



Trainers' Notes
Rural Transport Training Materials

Module 4:

Rural Transport Services and Intermediate Means of Transport

Part 1

Matching demand with supply in rural transport

Part 2

Rural roads: a market approach with concepts for finance and organisation

SESSION 4.4



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"> Define 'density of demand' for transport services Analyse the factors effecting the density of demand Create strategies for maximising effective demand for rural transport services <p>Case study</p> <ul style="list-style-type: none"> Describe the financial concept for rural road maintenance Explain the role of subsidies in supporting rural road development Analyse the impact of the Bangladesh project on poverty Identify lessons that may be applied to other countries
<p>Rural Transport Knowledge Base materials used with this session</p>	<p>Matching demand with supply in rural transport. By: S.D. Ellis, TRL Limited</p> <p>Rural roads: a market approach with concepts for finance and organisation By: G. Metschies, GTZ (1998)</p>
<p>Training Materials</p>	<p><u>Presentations</u></p> <p>4:4a Matching demand with supply in rural transport</p> <p>4:4b Rural roads: a market approach with concepts for finance and organisation</p> <p><u>Activity sheets</u></p> <p>69 Rural marketing structures</p> <p>70 Infrastructure development in Bangladesh</p>

Structure of Session 4.4

<i>Key Topics</i>	<i>Training Methods</i>
Part 1	
1. Introduction	Presentation
2. Density of demand	Q & A Participatory talk
3. Markets and storage facilities 3.1 The role of storage facilities in the marketing system 3.2 Rural marketing structure	Q & A Presentation with discussion Group activity Presentation with discussion
4. Network interconnectivity	Presentation
5. Transport brokers	Presentation with discussion
6. Flow of information	Presentation with discussion
7. Complementary investments	Presentation with discussion
Part 2	
8. Case Study 8.1 Introduction 8.2 Rural transport chains 8.3 Financing concepts 8.4 Classification and financing of farm to market tracks 8.5 Bangladesh case study	Presentation Presentation Presentation Case study activity Presentation with discussion
Summary of session 4.4	








This session is divided into two parts:

Part 1 is based on the technical paper: Matching demand with supply in rural transport



Part 2 is based on the case study: Rural roads - a market approach with concepts for finance and organisation

Part 1



1. Introduction


Training Methods	Content	Materials
<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: Matching demand with supply in rural transport.</p> <p>This part of the session explores the concept of <i>density of demand</i>, and the relationships between various aspects of a marketing system including storage facilities, networks, information flows and the role of transport brokers. Examples are drawn from various countries in Africa and Asia to illustrate arguments and Key Points.</p> <p>Key Points:</p> <p>Session Overview Part 1</p> <ul style="list-style-type: none">  Density of demand  Markets and storage facilities  Network interconnectivity  Transport brokers  Flow of information  Complementary investments 	<p>Presentation 4.4a Slides 1 - 5</p>







2. Density of demand

Training Methods	Content	Materials
Q & A 	<ul style="list-style-type: none"> Introduce this part of the session by exploring the reasons why there are such differences between the transport and marketing systems in Africa and Asia. Read the statement on the presentation slide and facilitate a discussion by asking: <i>What are the reasons for the differences in transport systems between Africa and Asia?</i> Note points made by participants on flip chart. Key learning points are discussed below. 	Presentation 4.4a Slide 6 Flip chart, pens
Presentation with Discussion 	<p>Building on the discussions above, discuss the reasons for disparities in transport systems between Africa and Asia, drawing on the concept of <i>density of demand</i>. Ask questions like: What do we mean by 'density of demand'? What factors determine density of demand?</p> <p>Key Points:</p> <ul style="list-style-type: none"> Density of demand is the main reason for the differences in the nature of transport system between Africa and Asia Density of demand is determined by: <ul style="list-style-type: none"> ✓ population ✓ farming system ✓ income 	Presentation 4.4a Slides 7 - 8


3. Markets and Storage Facilities

Training Methods	Content	Materials
<p>Q & A</p> 	<p>3.1 The role of storage facilities in the marketing system</p> <ul style="list-style-type: none"> Introduce this part of the session by examining how storage affects the nature of a marketing system. Begin the discussion by asking: <i>How does the presence or lack thereof, of storage facilities affect the effectiveness of marketing?</i> Note points made by participants on flipchart. Key learning points are discussed below. 	<p>Flip chart, pens</p>
<p>Presentation</p> 	<p>Summarise the points raised above by presenting the key issues associated with storage and marketing.</p> <p>Key Points:</p> <ul style="list-style-type: none"> There is a need to concentrate demand. Dispersed populations lead to dispersed markets <ul style="list-style-type: none"> ✓ affects vehicle choice ✓ affects farm gate prices Describe the nature of markets from 4 countries: Mali, Malawi, Zambia and Honduras 	<p>Presentation 4.3b Slides 9 - 15</p>


Training Methods	Content	Materials
<p>Group Activity</p> 	<h3>3.2 Rural marketing structures</h3> <p>The purpose of this activity is to analyse the nature of four examples of market structures and identify any elements that make the effective, especially from the point of view of users from rural communities.</p> <p>The examples are taken from:</p> <ul style="list-style-type: none"> ≈ Mali ≈ Malawi ≈ Zambia ≈ Honduras <ul style="list-style-type: none"> ④ Divide participants into four groups and give them Activity Sheet 69 ④ Explain that each group should only work on ONE of the 4 country examples. Allocate a country to each group. ④ Ask participants to read the extract for their country example and to discuss the following questions: <ul style="list-style-type: none"> A. <i>What are the features of the marketing structure in that country that makes it effective?</i> B. <i>How could the marketing structure be improved? – to serve the needs of rural communities, especially the poor?</i> ④ Ask participants to write their findings on flipchart, to 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. Key learning points are discussed below. 	<p>Presentation 4.4a Slide 16</p> <p>Activity Sheet 69</p> <p>Flip chart, pens</p>

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation with Discussion</p> 	<p>Building on the points raised in the activity above, describe a strategy for demand management in relation markets for rural areas. Ask questions like: How does having more regular markets help? Under what circumstances would you advocate the use of mobile markets?</p> <p>Key Points</p> <ul style="list-style-type: none">  More rural markets  Regular market  Mobile markets  Storage facilities  Co-operation with agricultural authorities 	<p>Presentation 4.4a Slide 17</p>





4. Network Interconnectivity

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</p> 	<p>Describe the issues related to the interconnectivity of the transport network and problems that may be caused.</p> <p>Key Points:</p> <ul style="list-style-type: none"> Redundancy is where there are more than the minimum number of links and length of road Problems include the high risk for transport operators, who get less revenue & possible breakdown costs; and a community becomes isolated when road is impassable With inter-connectivity of routes increase potential demand for transport services, which could results in more transport operators and increased competition 	<p>Presentation 4:4a Slide 18</p>




5. Transport Brokers

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation with Discussion</p> 	<p>Facilitate a discussion on the role of transport brokers in improving transport services and so improving marketing. Highlight Key Points using the example from Pakistan.</p> <p>Ask questions like:</p> <p>How do transport brokers help address marketing issues?</p> <p>What key factors are required to ensure the transport brokers are successful?</p> <p>Key Points:</p> <ul style="list-style-type: none"> ④ The problem is a lack of contact between transport operators and clients ④ The transport broker's role is to matching goods with vehicles. An effective brokerage service needs: <ul style="list-style-type: none"> ✓ nation-wide network of brokers ✓ good telephone/ other communication system ④ The traditional role of brokers was to service large vehicles on longer distances. They could also serve rural communities ④ Pakistan – one of the most efficient transport systems in the world – makes wide use of transport brokers. 	<p>Presentation 4:4a Slides 19 - 22</p>

6. Flow of Information


Training Methods	Content	Materials
<p>Presentation with Discussion</p> 	<p>Facilitate a discussion on the role of information flows and marketing and transport systems. Ask questions like: What communications problems do rural typically face? How does this affect the effectiveness of marketing?</p> <p>Key Points:</p> <ul style="list-style-type: none">  A major problem for most rural communities is that they have no communications - telephone or radio, and in low demand areas it is not viable for operators to travel on the off-chance that they pick up a load.  Communications technology may help to provide more efficient transport.  Key issues for planners <ul style="list-style-type: none"> ✓ appropriate communication technologies for rural communities ✓ user costs - purchase of equipment, air time, electricity, maintenance ✓ infrastructure requirements for the introduction of the technology ✓ do the communities have the skills and resources to operate and maintain the equipment? 	<p>Presentation 4.4a Slides 23 - 24</p>






7. Complementary Investments


<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
Presentation with Discussion 	<p>Facilitate a discussion on the need for investment by the transport sector in other sectors that increase the access of communities to other essential services. Ask questions like: Which other sectors should the transport sector invest in? In what way? Why?</p> <p>Key Points:</p> <ul style="list-style-type: none">  The transport sector should invest in: <ul style="list-style-type: none"> ✓ health ✓ education ✓ agricultural extension ✓ industrial investments ✓ small-scale enterprise ✓ credit facilities 	Presentation 4.4a Slide 25
Presentation 	<p>Concluding remarks</p> <p>Summarise the first part of this session by highlighting the main issues explored and the potential strategies and activities for taking these issues forward.</p>	


Part 2








8. Case Study: Bangladesh

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</p> 	<p>8.1 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>This part of the session is based on: Rural roads: a market approach with concepts for finance and organisation.</p> <p>Key Points:</p> <p>Session Overview Part 2</p> <ul style="list-style-type: none">🌀 Rural transport chains🌀 Financing concepts🌀 Classification and financing of farm to market tracks🌀 Bangladesh case study	<p>Presentation 4.4 b Slides 1 - 3</p>

Training Methods	Content	Materials
<p>Presentation</p> 	<h2>8.2 Rural Transport Chains</h2> <p>Describe the fundamental basis of agricultural marketing transport chains, and the role of subsidies.</p> <p>Key Points:</p> <ul style="list-style-type: none">  The transport chain can be divided into two parts: <ul style="list-style-type: none"> ✓ the transport of produce from fields to local markets ✓ transport of produce from local markets to main highways 	<p>Presentation 4.4b Slides 4 - 5</p>
<p>Presentation</p> 	<h2>8.3 Financing concepts</h2> <p>Explain the financial concepts required for improving the rural roads network.</p> <p>Key Points:</p> <ul style="list-style-type: none">  The main criteria for priority setting in the rural transport network include: <ul style="list-style-type: none"> ✓ size of the market ✓ population of adjacent villages ✓ size of the rural production of the surrounding area  Financing for 'normal roads' vs. 'rural roads' <ul style="list-style-type: none"> ✓ normal roads can be self finance i.e. by the road user ✓ rural roads are unprofitable and therefore need subsidising 	<p>Presentation 4.2b Slides 6 - 8</p>

<i>Training Methods</i>	<i>Content</i>	<i>Materials</i>
<p>Presentation</p> 	<h3>8.4 Classification and financing of farm to market tracks</h3> <p>Describe the role of IMTs in the marketing system.</p> <p>Key Points</p> <ul style="list-style-type: none"> • A change from the subsistence to cash crop economy is necessary to generate the demand for an effective transport service • Transport costs are lowered by IMTs and 'bulk transport' • As a general rule: the level of mechanisation of agriculture should correspond to the mechanisation of transport on farm to market tracks/ roads • Level of labour use in agriculture may correspond to the level labour use for rural roads, and maintenance of the higher class of market to highway roads • There is a direct correlation between the mechanisation of agriculture and rural transport 	<p>Presentation 4.4b Slides 9 - 11</p>

Training Methods	Content	Materials
<p>Case Study activity in groups</p> 	<h3>8.5 Bangladesh case study</h3> <p>The purpose of this activity is to analyse how the development of rural transport infrastructure addressed issues related to poverty, and to reflect on key lessons that may be applied to other regions.</p> <ul style="list-style-type: none"> 🌀 Divide the participants into groups of 4 or 5, and give each group Activity Sheet 70 🌀 Ask participants to read the extract from the case study and to discuss the following questions: <p style="margin-left: 40px;"><i>A. In what way was this project able to address poverty issues?</i></p> <p style="margin-left: 40px;"><i>B. What lessons that can be drawn from this project that may be applied to other countries?</i></p> 🌀 Ask the groups to prepare their findings on flipchart and to elect a person to present the findings 🌀 Each group presents their findings to the plenary 🌀 Facilitate a discussion on the findings and draw out the key learning points. The key learning points from this activity are discussed below. 	<p>Presentation 4.4b Slides 12 - 13</p> <p>Flip chart, pens</p> <p>Activity sheet 70</p>

Training Methods	Content	Materials
<p>Presentation with Discussion</p> 	<p>Building on the discussions above, describe the impact of the project on poverty related issues. Ask questions like: How as the project able to increase income generating opportunities? How were destitute women targeted?</p> <p>Ask participants to reflect on the lessons learnt from the Bangladesh case study and how these may be applied elsewhere.</p> <p>Key Points</p> <ul style="list-style-type: none">  Income generating opportunities created  Targeted destitute women  Increase in number of road users  Increase in visits to markets  Increase in market sellers and stands  Increased volume of transported goods 	<p>Presentation 4.4b Slide 14</p>
	<p>Summary of Session 4.4</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>	