





## **AFCAP**

# The Africa Community Access Programme [AFCAP] RURAL ACCESS RESEARCH PRIORITIES WORKSHOP FAIRVIEW HOTEL NAIROBI, KENYA 21 JULY 2009

**Workshop Report** 

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#### 1.0 INTRODUCTION AND OBJECTIVES

#### 1.1 Background to the workshop

The Africa Community Access Programme (AFCAP) is a programme of research and knowledge dissemination funded by the UK government though the Department for International Development (DFID). AFCAP is promoting safe and sustainable rural access in Africa through knowledge sharing between participating countries in order to enhance the uptake of low cost, proven solutions for rural access that maximize the use of local resources.

Several countries in Africa were pre-selected for participation in AFCAP. Kenya is one of those countries. To support the development of possible AFCAP projects in Kenya, AFCAP is working with the *Kenya Rural Roads Agency [KeRRA]* as the anchor institution for AFCAP's research work and other activities.

This workshop was organised through a partnership of several organisations interested in sustainable rural transport and access in Kenya.

**International Labour Organization [ILO]:** Advancing labour-intensive technologies and developing the integration of rural accessibility planning. ILO focuses on rural tools that bring together the issues of rural infrastructure, mobility and service delivery and access.

**Kenya Rural Roads Agency [KeRRA]:** Kenya Rural Roads Authority was set up under the Roads Act 2007 and charged with the mandate to manage, develop, rehabilitate and maintain rural roads in Kenya.

**Department for International Development [DfID]** The UK Department for International Development [DfID] has been a longstanding supporter of rural transport and access programs through bilateral and multilateral programs like the Sub-Saharan Africa Transport Policy Programme [SSATP] and Global Transport Knowledge Partnerships [gTKP].

**International Forum for Rural Transport Development [IFRTD]**: As a Southern-driven global network IFRTD works to improve policies and practices in transport operations, infrastructure, access and service provision that will benefit the lives of poor rural communities in developing countries. This mission is achieved through dialogue, information sharing, capacity building, research and advocacy.

#### 1.2 Workshop Objectives and Participants

The objectives of the workshops were:

- To develop a prioritised list of research issues and knowledge gaps in rural access
- To suggest knowledge dissemination activities that can be supported by AFCAP in Kenya.

Participants in the workshop represented a wide spectrum of stakeholders interested in issues of rural access from as many perspectives as possible. Stakeholders include the road sector, local government, health, education and agriculture, as well as NGOs and civil society.

#### 1.3 Structure of the workshop

The workshop was structured to ensure that participants had an opportunity not only to exchange experiences, but more importantly to give suggestions for knowledge dissemination activities and develop a broad list of research issues.

Since participants received copies of all the presentations on CD, this report covers the main points and conclusions made towards furthering the work of AFCAP in Kenya.

#### 1.4 Summary of participants' expectations

- Consensus on the research issues and ideas that will arise from the discussions
- To learn more about AFCAP and network with other agencies represented in the meeting
- Understand AFCAP and see how to utilise material already developed on rural road development
- To have a clear understanding of where the research priorities lie in rural Kenya and the role of AFCAP
- To know who AFCAP is and how the organisation can help farmers have access to markets for their produce
- To seek a partnership with AFCAP on how best to improve the livelihoods of rural Kenyans
- To share and learn how to improve access to pastoralist groups and to improve health services

#### 2.0 ABOUT AFCAP

#### 2.1 Africa Community Access Program – Jeff Turner, AFCAP Program Manager

AFCAP IS a DFID funded research program that contributes to the promotion of sustainable rural access in Africa. It is a 5 year program that began June 2008, and seeks to work with a small number of African countries to support and fund research, knowledge dissemination and training.

AFCAP's institutional arrangements vary from country to country. In Kenya, AFCAP has a steering commmitte formed through the Roads 2000 programme. AFCAP is coordinated by Eng. Stephen Kogi of the Kenya Rural Roads Authority. The thrust is not only for research for itself, but also to support mechanisms that more widely disseminate this into practice, eg. university curriculum and local authority roads technical supervision.

AFCAP focuses on:

- Supporting programmes that enhance rural communities access to services and economic opportunities.
- Integration of both infrastructure and transport services, motorised and non-motorised.
- Ensuring linkages between transport, access and achievement of the MDGs.

#### Current context of rural transport and development

- Decentralisation of government responsibilities to lower levels of local government.
- Interest in the use of new materials and techniques for low volume roads.
- Interest in the use of labor-intensive approaches to create employment.
- Increasing investment in rural roads technologies from China and India.

#### AFCAP has three themes as follows:

#### 1. Access to Infrastructure:

- What is good practice for delivering sustainable improvement in access?
- How do we develop innovative, practical and sustainable solutions?
- How do we develop capacity research and take up such good practice?
- How do we develop national ownership in the development of improved community access?
- How do we get findings scaled up and mainstreamed?

#### 2. Rural Transport Services:

- How do we promote rural transport services?
- How do we encourage use of NMT's and create viable markets?
- What are the social, economic and institutional factors for successful promotion?

#### 3. Interaction Between Mobility and other Policy Areas:

- Mainstream gender in decentralized rural road decision-making and delivery
- Promote agriculture and rural transport sector synergies and cooperation

Areas of work that AFCAP is interested in supporting could include, but are **not** only restricted to:

- 1. Research and training on the design and construction of low volume rural roads, including the use of marginal materials.
- 2. Developing effective maintenance systems for rural roads.
- 3. Supporting the promotion of safe access to healthcare, education and markets for vulnerable groups in rural areas.
- 4. Effective ways to support commercial transport services in rural areas.
- 5. Building up technical and management capacity in rural road agencies.
- 6. Promoting information and experience sharing between road sector authorities and between practitioners.
- 7. Increasing our understanding of rural mobility and the socio-economic impact of rural transport infrastructure.

- 8. Developing an evidence base to strengthen national policies for rural road transport.
- 9. Strengthening rural road engineering and rural transport curricula in universities, colleges and technical education.

#### **AFCAP 4-Way Test: Essential Project Elements**

AFCAP employs a four point test for determining support to a research and dissemination project:

- Does the project have strong local ownership?
- Does it include mainly research, knowledge dissemination or training?
- Will the project contribute to sustainable improvements to rural transport?
- Will the project contribute to building national or regional capacity?

#### 2.2 Update on AFCAP's Progress – Rob Geddes

Overall, AFCAP has been working in Ethiopia, Mozambique and Tanzania and will be extending the work to Kenya and Malawi.

Guidelines for low volume sealed roads have been developed for SADC countries. A part of AFCAP's activities is to promote the policies that are in these guidelines.

In broad terms AFCAP is doing some demonstration sections to show how low volume bitumen sealing is done. AFCAP is also involved in technical monitoring and design, running workshops and seminars as well as financing study tours for skill sharing with people in other countries.

In Kenya so far, AFCAP has been working with Roads 2000 in Nyanza, focusing on the design of sealed roads. The loss of gravel on the roads is a common problem that eventually leads to higher maintenance costs. The answer to the problem of gravel roads is, in part, to seal the roads: low volume sealed roads help to prevent loss of gravel using a thin layer of bitumen, if there is only a low volume of traffic on it.

Other activities being implemented through Roads 2000 Nyanza include:

- Training of district staff
- Training of contractors
- Technical monitoring
- Recommendations for updated design standards and specifications.

So far, the consultant has paid a visit to the Nyanza programme and a draft design report has been produced.

AFCAP is active in Kenya and looking to expand collaborative opportunities. There are two other suggested follow-up projects to the Nyanza surfacing trials. These are:

- Overview of Kenya surfacing trials
- Specifications for gravel wearing course

AFCAP welcomes other projects emerging from this priorities workshop.

## 3.0. Summary of potential Research Concepts

#### 3.1 Research proposals from Roads 2000 Central Province Project - Eric Goss, AFD

Roads 2000's aim is to provide access in rural areas. It was developed after the rural access and minor roads program and is a labor-based and local-resources based project. It is managed by the Ministry of Roads and KeRRA. The Central Province Roads 2000 projects are funded by the Government of France through AFD, and the Government of Kenya.

AFD Phase 1 Project is being implemented in the former greater Murang'a and Nyandarua districts. The approach adopted is to train contractors and supervisors using local materials and technology. There are important lessons emerging from this experience that will be used during the expansion to Phase 2 of the programme. AFD has agreed to continue funding the project. They will work through the whole of central province including Laikipia. The project period will be 48 months at a cost of 33+11 million Euros with an extra 2.5billion from KRB. The training targets will be geared towards 15 low cost seal contractors, 40+10 gravelling contactors and 100 routine contractors

#### Role of AFCAP in this process:

- i. Sharing knowledge.
- ii. Planning and monitoring or research and development.
- iii. Documentation of research and development.
- iv. Assist in preparation of rural roads rehabilitation and maintenance design guidelines.
- v. Dissemination of good practice.

# 3.2 Towards Developing Evidence Based Rural Road Investment Decision Support Tool – George Makajuma

Rationale of the concept: There are inadequate decision-making tools for the prioritisation of rural road works. There needs to be a tool that is robust enough to prioritise rural road works and that considers a latent demand for transport.

The objective of the research is to establish criteria for rural transport system performance through regression models to help in the development of a guideline for programming of the rural infrastructure works.

#### 3.3 Consumer Action on Road Safety; Asirt Kenya/ Georgetown University - Channa Commanday

This is a research proposal to improve rural access through consumer action. The project focuses on matatus and aims to empower consumers of matatu transport services to take charge of their own road safety.

Phase 1 of the project provided stickers that were placed in passenger cabins to encourage them to speak up if the driving was unsafe.

Outcome data showed that insurance claims changed over a period of one year among the treatment group and controlled group. The stickers reduced all claims by 50%; driver at fault claims by 52% and injury or death reduced by 60%. Consumer action is a potentially powerful tool that reduces injury and death.

#### Phase II Objectives:

- i. To recruit up to 800 vehicles and then try different types of treatment or information sharing to empower the passengers.
- ii. To increase involvement of more local public and private institutions to ensure the intervention is sustainable.
- iii. Integrate results and lessons in to rural development strategies and National Road Safety regulations

# 3.4 Priority Research areas for enhanced rural access and sustainable solutions that maximise use of local resources and proper management of natural resources - *Ken Odero*

Climate change and adaptation can be linked to areas such as rural access, gender, food security, transport and employment. We need a systematic way to formulate and tackle problems of improving rural access, particularly to agricultural markets, preferably using low cost proven solutions.

Because of climate change and other complicating factors such as degradation of natural resources, rural travel conditions are changing for the worse, particularly for women who have historically borne the burden. With the onset of climate change and anticipated impacts on people and their livelihoods it is imperative that the rural transport community increases its understanding of the connections between rural access issues and climate.

We need to plan our projects based on some climate data. While the transport sector has received much attention with respect to the mitigation for GHG more attention needs to be paid in terms of adaptation. What are the possible elements that could be brought into play which are efficient enough to optimise supply consumption linkages? We need to understand the dynamics between energy and food crops.

Key questions that need to be addressed are as follows:

- Sustainability: What are the appropriate frameworks to nest transport issues with those of climate change?
- Food security: is decreasing access to markets due to disruption in transport networks due to flooding pressure?
- Policy: How can we better understand and frame rural transport as part of a whole and not as an isolated issue that tends to be ignored in national transport policy discourse?
- Strategy: What is a good rural transport strategy? Does one exist in Kenya?
- Gender: Anecdotal evidence points to women walking long distances to access resources. How should transport respond?
- Investments: What have the decades of declining investments in transport agriculture and water sectors meant to access to services in these and other sectors? How does that place greater demand on personal mobility? How can this situation be reversed?
- General: What is the appropriate thematic and geographic balance in rural transport research?

# 3.5 Socio economic impacts of improved mobility through the Development of Rural infrastructure - *Paul Chege*

Situation Analysis: A lot of emphasis with regard to transport has been in high yield areas, leaving the Arid and Semi-Arid Lands [ASAL] lacking in access to transport. The ASAL region is mainly inhabited by pastoral communities who rely on livestock. There is very little infrastructure with the government agencies being very thin on the ground. If there was access to markets and better infrastructure the ASAL would be opened to options other than pastoralism.

The intervention: Investing in an efficient rural transport infrastructure in Northern Kenya will help reverse the effects of marginalisation, contribute to improved security and consequently unlock the regions' economic potential.

#### Proposed research areas:

- i. Conduct an inventory of the existing rural access roads
- ii. Establish the impact of poor transport infrastructure on the regions overall development
- iii. Highlight the positive impact that would accrue from investing in rural transport
- iv. Make recommendations on the use of appropriate technologies to construct rural access roads in Northern Kenya and how they link to national programmes.

#### 3.6 Improved rural accessibility for sustainable livelihoods- Romanus Opiyo

Lake Victoria has the potential to contribute about US\$800million to the socio-economic development of the Riparian states. There has been concern that poor accessibility to beaches has made it harder for the community living around the lake to fully exploit resources available. They can do other activities like irrigational agriculture.

Objectives of research would be the development of access networks linking beaches with markets (sensitive rural transport). The study will examine ways of enhancing and diversifying rural livelihoods opportunities by improving mobility in rural areas. Encourage use of more efficient means of transport in transportation of goods and services including the basics such as water.

#### 3.7 Mobility to access health services - Felix Agoi: Aga Khan

Rationale: Access to the nearest health facilities, both physical and financial, has been identified as the major reason for poor health.

The objectives of the research is to work with communities to map out access to available health facilities, piloting transport access interventions, and documenting the results.

Monitoring and Evaluation: This would involve the use of reporting tools (CBHIS) for a community strategy to track the project's progress. The process will also involve documenting and reviewing the interventions.

Outputs: This project will complement the existing health system to provide a channel for reaching families with information and resources.

# 3.8 Indigenous knowledge systems and best practices based on two pastoralist groups - *Joseph Ole Shuel*

Over a period of time now, there has been sound experience with indigenous groups who have for a long time used cattle tracks to open up investments in remote rural areas. Using the traditional tracking routes, the project objectives will be:

- i. To utilise local indigenous knowledge and train others on this best practice.
- ii. Policy dialogue on the use of knowledge to improve delivery of services.
- iii. Pilot road projects in two selected sites.
- iv. Publication and dissemination of research results.

# 3.9 Improving Transport and Communication arrangements for maternal health care - *Prof. Joyce Olenja & Dr. P. Njoroge*

Maternal and newborn morbidity and mortality are global public health priorities. Complications related to pregnancy and childbirth are a leading cause of morbidity and mortality. The majority of deaths have

a correlation with access. Physical access remains the missing link for referral from community to health facilities.

In Kenya there are good policies on paper, e.g. The Kenya Health Policy Framework (1994), NHSSP I and NHSSP II. The overall goal of the community strategy is to enhance community access to health care in order to improve productivity.

#### Proposed research objectives:

- i. Further analysis of health access barriers.
- ii. The role of information dissemination.
- iii. Innovations on community based arrangements for transportation of emergency cases.
  - Community accessibility: The training school in Kisii has received requests from the community (farmers) to teach them how to build cheaper access roads. For instance there are foot paths and water crossings (culvert crossings) on steep areas that can be made safe. The ministry is doing this at a small scale and demonstration sites are being put up at KTC (Kisii Training College). This effort is bearing fruit through the CDF in Manyatta where they sent a young man to be trained at the KTC. He has become a great help to his community and other surrounding communities.
  - For the health sector, how do we get to the stage where we can demonstrate the impact of transport interventions for the improvement of health outcomes? Maternal mortality rate is the indicator with the biggest disparity between the developing and developed world. It is a hundred times more risky for a woman to deliver here. This parameter is the one that sells most but is the most difficult because of the cultural implications. The information in health facilities also poses a challenge, e.g. the instances of abortion that lead to death are not always reported. It has been accepted in the health sector that a proxy indicator is used to approximate. This indicator is the attendance of skilled health workers and delivery in a health institution. The other is the response to obstetric emergencies.

A multi-country study was carried out and it is clear that in areas where there is better access, the mortality rates are actually lower.

#### 4.0 IDENTIFICATION OF POTENTIAL RESEARCH AREAS

Through discussion in group work a number of research areas were identified, though not prioritised. Further work needs to be done through the coordinating committee to develop a programme of work based on the themes/ideas that came from the workshop and as presented below.

Issue [s] identified		Comments
1.	Road safety strategy for rural roads.	The need to scope and characterise the issues around <i>rural</i> road safety (what is unique about rural road safety that will enable us to focus more closely on the interventions).
2.	National design standards for low volume roads that accommodate bicycle tracks, footpaths and other NMTs	
3	Transport and emergency health services	An emphasis was laid on the issues of maternal health care and safeguarding the loss of life
4	Identify how transport can be used as an entry point to address issues of vulnerability.	Carry out a detailed case study on how transport and access are linked to vulnerability in marginal and remote areas [such as ASALs]
5	Carry out an inventory of community access infrastructure, incorporating community's preferred access networks.	An understanding of community's preferred access infrastructure can be an integral tool in designing sustainable local level networks
6	Design or formulate a mechanism for collection and dissemination of existing knowledge on rural transport.	AFCAP needs to determine what the current state of knowledge on rural transport is. This should capture current level of technical knowledge and application.  This should also include knowledge on social and economic impacts of various types of interventions etc
7	The need to incorporate issues around climate change in each of the interventions	For example, pick a typical rural project and mainstream it into climate change debates/tools/requirements for sustainability tests, etc.
8	How to stimulate more reliable, affordable and safe motorised rural transport services.	Is it possible to incentivise private public transport operators to increase levels of service in rural areas?

### **5.0 CLOSING REMARKS AND WAY FORWARD**

Jeff Turner provided the closing remarks. He summarised the workshop as follows:

- The good level of diversity among participants helped to cross-pollinate different ideas.
- Underscored the need to recognise that there is already a lot of knowledge and information out there, but it needs to be made more accessible
- Underpinned the need to work on community participation as an important dimension to sustainable rural access.
- Have a better understanding of the role of access and mobility in livelihoods.
- Kenya was the first country where the role of road safety has been flagged as a priority.

The proceedings of the workshop will be given to AFCAP coordinator, Eng. Stephen Kogi and the national steering group which will then be tabled at the meeting in October 2009 to see how AFCAP can deliver on the research issues that have been raised.

Various mechanisms are available by AFCAP to see how to address the topics and they will decide on which one works best.

Annexes: 1

## **Rural Access Research Priorities Workshop Participants**

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## **Annex 2: Workshop Programme**

Time	Programme	Notes
08.30-09.00	Registration	
9.00-9.15	Introductory statements  Logistical Announcements, Objectives, outputs of the meeting and confirmation of agenda	Facilitator
9.15 –9.45	Background to AFCAP – AFCAP Programme Manager-	AFCAP's presentation to focus on origins of AFCAP, objectives and current status
9.45 10.05	Thematic Focus of AFCAP	Indicate, with examples the possible range of issues to be covered under each of the 9 themes.
	AFCAP Representative	-Indicate institutional framework for coordinating AFCAP activities in Kenya
10.05 -10.30	Plenary reactions to the research themes presented by AFCAP	
10.30-11.00	TEA/COFFEE	
11.00-11.30	Presentations on research concepts	
	Towards Developing Evidence – Based Rural Road Investment Evaluation Decision Support Tool	Eng. George Makajuma- Egis Bceom International and Jomo Kenyatta University of Agriculture
	Research of gravel loss, life cycle costs and alternative pavements on test sections in central Kenya	Eric Goss - AFD
	Consumer Action and Matatu Safety	Channa Commanday - Asirt Kenya/Georgetown University
11.30-12.00hrs	Plenary reactions to the concept notes	Facilitator to note key issues identified as possible priorities
12.00 -12.30	Presentation on research concepts Priority Research Areas for Enhanced Rural Access to Agricultural Markets, Services and Livelihoods Using Low Cost, Proven, and Sustainable Solutions that Maximize the Use of Local Resources and Proper Management of Natural Resources	Ken Odero – Climate XL
	Socio-economic Impacts of Improved Mobility through the Development of Rural Transport Infrastructure: A Case Study of Northern Kenya	Paul Chege/ Willy Tuimising – Practical Action
	Improved rural accessibility for sustainable livelihoods: An examination of potential of integrated transport planning for Lake Victoria beaches in poverty reduction	Romanus Opiyo – University of Nairobi, Department of Planning
12.30-13.00 hrs	Plenary reactions to the concept notes	Facilitator to note key issues identified as possible priorities

13.00-14.00	LUNCH	
14.00-14.30	Indigenous knowledge systems and best practices which inform the	Joseph Ole Shue,
	pathways/migratory routes development based on two pastoralist	Mukogodo Integrated Pastoralist Projecy
	groups	
	Do transport interventions lead to high health facility deliveries in rural	Alex Agoi - Aga Khan Health Services
	Coast province	
	Improving Transport and Communication arrangements between	Prof Joyce Olenja and Dr P. Njoroge,
	CBHC providers and referral facilities for Maternal and Child Health	Community Health Department, UoN
14.30-15.00	Plenary Reactions	
15-00-15.30	Other Research Ideas	An open forum to debate any other research
		ideas
15-30-15.45	Coffee Break and Group work	Facilitator
15.45- 17.00	Group work to work on prioritizing key research areas on rural access	
	in Kenya	
17.00-17.30	Feedback from Group work and plenary discussions	
17.30-17.45	Summary of outputs. Conclusions and way forward	AFCAP
18.00-20.00	Networking Cocktail	