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Rural Transport Diagnostic Study in Ghana

Inception Report

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Cover photo: A scene from a traffic count location in Wa West District

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ABSTRACT

Rural transport systems include both roads and transport services. Without appropriate and affordable means of transport rural communities will remain isolated and poor, however good the condition of the road may be. Transport services provide rural communities access to markets, health services, education, and other essential services, often located in more urban areas. Yet, attempts to improve rural access remain very much 'road' focussed, partly due to a limited understanding of and data on the role of rural transport services. The overall objective of this study is to better understand the existing rural transport systems in Ghana based on an assessment of the needs and perspectives of different transport users, transport operators, transport regulators and other transport stakeholders in rural communities. Identifying constraining factors and good practice in Ghana's rural transport services, allows for evidence-based policy suggestions.This inception report provides the overall framework for the study. It highlights the project background, use of the rapid rural appraisal methodology and the criteria for the selection of the surveyed roads in the three ecological zones of Ghana. A detailed implementation plan is also provided to guide the stakeholders of the project.

Key words: *rural transport services; rural access; motorised and non-motorised transport; gender balance; GPS; rapid rural appraisal method; hubs-and-spokes system*

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ABBREVIATIONS AND ACRONYMS

AfCAP	Africa Community Access Project
AsCAP	Asia Community Access Project
BRRI	Building and Road Research Institute
CSIR	Council for Scientific and Industrial Research
DFID	Department for International Development
DFR	Department of Feeder Roads
IFRTD	International Forum on Rural Transport and Development
GPS	Global Positioning System
IMT	Intermediate Means of Transport
km	kilometre
MoT	Ministry of Transport
M & E	Monitoring and Evaluation
NMT	Non-Motorised Transport
PMU	Project Management Unit
ReCAP	Research for Community Access Partnership
SSATP	Sub-Saharan Africa Transport Policy Program
TA	Technical Adviser
TRL	Transport Research Laboratory
UK	United Kingdom

EXECUTIVE SUMMARY

A good transport system is a prerequisite for economic growth and poverty reduction. The inability to access markets and basic services because transport services are not available, not reliable or too expensive, result in social exclusion which underpin poverty in rural communities. Rural inhabitants need appropriate and affordable means of transport to access markets and services. There have been limited efforts to understand the transport services needs of rural women, men and children in Ghana, so policy makers have little to work with. This project seeks to understand the existing rural transport systems in Ghana based on understanding the needs and perspectives of different transport users with different occupations, ages, gender and abilities, as well as transport operators, transport regulators and other transport stakeholders. Identifying constraining factors and good practice in Ghana's rural transport services, allows for evidence-based policy suggestions.

The project is undertaken by a team of Transport Experts from the CSIR-BRRI, Ghana, in partnership with an International Technical Adviser on Rural Transport Services from Swansea University, UK. The research is carried out in three ecological zones of Ghana: the coastal savannah, the middle forest belt and the Guinea savannah. Three rural roads for the study have been selected. One is located in the Akatsi South District in the Volta region to represent the coastal savannah zone, one is in Asunafo North District in the Brong Ahafo region to represent the middle forest belt and the third one is in Wa West District in the Upper West region to represent the Guinea savannah zone.

This rural transport diagnostic study hopes to achieve the following:

- an effective interaction with rural transport stakeholders in the communities within the catchment areas of the selected study roads in the three ecological zones in Ghana.
- an understanding of the existing rural transport systems and the key issues relating to policies and practices in Ghana.
- recommendations for further research studies and suggestions for possible changes to rural transport services practices, policies and strategies.
- facilitation of capacity building, uptake and subsequent embedment of improved rural transport practices, policies and strategies.

This inception report provides the overall framework for the study. It highlights the project background, use of the rapid rural appraisal methodology and the criteria for the selection of the study roads in the three ecological zones of Ghana. A key feature of the rapid rural appraisal methodology is its focus on gaining a deep understanding of the issue under investigation based on a limited number of in-depth qualitative interviews, rather than trying to claim statistical significance through a quantitative approach. The data collected is derived from the rural communities along the selected study road or within its catchment area to produce some valuable 'order of magnitude' estimates relating to movement of people and goods in the rural communities. Another criterion we applied is that the rural transport services under consideration are for the medium travel distance range, between 5km and 75km. During the inception period the kick-start meeting was conducted, literature searches on rural transport were done and potential candidate rural roads for the study were selected in the three ecological zones. The work plan has also been revised for the successful execution of the project.

1.0 INTRODUCTION

1.1 Project Overview

The Research for Community Access Partnership (ReCAP) is a programme of applied research and knowledge dissemination funded by the UK Government through the Department for International Development (DFID). The overall aim is to promote safe and sustainable rural access in Africa and Asia through research and knowledge sharing between participating countries – which includes Ghana - and the wider community. Cardno Emerging Markets (UK) Ltd has been contracted by DFID to manage ReCAP. There are two components under ReCAP: The Africa Community Access Project (AfCAP) and the Asia Community Access Project (AsCAP).

In Ghana, access and mobility is a precondition for economic and social development in rural areas. While there are continuing efforts to improve the rural road infrastructure through the maintenance, upgrading and expansion of the existing networks, coordinated efforts to address rural mobility issues in Ghana are also needed. This is in line with the work done by Porter (2011), Ellis (1997) and Creightney (1993) which strongly suggest that rural access should not be considered in terms of the development of "roads-only" but also in terms of mobility or access to transport services. Without access to transport services rural communities remain isolated and poor, therefore, rural inhabitants need appropriate and affordable means of transport to reduce their isolation and poverty. This is because isolation slows down the diffusion of new technologies and techniques, increase marketing and production costs and limit access to education and health facilities (Hine, 2014; Taiwo and Kumi, 2013; Litman, 2010; and Ellis, 1997).For example, poor roads and inadequate rural transport services adversely affect primary and secondary school attendance, with girls being more likely to suffer high dropout rates if travel and transport are a problem (Starkey, et al., 2015;Danso-Wiredu, 2011; IFRTD(n/d):www.ifrtd.org). Atuoye, et al. (2015) show how transportation barriers for rural people in Ghana prevent them from accessing maternal and child health care services, undermining the strategy of the Ghana Community based Health Planning and Services to make these health care services easily accessible for all. Starkey, et al.(2013) posited that most people in rural Africa do not own motorised transport, instead, they rely on the transport services that operate along the roads. It is the rural transport services operating on the roads that provide rural communities access to markets, health services, education, and enable livelihoods and economic, social and civic opportunities. In Ghana, there have been limited efforts to understand and address the rural transport services needs. Most rural transport services are provided by the informal private sector, and it is not clear if they are adequate in terms of quality, frequency, affordability and convenience. The reasons for such inadequacy are not well understood, making it difficult to propose appropriate policies and strategies to improve rural transport services. Particularly concerns exist with regard to safety, with a somewhat stereotypical view being that overloaded old vehicles, in non-compliance with regulations, driving on bad roads are a recipe for disaster. Lately, the increasing presence of motorcycle taxis had been added to the traffic mix. But perceptions of these being accident prone are, without clear data, no more than just that: perceptions. It is possible that these perceptions reflect experiences with motorcycle taxis or 'okadas' in more urban areas: Dinye (2013) indeed finds motorcycles regularly involved in accidents in the Ghana's northern town of Wa. But can these findings be extrapolated to the more rural areas?

1.2 Overall aim of the study

The overall aim of the study is to understand the needs and perspectives of different groups of road users in different rural communities. It is also to understand the requirements and perspectives of transport operators, transport regulators and those responsible for socio-economic development in the rural communities in Ghana with the view to identifying

constraining factors and relevant research topics that will contribute to improvements in Ghana's rural transport services policies and practices.

1.3 Project Team

The conduct of the rural transport diagnostic study in Ghana is being implemented by the Building and Road Research Institute (BRRI), of the Council for Scientific and Industrial Research (CSIR), Ghana, in partnership with Swansea University, United Kingdom (UK).

The project team consists of a National Transport Expert from the CSIR-BRRI (the Team Leader) being assisted by a CSIR-BRRI Transport Geographer, supported by an International Technical Adviser on Rural Transport Services from Swansea University, UK. The Ghanaian expert and the International expert shall work as a team in the planning, implementation and reporting of the work. Whereas, the Team Leader shall be responsible for submitting all the deliverables, the International Expert shall have a special responsibility for research excellence and quality assurance for successful implementation of the project. The project team will consult with the staff at Department of Feeder Roads (FDR) and those at Ministry of Transport (MoT), Accra.

1.3.1Involvement of the Technical Adviser (TA) on the project

The TA's role and contribution could broadly be divided into two, as follows:

A. Provision of Backstopping technical support services

The TA shall provide technical expertise to review all the technical reports including the inception report, rural transport services survey reports, draft final report, final report, police brief and academic paper to ensure technical delivery excellence. The international expert's input would be crucial in so far as quality performance needs must be met on the project. He shall be required to critique and supply useful suggestions to the reports which would be drafted at any stage by the Team Leader.

B. International trips to Ghana to work on project

The TA shall be required to make two separate international return trips to Ghana, first to offer technical support services to the project team and then a second trip to Ghana to attend the stakeholder workshop which would also enable him and the Team Leader to consult with other stakeholders, particularly those at MoT and DFR to help formulate the policy brief.

The first trip by the TA to Ghana to assist the project team on the field work took place from 9th January to 28th January, 2017. He assisted in the selection of the study roads in the three ecological zones, provided technical guidance on the field data collection and participated in the data collection/interviewing. He shall return to attend the stakeholder workshop scheduled for the 16th week from start of the project in March 2017.

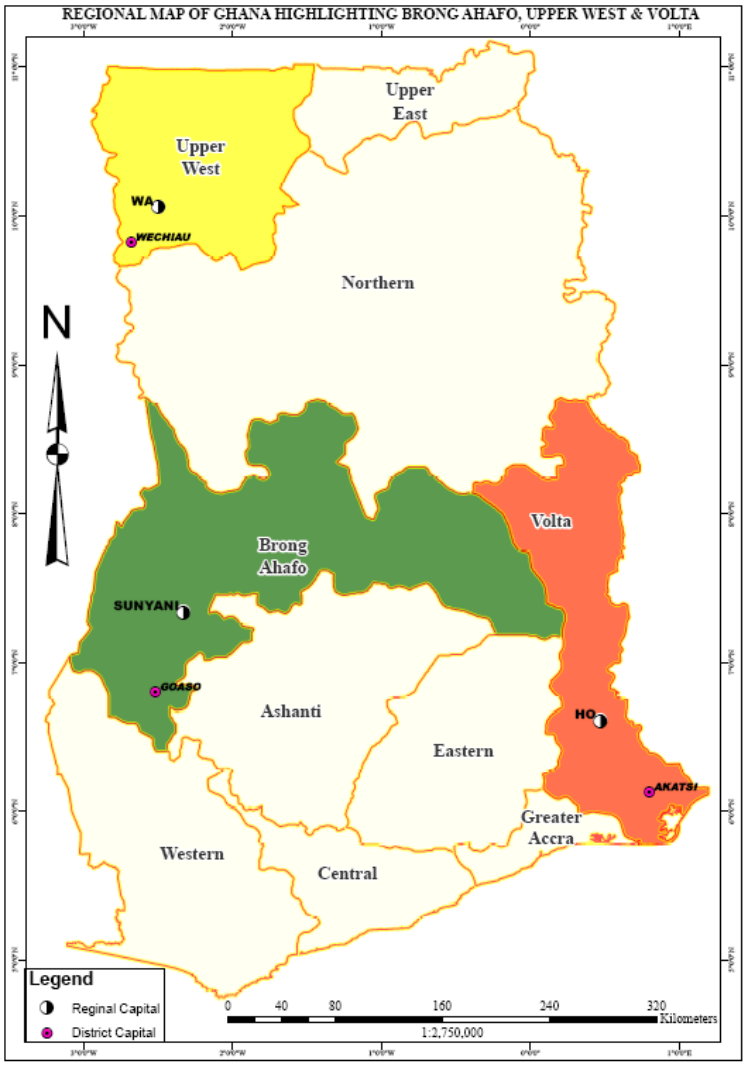
1.4 Study Locations

The rural transport study diagnostic shall be carried out on selected rural roads in three ecological zones to reflect the movements of passengers and small freight in the three broad geographical areas of Ghana. The three zones are the coastal savannah, middle forest belt and the Guinea savannah zone. Map 1 shows the three regions, namely the Volta, Brong-Ahafo and Upper West, which were proposed and agreed upon to respectively represent the ecological zones. Spatially, the Akatsi South District with Akatsi as its district capital represents the coastal savannah, while Asunafo North District with Goaso as its capital represents the middle forest belt and Wa West District with Wechiau as its capital represents the Guinea savannah zone.

1.5 Comments on the Terms of Reference

The Building and Road Research Institute (BRRI), as Consultants, have thoroughly studied the Terms of Reference (TOR) and scope of works and found them to be comprehensive and appropriate in understanding the current rural transport needs and preferences for different groups of road users, transport service providers, regulators and local development-related personnel for passenger and small freight transport.

Map 1: Regional map of Ghana highlighting Upper West, Brong Ahafo and Volta regions.



1.6 Main Deliverables

The following deliverables are required under the project.

- ***Inception Report:*** will include a concise review of previous international and national work relevant to this study and that will present a detailed programme, methodology and work plan (with identified survey locations). The inception report shall be submitted four (4) weeks from the project commencement date.
- ***Rural Transport Services Survey Reports:*** will comprise three objective component reports of the situation prevailing in the three transport catchment areas, providing, among other matters, data on the transport market, passenger and freight transport costs and frequencies and highlighting the perspectives of the users, operators, regulators and those concerned with socio-economic development. This

survey report shall be submitted within twelve (12) weeks from the project commencement.

- ***Draft Final Report:*** will describe the methodology and key findings and initial recommendations. There would be suggestions for further research studies and suggestions for possible changes to rural transport services practices, policies and strategies. The three rural transport services survey reports will be included as annexes to this report. The draft final report shall be submitted fourteen (14) weeks from the project start date.
- ***Final report:*** will be based on the draft report but shall also describe the methodology and key findings and recommendations that incorporate the feedback received from the draft report and the inputs from the stakeholder workshop. *A report of the stakeholder workshop* as well as the three final rural transport services survey reports will be included as annexes to this report. This shall be submitted eighteen (18) weeks from project commencement date.
- ***Policy Brief:*** shall be prepared being an attractive, illustrated AfCAP-branded four-page document summarising the rural transport services situation observed and key issues relating to policies and practices that can be circulated in Ghana and elsewhere. This is to be submitted together with a research paper twenty (20) weeks from the start of the project.
- ***Academically-oriented research paper:*** will be a paper of a standard suitable for an international peer-reviewed journal relevant to the transport sector. This shall first be submitted to AfCAP for review, comments and approval twenty (20) weeks from the start of the project.

1.7 Report Structure

The report covers six major chapters in total. The first chapter presents an overview to the project, highlighting the overall project objectives and main deliverables. Chapter two provides a brief background to the project with a concise review of literature relevant to the study in Ghana, while chapter three highlights the approach and methodology to tackling the rural transport services project. The activities at the inception phase covering the kick start meeting, literature searches and start of the field work have been presented in chapter four. Chapter 5 provides the revised work plan while the approach to management of the project is presented in chapter 6. References identified from the literature searches have also been provided.

2.0 BRIEF PROJECT BACKGROUND

2.1 Project Context

Since late 1990's, rural life in Ghana has developed considerably with noticeable changes in the dynamics of travel modes and transport services in most rural communities. For example, there is widespread availability and affordable access to motorcycles for both personal and commercial use, to cover short and medium distances and even in some cases long range distances. These have enabled improved access to off-road communities and offered new non-farm employment for young people. Mobile phones have also made a huge difference making it possible to request 'on-demand' rural transport services as well as making mobile-based money transfer accessible in some rural areas.

Despite these developments, rural areas across Ghana still suffer from the disadvantages of poor road access and inadequate transport services. Head-loading, predominantly by females, is still a dominant form of transporting domestic requirements and harvested agricultural produce. High levels of post-harvest loss associated with poor road infrastructure and inadequate transport services reduce household incomes and national agricultural production. Poor access to health services, particularly in medical emergencies, impacts negatively on efforts to reduce preventable deaths.

A legislative instrument passed in 2012, LI 2180 (road traffic regulations), prohibits passenger transport services on motorcycles or three-wheelers in Ghana. Nonetheless, there is blatant disregard of this traffic regulation especially in the rural communities where motorcycles and three-wheelers are common forms of rural transport, with motorcycles often the only form of motorized transport linking off-road villagers to the rural road network.

Earlier rural transport studies carried out in Ghana focused on village level travels taking place within the local area of the village (Dawson &Barwell, 1993; Barwell, 1996) and were therefore typically composed of very short distance trips. Some recent studies in Ghana have examined the off-farm transport needs of rural farmers (Danso-Wiredu, 2011) and the use of motorcycle taxi services in rural communities where mini-buses and saloon taxis find it difficult to operate (Nelson, 2016). Taiwo and Kumi (2013) also studied the effects of poor rural road conditions on transport fares and tariffs and established a positive correlation between poor roads and high transport charges. Danso-Wiredu (2011), the Ministry of Transport (2008) and Ellis and Hine (1998) have established that most journeys to markets by rural community dwellers in Ghana are conducted by motorised vehicles. The situation was however different in Northern areas of Ghana (DFID, 1998) where considerable less use was made of motorised transport. This current rural transport study, however, examines external trips undertaken by different groups of road users in rural communities, for various trip purposes involving medium to long distance transport movements, mostly greater than 5 km. The research study is expected to set the framework for understanding rural transport services in the three ecological zones of the country to enable appropriate solutions to be proposed and implemented.

2.2 Project Objectives

The overall objective of the project is to understand the existing rural transport systems in Ghana based on understanding the needs and perspectives of different transport users, transport operators, transport regulators and those responsible for socio-economic development with the view to identify constraining factors and relevant topics and to influence improvements in Ghana's rural transport services policies and practices.The other project objectives cover research, capacity building, uptake and embedment.

2.2.1 Research Objectives

The research objectives are:

- To explore the current state of rural transport in Ghana in light of the changing rural environment.
- To explore the reality of how rural communities organise their access to markets, services and opportunities against the background of increased access to motorcycles, widespread use of mobile phone coverage and changes to rural governance structures and economic foundations.
- To explore the current practices of transport services providers in terms of operating costs, charges, service frequency and quality, regulatory compliance and customer satisfaction with a view to identifying scope for improvements in service provision.
- To identify gaps in understanding of current rural transport needs and preferences for rural people (of different genders, age, occupations and abilities) for dependable and affordable passenger and small freight transport.
- To highlight opportunities for evidence-gathering, policy changes, strategic planning and practical ways of improving rural access and mobility in Ghana.
- To provide a platform on which further research, policy changes and practical improvements can be based.

2.2.2 Capacity Building

Capacity building and knowledge dissemination are integral parts of the AfCAP programme. The Consultants shall therefore engage with the assigned counterpart staff within the DFR and MoT to ensure that the knowledge acquired throughout the project is transferred and entrenched within the two agencies. The rural transport surveys will also provide opportunities for engaging with local stakeholders, including transport operators and local authorities and organizations, particularly during the data collection stage.

2.2.3 Uptake and Embedment

Uptake and embedment are key targets for AfCAP and would be so for this project. The Consultant shall ensure that the implementation and outputs of this diagnostic study will facilitate the uptake and subsequent embedment of improved practices, policies and strategies. The uptake and embedment may relate to policy and regulatory reforms in rural transportation in Ghana (at national and/or local levels), and/or operational practices of transport operators and other actors. The study will support the acquisition of knowledge and improved capacity of trained technical staff which is required for delivery of the development of the rural transport sector.

3.0 APPROACH AND METHODOLOGY

This Chapter presents the approach and methodology adopted to fulfil the scope of work for the project. The methodology for this study draws heavily on earlier studies carried out, particularly in other African countries relating to rural transport diagnostic surveys (Starkey, et al., 2013; Kemtsop and Starkey, 2013;Njenga, Opiyo and Starkey, 2013; Willilo and Starkey, 2012; Starkey, 2007a and 2007b).The advantage is that comparisons can readily be made with other African countries regarding the rural transport situation.

Some key features of this rural transport assessment methodology are that the data collected is tied to a particular rural road and its catchment area, and that it examines the framework of rural transport for the medium travel distance, that is beyond the village but below 75 km and that it is based on the 'rapid rural appraisal' method.

3.1The rapid rural appraisal method

The 'rapid rural appraisal' method is a form of qualitative research designed to allow one or more professional persons to survey, in a relatively short time, the transport services operating on a road in order to gain a quick understanding of the key issues, as well as to obtain some indicative qualitative and quantitative data (Starkey, et al., 2013). The data obtained for the rural transport services indicators are specific to a particular rural road selected for the research. For this study, rural transport services have been defined to include both passenger and freight transport services operating in rural communities in the range of 5 - 75 km. It means, short-distance transport within villages or long-distance transport along national and international transport corridors are not considered.

The rapid rural appraisal methodology for rural transport services uses the hub-and-spoke system. Starkey (2007) defines a hub as a central place where spokes both converge and radiate out. A transport hub is a key location where several routes and means of transport converge and diverge, while the spokes serve as the connecting channels and the transport modes plying the routes. For example, market towns or district towns with a large health centre, large market, secondary school and possibly a district level government may have 'spokes' leading to large villages (with a small health centre, primary school, small market) which may serve as hubs on their own with 'spokes' to outlying small villages, homesteads and fields. Market towns are nearly always important transport hubs. They serve as markets for rural communities and provide employment opportunities and access to public and commercial services. The area around any hub is known as a 'catchment area'. Whereas agricultural produce from local villages flows into a market town, the market town provides healthcare services, manufactured goods, secondary education and other social and technical services to people in the rural communities.

This rural transport diagnostic study uses exploratory and participatory methods with a relatively open agenda to understand the needs and perspectives of different groups of road users in different communities. It also aims to understand the requirements and perspectives of transport operators, transport regulators and those responsible for and knowledgeable of socio-economic development in the rural communities. The approach intends to provide in-depth understanding of the rural transport situation in Ghana with the view to identifying constraining factors and relevant research topics that will contribute to improvements in Ghana's rural transport services policies and practices. This study seeks to understand the nature and types of existing transport modes operating along the study roads and catchment areas, the services which they offer the users and the needs and preferences of the users for medium distance journeys in the range 5 - 75 km. The study ensures that the interviews conducted to solicit information from the transport users, is targeted and responsive to reflect the transport needs of different groups of people with different occupations, ages, gender and abilities. For each subgroup, a conscious effort is made to disaggregate the respondents into males and females to ensure gender balance in the views expressed by the various

groups of transport users and to note gender differences in needs and preferences. Efforts are also made to include marginalized groups in the sample.

The use of the rapid rural appraisal methodology enables to knowledgeably extrapolate and to produce some valuable 'order of magnitude' estimates relating to movement of people and goods in the rural communities, the costs of transport, trends and the problems and solutions from the point of view of various key stakeholders.

3.2 Targeted stakeholders for field interviews

The stakeholders targeted to be interviewed include:

i. transport users (farmers, traders, school teachers, household managers, health service providers, patients, students, elderly, people with disabilities) and a few potential users,

ii. transport operators (motorcycle taxis, car taxis, mini- and midi-buses, etc),

iii. authorities (government, transport regulators, enforcers, national and local),

iv. supporting services (suppliers, repairers, and financial services)

Data to be obtained from users includes some recalled figures relating to prices, recent trends in transport, safety and security issues associated with the surveyed road, schedules and waiting times on normal, busy and disrupted days. Respondents may also be asked to share transport problems from their perspective and provide suggestions for improving the situation.

3.3 Proposed tasks necessary to achieve the project objectives

1. Literature review of previous international and national work relevant to the rural transport study in Ghana.
2. Selection of candidate feeder roads based on the hub and spokes method for the assignment.
3. Ensuring smooth community entry by clearly explaining the study objectives to the community leaders for their maximum support, identifying and hiring an interpreter where necessary for the interviews.
4. Conducting the interviews with the inhabitants along the identified routes and with those in the catchment areas bearing in mind the need for gender balance and having road users of different occupations, ages and abilities; and with transport operators, regulators and development-related persons.
5. Geo- referencing of all survey locations and carrying out prompt triangulation of field data to ensure consistency and accuracy of field data.
6. Hiring and training of enumerators for the classified traffic counts. The traffic categories shall include traditional motorised vehicles, IMTs and NMTs and conducting the counts on market and non-market days on selected representative spokes.
7. Undertaking field data entry and cleaning of data using standard Excel Spreadsheets.
8. Carrying out detailed analysis to establish the 'rural transport premium' for each study area and transport users preferences and needs.
9. Submission of three Survey Reports, one for each study area, and a Draft Final Report describing the methodology and key findings and initial recommendations.
10. Conducting a Stakeholders' consultative workshop to discuss the draft final report and the three rural transport services survey reports to agree on the recommendations and policy-related issues for improved rural transport services and writing a Stakeholders Workshop report.

11. Submission of a Final Report based on the draft final report and the discussions held at the stakeholder workshop
12. Submission of a Policy Brief summarising the rural transport services situation observed and key issues relating to policies and practice and circulating the material in Ghana and elsewhere.
13. Submission to the AfCAP technical management for approval an academically-oriented research paper fit for an internationally peer-reviewed scientific publication.

3.4 Stakeholder Workshop

A workshop involving stakeholders of project partners shall be organised in Accra at DFR on completion of the survey reports and the draft final report. The workshop shall adopt the participatory approach of discussions, soliciting views from the project partners to help shape the draft final report. In particular, the key findings shall be thoroughly discussed to feed into the formulation of policy and practices in rural transport services in Ghana. A workshop report shall be submitted to the AfCAP Steering Committee in Accra.

4.0 ACTIVITIES AT THE INCEPTION PHASE

4.1 The Kick-start and consultative meetings

The kick-start meeting for the AfCAP/ReCAP Rural Transport Diagnostic Study in Ghana was held on 20thDecember, 2016 at the Conference Room of DFR, Accra, starting at 3:30 pm. Proceedings of the meeting have been summarised and presented as Appendix 1.

Following the arrival of the Technical Adviser (TA) in Accra on Sunday, January 8, 2017, a series of consultative meetings were arranged by the Team Leader for the TA the following day to pay courtesy calls on the Management of DFR, AfCAP Technical Manager and the Chief Directors at both the Ministry of Roads and Highways (MRH) and Ministry of Transport (MoT).

4.2 Literature searches

Desktop studies to review literature on previous international and national work relevant to the rural transport study in Ghana have been conducted as part of the inception phase and will be ongoing for the purpose of the other outputs, including the final report and academic journal.

4.3 Selection of routes for the rural transport surveys

The project procured road maps, which were detailed (1:50,000) but unfortunately quite dated, from the Ghana Survey and Mapping Department, Accra, to guide in proposing candidate roads in the three ecological zones for the field studies. Reconnaissance surveys were carried out by driving on the proposed roads to identify rural roads suited to the 'hubs and spokes' criteria with a minimum road length of 15 km.

The reconnaissance surveys commenced in the Brong Ahafo region, on January 10, 2017. Guided by the road maps, the team drove on potential candidate rural roads located in the Asutifi North and Asunafo North Districts after which the Ayomso-Gyasikrom rural road in the Asunafo North District was selected for the study. Towns and villages serving as market hubs were then identified. Other eligible rural roads for the study were selected in a similar manner after initial identification of the candidate road on the map. Table1, presents the details of the selected roads for the study.

Table 1. Selected study roads and main market centres in the three ecological zones

Ecological Zone	**Region**	**District Name (Capital)**	**Selected Rural Road**	**Road Length; Road Type**	**Main Market Centre**
Middle Forest Belt	Brong Ahafo	Asunafo North (**Goaso**)	Ayomso - Gyasikrom	18.1 km; Unpaved Gravel road	Goaso
Guinea Savannah	Upper West	Wa West (**Wechiau**)	Tokali - Wechiau - Wa	47.4 km; Unpaved Gravel road	Wa, Wechiau, Vieri
Coastal Savannah	Volta	Akatsi South (**Akatsi)**	Abor - Avenorpeme - Hatorgodo	15.1 km; Paved, Surface Dressed road	Akatsi, Abor

5.0 THE REVISED WORK PLAN

5.1 Rationale for the revision

Figure 1 shows the revised work plan. It was revised to accommodate the field visits of the TA during his 3-week stay in Ghana from January 8 - 28, 2017. This allowed him to assist the study team straightaway with the field work, making it possible also for him to travel to all the selected study sites for the rural transport study in the three ecological zones in Ghana.

5.2 Milestones and Deliverable Schedule

The milestones for the deliverable are presented in Table 2.

Table 2. List of Milestones and Deliverables as per the TOR.

Item No.	Milestones	Timing Schedule (weeks)
1	Inception Report	4 (9)
2	Rural Transport Services Survey Reports	12 (13)
3	Draft Final Report	14 (15)
4	Final Report	18 (18)
5	Policy Brief and Academic Paper prepared for submission	20 (20)

There has been a slip with the submission of the Inception report because the project could not be properly managed during the Christmas and New Year holidays. Numbers between brackets indicate anticipated submission dates of milestones in weeks after the commencement of the project.

NO.		ACTIVITY	ACTIVITY DURATION (WEEKS)																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		Dates				12/1/2017									12/3/2017					19/4/2017		3/5/2017
1		KICK OFF/INCEPTION																				
	1.1	Desk Study																				
	1.2	Stakeholder Consultations (DFR, MRH, MoT)																				
	1.3	Field Reconnaissance Survey																				
	1.4	Final Selection of Roads, Site Locations, etc.																				
2		DATA COLLECTION																				
	2.1	Design of Survey Instruments																				
	2.2	Training of Enumerators/Interpreters																				
	2.3	Data Collection in Brong Ahafo Region																				
	2.4	Data Collection in Upper West Region																				
	2.5	Data Collection in Volta Region																				
3		DATA MANAGEMENT AND ANALYSES																				
	3.1	Triangulation/Entry/Analyses for Brong Ahafo																				
	3.2	Triangulation/Entry/Analyses for Upper West																				
	3.3	Triangulation/Entry/Analyses for Volta																				
	3.4	Final Analyses and Wrap-up																				
4		WORKSHOPS & REPORTS																				
	4.1	Stakeholder Workshop																				
	4.2	Inception Report Preparation																				
	4.3	Survey Reports Preparation																				
	4.4	Draft Final Report Preparation																				
	4.5	Final Report Preparation																				
	4.6	Policy Brief & Manuscript Preparation																				
	4.7	Submission of Inception Report																				
	4.8	Submission of Survey Reports																				
	4.9	Submission of Draft Final Report																				
	5.0	Submission of Final Report																				
	5.1	Submission of Policy Brief & Journal Paper																				

FIG 1: REVISED WORKPLAN

6.0 APPROACH TO MANAGEMENT OF THE PROJECT

6.1 Overall project management and quality control

The Team Leader shall be in charge of the overall management as well as the day-to-day management of the project. He would check all the project outputs and services to ensure that they meet the intended objectives and expectations of the project and that they have value to the stakeholders, especially DFR and MoT. Data input from the field such as the classified traffic counts and data from the field interviews would be checked and appropriately triangulated for quality and cleaned before incorporating them in the excel spreadsheets/dataset for the rural transport surveys for further analysis.

He shall liaise with the International Technical Adviser in the planning, implementation and reporting. Whereas, the Team Leader shall be responsible for submitting all the deliverables, the International Expert shall have a special responsibility for research excellence and quality assurance for successful implementation of the project. The Consultants shall hold regular brainstorming sessions with the local team members to check whether the project objectives and expectations of the stakeholders, especially the management of DFR, are being met. The project team will consult with the staff at DFR and those at MoT, Accra. The Consultants shall also check the various input processes to ensure that no irregularities or mistakes occur, which can affect the quality of project deliverables.

6.2 Monitoring and Evaluation

Monitoring and Evaluation (M&E) of a project is required for an effective governance of the project. It offers the needed transparency from inception through to the close of the project. The consultants shall therefore keep internal records to track progress of project activities, processes and output indicators. We shall report on the progress and findings of the work, aimed at providing all the key stakeholders with early detailed information on the progress of the ongoing activities.

The consultants would monitor and evaluate the project in close consultation with the stakeholders. The key stakeholders shall be engaged right from the start of the project as was done at the kick-off meeting through to the end of the project. The Consultants shall ensure accountability to the key stakeholders by providing timely and useful information for effective decision making on the progress of work. Assignments being carried out by other team members are closely monitored to ensure quality and consistency.

All relevant comments raised during the planned workshop would be incorporated in appropriate project reports and such comments would be utilized to improve the overall objective of the project.

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APPENDIX1:

MINUTES OF THE KICK START MEETING HELD ON DECEMBER 20, 2016 AT THE DFR CONFERENCE ROOM, ACCRA

Introduction

The kick-start meeting for the AfCAP/ReCAP Rural Transport Diagnostic Study in Ghana was held on 20thDecember, 2016 at the Conference Room of DFR, Accra, starting at 3:30 pm. The meeting was attended by the management of DFR and the project team from BRRI. The MoT representative, however, could not attend the maiden meeting. The DFR Representatives were introduced to the Project Team by the Deputy Director, Planning (DDP), DFR. The Director, DFR, then gave a brief overview of the ReCAP programme in DFR, highlighting the rural transport diagnostic study. The Project Team Leader also made a presentation stressing the main objectives of the rural transport study and the proposed approach for execution of the project.

The meeting was attended by:

1. Mr. F.O.M. Digber	Director, DFR
2. Dr. K. Osafo Ampadu	Deputy Director, Planning, DFR
3. Ing. Francis Kwaku Afukaar	Project Team Leader, CSIR-BRRI
4. Dr. James Damsere-Derry	Project Member, CSIR-BRRI
5. Simon Ntramah	Principal Technical Officer, CSIR-BRRI
6. Martin Kwasi hMensa	Assistant Engineer, DFR
7. Kwabena Afrifa	Assistant Engineer, DFR
8. Eric Kofi Forson	Assistant Engineer, DFR
9. Mawusi Joseph Adekponya	Assistant Engineer, DFR
10. K. N. Akosah-Koduah	Chief Engineer, DFR
11. Nathan N. Odjao	Bridge Engineer, DFR
12. Dr. Patrick Amoah Bekoe	Snr. Engineer, Planning, DFR
13. K. Omane-Brimpong	Principal Engineer, DFR
14. S.N. Sarpei-Nunoo	Chief Engineer, DFR
15. Bernard Badu	Chief Engineer, DFR

Discussion Points of the Meeting

The following were discussed at the meeting:

- It was mentioned that the aim of the project among others was to help understand the existing rural transport systems in Ghana in the light of the changing rural environment. This shall involve understanding the needs and preferences from the perspectives of different transport users in the rural communities, transport operators, transport regulators and those responsible for socio-economic development with a view to identifying constraining and influencing factors in Ghana's rural transport services to inform policies and practices.
- The Consultant mentioned that the studies would be conducted in three ecological zones of the country and that the Upper West Region, the Brong Ahafo Region and the Volta Region have been selected to respectively represent the Guinea Savannah Zone, the Forest (Middle) Zone and the

Coastal Savannah Zone. These regions were selected to ensure equity in the distribution of AfCAP projects currently taking place in Ghana, since AfCAP's presence had been in the Northern, Ashanti, Eastern and Central Regions.

- The house was informed that the project is a 20-week project and that six main deliverables are expected which include the inception report, rural transport survey reports, draft final report, final report, policy brief and an academically-oriented research paper.
- The team for the project was composed of one Ghana Transport Expert in the person of Ing. Francis Kwaku Afukaar (Team Leader) from the CSIR-BRRI who would be supported by Dr. James Damsere-Derry, a Transport Geographer, working in partnership with an International Technical Adviser and Rural Transport Expert, Dr. Krijn Peters, from Swansea University. There shall also be counterpart staff from the DFR and Ministry of Transport (MoT), and field supervisors for the traffic counts.
- The choice of representative districts for the ecological zones was discussed at length. Some of the districts which came up for consideration for the Brong Ahafo Region included the Techiman Municipality, the Nkoranza South Municipality, and the Nkoranza North District. This was to determine the transportation of agricultural produce to the main markets. The Sene West and Sene East Districts were also suggested. There was also a suggestion to include the Tapa Abotoase area in the Biakoye District of the Volta Region because of the water transportation on the Volta Lake which is used by the people to access markets. It was however realized that the Biakoye district was in the transitional zone and thus would not be representative of the Coastal Savannah ecological Zone required for the study.
- It was therefore, agreed that since the selected districts should be rural in nature and representative of the ecological zone, accodingly for the Brong Ahafo Region, the selected district should be in the forest part of the region and that the southern part of Volta Region would represent the coastal savannah zone and the Upper West Region would be for the Guinea savannah zone.
- There was a suggestion to use an electronic data collection tool such as the KoBo Collect or the ODK tool.

When all discussions had been exhausted the Deputy Director, Planning, gave his closing remarks and the meeting was adjourned at 4:30pm.