the roads dangerous for pedestrians, especially for school children. One committee requested the Engineer's office to construct a footpath beside the road between the school and the village. The engineering office did not have the resources but they did have the technical knowledge. Thus, a footpath was constructed with local labour and technical knowledge from the Engineer's office.

Project improvements will invariably increase the mix of vehicles and the speed they travel on or near the community. This can lead to an increase in traffic accidents. These will have a direct negative impact on the community and so an awareness of traffic changes and discussion on mitigating matters can improve the relationship with the community. Therefore, accident black spots should be discussed along with ways to reduce accidents, such as signs and traffic calming measures. See Box. 6 for an example of how this worked in Uganda.

After this first planning stage is finished the engineers and architects can start to add their technical expertise and produce technical drawings, sketches and work plans for the project. These should then be presented to the community with alternatives for issues where a consensus was not reached. Many community members will not be able to easily interpret

**Box. 6 Road safety**

technical drawings, however artists impressions or even models are easily interpretable - with some explanation. The type of diagrams and the extent of the design will depend on the size of the road and the resources of the engineering office. The presentation can be done in a local office, however it is often best to combine this with a site visit. During the visit road design can be explained and its appropriateness discussed, e.g. is the design cost effective - should it be a footpath rather than a road? Does it benefit the required level of access?

**Management****Meetings and dissemination**

Again the level of infrastructure will make a difference to the level of community organisation. For a trunk road the community may only be involved in the review meetings or for a path or track the community may organise contributions, labour, meetings and much more. At the planning and design stage it is good to set the parameters for implementation. Therefore, how many meetings are required at what intervals, how many people are required for how many days, etc? The fine details of this will be worked out between yourself and the community, however it is recommended that you meet not less than quarterly to review progress.

Although the committee will be fully involved in the planning process the broader community will know little of what is happening. Informing the community of works that are going to happen and perhaps holding a public meeting will allow them to express their concerns. The advertising of meetings and potential works can be done through public meetings, local radio and posters in market places or even television. In other sectors such as health the use of radio has proved a cheap and successful communication medium.

## **Contributions**

This type of information dissemination will be essential if the community is to participate by giving contributions of labour or cash. The parameters of contributions should be fixed at this stage, and with a prior knowledge of capacity it should be a simple step of planning the amounts and schedule of payments. Contributions in cash can be organised in many ways from a flat tax to a graded system based on ability to pay. In many cases funds will come from different sources and cost sharing can be an effective way of mobilising funds. For example a fund can be set up, where community funds are matched by government or other donors contributions. As mentioned above many communities will have a taxation system and additional contributions if appropriate should try to fit into this. This will enable ease of collection and can increase the chances of sustainability.

Contributions in labour may have been conducted in the past and there may be a traditional system for mass mobilisation. When planning works using community labour you should consider the below factors:

- The number of people in the community who are able to work.
- The time of year – is it a busy time of the year? When are the traditional times of year for community work?
- Who is organising the labour the village or yourself? It is often easier to let the community committee organise this kind of labour.

An increasing number of projects are obliged to pay communities for their labour. This is particularly the case where past projects have paid for labour in cash or food. In these situations people are reluctant to give their labour without payment.

The management of these inputs is best left to the community. However, depending on the level and extent of contribution there should be at least supervision and possibly institutional support for community management. The parameters and timetable for both these contributions should be agreed before implementation and possibly in a contractual form.

## **Step 5 – Implementation**

The implementation of a project is when the majority of the activities take place, this of course all rests on a bed of good planning. Therefore, if there is to be active and sustained community participation the previous steps are essential for good participation in the implementation stage. The following section gives a guide for the elements of project implementation in which a community can most actively participate.

### **Construction**

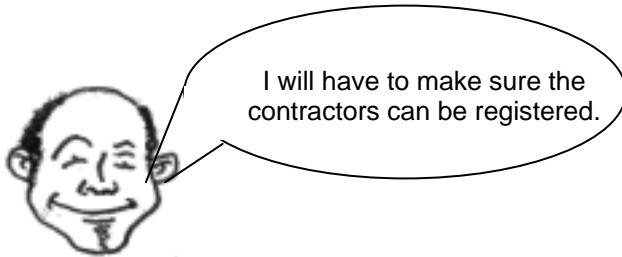
Construction is taken to mean any works that are conducted, be they part of a maintenance or construction project. The principle way a community can participate in works is through labour, materials or through the payment of cash for labour. Depending on the class of the road their involvement can vary from being the contractor or labourers for a contractor.

#### **Contractors**

The majority of engineering offices in Eastern Africa now have a limited staff for force account works and the majority of their roadwork is contracted out. The use of contractors presents an excellent opportunity to allow the local communities to physically participate in the implementation of a project. This participation may be at a number of levels with large contractors, petty contractors or as contractors themselves.

The use of large contractors is common in the construction and rehabilitation of roads. The use of local people can be as skilled to unskilled labourers. Most local people will not have construction skills and will be employed as unskilled labour, with the contractor bringing their

own semi-skilled and skilled labour. In some cases the contractor will train local labourers, and may even use them again in subsequent works. Employment is an excellent opportunity for community members to earn cash, which has been seen to benefit the local community in ways as diverse as promoting small business to an increase in the number of marriages!

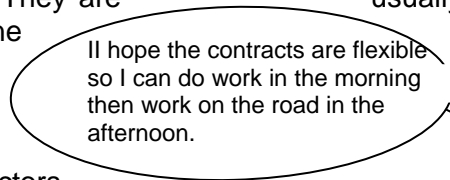


I will have to make sure the contractors can be registered.

Petty contractors who are usually locally based are best contracted to conduct maintenance works of a routine or periodic nature. Community members can be employed on a semi regular basis as semi and unskilled labourers to carry out tasks such as grass clearing and drain/culvert cleaning. With the use

of labour-based techniques the participation of these labourers can be expanded to periodic works such as re-surfacing or earth works repair.

Community contractors have developed as a particular kind of petty contractor over the last few years and have taken many forms. They are usually a small work gang (two to three people) with one contractor/supervisor who conduct routine maintenance such as grass cutting and drainage clearance.



I hope the contracts are flexible so I can do work in the morning then work on the road in the afternoon.

Many of the petty and community contractors (or small contractors) have been formed and directly contracted as part of a project. Often, without project funds and support, their sustainability is questionable. Constraints to continued work might be a lack of funds, poor tools and a lack of status and ability to competitively bid for jobs. There are a number of strategies to deal with these problems:

In the tendering of works there are often contract value levels to which certain procedures are attached which constrains smaller contractors. To enable smaller contractors to participate break up a large job into smaller contracts.

Small contractors may not have the resources – staff and machinery - to register as recognised contractors. This can be avoided by enacting a local by-law to allow small contractors to be registered. This will enable them to bid for works contracts. If this is not possible, small contractors can be sub contracted by the larger contractors. Therefore, you must set up these links before the project finishes.

Seed money or revolving funds can be set up to aid contractors to purchase or hire equipment to conduct works.

The training of small contractors in how to run a business can ensure some sustainability as they will have the skills to bid for and run contracts after the project has finished. If this training and their experience are in routine and periodic maintenance works it is more likely that there will regular work than for construction or rehabilitation works. Although, sufficient funds must be allocated to ensure the maintenance works can continue.

Directly employ contractors initially to allow them to gain experience and capital. Then start to introduce competitive bidding once they are established.

### Advertising of works

If the contractors are not employed directly, advertisements to tender for works need to be well placed. You will have usual channels for doing this, which may include local newspapers and invitations to tender. However, these



I could put the advert on the community notice board next to the market.

may not reach the wider community and other media should be used. This will serve two purposes: firstly more contractors will see the advertisement; and, secondly the community will be alerted to the fact that works will be commencing in the area. In many projects, especially for routine maintenance, women contractors have been more effective and produced a better quality of work than male led contractors. Therefore, the advertisement may want to encourage female applications.

To reach more of the community it may also be appropriate for the local committee to advertise for tenders, through word of mouth or adverts in local markets. This involvement can also be carried through to the assessment of tenders, as the committee may know contractors.

### Assessment of tenders

There will be a set of procedures for assessing tenders for works that are based on a technical and financial basis. Many of these procedures will not include criteria that refer to the wider developmental goal of the project, which may include the participation of communities. To address this, assessors may want to wide evaluation procedures to include criteria such as the number of local people to be employed, the use of local materials, gender desegregation, etc. The issue of the choice of construction method is also relevant as it can have impact on the involvement of communities.

### Choice of construction technique

The choice of construction technique will depend on the machinery available, human resources and financial resources. There has been a long debate on the merits of plant and labour based techniques, through which a number of distinct issues have arisen. In the context of community participation the application of labour based methods is favourable for the following reasons:



What about goat based methods! I can keep the grass short in drainage ditches.

- A greater number of local people can directly benefit by earning money.
- The community is more involved in road works, which may engender a responsibility toward the infrastructure.
- Labour-based projects usually train even the unskilled labourers, these skills can be used in continued maintenance or other jobs.

Labour-based gangs can work on a number of sites at one time, so allowing a 'lengthman/contractor' system to be used.

If the population density is sufficient along the road, contractors can be village based.

Maintenance works can be done on piecework rates that can take up to half a day to allow community members to conduct other tasks such as child care or farm work.

As mentioned above women can be better contractors than male led contractors, in terms of speed, quality and ease of construction. With these pluses it is questionable why more women are not participating in road works, however when considering the wider context it becomes apparent. For example women may not want to work because they have no one to care for their children, or work on the roads is seen as demeaning by the wider community. Thus, when planning works and wanting to enable women to participate you must consider a woman's wider needs, such as working hours and crèche facilities.

## Monitoring and evaluation

The monitoring and evaluation of a transport project is usually concerned with the physical monitoring i.e. length of kilometres improved, amount of material used, quality of works, etc. Some projects go on to monitor the social and economic effects and impact. Communities can participate in both of these stages and a third stage that is the monitoring and evaluation of the actual community participation.

### Physical

A qualified engineer will have the knowledge, experience and procedures to carry out the more quantitative elements of monitoring activities. Community participation can be included but the role is rather limited. However, at the evaluation stage the community can play a great part. For example if the road has been constructed to a poor standard the community who use the road will soon tell you, as long as they have a channel to do so. They may also have inside information if the contractor has been using local labour. Also if there is a part of the works that they feel needs changing they can often assess this more quickly than the engineer in charge. See Box 7 for an example of this.

#### **It's too bumpy!**

A rocky section of road in Hakibale County, Uganda, needed cross drainage. To achieve this the engineers designed a drift across the road. The road committee complained that the drift was too much of a bump and motorised vehicle users had to slow down considerably. As a result the drift was widened to reduce the bump.

#### **Box 7. It's too bumpy!**

This type of evaluation is best done in two stages:

1. Meetings with the local committee to present progress on the works and allow the committee members to discuss any problem areas.
2. After the initial meeting a site visit may be appropriate to show the committee members why a piece of works had to be done that way, or discuss ways in which the infrastructure can be altered to suit technical and user criteria.

### Social and economic

The social and economic monitoring and evaluation methods used depends on the size of the road. For central government roads conventional economic methods that rely on traffic counts are appropriate however, for smaller roads with more pedestrians and bicycles they are not so appropriate. Therefore household questioners, participatory techniques, local administration records can all be used. The community's participation in a passive sense is implicit, however they can participate more actively in the collection and analysis of data.

In conventional economic analysis community participation is limited to community members being employment as traffic counters. Trained community members can become enumerators for questionnaire surveys. One of the weaknesses of questionnaire surveys is the accuracy of data, if the respondent is familiar with the enumerator this may produce more accurate results.

The use of participatory techniques obviously lends its self to the participation of communities in both monitoring and evaluation of the impacts on their lives. If the planning of a project is done using participatory techniques such as ranking and mapping the results can be revisited by the community and assessed next to the current situation. Therefore, providing indicators of change that can be explored further through using other participatory techniques.

## Community Participation

As community participation is new to many planners and engineers the monitoring and evaluation of its use will enable learning from experience, as well allowing the project to keep a track of progress and activities.

The monitoring of community participation can be done by collecting information on activities such as number of meetings, their attendance, by which stakeholders, etc. Other more qualitative factors can be added such as actions taken from decisions made in meetings. The evaluation of community participation can be a summation of the monitoring data, coupled with qualitative data on how the community felt about the process and how they benefited from it.

## Step 6 - Sustainability

The continuation of the community participation after the initial input or the end of the project is often neglected. As a result many committees set up for the project also finish when the project does. See Box. 8 for an extreme example.

Maintenance is a long-term activity, therefore if community participation has proved to be useful it needs to be sustained. For sustainability there needs to be willingness on the part of the community as well as willingness on the part of the engineers, planners and other local officers. This willingness can be engendered in a number of ways the most practical are highlighted below:

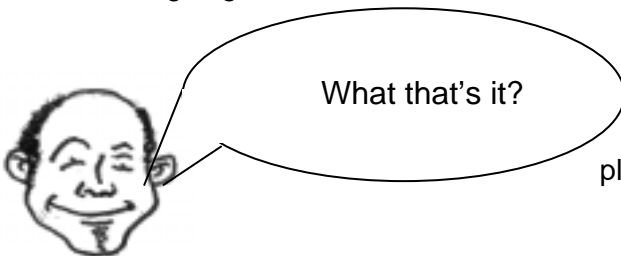
### Project committees for projects

In Kaborole District, Uganda the Community Development Officer commented on the number of committees that villages have. He said that some villages would have up to 21 committees that were set up for projects. None of them meet and no actions are taken, but if called on they are there.

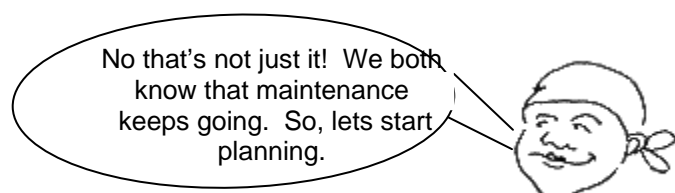
### Box. 8 Project committees for projects

Routine meetings – many committees will only meet when there is an emergency such as the wash out of a road section and/or the loss of a bridge. Committees convening on this basis rarely meet and as a result issues such as mobilising labour or money for routine or periodic maintenance will not be discussed. Therefore, when setting up or revitalising a committee regular meeting should be convened at least once every three months, from the start. As mentioned above willingness is also needed on the part of the engineers and planners, so you should also attend these meetings.

Agenda – Even if there are regular meeting they will need an agenda of some substance. Maintenance activities lend themselves well to this, due to their cyclic nature. Therefore, the committee can be planning, implementing and assessing future and past activities. Again it is important that representatives from other organisations are there and contribute and guide the meetings agenda.



Reporting back – If the above activities are documented in meeting minutes that are copied back to your office, it ensures the meetings are monitored, the meetings take place and progress is checked.



## Annex 1 – Checklist for capacity issues

The below list of indicators is a guide the types of indicators that can be used to assess the capacity of a community and your own organisation.

### Community capacity

Resource	Possible indicators
Organisational	Village council members identifiable. Members of council by sex. Number of meetings in last year. Committees responsible for transport. Reasons for meeting. Number of community actions in the last year. Reasons for those actions. Number of people participating in actions desegregated by sex. Number of people above by percentage of the community population.
Financial	Expenditure by household. Income by household. Current level of taxes. Past contributions.
Human	Number of people able to work, desegregated by skill and sex. Previous experience of construction works. Previous history of participation Number and type of local contractors.
Natural	Type and availability of soil, rock, minerals and timber for maintenance activities. Availability of water for maintenance activities. Potential impact on the environment by removing resources.
Infrastructure	Legal status of transport infrastructure. Communities responsibility for infrastructure.

### Your organisation's capacity checklist

Area	Issues to explore
Financial	Funds currently available for maintenance per km. Adequacy of those funds for maintenance. Sustainability of those funds.
Human	Experience of community participation projects. Number of staff with community participation experience. Number of staff in contact with communities on a regular basis.
Organisational	Maintenance work plan

## **Annex 2 – Steps in forming a Roads Committee**

---

The following are steps to taken by the Community Roads Officer from the Western Ugandan Roads Project in Uganda, for the formation and maintenance of the Roads Committee.

An initial one day workshop will be held with the committee members and Sub County that will cover:

- Roles/activities of road committees;
- Beneficial and technical issues related to road maintenance;
- Details of contract to improve the road.

An initial site visit along the road to be improved, involving representatives from the relevant roads committees.

A final site visit along the improved road, involving representatives from the relevant roads committees.

Any other meetings as the need arises, in relation to road or safety.

Source: MoWHC, Uganda.

---

## **Annex 3 – Useful references**

---

All the references given below are available through ILO – Advisory Support, Information Services and Training Project (ASIST), PO Box 60598, Nairobi, Kenya, Tel: +254 (0) 2 572555 /572580, Fax: +254 (0) 2542 566234.

### **General transport**

Roads are not enough, Ian Barwell and Jonathan Dawson, IT Publications, UK, 1993

### **Transport planning**

A guide to integrated rural accessibility planning in Tanzania (Gender integrated version), International Labour Organisation, Tanzania, 1997.

Rural Transport Planning: Approach Paper No 19, SSATP Working Paper, E Connerley and L Schroeder, The World Bank, Washington, 1996.

Rural Transport Planning, Ed Connerley and Larry Schroder, SSATP, World Bank, 1996

### **Labour based methods**

The Social Aspects of Works Contracts, Draft 1., Eyben, R., Department for International Development, UK, 1996.

Expanding Labour-based methods for roadworks in Africa, Elisabeth Stock and Jan de Veen, SSATP, World Bank, 1996.

A labour-based approach to roads and rural transport in developing countries, Geoff Edmonds and Jan de Veen, International Labour Organisation, 1992.

### **Maintenance**

International Road Maintenance Handbook. Volume 1-4, Transport Research Laboratory, UK.

### **Participatory techniques**

Capacity Building- an approach to people-centred development, Deborah Eade, Oxfam, 1998.

Participatory Learning and Action – A trainers guide, Jules Pretty, Irene Guijt, John Tompson, Ian Scoones, IIED, 1998.

### **Institutional issues**

Establishing a clear and consistent organisational structure, Ian Heggie, RMI Second Regional Seminar on Management and Finance, Nairobi, Kenya, 1995.

### **Gender issues**

Rural transport. Energy and environment technology source book, Jo Doran, IT Publications, 1996.

Case study on the role of women in rural transport: Access of women to domestic facilities, Christina Malmberg Calvo, SSATP, World Bank, 1994.