



**Trainers' Notes**  
Rural Transport Training Materials

# Module 5: Social and Environmental Issues

## Part 1

Rural transport survey techniques

## Part 2

An investigation into the constraints of the availability of motorised transport in services rural Ghana

### SESSION 5.5



**SSATP**  
Africa Transport  
Policy Program

<p><b>Session Objectives</b></p>	<p>By the end of the session participants will be able to:</p> <p><b>Technical paper</b></p> <ul style="list-style-type: none"> <li>🌐 Analyse the range of participatory and traditional survey techniques for the transport sector</li> <li>🌐 Assess the complementary nature of different survey techniques and the need to employ a range of survey types</li> </ul> <p><b>Case study</b></p> <ul style="list-style-type: none"> <li>🌐 Describe a range of different survey methods used to identify transport performance in rural Ghana</li> <li>🌐 Explain the factors effecting poor people's access to transport in rural Ghana</li> <li>🌐 Analyse the key lessons learnt and how they may be applied to other countries</li> </ul>
<p><b>Rural Transport Knowledge Base materials used with this session</b></p>	<p>Rural transport survey techniques  <b>By:</b> P. Fouracre, TRL Limited</p> <p>An investigation into the constraints of the availability of motorised transport services in rural Ghana  <b>By:</b> S. D. Ellis and J. C. Rutter, TRL Limited</p>
<p><b>Training Materials</b></p>	<p><u>Presentations</u></p> <p>5.5a Rural transport survey techniques</p> <p>5.5b An investigation into the constraints of the availability of motorised transport services in rural Ghana</p> <p><u>Activity sheets</u></p> <p>82 Applying survey techniques</p> <p>83 Transport survey methods in Ghana</p>

# Structure of Session 5.5

<i>Key Topics</i>	<i>Training Methods</i>
<b>Part 1</b>	
1. Introduction	Presentation
2. Background	Q & A Presentation
3. Supply side surveys	Presentation with discussion
4. Demand side surveys	Presentation with discussion Group discussion
<b>Part 2</b>	
5. Case study: Ghana	Presentations
5.1 Introduction	
5.2 Project summary	
5.3 Survey instruments	Case study activity
<b>Summary of session 5.5</b>	

## Trainers' Summary

**This session is divided into two parts:**





**Part 1** is based on the technical paper: Rural transport survey techniques

**Part 2** is based on the case studies: An investigation into the constraints of the availability of motorised transport services in rural Ghana


## Session 5.5 Trainers' Notes







### Part 1

## 1. Introduction




Training Methods	Content	Materials
<p><b>Presentation</b></p> 	<p>Introduce the first part of session by explaining the learning objectives and session structure.</p> <p>The first part of this session is based on the technical paper: Rural transport survey techniques.</p> <p>This section explores various survey techniques that may be used to investigate rural transport issues. These techniques make use of participatory methods and may be carried out with a range of road users from drivers, farmers and passengers.</p> <p><b>Key points:</b></p> <p><b>Session Overview Part 1</b></p> <ul style="list-style-type: none"> <li> Background</li> <li> Supply side surveys</li> <li> Demand side surveys</li> </ul>	<p>Presentation 5.5a Slides 1 - 5</p>

## 2. Background

Training Methods	Content	Materials
<p><b>Q &amp; A</b></p> 	<ul style="list-style-type: none"> <li>Explore the range issues and questions that can be examined through surveys and the broad types of surveys available for use to use. Begin the discussion by asking:                     <p><i>What sorts of transport issues can be explored through surveys?</i></p> <p><i>What are the main types of survey technique you know of?</i></p> </li> <li>Note points on flip chart.</li> </ul>	<p>Flip chart, pens</p>



Training Methods	Content	Materials
<p><b>Presentation with Discussion</b></p> 	<p>Building on the points raised during the activity above, present and discuss the broad range of questions that survey seek to ask, and the main categories of survey techniques.</p> <p>To stimulate debate during the presentation ask questions like:          What modes of transport are supply and demand surveys applicable to?          What topics do supply surveys cover?          What topics do demand surveys cover?</p> <p><b>Key Points:</b></p> <ul style="list-style-type: none"> <li>  Surveys ask           <ul style="list-style-type: none"> <li>✓ how well current transport functions</li> <li>✓ transport development opportunities</li> <li>✓ future demand for transport</li> </ul> </li> <li>  Surveys can be both           <ul style="list-style-type: none"> <li>✓ quantitative</li> <li>✓ qualitative</li> </ul> </li> <li>  Supply surveys         </li> <li>  Demand surveys         </li> <li>  Supply and demand surveys applicable to all modes of transport         </li> </ul>	<p>Presentation 5.5a          Slides 6 - 11</p>




### 3. Supply-side surveys


Training Methods	Content	Materials
<p><b>Presentation with Discussion</b></p> 	<p>Present and discuss the nature of supply-side surveys, exploring the different types of survey, their purpose and survey methods that may be used.</p> <p>To stimulate debate during the presentation ask questions like:          What supply surveys are available?          What is the purpose of a road survey?          What survey methods may be used for a road survey?          What is the expected output of different types of survey?</p> <p><b>Key Points:</b></p> <ul style="list-style-type: none"> <li>  Road surveys           <ul style="list-style-type: none"> <li>✓ inventories</li> <li>✓ traffic counts</li> <li>✓ travel speed surveys</li> <li>✓ road maintenance surveys</li> <li>✓ axle-load survey</li> <li>✓ road safety survey</li> </ul> </li> <li>  Road user surveys           <ul style="list-style-type: none"> <li>✓ operator surveys</li> <li>✓ driver surveys</li> <li>✓ farmer surveys</li> <li>✓ passenger surveys</li> <li>✓ shipper surveys</li> </ul> </li> </ul>	<p>Presentation 5.5a Slides 12 - 26</p>




## 4. Demand-side surveys

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p><b>Presentation with Discussion</b></p> 	<p>Present and discuss the nature of demand-side surveys, exploring the different types of survey, their purpose and survey methods that may be used.</p> <p>To stimulate debate during the presentation ask questions like:</p> <ul style="list-style-type: none"> <li>What demand surveys are available?</li> <li>What is a cordon and screen-line survey?</li> <li>What is the purpose of a cordon and screen-line survey?</li> <li>What survey methods may be used for the various survey types?</li> <li>What is the expected output of different types of survey?</li> </ul> <p><b>Key Points:</b></p> <ul style="list-style-type: none"> <li> 'Traditional travel demand surveys'             <ul style="list-style-type: none"> <li>✓ are mainly quantitative</li> <li>✓ origin-destination surveys</li> <li>✓ cordon and screen-line surveys</li> <li>✓ stated preference surveys</li> <li>✓ revealed preference type surveys</li> </ul> </li> </ul> <p><b>Continued...</b></p>	<p>Presentation 5.5a Slides 27 - 36</p>




Training Methods	Content	Materials
	<p><b>...Continued</b></p> <ul style="list-style-type: none"> <li>  Participatory surveys – are increasingly used in rural transport surveys, due           <ul style="list-style-type: none"> <li>✓ to past failure to involve poor in developing and refining public policy</li> <li>✓ an increasing focus on sustainable livelihoods (see session 5.3)</li> <li>✓ <i>seek to understand context and problems perceived by local people, and get them involved in developing solutions</i></li> </ul> </li> <li>  Types of participatory surveys include:           <ul style="list-style-type: none"> <li>✓ Village leadership discussion</li> <li>✓ Participatory poverty assessment (PPA)</li> <li>✓ Rapid and participatory rural appraisal</li> </ul> </li> </ul>	
<p><b>Presentation</b></p> 	<p><b>Conclusion on survey techniques</b></p> <p>Describe the conclusions of the technical paper.</p>	<p>Presentation 5.5a Slide 37</p>





Training Methods	Content	Materials
<p><b>Group Discussion</b></p> 	<p>The purpose of this activity is to reflect on the ways in which rural transport survey techniques can be applied to the work of participants. Participants should draw on their own experience and knowledge.</p> <ul style="list-style-type: none"> <li>🌀 Divide participants into small groups and give them Activity Sheet 82</li> <li>🌀 Ask participants to discuss the following questions: <p style="text-align: center;"><i>How might rural transport survey techniques be applied to your present and future work?</i></p> </li> <li>🌀 Ask participants to write their findings on flip chart, elect a presenter and prepare to feedback to the plenary</li> <li>🌀 Ask each group to present their findings to the plenary</li> <li>🌀 Facilitate a discussion on the key points raised.</li> </ul> <p><b><u>Trainers' Note</u></b></p> <p><i>There are no right and wrong answers to this question. Encourage participants to think about how the use of the transport surveys can add value to their work, in such a way that they consider a much broader range of questions than they may have in the past.</i></p> <p><i>Challenge assumptions that may arise, for example an assumption that participatory surveys are less valuable because they tend not to be quantitative. Or assumptions that favour the use of quantitative data. Encourage participants to think of ways of using the surveys that broadens their understanding of the transport needs of vulnerable groups, like the poor.</i></p>	<p>Presentation 5.5a Slide 38</p> <p>Activity Sheet 82</p> <p>Flip chart, pens</p>





<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p><b>Presentation</b></p> 	<p><b>Concluding remarks</b></p> <p>Summarise the first part of this session by highlighting the main issues explored, and how the wide range of survey techniques that are available may be used to help deepen our understanding of transport issues to meet local needs.</p>	

## Part 2

# 5. Case Study: Ghana

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p><b>Presentation</b></p> 	<p><b>5.1 Introduction</b></p> <p>Introduce the second part of this session explaining the objectives with a brief overview of the topics to be covered.</p> <p>This part of the session is based on case study: An investigation into the constraints of the availability of motorised transport services in rural Ghana</p> <p><b>Key points:</b></p> <p><b>Session Overview Part 2</b></p> <ul style="list-style-type: none"><li> Project summary</li><li> Survey instruments</li></ul>	<p>Presentation 5.5b Slides 1 - 3</p>

Training Methods	Content	Materials
<p>Presentation</p> 	<h2>5.2 Project summary</h2> <p>Provide an outline of the project, including the context in which the project takes place, the nature of the survey carried out and key findings.</p> <p><b>Key points:</b></p> <ul style="list-style-type: none"> <li>  Context: Rural poverty linked to access to essential facilities         </li> <li>  1997-1998 TRL and conducted 2 survey exercises in Ghana           <ul style="list-style-type: none"> <li>✓ Survey covered</li> <li>✓ 7 districts</li> <li>✓ 2 peri-urban villages</li> <li>✓ 57 villages (Some on main road, others far from any motorable track)</li> <li>✓ interviewed: 412 households, and 197 vehicle owners</li> </ul> </li> <li>  Findings include           <ul style="list-style-type: none"> <li>✓ Population density has a large impact on the cost and provision of rural transport services</li> <li>✓ In Northern Ghana far less use is made of motorised transport than in south</li> <li>✓ Large differences in fares exist between districts</li> <li>✓ High goods charges for short distances</li> <li>✓ In the southern Ghana expenditure on transport increases as income rises</li> <li>✓ Market-related trips mostly outside the village</li> <li>✓ Demand for motorised transport is elastic</li> </ul> </li> </ul>	<p>Presentation 5.5b Slides 4 - 7</p>

Training Methods	Content	Materials
<p>Presentation</p> 	<h3>5.3 Survey Instruments</h3> <p>Describe the survey instruments used in the Ghana case study.</p> <p><b>Key points</b></p> <ul style="list-style-type: none"> <li>  Household questionnaire           <ul style="list-style-type: none"> <li>✓ Demographic and household composition</li> <li>✓ Income and livelihood</li> <li>✓ Expenditure</li> <li>✓ Possessions &amp; property</li> <li>✓ Travel patterns</li> <li>✓ Goods transport charges</li> <li>✓ Reason for dissatisfaction with motorised transport services</li> </ul> </li> <li>  Participatory mapping checklist           <ul style="list-style-type: none"> <li>✓ Meeting with village headmen, assemblymen, schoolteachers, etc.</li> <li>✓ To obtain permission for household interviews</li> <li>✓ To collect information</li> </ul> </li> <li>  Vehicle operator questionnaire           <ul style="list-style-type: none"> <li>✓ General information</li> <li>✓ Drivers of passenger and goods vehicles</li> <li>✓ Seasonal constraints on vehicle operators</li> <li>✓ Vehicle operating costs and maintenance</li> <li>✓ Small enterprise services in vehicle maintenance</li> <li>✓ Payment for vehicle</li> <li>✓ What changes would improve business</li> </ul> </li> </ul>	<p>Presentation 5.b Slides 8 - 13</p>

Training Methods	Content	Materials
<p><b>Case Study activity in groups</b></p> 	<h3>Reflections on the Ghana experiences</h3> <p>The purpose of this activity is to reflect on the experiences of the Ghanaian rural transport survey.</p> <p>Participants may also draw on their own experiences to provide suggestions and recommendations for improving the project's survey methods.</p> <ul style="list-style-type: none"> <li>④ Divide the participants into groups of 4 or 5, and give each group Activity Sheet 83</li> <li>④ Give participants a full copy of the Ghana case study.</li> <li>④ Ask participants to discuss the following questions: <ul style="list-style-type: none"> <li>A. <i>What key lessons can we draw from this survey to apply to other countries and projects?</i></li> <li>B. <i>What recommendations would you make for improving the survey methods of this project?</i></li> </ul> </li> <li>④ Ask the groups to prepare their findings on flip chart and to elect a person to present the findings.</li> <li>④ Each group presents their findings to the plenary.</li> <li>④ Facilitate a discussion on the findings and draw out the key learning points. <i>See trainers note below.</i></li> </ul>	<p>Presentation 5.5 b Slide 14</p> <p>Flip chart, pens</p> <p>Activity sheet 83</p>



Training Methods	Content	Materials
	<p><b><u>Trainers' Note</u></b></p> <p><i>There are no right or wrong answers to these questions. However, participants should be encouraged to explore the use of participatory techniques as well as more conventional questionnaires.</i></p> <p><i>Ask participants to consider what may be advantage and disadvantages of the various techniques. Discuss the benefits of using a range of techniques rather than relying on just one, and collecting information that reflects people's opinions (qualitative) as well as quantitative data. This has implications for the participation of communities in transport interventions and the sense of ownership they may have of the intervention.</i></p>	
	<p><b>Summary of Session 5.5</b></p> <p>Finnish the session by reviewing the issues explored and the key lessons learnt, highlighting areas that may need further investigation or discussion.</p>	