



## **Consultancy Services for Development and Implementation of a Trial Transport Services Training Course**

### **Inception Report**

*November 2012*

This project was funded by the Africa Community Access Programme (AFCAP) which promotes safe and sustainable access to markets, healthcare, education, employment and social and political networks for rural communities in Africa.

Launched in June 2008 and managed by Crown Agents, the five year-long, UK government (DFID) funded project, supports research and knowledge sharing between participating countries to enhance the uptake of low cost, proven solutions for rural access that maximise the use of local resources.

The programme is currently active in Ethiopia, Kenya, Ghana, Malawi, Mozambique, Tanzania, Zambia, South Africa, Democratic Republic of Congo and South Sudan and is developing relationships with a number of other countries and regional organisations across Africa.

This material has been funded by UKaid from the Department for International Development, however the views expressed do not necessarily reflect the department's or the managing agent's official policies.

For further information visit  
<https://www.afcap.org>

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## 1 Introduction

Within the scope of the AFCAP programme, there is an identified need and demand for the development and delivery of a Transport Services research training course in the main countries where AFCAP is operational. These countries are located in Eastern and Southern Africa and comprise the Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mozambique, South Sudan, Tanzania and Zambia. This assignment involves the development and implementation of a trial training course on transport services research with the eventual objective of rolling out this training course across AFCAP countries. It will enable and develop the skills of those who work in transport sector research with the ultimate aim of utilising these skills to inform policy and technical decisions that will lead to improved and reliable access for rural communities in Africa.

This report gives details of the Inception Phase of the project and the preparatory work that has been undertaken, together with issues arising from initial discussions with Crown Agents and other activities to date. An outline of the contents of the Transport Services Training Course is given together with an estimated schedule of activities.

## 2 Project Objectives

The objective of the assignment is to improve the ability of those who work in the transport sector to carry out research, utilising a variety of tools and techniques. The aim is to sensitise the transport sector to current issues and methods in transport services research, with a strong focus on participatory work with users. The utilisation of these improved skills should lead to more effective research being conducted and hence provide more accurate data for decision-makers.

## 3 Project team

It is proposed that the project team, comprising a trainer with a background in social sciences (Annabel Bradbury) and a trainer with a background in transport economics (John Hine), be supplemented by a locally based course administrator. Martin Mwakitwange has worked previously with John Hine in preparing training courses and workshops in Arusha and is familiar with the venues available for such events, as well as logistical arrangements for participants travelling from outside Tanzania.

Martin will assist in booking the course venue, and arranging participant travel and accommodation. He will also provide per diems to participants and arrange the course dinner. In addition, we anticipate hiring secretarial services at the course venue to assist Martin in printing and photocopying training and teaching materials, providing communications at the course, and arranging airport transfers and flight confirmations. The course will be delivered in English (TRL's contract does not include the cost of interpretation or translation should it be required).

Name of Staff	Role	Responsibility
John Hine	Trainer	Responsibility for preparing and delivering course sessions 1, 3 and 4 related to transport service provision and operations.
Dr Annabel Bradbury	Trainer	Responsibility for preparing and delivering course sessions 2, 5, 6 and 7 on transport service users and stakeholders, field research methods and qualitative/quantitative data analysis.

Martin Mwakitwange	Course Administrator	Providing logistical support for preparing and running the course in Arusha.
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## 4 Deliverables and Activities

The following deliverables will be provided as part of the preparation and delivery of the training course:

1. A set of Training and Teaching Materials suitable for a one-week intensive course comprising 7 sessions on topics relating to transport services provision – the materials will include:

- Presentation materials including comprehensive trainer's notes
- Hand-outs and evaluation forms
- Trainee handbook comprising trainee notes and printed slides.

These materials will be provided in electronic PDF and native file version on a CD and printed hard copy for up to 20 course participants. The training materials will be prepared in English; the presentation layout of the materials will be agreed in consultation with the AFCAP Core Management Group (CMG) before finalisation and will include the UK Aid and AFCAP Crown Agents logos in accordance with their usage guidelines.

*Submission date: By 31<sup>st</sup> December 2012*

2. A Training Course lasting 1 week (5 working days) with up to 20 participants.
  - Once the training materials have been approved, a summary sheet outlining course content for each session can be used by AFCAP to advertise the course. TRL will place the advert on its website and issue a press release, and the course will also be publicised on the International Forum for Rural Transport and Development (IFRTD) website and similar outlets.
  - AFCAP (CMG) will select participants in consultation with the Consultant to reflect a range of capabilities and to be representative of the countries in which AFCAP is in operation (Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mozambique, South Sudan, Tanzania and Zambia).
  - TRL will organise and book the training facility in consultation with CMG (Arusha, Tanzania). We shall also arrange international air travel for participants and accommodation with the provision of per diems for local transport and food, as well as a course dinner.

*Submission date: By 31st March 2013*

### 3. Training Summary Report

- This will provide details of the schedule of the course, participant feedback based on a course report form and recommendations on course improvement.

*Submission date: By 31 March 2013*

## 5 Activities to Date

The 6<sup>th</sup> Africa Transportation Technology Transfer (T<sup>2</sup>) Conference will be held in Gaborone, Botswana from 4<sup>th</sup> - 8<sup>th</sup> March 2013. AFCAP is a member of the International Technical Advisory Committee for the conference, and we anticipate that some of the Transport Services Course participants will attend the T<sup>2</sup> conference. Consequently, we propose that the Transport Services Course be held prior to the conference. The proposed date for the Transport Services Course is between **4<sup>th</sup> to 8<sup>th</sup> February 2013**.

The course will be advertised once the training materials have been approved, and hence publicity for the course will not be distributed until January 2013. The proposed course date therefore allows sufficient time for participants to apply to attend the course, and also allows for the Training Summary Report to be produced after the course, i.e. the summary report will be delivered in March.

The Naura Springs Hotel in Arusha has been contacted as the preferred course venue, as it has been used previously for AFCAP events and has the capacity to accommodate 25 people (participants and trainers) for the course itself, and for the course accommodation if required. The hotel is available for the proposed week of 4<sup>th</sup> to 8<sup>th</sup> February and a provisional booking has been made.<sup>1</sup> Once these dates have been confirmed with the AFCAP Programme and Technical Managers, we can book the venue accordingly.

Section 6 provides a draft course programme based on the scope of services in the Terms of Reference, and Section 7 provides a more detailed summary of the course contents which can be used to advertise the course to prospective participants, once course material is finalised. Please note that the course contents in Section 7 of this report are subject to minor changes as they are drafted, pending consideration of the contents of each session and the time available during the five day course to include all the proposed technical content.

We propose that a course dinner be held on the evening of Day 4 of the course (i.e. 7<sup>th</sup> February), and initial enquiries have found that the Naura Springs Hotel can host the course dinner and offer a variety of entertainment including local Tanzanian music and traditional dance. We are also investigating alternative venues for the course dinner.

As part of the course, the participants will undertake field visits to practise using some field research methods within the local community. We anticipate splitting the group in two with one group collecting survey data (half using a sample household questionnaire, and half using a transport operator questionnaire), and one group undertaking some participatory appraisal (half undertaking causal impact analysis and half using discussion starters with photographs of different IMT modes) with groups in the community. We are discussing with the AFCAP Technical Manager about the best approach for arranging these field visits and mobilising community participants with the help of local councillors and the police.

As of 27 November 2012, TRL received the RTTM (2004) materials and presentations from the World Bank (SSATP) via the IDL Group. The delay in receiving these materials may pose a minor risk to the project timetable, but we shall inform the Technical Manager if delays to submission are foreseen.

The trainers will prepare the course sessions, comprising training and teaching materials, and will email them to the Programme and Technical Manager as soon as they are drafted, following internal technical review. Please note that Annabel Bradbury will be out of the office from 20<sup>th</sup> December 2012 to 4<sup>th</sup> January 2013 and therefore anticipates submitting all course material for which she has responsibility before 20 December. We envisage that the course materials may need minor edits and improvements prior to

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<sup>1</sup> The Naura Springs Hotel is presently available for the duration of February 2013, should the course date change.

printing for the course, and these can be undertaken during the month preceding the course itself.

To date the course materials for **Session 7: An Introduction to Qualitative and Quantitative Data Analysis** have been drafted and submitted to the AFCAP Technical Manager.

The format we have adopted for the materials is to provide Powerpoint slides for presentation during the course, which contain comprehensive trainer's notes to accompany each slide, and separate trainee notes. Session 7 also includes periodic practical exercises for course participants to practise using some of the tools such as pivot tables, histograms and standard deviation.

The format of Session 7 is slightly different to that outlined in our initial proposal, in that data collection and sampling and the on-street survey will take place in Session 6. Also, we made the decision to focus on statistical analysis using Excel rather than SPSS, mainly because SPSS is an expensive analytical tool (costing up to £1000 for an individual license and £10,000 for a multi-use license) which will not be accessible to many participants in Africa, and also because Excel can do all the basic statistical analysis required in this course, including correlation and regression, and Excel will be a much more familiar tool to participants. This is an important consideration, particularly if the course is aimed principally at transport practitioners based in government departments.

## 6 Draft Course Programme

### **Monday 4 February**

#### **Session 1: Transport Services Provision and its Impact on Goods and Services**

9.00 – 9.30	Welcome and course introduction - aims and objectives
9.30 – 10.30	Background to TS provision – overview of TS categories and modes
10.30 – 11.00	----- Tea/Coffee -----
11.00 – 12.30	Patterns of travel and journey purpose – key issues and constraints
12.30 – 13.30	----- Lunch -----
13.30 – 15.00	The role of TS in supporting agriculture, education and healthcare services
15.00 – 15.30	----- Tea/Coffee -----
15.30 – 17.00	Supply and demand relationships within the transport sector

### **Tuesday 5 February**

#### **Session 2: Rural User Needs and Access to Transport Services in Sub-Saharan Africa**

9.00 – 10.30	Accessibility and mobility needs and constraints of poor and isolated people
10.30 – 11.00	----- Tea/Coffee -----
11.00 – 12.30	Equality of access to TS – women and men, children, disabled and elderly people
12.30 – 13.30	----- Lunch -----

#### **Session 3: Transport Services and Operators – Current Patterns and Constraints**

13.30 – 15.00	Patterns of transport asset and ownership structure serving rural areas
15.00 – 15.30	----- Tea/Coffee -----
15.30 – 17.00	TS operations and the impact on transport fares and service availability

### **Wednesday 6 February**

#### **Session 4: The Broader Transport Services Context**

9.00 – 10.30	The infrastructure and policy context of rural transport
10.30 – 11.00	----- Tea/Coffee -----
11.00 – 12.30	The role of central and local government in transport service provision
12.30 – 13.30	----- Lunch -----

#### **Session 5: Planning Transport Services with Stakeholders**

13.30 – 15.00	Identifying stakeholder groups and conducting stakeholder analysis
15.00 – 15.30	----- Tea/Coffee -----
15.30 – 17.00	Undertaking logical framework analysis and stakeholder consultation



## **Thursday 7 February**

### **Session 6: Field Research Methods**

9.00 – 10.30	Introduction to qualitative research methods and participatory appraisal
10.30 – 11.00	----- Tea/Coffee -----
11.00 – 12.30	Introduction to quantitative research methods and survey questionnaire design
12.30 – 13.30	----- Lunch -----
13.30 – 15.30	Fieldwork exercise – collecting survey data and undertaking participatory appraisal
15.30 – 16.00	----- Tea/Coffee -----
16.00 – 17.00	Traffic counts, origin-destination surveys and other approaches
19.30 – 22.00	Course dinner

## **Friday 8 February**

### **Session 7: An Introduction to Qualitative and Quantitative Data Analysis**

9.00 – 9.30	Framework method of qualitative data analysis
9.30 – 10.30	Introduction to statistics
10.30 – 11.00	----- Tea/Coffee -----
11.00 – 12.30	Presenting data
12.30 – 13.30	----- Lunch -----
13.30 – 15.00	Quantitative data distribution
15.00 – 15.30	----- Tea/Coffee -----
15.30 – 17.00	Correlation and Linear Regression

## **7 Course Contents**

### ***Session 1 – Transport Services Provision and its Impact on Goods and Services***

Duration: 1 day.

Contents:

This session will explore the relationships between the provision of transport services and the rural economic activity and social infrastructure. This will cover:

1. Household survey results from different parts of Africa showing the wide range in mobility rates and the use of different forms of rural transport.
2. Survey results showing the patterns of travel and journey purpose.
3. Key issues and constraints facing users including - costs, frequency, availability, physical access, particular issues for children, old, infirm, expectant mothers etc.
4. Access and mobility decisions travelling to health care, clinics, hospitals, junior and secondary schools.
5. The issues of sustaining schools and clinics in remote areas with limited services, including monitoring quality, ensuring staff are in post, supplying physical inputs. Can more frequent and reliable services make a difference?
6. How transport interacts with agricultural marketing and supply of inputs, the costs of moving agricultural produce via different means, the issue of load sizes, crop deterioration and sensitivity to transport mode/packing/ journey time/storage.
7. Traditional and modern supply chains and relationship with transport.
8. The importance of density of demand and frequent transport services in sustaining non-agricultural activity including marketing, service industry, artisan activities.
9. How isolation and lack of transport services affects the ability to access finance, engage with different extension services and the wider political process.

Background:

Transport services are critical to the welfare and economic activity of the rural population. Yet their impact and interrelationship with different social services and agriculture and other types of activity are rarely considered or understood. Too often rural transport issues are only addressed through road maintenance and investment, with decisions on services left to the market.

By the end of this session participants will have an understanding of:

- The incidence and purpose of rural trip making through different modes and the difficulties of accessing services.
- How the efficiency and provision of medical, educational and extension services rely upon transport services.

The relationship between agriculture, marketing and other service activity relate to transport operations.

## ***Session 2 – Rural User Needs and Access to Transport Services in Sub-Saharan Africa***

Duration: Half day

Contents:

This session will examine the access needs and constraints of transport service users comprising different stakeholders and vulnerable groups disaggregated by age and gender. The session will cover the following topics:

1. Accessibility and mobility requirements and constraints of poor and vulnerable people in rural Africa, with an emphasis on rural transport services (motorised and non-motorised).
2. Identifying reasons for rural isolation and remoteness among rural households disaggregated by socio-economic status and household income, including the limitations of rural infrastructure (lack of feeder roads, tracks, paths and bridges) and physical access to transport service provision.
3. Gender and transport, exploring the equality of access to transport services by women and men, maternal health care (including the Three Delay's Model) and emergency transport systems.
4. Children and young people's transport and service access in Sub-Saharan Africa.
5. Affordable access to transport services by disabled people and the elderly.

Background:

Isolation and inaccessibility to basic needs and services are a cause and symptom of rural poverty. Transport (including infrastructure and means of transport) and mobility (the precondition for people's physical movement) facilitate accessibility and bring people to services and services to people. Transport is also a key agency by which social networks can be supported.

There is a wealth of research findings that consider rural transport service user needs in Sub-Saharan Africa, and this training session will highlight some of the key characteristics that define various user groups and their access requirements, as well as features of the poorest and most vulnerable in society that are not yet accessing rural transport services, and reasons for this disparity.

By the end of this session the participants will:

- Have a better understanding of how transport and access issues are connected to the various dimensions of poverty and related to personal motorised and non-motorised trip-making.
- How the lack of appropriate and affordable means of transport, remoteness and physical isolation from basic services affects different population groups.

### ***Session 3 - Transport Services and Operators: Current Patterns and Constraints***

Duration – Half day.

Contents:

This session will examine how transport is supplied to rural areas. It will cover:

1. Patterns of the transport asset and ownership structure serving rural areas, (i.e. covering bicycles, motorcycles, IMTs, cars, minibuses, light freight and medium goods vehicles).
2. Patterns of operation and use of lorry and bus parks, queuing for loads, difficulty of accessing services once vehicle has left the terminal. The hub and spoke system. Rural terminals, role of different vehicle types including cycles and motor cycles.
3. Patterns of control of lorry and bus parks, the impact of unions and cartels on transport fares and service availability.
4. The role of intermediaries, transporters and travelling wholesalers in collecting farm produce.
5. The evidence for, and reasons behind, high costs and inefficiencies of both local rural transport services and long distance transport services in Africa in comparison with Asia.

Background:

There is substantial evidence to suggest that transport operations in much of rural Africa is high cost, monopolistic and in many instances not readily available to the rural population. This module looks at evidence of typical operating practises.

By the end of this session participants will have an understanding of:

- How rural transport services are organised in different countries.
- The key role of different types of transport and transport terminals.
- The reasons behind high costs and inefficiency in the transport system.

## ***Session 4 - The Broader Transport Services Context***

Duration – Half day.

Contents:

This session will examine the infrastructure and policy context of rural transport. It will cover:

1. Key types of village and rural transport infrastructure and how the standards and maintenance of infrastructure influences the modes of transport that can be used. Encouraging transport operators to take a proactive role in supporting road maintenance. The role of climate resilience and, network redundancy in promoting better and more reliable transport services.
2. The role of central and local government in transport services – Vehicle dimensions and axle load regulations, vehicle and driver licensing, vehicle taxation, fare and price control, route licensing, policing and road safety. The role of Road Funds. How rural transport services are organised in High Income countries including bidding for the market, cross-subsidising routes.
3. Cartels, transport unions and control of lorry and bus parks. Influencing transport unions to provide socially responsible services. Encouraging competition between different types of operators.
4. Providing support for Non-Motorised Transport (NMTs) and Intermediate Forms of Transport (IMTs).
5. Is there a role for transport cooperatives or a village managed vehicle? The possibility of using Output Based Aid to support rural transport services.
6. Improving transport efficiency through the use of ICT, and the use of mobile phones to support motor cycle operations.

Background:

To improve transport services it is important to understand the role of infrastructure as well as how other interventions may improve transport services. This session looks at how Government can improve transport services in a variety of ways.

By the end of this session participants will have an understanding of:

- How infrastructure affects the reliability and types of vehicles that can be used.
- The conventional policy instruments that can be employed to directly affect transport services.
- New types of intervention to improve the availability of services.

## ***Session 5: Planning Transport Services with Stakeholders***

Duration: Half day

Contents:

Very often rural transport interventions are undertaken without a full understanding of a community's transport needs and constraints. There is also little appreciation of the problems faced by the various organisations trying to deliver improved access. Once a problem statement has been produced, it is possible to design more appropriate solutions including transport services interventions. This session will cover the following topics:

1. How to identify different stakeholder groups and undertaking stakeholder analysis.
2. Identifying the information that decision makers require from the stakeholders to plan for transport services provision.
3. Undertaking logical framework (logframe) analysis.
4. How to conduct stakeholder consultation.

Background:

Consultation with potential beneficiaries of an intervention is critical from the outset of policy design. As with any appraisal technique, consultation should be a continuing activity over the lifetime of a project or programme, from conception to implementation and monitoring. First and foremost, key stakeholders should be included in a dialogue with local authority and donor representatives before a project of intervention is planned, to ensure that the design of the project involves the most appropriate sectors. Whilst planning for development should be holistic and multi-sectoral, in reality the budgets from which interventions are funded tend to be sectoral. Therefore, whilst the requirements of a community may overlap different sectors, the funding of implementation comes from very distinct sources. For this reason, it is important to identify as accurately as possible the priority sectors for intervention. This is especially true for the transport sector which is the 'lynchpin' of other service sectors and cuts across a much wider geographical catchment, as well as being one of the most capital intensive areas of intervention.

By the end of this session the participants will:

- Be able to identify the key stakeholders of rural transport including direct and indirect transport users, transport facilitators and providers and other key community groups and decision makers.
- Be equipped to produce a logframe for undertaking strategic, institutional and development planning, project and programme design.
- Explore the key forms of stakeholder consultation and main categories of survey instrument.

## **Session 6: Field Research Methods**

Duration: Half day introduction plus half day fieldwork exercise

Contents:

This session will cover the following elements of qualitative and quantitative research methods, plus a fieldwork exercise involving practical application of participatory appraisal methods and survey questionnaires. These elements are:

1. Introduction to participatory appraisal and qualitative research methods.
2. Participatory appraisal comprising observation techniques, semi-structured interviews, checklist interviews, focus group discussions, mapping, diagramming, ranking, trend analysis, discussion starters and causal impact analysis.
3. How to construct survey questionnaires including village level questionnaire, household level questionnaire, transport operator questionnaire and travel diary.
4. Data collection and sampling – how to collect data from samples.
5. How to conduct traffic counts and origin-destination surveys as well as other approaches including the hub and spoke approach and rapid appraisal.
6. Ethical issues in transport services field research, including sensitisation and obtaining informed consent, rights to confidentiality and anonymity, respondents' involvement in research including incentives for their participation.

Background:

Participatory appraisal combines a variety of visual methods with group work and semi-structured interviewing techniques. It places community participation at the core of the research process and enables local people to share their perceptions and identify, prioritise and appraise issues from their unique perspective and knowledge of local conditions.

Questionnaire surveys can capture a more comprehensive set of data from a much wider sample of people in order to generate more rigorous and statistically significant results that can be analysed in conjunction with the qualitative outputs to ensure that rigorous research conclusions are reached.

By the end of this session the participants will:

- Understand the pros/cons of adopting qualitative and quantitative field research methods.
- Be equipped to prepare and utilise participatory appraisal approaches and conduct stakeholder interviews.
- Recognise the key elements for compiling survey questionnaires for transport services research including key informants at village level, households, transport users and transport operators.
- Understand basic principles for collecting traffic count and origin/destination survey data.
- Be able to identify ethical issues arising from transport services research, in particular working with human participants and holding personal information.

## ***Session 7: An Introduction to Qualitative and Quantitative Data Analysis***

Duration: Whole day basic introduction with periodic practical exercises

Contents:

This course will cover five elements of data analysis and basic statistics. These elements are:

1. Framework method of qualitative data analysis.
2. Introduction to statistics – dealing with numbers and data
3. Presenting data – Principles for using tables and graphs
4. Quantitative data distribution – covering averages and measures of dispersion.
5. Correlation and linear regression – relationships between variables.

Background:

All useful research depends on reliable data supported by intelligent interpretation. Research and experimental development is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories. Research may also be an expansion on past work. To test the validity of instruments, procedures, or experiments, research may replicate prior projects. The primary purposes of research are documentation, discovery, interpretation, or the research and development of methods and systems.

A good understanding of basic statistics using Microsoft Excel will benefit all researchers, and also those who will be taking decisions based on research. Similarly, interpretation of qualitative data can identify correlations and trends that are representative of the sample surveyed and help answer the research question or hypothesis. Applied research is a form of systematic inquiry involving the practical application of science to solve practical problems.

By the end of this session the participants will:

- Learn to extract key themes which summarise the important categories within the qualitative data and validate the data through triangulation.
- Understand some key issues relating to basic statistics.
- Understand how best to present data and the issues involved.
- Understand how to calculate averages and measures of dispersion.
- Understand how relationships between variables can be interpreted.



## 8 Activity Schedule

Activity Schedule	2012												2013															
	October				November				December				January				February				March				April			
	Month 1				Month 2				Month 3				Month 4				Month 5				Month 6				Month 7			
	WK1	WK2	WK3	WK4	WK5	WK6	WK7	WK8	WK9	WK10	WK11	WK12	WK13	WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26	WK27	WK28
<b>Activities</b>																												
Signature of contract																												
Produce training and teaching materials																												
Produce presentation materials																												
Produce a trainee handbook																												
Conduct one week training course in Arusha																												
Obtain participant feedback																												
Produce training summary report																												
<b>Deliverable deadlines</b>																												
Training and teaching materials																												
Delivery of the training course																												
Final training summary report																												

## Staffing Schedule

<b>Staffing</b>																												
<b>External Team</b>																												
Trainer 1 - John Hine																												
Trainer 2 - Annabel Bradbury																												
Local Administrator - Martin Mwakitwange																												