



Trainers' Notes
Rural Transport Training Materials

Module 4:

Rural Transport Services and Intermediate Means of Transport

Part 1

Promoting the use of intermediate means of transport - vehicle choice, potential barriers and criteria for success

Part 2

Promoting the use of IMTs Case study: Sri Lanka

SESSION 4.2



SSATP
Africa Transport
Policy Program

<p>Session Objectives</p>	<p>By the end of the session participants will be able to:</p> <p>Technical paper</p> <ul style="list-style-type: none"> 🌐 Analyse the factors that hinder the adoption of IMTs 🌐 Describe the criteria for the successful adoption of IMTs by a wide range of users 🌐 Design recommendations for how IMT programmes can improve the development and dissemination of technology that serves the transport needs of the poor <p>Case study</p> <ul style="list-style-type: none"> 🌐 Assess the current use of IMTs in Sri Lanka 🌐 Critique the factors affecting the provision IMTs in a given context 🌐 Analyse the lessons learnt from the Sri Lanka experience and how these may be applied to other countries
<p>Rural Transport Knowledge Base materials used with this session</p>	<p>Promoting the use of intermediate means of transport – vehicle choice, potential barriers and criteria for success. By: Professor Paul Starkey (2001)</p> <p>Promoting the use of IMTs. Case study Sri Lanka By: S. D. Ellis, TRL Limited</p>
<p>Training Materials</p>	<p><u>Presentations</u></p> <p>4.2a Promoting the use of intermediate means of transport – vehicle choice, potential barriers and criteria for success</p> <p>4.2b Promoting the use of IMTs. Case study Sri Lanka</p> <p><u>Activity Sheets</u></p> <p>63 The adoption of IMTs</p> <p>64 Is training enough?</p> <p>65 IMTs – what matters most?</p> <p>66 Uses of IMTs in Sri Lanka</p>

Key Topics	Training Methods
Part 1	
1. Introduction	Presentation
2. IMTs in context	
2.1 Overview of IMTs	Presentation
2.2 Adoption of IMTs	Q & A, Presentation
	Group discussion
3. IMT Technology	
3.1 Uses of IMTs	Presentation
3.2 The gender divide	Q & A, Presentation
4. Economic Issues	Presentation with discussion
	Group activity
5. Critical Mass	Presentation with discussion
6. programming	
6.1 Making IMT programmes more user focussed	Presentation with discussion
6.2 IMTs – what matters most?	Ranking Game
Part 2	
7. Case Study	
7.1 Overview of transport in Sri Lanka	Presentation
7.2 Case study areas	Case study activity
7.3 Vehicle use and economic aspects	Presentation with discussion
7.4 Factors affecting the provision of rural transport services	Presentation
Summary of session 4.2	

This session is divided into two parts:







Part 1 is based on the technical paper: Promoting the use of intermediate means of transport – vehicle choice, potential barriers and criteria for success.

Part 2 is based on the case study: Promoting the use of IMTs. Sri Lanka.



Session 4.2 Trainers' Notes



Part 1

1. Introduction



<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</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: Promoting the use of intermediate means of transport – vehicle choice, potential barriers and criteria for success.</p> <p>This part of the session explores the factors affecting the adoption of IMTs, including technical, economic and programming issues. Suggestions are made for ways of promoting the use of IMT that meet the needs of rural communities, and specific target groups such as the poor and women.</p> <p>Key Points:</p> <p>Session Overview Part 1</p> <ul style="list-style-type: none">  IMTs in context  IMT Technology  Economic issues  Critical Mass  Programming 	<p>Presentation 4:2a Slides 1 - 5</p>


2.IMTs in context

Training Methods	Content	Materials
<p>Presentation</p> 	<p>2.1 Overview of IMTs</p> <p>Explain the role of IMTs in a broader development context and in addressing rural transport and access problems.</p> <p>Key Points:</p> <ul style="list-style-type: none"> Problems of transport and access can be solved in ways which may include non-transport solutions. IMTs are not a universal panacea, and their use should be clearly justified. The development and dissemination of IMTs may be carried out by the private sector, civil society, and public sector. An 'IMT programme' is the manufacture, promotion and use of IMTs. 	<p>Presentation 4.2a Slides 6 - 7</p>
<p>Q & A</p> 	<ul style="list-style-type: none"> Explore the range of IMT modes of transport available around the world. At this stage you need only obtain a <u>list</u> of the IMTs. Begin the discussion by asking: <i>What are the different types of IMT available?</i> Note points made by participants on a flipchart. These points are discussed in more detail below. 	<p>Flipchart, pens</p>



Training Methods	Content	Materials
<p>Presentation</p> 	<p>Summarise the points raised above by presenting a range of IMTs.</p> <p>Key Points:</p> <ul style="list-style-type: none"> ☉ Ox carts, bicycles, tractors with trailers, hand carts ... 	<p>Presentation 4.1a Slide 8</p>
<p>Group Discussion</p> 	<p>2.2 Adoption of IMTs</p> <p>The purpose of this activity is to analyse the reasons for the varied success in the uptake of IMT technology by communities in rural areas. Participants should draw on their experiences and knowledge of ways in which IMTs have been developed, disseminated, and finally taken up by users.</p> <ul style="list-style-type: none"> ☉ Divide participants into pairs or groups of 3, and give each pair/group Activity Sheet 63 ☉ Ask participants to read the quote from the technical paper and to discuss the following: <ul style="list-style-type: none"> <i>A. What are the possible reasons for the mixed success in the adoption of IMTs amongst rural communities?</i> <i>B. Why have some IMTs not been adopted? What are the causes of these ‘failures’?</i> ☉ Ask participants to prepare their findings on flip chart and to elect a person to present the findings. ☉ Ask each group presents their findings to the plenary. Facilitate a discussion on the findings and draw out the key learning points. ☉ Summarise the learning points, explaining that for IMTs to be adopted by users they need to be technically, socially and economically viable. 	<p>Presentation 4.2a Slide 9</p> <p>Activity sheet 63</p> <p>Presentation 4.2a Slide 10</p>




3. IMT Technology



Training Methods	Content	Materials
<p>Presentation</p> 	<p>3.1 Uses of IMTs</p> <p>Give a brief overview of the way various types of IMT are used in different regions, and the way in which IMTs may complement other modes of transport.</p> <p>Key Points:</p> <ul style="list-style-type: none"> ☉ Different types of IMT technology may be used in different terrains and locations ☉ Urban areas and around markets favour IMT production, adaptation and use ☉ IMTs complement motorised transport ☉ IMT programmes should offer technological choices – not just one type of IMT 	<p>Presentation 4.2a Slides 11 - 13</p>
<p>Q & A</p> 	<p>3.2 The gender divide</p> <ul style="list-style-type: none"> ☉ Examine the reasons why few of the available IMT technologies have been taken up by women. Begin the discussion by asking: <p><i>Despite the suitability of IMTs, few have been adopted by women. Why is this?</i></p> <ul style="list-style-type: none"> ☉ Note the points made by participants on flip chart. These points are discussed in the section below. 	<p>Presentation 4.2a Slide 14</p> <p>Flipchart, pens</p>

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</p> 	<p>Drawing on the points made above, explain the key aspects that need to be developed in order to address gender imbalances in the provision of IMTs for rural transport.</p> <p>Key Points:</p> <ul style="list-style-type: none"> 🌐 Women and men require different types of IMTs for physical reasons and to fulfil their different gender roles 🌐 Promote diversity of technologies 	<p>Presentation 4.2a Slide 15</p>





4. Economic Issues

Training Methods	Content	Materials
<p>Presentation with Discussion</p> 	<p>Facilitate a discussion on the economic issues related to the provision of IMTs. While presenting the information, draw on any experiences participants may have in these topics. Ask questions like:</p> <p>What are the economic issues related to the provision of IMTs?</p> <p>What are the issues related to cost and affordability?</p> <p>How do vehicle operating costs affect the development and use of IMTs?</p> <p>How may credit and subsidies be used to stimulate the uptake of IMTs?</p> <p>What are the supply issues associated with IMTs?</p> <p>Key Points:</p> <ul style="list-style-type: none">  Cost and affordability <ul style="list-style-type: none"> ✓ the potential to gain income, rather than actual cost is a more crucial issue ✓ low uptake of socially-beneficial low-cost IMTs by disadvantaged people including women ✓ many people, mainly men, purchased bicycles ✓ there is a need to keep the costs of IMTs low ✓ stimulate income-generating activities for IMT users <p>Continued ...</p>	<p>Presentation 4.2a Slides 16 - 32</p>




Training Methods	Content	Materials
	<p style="text-align: center;">...Continued</p> <p>Key Points:</p> <ul style="list-style-type: none">  Vehicle operating costs (VOC) <ul style="list-style-type: none"> ✓ very sensitive to levels of utilisation: as utilisation increases the costs decrease ✓ vehicle choice is affected by demand ✓ operating costs for various IMT – cost effectiveness depends on the loads and distance travelled: over short distances for small loads bicycles are cheapest  Credit and subsidies <ul style="list-style-type: none"> ✓ can be used to introduce new products or allow users to purchase the products ✓ care must be taken to avoid distorting the market  Supply, distribution and maintenance systems <ul style="list-style-type: none"> ✓ ‘chicken and egg’ situation where there is a vicious circle of low demand and low supply ✓ improved supply CAN stimulated demand and more rapid adoption ✓ identify limiting factors ✓ Example of a project from Zambia – see <i>*Group Activity below.</i> 	




Training Methods	Content	Materials
<p>Group Activity</p> 	<p>* Training Artisans to make IMTs: Zambia</p> <p>The purpose of this activity is to examine the experiences of the Zambia project and consider the reasons why training in itself may not be enough for addressing problems with the development of IMTs.</p> <ul style="list-style-type: none"> ④ Describe the project (slide 35), then carry out the activity. ④ Divide participants into small groups of 4 or 5, and hand out Activity Sheet 64 ④ Ask participants to read the extract from the case study and to discuss: <ul style="list-style-type: none"> A. <i>Explain the possible reasons why artisans did not make IMTs.</i> B. <i>Why may rural people not have adopted the IMTs?</i> C. <i>What recommendations would you make to address the issues identified?</i> ④ Ask participants to write their findings on flip chart, elect a presenter and prepare to feedback to the plenary. ④ Ask each group to present their findings to the plenary. Facilitate a discussion on the Key Points raised. 	<p>Presentation 4.2a Slides 33 - 34</p> <p>Activity Sheet 64</p> <p>Flip chart, pens</p>
<p>Presentation</p> 	<ul style="list-style-type: none"> ④ To conclude the group activity above, describe the lessons learnt from the project as highlighted in the technical paper. 	<p>Presentation 4:2a Slides 35 - 37</p>


5. Critical Mass

Training Methods	Content	Materials
<p>Presentation with Discussion</p> 	<p>Facilitate a discussion on the reasons why it is important to create a critical mass amongst users of IMTs and how this may be brought about. While presenting the information, draw on the ideas and experiences of the participants.</p> <p>Ask questions like:</p> <ul style="list-style-type: none"> What do we mean by 'a critical mass' of IMT users? Why is it important to develop a critical mass of users? How can we achieve a critical mass? What problems may we face in achieving a critical mass? <p>Key Points:</p> <ul style="list-style-type: none">  Critical mass of users is required to <ul style="list-style-type: none"> ✓ ensure a technology is viable and quickly adopted ✓ make potential adopters comfortable with the idea of using the technology ✓ justify the development of support services  Strategies to achieve critical mass <ul style="list-style-type: none"> ✓ promotion of IMTs ✓ credit to manufacturers, retailers and/or purchasers ✓ direct or indirect subsidies ✓ pilot marketing by the private sector  Problems with achieving a critical mass <ul style="list-style-type: none"> ✓ lack of self-criticism of IMT programmes ✓ great optimism even in the face of 'failure' ✓ many IMTs apparently rejected ✓ 'failure' blamed on a lack of effective marketing and promotion – rather than the technology itself 	<p>Presentation 4.2a Slides 38 - 40</p>

6. Programming


Training Methods	Content	Materials
<p>Presentation with Discussion</p> 	<p>6.1 Making IMT programmes more user focussed</p> <p>Explain the key issues associated with establishing and managing IMT programmes. While presenting the information, draw on the ideas and experiences of the participants.</p> <p>Ask questions like:</p> <p>What are the key issues, based on your experience, associated with the establishment of IMT programmes?</p> <p>What are the key management issues?</p> <p>What gender issues need to be considered with IMT programmes?</p> <p>What is “hobbysim” and why is this a problem when trying to promote IMTs?</p> <p>Key Points:</p> <ul style="list-style-type: none">  Focus of the programme work <ul style="list-style-type: none"> ✓ market research is needed ✓ ownership and access of IMTs ✓ target promotional activities  Innovative technologies <ul style="list-style-type: none"> ✓ start work in areas where adoption is most likely to occur. These may be near urban and market centres ✓ the try to promote IMTs in more remote areas <p>Continued...</p>	<p>Presentation 4.2a Slides 41 - 48</p>


Training Methods	Content	Materials
	<p data-bbox="459 450 662 483"><i>... Continued</i></p> <p data-bbox="359 562 536 595">Key Points:</p> <ul style="list-style-type: none"> <li data-bbox="454 633 1212 853">  Gender <ul style="list-style-type: none"> ✓ there is substantial gender inequality in the transport burden and IMT programmes ✓ IMT programmes must address these inequalities in the way they work ✓ create a “critical mass” of women using IMTs <li data-bbox="454 891 1241 1223">  Monitoring and evaluation <ul style="list-style-type: none"> ✓ problems are caused by “hobbyism”, lack of objectivity and irrational optimism in the face of “failure” and poor take up rates of IMTs ✓ mechanisms and methods are needed to enable communities to speak openly about their opinions ✓ carry out evaluations with external people with more objective and detached view point <li data-bbox="454 1261 1182 1440">  Networking <ul style="list-style-type: none"> ✓ build on existing strong links – disseminate lessons learnt ✓ build on African experiences ✓ build on national networks 	


Training Methods	Content	Materials
<p>Ranking Game</p> 	<h3>6.2 IMTs – what matters most?</h3> <p>The purpose of this activity is to explore the complex range of factors affecting the development, dissemination and adoption of IMTs. This activity builds on the knowledge gained from this session and the experiences of the participants.</p> <ul style="list-style-type: none"> ④ Divide participants into groups of 4, and hand out Activity Sheet 65 (<i>See trainers' note point 2 below.</i>) ④ Ask participants to read the statements and to rank them in order of importance. ④ Ask participants to discuss why they have ranked the statements in that order, and make notes on an A4 sheet of paper. ④ The trainer should prepare a large matrix of the statements on flip chart, with columns so that the ranking of each group may be recorded. ④ Ask participants to write their ranking in the large matrix, and to elect a person from their group to present the reasoning behind their rankings. ④ Facilitate a discussion on the Key Points raised. <p><u>Trainers' Note</u></p> <p><i>1. There are no right and wrong answers for this exercise – no 'correct rankings'. The aim of the exercise is to stimulate debate, and gain an appreciation of the complexity of the issues from micro and macro levels.</i></p> <p><i>2. If there are participants on the course from various stakeholder groups then they may be divided into these groups e.g. government extension staff in one group, researchers in another group, farmers' association members in another group ... and so on. This may illustrate the diverse range of priorities and interests different groups have in IMTs.</i></p>	<p>Presentation 4.2a Slide 49</p> <p>Activity Sheet 65</p> <p>Flip chart, pens</p>


Part 2




7. Case Study: Sri Lanka


Training Methods	Content	Materials
Presentation 	<p>Introduction</p> <p>Introduce the second part of this session explaining the objectives with a brief overview of the topics to be covered.</p> <p>During this part of the session, a case study from Sri Lanka will be introduced.</p> <p>Key Points:</p> <p>Session Overview Part 2</p> <ul style="list-style-type: none">Overview of transport in Sri LankaCase study areasVehicle use and economic aspectsFactors affecting provision on rural transport services	<p>Presentation 4.2 b Slides 1 - 3</p>

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</p> 	<h3>7.1 Overview of transport in Sri Lanka</h3> <p>Describe the rural transport infrastructure in Sri Lanka, explaining the problems facing the sector and the nature of transport services in rural areas.</p> <p>Key Points:</p> <ul style="list-style-type: none"> 94,800 kilometres of road, of which a third are paved Problems are with maintenance and congestion on major routes, and freight and passenger services are deregulated and competitive Transport at the rural level is dominated by the bicycle for personal travel and marketing functions Ox carts, and 2- and 4-wheel tractors transport the bulk of agricultural produce 	<p>Presentation 4.2b Slide 4</p>

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</p> 	<h2>7.2 Case study areas</h2> <p>Describe the four case study areas that will be examined in the next exercise and will form the basis of this part of the session. Emphasise the contextual issues affecting the nature of existing transport infrastructure and services.</p> <p>Key Points</p> <ul style="list-style-type: none"> Malaga village Madiyawa Village The Aluwathugirigama GSN area Venivallara village 	<p>Presentation 4.2b Slides 5 - 14</p>

Training Methods	Content	Materials
<p>Case Study activity in groups</p> 	<p>The purpose of this activity is to explore the issues affecting the use of IMTs in the various areas in Sri Lanka, including the pros and cons of a range of IMTs for the prevailing socio-economic and physical conditions. Participants should draw on their experiences for making recommendations on how IMTs may be promoted in these villages.</p> <ul style="list-style-type: none"> ③ Divide the participants into four groups. ③ Explain that each group should work on just ONE of the case study areas. Allocate a case study to each of the four groups. ③ Give each group Activity Sheet 66 with extracts from the case study paper. Ask each group ③ Ask participants to discuss the following points: <ul style="list-style-type: none"> A. <i>What key issues need to be examined when promoting the use of IMTs in the villages?</i> B. <i>What are the advantages and disadvantages of different types of IMT for each village?</i> C. <i>Which IMTs would you recommend for the villages, and why?</i> ③ Ask the groups to prepare their findings on flip chart and to elect a person to present the group's findings. ③ Each group presents their findings to the plenary. ③ Facilitate a discussion on the group findings and draw out the key learning points. ③ These Key Points are expanded on in the section below. 	<p>Presentation 4.2b Slide 15</p> <p>Flip chart, pens</p> <p>Activity sheet 66</p>

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation with Discussion</p> 	<h3>7.3 Vehicle use and economic aspects</h3> <p>Explain the economic issues related to a range of IMTs used in Sri Lanka, including the extent to which vehicles are used and for what purpose, and the operating costs over various distances.</p> <p>Ask questions like: What were the main IMTs being used? How did the vehicle operating costs compare for various IMTs?</p> <p>Key Points</p> <ul style="list-style-type: none">  Bicycle, hand cart, motorcycle, power tiller & trailer, ox carts, tractor and trailer  Vehicle operating costs <ul style="list-style-type: none"> ✓ ox cart cheapest up to 500 tonne demand and 8 km ✓ bicycle cheapest over very short distance and very low levels of demand - loads up to 10 tonnes (per year) ✓ power tiller cheapest up to 1000 tonnes up to 10km or 500 tonnes up to 40 km 	<p>Presentation 4.2b Slides 16 - 27</p>

Training Methods	Content	Materials
<p>Presentation</p> 	<p>7.4 Factors affecting the provision of rural transport services</p> <p>Describe the factors affecting the provision of rural transport services in Sri Lanka, with reference to IMTs.</p> <p>Key Points</p> <ul style="list-style-type: none"> Infrastructure and feeder roads Resettlement schemes face problems with maintenance and poor design of roads – exacerbated by their remoteness Credit – most farmers have no access to formal credit, and rely on informal credit with high rates of interest Repair facilities and spare parts are readily available in larger villages 	<p>Presentation 4.2b Slides 28 - 30</p>
	<p>Summary of session 4.2</p> <p>Conclude this session by reviewing the issues explored and the key lessons learnt, highlighting areas that may need further investigation or discussion.</p>	