Sustainability of community-managed projects in the North West Region of Cameroon

Victor Agha-Ah Mah

Supervised by:
Dr Julia Shaw
Dr Gordon Bowen

A thesis submitted to Cardiff Metropolitan University in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

2016
Declaration

This thesis is a product of my own work and no portion of it has been submitted in support for another degree to this university or other institutions of higher learning. The contents of the thesis are not the result of anything done in collaboration and the author takes responsibility of any errors herein contained.
Dedication

To God, the Almighty, for keeping me healthy throughout this process
Acknowledgements

I would like to thank my supervisor, Dr Gordon Bowen and Director of Studies, Dr Julia Shaw, for the invaluable guidance offered me through constructive comments during this research. My appreciation to Prof Eleri Jones, Prof Don Harper and Dr Nandish Patel for the assistance and involvement in the PhD programme at London School of Commerce and Cardiff Metropolitan University will be unforgettable. I appreciate the intellectual and valuable comments of Prof Peter Abell and Prof Robin Matthews to my research strategy and interview questionnaire.

My sincere gratitude goes to all participants who took part in both the interview process and questionnaire administration that provided me with better insights into what is here presented. The challenges encountered were there to strengthen me and to ensure the attainment of the research objectives designed to guide this study. Finally, my greatest appreciation is to my wife and my parents for their relentless moral and financial support throughout the course of my study.
Abstract

There is wide recognition among contemporary researchers that sustaining community-managed projects in rural areas remains a herculean challenge. Empirical evidence shows that about 65% of community-managed projects in sub-Saharan Africa including Cameroon are not sustainable. Community management is one of the strategies widely adopted by project providers at grassroots levels to ensure the sustainability of community projects, yet sustaining these projects after the departure of donor agency has remained a difficult task. It was in furtherance of this approach that this study set out to gain insights into why sustaining community-managed projects in the NWRC after being handed down to the grassroots has proven to be challenging despite the widespread popularity of community management as a bottom-top development strategy that allows grassroots community members to have overall support for their project ongoing operations.

The study was guided by five objectives, and data were collected through 4 focus group discussions held with projects end-users, 12 interviews granted to project committee staffs, traditional authorities and political elite. Additional data were gathered through a survey questionnaire administered to 77 respondents in the four chosen community-managed project sites, documentary review and on-the-spot appraisal of projects. Qualitative and quantitative analyses of the data paved the way for the drawing up of meaningful conclusions and suggestions of ways to improve the sustainability of community-managed projects in the NWRC.

What emerges from the data collected, analysed and interpreted enabled the study to conclude that the strategies adopted so far by community project providers in the NWRC were not effective. The implementation of these projects disregarded the traditional beliefs and practices of end-users and engendered loss of access to shrines, groves and forest-based or water-based resources without providing alternatives. The findings equally show that increasing temperature and reducing amount of rainfall result in a greater incidence of bushfires, which threaten the sustainability of some community-managed projects. Handing down project management to a local community is not synonymous with sustainability. If community-managed projects are to be sustainable, they require the project end-users to have a real sense of ownership and control over the project’s ongoing operations as well as an increase in governance capacity and environmentally friendly practices.
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### Acronyms

<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>BACODA</td>
<td>Bali Community Development Association</td>
</tr>
<tr>
<td>BACOWAS</td>
<td>Bali Community Water Supply</td>
</tr>
<tr>
<td>CEMMON</td>
<td>Centre for Environmental Management and Monitoring</td>
</tr>
<tr>
<td>CMPs</td>
<td>Community-managed projects</td>
</tr>
<tr>
<td>CIGs</td>
<td>Common Initiative Groups</td>
</tr>
<tr>
<td>CWP</td>
<td>Community Water Project</td>
</tr>
<tr>
<td>CEP</td>
<td>Community Electrification Project</td>
</tr>
<tr>
<td>CFP</td>
<td>Community Forest Project</td>
</tr>
<tr>
<td>CF</td>
<td>Community Forestry</td>
</tr>
<tr>
<td>CAQDAS</td>
<td>computer-assisted qualitative data analysis software</td>
</tr>
<tr>
<td>°C</td>
<td>Degree Celsius</td>
</tr>
<tr>
<td>DFMIs</td>
<td>Delegate for Forest Management Institutions</td>
</tr>
<tr>
<td>ETM</td>
<td>Enhanced Thematic Map</td>
</tr>
<tr>
<td>EBSCO</td>
<td>A database for online information services (EBSCO is an acronym for Elton B. and Stephen Co. created in 1944)</td>
</tr>
<tr>
<td>EThOS</td>
<td>E-theses online service</td>
</tr>
<tr>
<td>FMA</td>
<td>Forest Management Agreement</td>
</tr>
<tr>
<td>FMIs</td>
<td>Forest Management Institutions</td>
</tr>
<tr>
<td>FMOs</td>
<td>Forest Management Officers</td>
</tr>
<tr>
<td>FUDA</td>
<td>Fujua Development Association</td>
</tr>
<tr>
<td>FUVIDA</td>
<td>Fundong Village Development Association</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HEP</td>
<td>Hydro-Electric Power</td>
</tr>
<tr>
<td>HEVELTAS</td>
<td>Swiss Association for International Cooperation</td>
</tr>
<tr>
<td>INC</td>
<td>Institute for National Cartography</td>
</tr>
<tr>
<td>KIFP</td>
<td>Kilum-Ijim Forest Project</td>
</tr>
<tr>
<td>KCWP</td>
<td>Kumbo community Water Project</td>
</tr>
<tr>
<td>LMI</td>
<td>Local Management Institutions</td>
</tr>
<tr>
<td>MENDU</td>
<td>Mentang Development Union</td>
</tr>
<tr>
<td>MCFs</td>
<td>Management of Community Forests</td>
</tr>
<tr>
<td>MM</td>
<td>Millimetre</td>
</tr>
<tr>
<td>NGOs</td>
<td>Non-governmental Organizations</td>
</tr>
<tr>
<td>NWRC</td>
<td>North West Region of Cameroon</td>
</tr>
<tr>
<td>SATA</td>
<td>Swiss association for Technical Assistance</td>
</tr>
<tr>
<td>SNEC</td>
<td>Société Nationale des Eaux du Cameroun</td>
</tr>
<tr>
<td>SDC</td>
<td>Swiss Agency for Development and Cooperation</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>USB</td>
<td>Data storage device (meaning Universal Serial Bus)</td>
</tr>
<tr>
<td>VDAs</td>
<td>Village development associations</td>
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<tr>
<td>WWF</td>
<td>World Wide Fund for Nature</td>
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Author’s Publications

Two international conference papers

1) Stakeholder Networking: Sustainable Community Development in Emerging Countries
2) Vulnerability of rural communities in the developing countries

Academic journal papers

1) A case study on the significance of indigenous socio-cultural practices to the sustainable management of community projects in sub-Saharan Africa (pending publication)
2) Strategies for enhancing the cultural legitimacy of mitigation and adaptation to climate change in Africa (pending publication)
Chapter 1

1.0: Introduction

The world has entered an era of competition in which communities strive to become great places to live. Today the biggest incentive for tourists and investors to move to a new community is the living conditions (Komives et al., 2006; Park, Lee, Choi, & Yoon, 2012). This implies that better living conditions in communities are a key attraction factor. With this in mind, most rural communities in less developed countries are running a series of projects in a bid to enhance living conditions for the present and subsequent generations by utilizing skills and resources available locally (Aksorn & Charoenngam, 2015; Gilmore & Standaert, 2013). However, sustaining these community projects at the grassroots level across the developing countries, notably in sub-Saharan Africa including Cameroon, remains a difficult task after the departure of donor-supported agencies (Sally et al., 2013; Anselm, 2013; Njoh, 2011).

This thesis argues that despite the widespread popularity of community management as a bottom-up development strategy that allows grassroots community members to have overall responsibility for their projects’ ongoing implementation, it is not a prerequisite for sustainability. It is not just the handing down to a local community of a project management task that will ensure its sustainability. Community management does not automatically lead to community project sustainability, nor should it have to. If community-managed projects are to be sustainable, they require the project end-users to have a real sense of ownership and control over the projects’ ongoing operations. Even the sense of ownership and control of grassroots projects among local communities is influenced by factors.
There is scarce empirical research conducted on the underlying factors undermining the sustainability of community-managed projects in poor rural communities of the North West Region of Cameroon (Njoh, 2011; Fonchingong, 2009; Fonjong et al., 2004; Ngwa, 2002). This study fills the gap by examining four community-managed projects (CMPs) in order to gain insights into why sustaining community-managed projects at the grassroots remains a difficult task after the departure of donor supported agency.

1.1: Background Context

In the context of this study, community-managed projects are those projects serving rural or urban dwellers set up either by governmental, non-governmental or private agents but currently operated locally by grassroots residents who are neither highly skilled nor professional project managers (Sally et al., 2013; Whittington et al., 2009; Fonjong et al., 2004). Yet these projects, particularly in the North West Region of Cameroon, are still faced with challenges that threaten their successful functioning in the long term. Some of these projects suffer from irregular maintenance; many find it difficult to truly be financially and functionally viable. Examples of projects implemented by these poor and vulnerable communities in the North West Region of Cameroon include pipe-borne water, irrigation schemes, community schools, health centres, rural electrification scheme, forest conservation, building of bridges, roads, halls and dams (Sally et al., 2013; Njoh, 2011; Fonjong et al., 2004).

Therefore, community management model is one of the strategies widely endorsed to drive rural communities into being self-reliant and to enable them to have greater control and responsibility over the running of their basic projects (Nkonya et al., 2012). As a result, a growing number of grassroots organizations are initiating
efforts to simultaneously address their environmental, economic, and socio-cultural constraints (Kanayo et al., 2013); to increase community wellbeing and secure the long-term health of the human and natural systems at local levels (Leventon et al., 2014).

The objective of maximizing wellbeing in deprived rural and peri-urban areas has been a major driving force behind the adoption of community management of projects by both national and international developmental agencies, notably the World Bank (Nkonya et al., 2012; Opare, 2011). It is generally defined as the process whereby the responsibility for ongoing implementation of community projects is being transferred from project donors to project end-users (Sally et al., 2013; Harvey & Reed, 2007). It is argued that community management allows local communities to have a greater say in the management of their own projects (Labonne & Chase, 2011; Ndiaye, 1999). By this is meant that the beneficiary communities will have full authority and control over the ongoing implementation of their basic needs. The fundamental idea behind the concept of community management is that the beneficiary communities of a project should have a major role in its planning and ownership, and should have overall responsibility for the project operation and maintenance.

The assumption is that it instils a sense of ownership and responsibility, and can subsequently nurture local relationships, all of which impact positively on sustainable management of local schemes (Turner, 2009). In most parts of the developing world, especially in the sub-Saharan Africa, community management is fulfilled through the formation of community-based organizations that are responsible for implementing, setting and collecting tariffs and managing project maintenance and repair activities (Padawangi, 2010). This means that community members are
expected to contribute in kind or in cash to meet all ongoing maintenance and repair costs through the regular payment of appropriate project tariffs.

Despite the popularity of community management as a strategy that enables local communities to gain full control over the ongoing operations of community-driven projects and to effectively reach out to poor and vulnerable groups within deprived areas, it is still being questioned (Nkonya et al., 2012; Mansuri & Rao, 2004). Empirical evidence on the sustainability of community-managed projects in less advanced countries in general and Cameroon in particular remains mixed (Njoh, 2011; Fonjong & Fonchingong, 2005). Among the interesting questions capturing the attention of researchers is the sustainability of donor-supported community projects (Komovis et al., 2009; Akinbile, Oladoja, Awoniyi & Adisa, 2006). It is currently estimated that over 40% of all community-managed projects in Africa are not functional (Padawangi, 2010; Ademiluyi & Odugbesan, 2008). Recent figures from individual sub-Saharan African states show operational failure rates of about 35% to 60% (Harvey & Reed, 2007; Fonjong et al., 2005).

The limited sustainability of community-managed projects has been attributed to community management deficiencies such as weak cost-recovery mechanisms, inadequate trained project managers and technicians at grassroots level, and weak local institutions (Spaling, Brouwer & Njoka, 2014; Morris & Hieu, 2008; Datta, 2007). For instance, Njoh (2011) observing two water supply schemes in the South West Region of Cameroon, argued that the influence of the political elite, corrupt administrative officials and the perceived lack of real ownership by community members led to the failure of the community water supply scheme in Mpondu. In the same vein, making allusion to the community-managed water project in Buea, Sally et al. (2013) elucidated that water maintenance and extension services are seldom
implemented effectively due to the inadequacy of trained personnel and a population increase in the locality.

1.2: Research Rationale

In the developing world such as Africa most rural communities are reservoirs of misery and abandonment (Tran, Hallowell & Molenaar, 2015; Ezzat, 2013; Njoh, 2011). For instance, the availability of basic human necessities such as reliable pipe-borne supply of water, health care, education, electricity supply services and road infrastructures are in the most part lacking or insufficient. According to Fonjong et al. (2010), lack of basic amenities in rural communities has most often been levied on government weak and inbalance development policies that seems to focus development in urban areas to the detriment of the rural or village areas. Paradoxically, these lagging rural communities have been noted to be the breadbaskets of most less economically developed countries since they produce food in sufficient quantity to feed themselves and the thickly populated urban areas (Bado, 2012; Fonjong et al., 2004). These poorly equipped rural communities go even further to harvest extra produce such as banana, cassava, maize, bean, groundnut, cocoa, coffee, palm oil and honey as well as fruits for both household consumption and commercialization (Kometa and Ebot, 2010; Fonchingong & Ngwa, 2005).

Unfortunately, these rural communities possess very little information about most critical national issues; as a result, they are easily manipulated during many national decision-making processes (Njoh, 2011; Fonchingong & Ngwa, 2005). At the same time these rural communities contribute a high percentage of the gross domestic product (GDP) of less economically developed nations including Cameroon but receive the least of it (Emeh, 2012; Akinbile et al., 2006). Even wellbeing projects
such as care homes, health centres, natural reserves, pipe-borne water and electricity supplies, which are basic necessities in the 21st century, are hard to find in most rural communities of Cameroon and even the few existing ones are most often not sustainably managed (Sally et al., 2013; Alasah, 2011, Fonjong et al., 2004).

However, the benefits of supplying a more convenient, reliable and safer drinking water or electricity to local communities in the less economically advanced countries have actually been the subject of a wide-ranging research effort during the past few decades. Most research has dwelled on the existing rapour between participation and community project effectiveness, on the efficacy of community projects in ameliorating wellbeing, on the factors and effects of differential access and control of rural projects especially with respect to gender, and on the role of financial constraints on the dwindling sustainability of community-driven initiatives (Opare, 2011; Njoh, 2010; Akinbile, 2006; Fonjong et al., 2004; Rondinelli, 1999).

In addition, research has revealed that over one billion people have gained access to improved basic social amenities such as pipe-borne water and hydro-electric supplies in recent years and approximately 750 million now are either served by reliable water or hydro-electric power or both in spite of persistent drawbacks in the implementation of community projects (Kleemeier, 2010). The United Nations development programme report of 2011 does acknowledge much of this progress, describing it as a giant step forward in community development efforts especially in sub-Saharan Africa. This is because an estimated 40% of community-managed projects in developing countries are described as being not effectively functional (Marks & Davis, 2012; Harvey and Reeds, 2007).
Specifically, in sub-Saharan African countries including Cameroon, about 551 million people, representing 55% of the total population are without sustainable access to hydro-electricity and safe pipe-borne water service, while more than half (300 million) are children and women (Njoh, 2011; Fonjong et al., 2004). The World Bank in the year 2009 alone was directly engaged in over 600 rural community water, electrification and forest conservation projects and had an approximate capital commitment to them of more than U.S. $30 billion (Mansuri, 2013; Fonchingong & Ngwa, 2006). The recent United Nations conference on Climate Change and Sustainable Development held in Paris in 2015 underscored the need to provide more support to the developing countries where over 3.5 billion people do not have sustainable access to basic needs (Whittington et al., 2009).

Despite this plethora of literature on sustainable management of community projects, its constituent core elements and its potential to sustainably deliver services that are more responsive to local needs (Rautanen, van Koppen, & Wagle, 2014; Crow, 2013; Whittington et al., 2009; Gleitsmann, Kroma, & Steenhuis, 2007), there are scarce empirical studies that have investigated the association between the sustainability of community-managed projects and underlying socio-cultural and environmental constraints on communities (Marks, Komives & Davis, 2014; Bele et al., 2013). Consequently, the underlying factors behind the dwindling sustainability of community-managed projects remain only partially understood.

According to Newton et al. (2015); Fonjong et al. (2013) and Harvey and Reed (2007) the region of the world where the research gap is most acute is sub-Saharan Africa. Sub-Saharan Africa including Cameroon is the region with the highest failure rate of basic needs projects such as delivering reliable water and hydro-electric power services (Wilbanks & Wilbanks, 2010; Komivis et al., 2009;
Whittington et al., 2009). The United Nations Development Programme (2003) thinks that the water and electricity crisis in Africa is not an issue of sub-Saharan Africa alone but that of the entire developing world. It described Africa as „water-stressed” in 2003 due to factors such as poor management and adverse climatic conditions. As of now, information is thin about which factors have been effective, under what conditions, and to what extent they have hampered the sustainability of community-managed projects in sub-Saharan Africa including Cameroon.

1.3: Problem Statement and Its Significance

It has been argued strongly that the sustainability of community-managed projects in sub-Saharan Africa is riddled by severe shortcomings in existing management practices (Crow, 2013; Njoh, 2011; Alasah, 2011). Most problems with community-managed projects usually occur within 1-3 years after the commissioning of the approved project (Komovis, 2009; Harvey and Reed, 2007; Fonjong et al., 2004). Within the context of the North West Region of Cameroon, a wide range of challenges that cut across socio-cultural, technical know-how, governance, economic and environmental domains hinder the sustainability of community-managed projects (Sally et al., 2013; Njoh, 2011; Kometa & Ebot, 2010). The first challenge emanates from the fact that the management of community projects often relies on voluntary inputs from community members, which people may make for a while but are reluctant to continue in the long term. This challenge is made more serious by the fact that there are usually no long-term incentives for community members (Fonchingong, 2009; Harvey & Reed, 2007).

Secondly, it is argued that vital members on project committees do leave the community or die and sometimes there are no mechanisms to replace such members...
with other individuals having similar capabilities (Crow, 2013; Harvey and Reed, 2007). The third challenge to the sustainability of community-managed projects is the fact that community organizations charged with the management of the projects lose the trust and respect of the community members (Atangana, 2012; Fonjong et al., 2012). Similarly, Padawangi (2010) suggested that the causes of the loss of respect and trust may be related to lack of transparency and accountability, and lack of regulation by the institution in charge (Opare, 2011; Ankinbile, 2006).

Fourthly, the failure by individual community members to contribute maintenance fees usually leads to disillusionment among project committee members and often affects community cohesion (Kaunda, Kimambo & Nielsen, 2012; Fonchingong, 2009). Another major challenge in the management of community projects is that the beneficiary communities seldom have contact with the project implementing agency (Njoh, 2011). Marks and Davis (2012) put forward a similar viewpoint when they argued that the high rate of project failure in sub-Saharan Africa is due partly to the absence of contact between community project providers and end-users, and partly to the community project providers’ limited knowledge of the socio-cultural and anthropological background of end-users. Communities in the North West Region of Cameroon experience similar issues (Alasah, 2011; Kometa & Ebot, 2010; Fonjong et al, 2004) as will be depicted with community forest management and the community supply of hydro electricity and potable water.

Given the low sustainability of community-managed projects in Cameroon in general (Fonchingong, 2009; Fonjong et al., 2005) and in the North West Region in particular, it becomes important to understand why community-managed projects have had such limited sustainability (Njoh, 2011; Harvey & Reed, 2006). This study therefore attempts to find out whether deficiencies in the existing community
management have any significant impact on the sustainability of community-managed projects, and under what conditions the sustainability of community-managed projects in the North West Region of Cameroon could be guaranteed.

Despite the existence of extensive literature on community-managed projects and the sustainability problems they face in developing countries (Njoh, 2011; Ademiluyi & Odugbesan, 2008; Mansuri & Rao, 2004), as of now little emphasis has been placed on the issues of the lack of understanding of the socio-cultural background of project end-users and inadequate co-ordination of resources between stakeholders at grassroots level for community forest management, potable water supply and power generation. On the basis of the issues raised so far on the sustainability of community-managed projects in the North West Region of Cameroon, the core problem can be formulated as “community-driven projects in the North West Region of Cameroon have had limited sustainability and it is necessary to explore the conditions under which community-managed projects in the region can be effectively sustainable”. This statement of the problem can be segmented and modelled into five sub-problems as shown in Figure 1.1 below.

- Funding challenges (maintenance and repairs cost recovery difficulties): Ridde (2003); Njoh (2011)
- Technical challenges (limited qualified or trained technicians or managers): (Minang, Bressers, et al., 2007); Sally et al. (2013)
- Socio-cultural challenges (project providers have limited knowledge of the socio-cultural and anthropological background of end-users): Justine et al. (2012); Fonchingong, (2005)
- Governance challenges (transparency, accountability, role of the law, confidence in persons implementing community projects): Emeh Eke et al. (2012); Renou (2010); Proenca (2003)
- Environmental challenges (associated with topography, climate variability and change): Kometa & Ebbot (2012); Bele et al. (2011)
It is against this gloomy background of the limited sustainability of community-managed projects in the North West Region of Cameroon (NWRC) that this study has been designed to throw more light on the following research questions.

1.4: Research Questions

This study has one main research question and five specific ones, which are hereby stated as follows:

1.4.1: Core Research Question

Why have community-managed projects in the North West Region of Cameroon had such limited sustainability and how can their sustainability be improved?
1.4.2: Specific Research Questions

1) To what extent does the inadequate knowledge of project providers on the socio-cultural background of project end-users affect the sustainability of community-managed projects in the North West Region of Cameroon?

2) Which natural environmental conditions prevail in the North West Region of Cameroon and how do they impact on the sustainability of community-managed projects in the region?

3) How do existing technical challenges at grassroots level influence the sustainability of community-managed projects in the North West Region of Cameroon?

4) How do issues of transparency, accountability and the role of the law affect the sustainability of community-managed projects in the North West Region of Cameroon?

5) What funding challenges are common in the North West Region of Cameroon and how do they undermine the sustainability of community-managed projects in the region?

1.5: Aim and Objectives of the Study

In order to adequately understand why community-managed projects have had limited sustainability in the North West Region of Cameroon, this study has set up one main aim and five specific objectives, which are here formulated as follows:

1.5.1: Research Aim

To understand why community-managed projects are experiencing limited sustainability in the North West Region of Cameroon so that an effective management
framework is formulated to improve the sustainability of community projects in the study area

1.5.2: General objective

To evaluate existing literature on: a) challenges affecting community-managed projects, b) the theoretical underpinnings of sustainable community management

1.5.3: Specific Objectives

1) To find out the extent to which knowledge of the cultural background of project end-users is fundamental in the sustainability of community-managed projects in the North West Region of Cameroon.

2) To understand how environmental constraints associated with topography, climate variability and change impact on the sustainability of community-managed projects in the North West Region of Cameroon.

3) To ascertain the quality and quantity of existing human skills at grassroots level in the North West Region of Cameroon and how these influence the sustainability of community-managed projects in the region.

4) To examine the relationship existing between governance in community-managed projects, confidence in physical persons and the sustainability of community-managed projects in the North West Region of Cameroon.

5) To investigate common funding challenges in the North West Region of Cameroon and how they affect the sustainability of community-managed projects in the region.
Table 1.1: Linking research aim with the questions and objectives of the study

<table>
<thead>
<tr>
<th>Research aim</th>
<th>Research questions</th>
<th>Research objectives</th>
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<tbody>
<tr>
<td>To understand why community-managed projects are experiencing limited sustainability in the North West Region of Cameroon so that an effective management framework is formulated to improve the sustainability of community projects in the study area</td>
<td>1) To what extent does inadequate knowledge of the socio-cultural background of project end-users affect the sustainability of community-managed projects in the North West Region of Cameroon?</td>
<td>1) To find out the extent to which knowledge of the cultural background of project end-users is fundamental in the sustainability of community-managed projects in the NWRC.</td>
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<td>2) What natural environmental conditions prevail in the North West Region of Cameroon and how do they impact on the sustainability of community-managed projects in the region?</td>
<td>2) To understand how environmental constraints associated with topography, climate variability and change impact on the sustainability of community-managed projects in the North West Region of Cameroon.</td>
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<td></td>
<td>3) How do the existing quality and quantity of technicians/managers at grassroots level influence the sustainability of community-managed projects in the North West Region of Cameroon?</td>
<td>3) To ascertain the quality and quantity of existing human resources at grassroots level in the North West Region of Cameroon and how these influence the sustainability of community-managed projects in the region.</td>
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<td>4) How do issues of transparency, accountability, the role of the law and confidence affect the sustainability of community-managed projects in the North West Region of Cameroon?</td>
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Source: Derived from the research aim, questions and objectives

Table 1.1 shows the link between the research aim, questions and objectives.

The rationale for breaking down the research aim into research objectives is to guide the study, which seeks to understand challenges undermining the sustainability of community-managed projects in the North West Region of Cameroon.
1.6: Geographical Location of the Study Area

This research covers four projects that are community-managed (in the localities of Bali, Mbai, Kingomen and Fundong) in the North West Region of Cameroon (Figure 1.2).

**Figure 1.2: Location of the study area**

Cameroon is a country in Central Africa roughly shaped like a triangle and wedged in the Gulf of Guinea. It has 10 administrative units also known as regions, of which two are English speaking (South West and North West where this study is conducted), the remaining being French-speaking (Minang, Bressers, Skutsch & McCall, 2007; Brocklesby & Fisher, 2003). The Republic of Cameroon extends across latitude eleven degrees in the North of the hemisphere. This represents approximately 1,700 km from South to North, and so sustains a microcosm of the equatorial and the tropical geographic spaces where the basic human needs are varied.
(Fonjong et al., 2004). The population of Cameroon, today estimated at 18.4 million (latest census, 2005), has in every regions sought to fully utilize their indigenous knowledge and practices to manage, among others, their water schemes, micro-hydropower systems and forest conservation projects (Tuyet Hanh, Hill, Kay & Tran, 2009; Mertens & Lambin, 1997). Some of the examples of community-managed schemes such as those of Bali, Mbai, Kingomen and Fundont that constitute the focus of the study are drawn from the North West Region of Cameroon.

This region serves as a good case given its high-incidence implementation level of community-driven projects (Kometa & Ebot, 2010; Alasah, 2011). The North West Region over the past few years has experienced dwindling sustainability in community-driven projects in spite of a long history of communal efforts towards development through community-based associations such as village development associations and common initiative groups (Njoh, 2011; Fonchingong, 2005). The suitability of the choice of the North West Region is also because the researcher comes from the area and can conveniently access local communities’ documentaries or organize focus group discussions and in-depth interviews with the key rural community project stakeholders.

Characteristically, Cameroon is a mountainous and a typical example of natural diversity. For instance, the North West Region of Cameroon has varied relief ranging from valleys, plains, forest, grassland, etc. This region has a very huge hydrological network of rivers, lakes, falls and springs upon which the local communities rely for either hydropower generation or pipe-borne water or both (Nyambod, 2010; Abbot, Thomas, Gardner, Neba & Khen, 2001). Agricultural activity is the mainstay of the population in this region because a large part of the population is rural (Ngwa & Fonjong, 2002; Fonjong et al., 2004). As a result of
17 socio-economic related challenges population mobility remains very high compared to other regions of the country. This high mobility has been attributed to limited job opportunities and absence of recreational and basic social amenities such as safe drinking potable water, health clinics, firms, motorable roads and electricity supply in the rural communities which host a good portion of the population is an issue (Fonchingong, 2009; Akei, 2015).

1.7: Description of the Four Selected Community Project Cases

The North West Region where this research is conducted comprises seven administrative units (known as divisions). In this region, there are many projects realized by either governmental or non-governmental, private individuals or group efforts but which are currently implemented by local communities. Some of such community-driven projects include safe drinking water supplies, small hydro-electric power schemes, forest conservation schemes, repairing and maintaining roads, bridges, irrigation dams, community health posts and school establishment services (Sally et al., 2013; Njoh, 2011). For the purpose of this study, four community-driven project case studies were selected for investigation, namely: Bali community-managed water project, Mbai community-managed forest conservation project, Kingomen community-managed hydro-electricity project, and Fujua-Fundong-Mentang-Ngwainkuma community-managed water project.

The rationale for the choice of the above-named is that they are among those projects managed by local communities in the NWRC that exhibit low sustainability. During the pilot study in August 2014, these projects were identified to be those facing serious sustainability challenges in the region. The choice is supported by easy and reliable access to the project sites and knowledgeable individuals for data
collection. The fact that the researcher was born and bred in this region makes him deem it necessary, with a personal passion, to understand why community-managed projects have had such limited sustainability levels, so that a framework can be designed to enhance their sustainability. Thus the selection of the following four community-driven projects

1.7.1 Bali Community-Managed Water Supply Case

The objective of this project is to reduce rampant water-borne diseases to the minimum by supplying the entire community of Bali with affordable, reliable and safe drinking water. The Bali community water project is located Bali Sub-division, which forms part of Mezam Division in the North West Region of Cameroon (Figure 1.3).

Figure 1.3: The Bali Community-managed Water network coverage of NWRC

Source: Adapted from BACOWAS water network coverage in Bali, 2008 and field work, 2015
It is situated some 20km from Bamenda town, the regional headquarters of the North West Region. The sub-division lies approximately between longitudes 9°51' and 10°02' East of the Greenwich Meridian and between latitudes 5°50' and 5°57' North of the Equator (Nyambod, 2010; Fonjong et al., 2004; Abbot et al., 2001). Bali Sub-division is made up of 17 villages with a total surface area of 277.77 km². Following the layout of the sub-division, it is bounded in the North East by Nchomba, Nsongwa, Mbatu and Mankon, all in Bamenda Central Sub-division, and in the East by Pinyin, Bafórchu and Baba II in Santa Sub-division. In the West, the sub-division is bounded by Njaetu, Osum, Ngemuwah, Guzang and Ashong in Batibo Sub-division and in the North West by Nghyenbu and Bome in Mbengwi Central Sub-division in Momo Division (Pouomogne, Brummett & Gatchouko, 2010; Tanga et al., 2010; AchoChi, 1998).

This Sub-division is inhabited by the Bali Nyonga clan and is a local council area (Nteh, 2011). Bali Sub-division had pipe-borne water in 1957 and this water was installed by German engineers from the indemnities paid to Bali by the Widikum people after a fatal war. This social project was self-reliant although it was later taken over by SNEC (Fonchingong, 2003). In 1994, the population of Bali Sub-division unanimously agreed to take over the management of their water project from SNEC (the central government water management body). The people of Bali have been making commendable efforts to supply water in the community. They believe in self-reliant effort and they have used an electric pumping system at Gola, and have complemented it with a gravity system that has as its source the Hills of Koblap. They have also tapped water from Njap through a gravity system of pipes (Kometa & Ebbot, 2010; Minang, McCall & Bressers, 2007).
With an approximate population of 85,058 inhabitants (latest monographic, 2005) and a surface area of 277.77 km², Bali Sub-division has a population density of 306.2 inhabitants/km². Pipe-borne water refers to raw water that has been harvested from springs, streams and river sources, and treated using both physical and chemical means (chlorine) to render it safe from all impurities. This community-managed pipe-borne water scheme has been very important to the economy of the sub-division as the inhabitants use the water for domestic purposes, moulding bricks, irrigation, artisanal industries’ salon work, restaurants, and car and motorbike washes (Munogu, 2007). Key stakeholders involved in this project include the Bali community development association (BACODA), the village traditional council, Bali municipal council and the end-users (the Bali grassroots population).

In spite of Bali’s natural basin it also has Highlands with peaks such as Njap (1,467m), Koppin (1,388m) and Fukang (1585m) in the northeast and southeast regions of the sub-division (Fogwe, 2006). The land slopes gently from these peaks towards the western region and has some highlands such as Ntanko'o (1,348m) (Kometa & Ebot, 2010). In addition, there is broad river valleys such as Naka, Mantum and Mbufung generally orientated in a northeast-southwest direction following the topographical structure of the area. As Figure 1.3 above depicts, the topographic nature negatively affects the sustainability of Bali community-managed water delivery as those living in highland settlements are seldom supplied with water, especially during the dry season. The influence of relief on sustainable water supply services in the Bali community will be explained as the study progresses.
1.7.2: Mbai Community Forest Conservation Case Study

The Mbai community forest is part of Kilum-Ijim Forest which is the largest remaining patch of montane forest in the Bamenda highlands of Cameroon (Figure 1.4). The objective of this forest project is to conserve the endemic and endangered biodiversity in Mbai by protecting their habitat. Over 20,000 inhabitants of the fondom of Oku depend on the forest for their local livelihoods. This area receives about 1,894mm of rainfall in August and 22.78°C of average temperature (North West regional delegation for agriculture, 2008). Mbai is characterised by granitic soils on hill tops and laterites in valleys. Found in the Grassfields, it has a vegetation type that ranges from savannah on hill tops to shrubs and then raphia palm and prunus Africana species. The resources present in the forest include fibres, fuel wood, wild honey, medicinal plants etc. (Enchaw, 2009; Thomas, Anders & Penn, 2000). Apart from a watershed this forest is also the centre for endemism.

Due to pressure mounted by the surrounding communities and the uniqueness of the Mbai Forest being of conservation priority, the local communities feel that it is important to use this forest rationally while conserving its biodiversity for future generations (Tata, 2010; Forboseh, Keming, Toh & Wultof, 2003). To make this possible the Mbai community has been carrying out a number of activities to achieve this. For instance, the Mbai community maintains their forest boundary by constantly carrying out forest boundary line walks to check for any evidential encroachment by local farmers who are often punished by the village councils for replacing the boundary markers (Agarwal, 2009). When there is forest fire the communities are mobilized by the manjong leaders who are also the brains behind the clearing of external forest boundaries. Meanwhile, fire prevention campaigns are being carried out by community members in public places, markets, churches, and schools. Forest
patrols and forest walks are constantly conducted by members of the community to identify those activities that are damaging to the forest and defaulters are sanctioned.

**Figure 1.4: The Mbai community-managed forest project in the North West Region of Cameroon**

![Map of Mbai community-managed forest project in the North West Region of Cameroon](image)

Prior to managing Mbai community for the benefit of the entire Mbai population, this community carried out a qualitative reconnaissance of the forest and divided their forest into a series of compartments. They went a long way towards drawing up their management plan which was submitted to the forestry administration for approval, since the Mbai community had been largely entrusted with a community forest to manage and derive benefits from it (Maisels, Keming, Kemei & Toh, 2001).

It should be noted that before the promulgation of the new forest law in 1999 which increased the level of participation by communities in using and managing their forest resources, Mbai community and the traditional authority of Oku had a long history of managing their forest sustainably. However, their efforts could not withstand the
existing pressures from farmers who cleared large portions of the forest for Agricultural land (Forboseh & Ilkuingei, 2001; Pagdee, Kim & Daugherty, 2006).

The community has the customary and logging rights in the event of managing and using their community forest. These rights allow the local people to carry out the following activities: to collect materials from the forest for medicinal use; to collect dry wood for domestic use only; to practise both traditional and modern beekeeping; and to collect mature Alpine bamboo for traditional building and other allied uses (Enchaw, 2009). Despite the existence of well established customary rules for Mbai community forest management, recent pressure from local farmers who cleared large areas of the forest for cropping and graziers who frequently set parts of the forest on fire undermine its sustainability, as Figure 1.4 depicts. Key stakeholders in this project include the Mbai forest management institutions (FMOs, DFMI), the traditional council, Mbai farmer common initiative groups and the grassroots population (Tatah, 2010; Abbot et al., 2001).

1.7.3: Kingomen Hydro-Electricity Case Study

The purpose is to foster the socio-economic livelihood of the people of Kingomen by extending electricity to remote and poor parts of the village community. Kingomen is a small village in Kumbo, the headquarters of Bui Division in the North West Region of Cameroon. It is found some 105km from Bamenda town, the regional headquarters, and is at an altitude of 2,265m above sea level (Njoh, 2009; Paish, 2002). It is situated between latitudes 6˚10'N and 6˚24'N of the equator and longitude 10˚35' East of the Greenwich Meridian. Kingomen is located in the Kumbo Central Sub-division of Bui Division and is one of the village communities that make up the Kumbo Central Sub-division. It is in the outskirts of Kumbo town, precisely in the south east. The village
community of Kingomen is bordered by Bamdzeng in the north, Mbuluv in the south, Mbotong in the west and Nkuv in the East (Figure 1.5). Kingomen village has a relatively hilly relief and the altitude ranges from 1,132m to 2,265m above sea level (Tatah, 2010; Fogwe, 2006; Page, 2003).

**Figure 1.5: Kingomen Hydro-Electric Supply Project**

With a population of 1,809 inhabitants (latest population census, 2005) and a surface area of 30km², this area has a density of 60 inhabitants per square kilometre. About 95% of its population is involved in agriculture, 4% in small scale trading and a meagre 1% in traditional poultry (Ngala, 2012). The majority of its population lives below poverty level with income per person per day which is below the $1 limit of poverty (Njoh, 2009). Kingomen local hydro-electricity generation is one of the ways the inhabitants of the deprived community are trying to improve upon their livelihood activities. As shown in Figure 1.5 above, the Kingomen hydro-electric supply project is considered sustainable because 2004 marked the year the project was realized and at this time only the project initiator and some community members including labourers of the scheme were connected with electricity. By 2006 some twenty
households were already consuming hydro-electricity from the scheme. The number of consumers today stands at thirty-two households (field work, 2015). At present six out of the ten neighbourhoods that make up Kingomen are actually supplied with hydro-electricity. The sustainability of this scheme in terms of maintenance, extension and rehabilitation has been attributed to cultural adherence, as will be explained as the study progresses. The incorporation of the indigenous socio-cultural practices into the community-managed hydro-electricity project enabled the project end-users to develop a real sense of ownership and participation in the project.

1.7.4: Fujua-Fundong-Mentang-Ngwainkuma Community Water Supply Case Study

The objective of this water project is to reduce long distance trekking to fetch dirty water for drinking and to minimise the amount of water-borne diseases in the village communities of Fujua, Fundong, Mentang and Ngwainkuma within Fundong Sub-division. Fundong sub-division is 38 kilometres away from the regional headquarters of the North West Region of Cameroon (Figure 1.6). This Sub-division is located between longitude 10°31' and 10°41' east of the Greenwich Meridian and latitude 6°7' and 6°24' north of the Equator. It has a population of about 47,897 people and a surface area of 537 km², giving a population density of 89.2 persons per square kilometre (latest population census, 2005). Fundong Sub-division is the headquarters of Boyo Division and it is bounded in the south by NjiniKom and Belo Sub-divisions, to the north by Fungom Sub-division, to the east by Noni Sub-division, to the west by Menchum Valley Sub-division, to the northeast by Bum Sub-division and to the southwest by Bufut Sub-division.

This Sub-division experiences a tropical Sudan climate which is greatly influenced by altitude. It is characterized by two seasons, a long rainy season of about
eight months (March-November) and a short dry season of about four months (November-February). Rainfall ranges between 1,600mm and 2,200mm and temperatures range between 13°C and 28°C (Lambi, 2008; Ngwa, 2005). The rainiest month is August with rainfall of about 2,600mm, whereas February is the warmest month with temperatures rising to about 28°C. Fundong Sub-division, like most of the Bamenda Grassfield, shows little existence of natural vegetation cover. This vegetation is highly influenced by the edaphic and climatic conditions of the region. With the interplay of altitude and climate, grassland has become the dominant vegetation cover of the region. The area is equally dominated by man-made vegetation consisting of kola nuts, pear, mango, coffee, orange trees and eucalyptus trees. Research has revealed that eucalyptus reduce water availability through the transpiration process (Enchaw, 2009; Fogwe, 2006).

**Figure 1.6: Fujua-Ngwainkuma-Fundong-Mentang Community Water Network Coverage in NWRC**

Source: Adapted from the 1992 administrative map of Boyo Division in collaboration with the Fujua, Ngwainkuma, Fundong and Mentang Community Water Committee, 2014
The Fujua-Fundong-Mentang community water project, realized in 2005 with huge financial and technical support from Plan International, today serves about 21,000 inhabitants. This water scheme serves the villages of Fujua, Ngwainkuma, Mentang and Fundong village, which are about 1,500m above sea level. Water is supplied by gravity from three spring catchments and attached inspection chambers (1,600m above sea level) located in Fujua village. As can be seen in Figure 1.6 above, the water scheme is sustainable because it has been effectively extended to three neighbourhoods, namely Baijong, Ngwainkuma and Fujua. For instance, in 2005 when this project was handed over fully to the community, it consisted of three spring catchments with attached inspection chambers, one storage tank in Fundong village, thirteen standpipes and four valve chambers to control water pressure. By the time of the study, the number of public standpipes was 76, although only 48 were effectively functional, while the catchment chambers remain fixed (personal observation, 2015). The extension of pipe-borne water into new neighbourhoods depicts the scheme as a sustainable project. However, the emerging human and physical constraints associated with the increasing length of the dry season and human encroachments are seriously undermining the sustainability of the Fujua-Fundong-Mentang-Ngwainkuma water supply scheme (Njoh, 2011; Fogwe, 2006).

1.8: Sustainability versus unsustainability
The main similarities in the chosen project case studies are that these projects are all community-driven, implying that their ongoing technical repairs and funding are been taken care of by the local communities which sometimes receive little assistance from external agencies. The main purpose of community-managed projects is to improve the wellbeing of the projects” end-users through greater and more reliable access to basic social amenities. However, these projects are different in that each is found in a
separate geographic location within the North West Region. In the context of this study, the Mbai forest conservation and Bali water project are treated as projects with sub-optimal sustainability whereas the Fundong water and Kingomen hydro-electricity projects are treated as sustainable projects (or used as control projects) because they are quite sustainable in terms of effectively meeting their goals.

Sustainability in this study is conceptualized from the dimensions of durability, cost-recovery and deliverables in order to clearly articulate the concept within the context of this study and to specifically pin it down to projects that are community-managed. The conceptualization of sustainability is presented in Figure 1.7 below.

![Figure 1.7: Conceptualizing Sustainability within this Study](image)

*Source: Inspired by the prism of De Carvalho et al. (2009)*

As shown in Figure 1.7, sustainability within the context of this study means the ability to maintain projects in a condition which ensures a reliable and adequate service delivery; the benefits of the project to continue to be realized by the targeted users over a prolonged period of time; and the service delivery process to demonstrate
a cost-effective use of resources that can be replicated (Kumasi et al., 2010); whereas the reverse is true for unsustainability.

1.9: Research Contribution

The fundamental objective of community-managed projects is to ameliorate the socio-economic livelihoods of the people in remote and deprived areas. Studies have revealed that projects controlled by local communities have a greater potential to target marginalized and vulnerable people in communities and can also help to build grassroots capabilities for ongoing community project upkeeping and for bringing closer to the grassroots people some basic wellbeing projects. For instance, existing literature on community management of basic wellbeing project acknowledges that it gives grassroots people the opportunity to test their potentials by not just monitoring breakdowns but could determine how and when to carry out repair works on their projects, activities that the grassroots can effectively execute rather than the government agents (Sally et al., 2013; Njoh, 2011; Harvey and Reed, 2007; Rondinelli, 1991).

This objective is far from being attained, and despite much effort made, the ongoing implementation of community-managed projects in the developing world particularly in the North West Region is still heavily riddled with constraints that cut across socio-cultural, management and environmental issues (Akie, 2015; Mbih et al., 2014; Kometa and Ebot, 2010; Fonjong et al., 2004). A number of studies have exclusively dwelled on institutional strengthening, capacity building, participatory planning, technical support, financial assistance and inter-community partnerships as prerequisites for the sustainability of projects managed by local communities (Sally et
Yet the sustainability of projects that are community-managed is far from being attained, despite the efforts made and the widespread application of the community management model as a strategy to guarantee the sustainability of community projects. Efforts are being made on a constant basis in the communities with the aim of managing community projects better, but empirical studies have rarely been carried out in the North West Region of Cameroon to identify factors that have led to the sub-optimal sustainability of community-managed projects after the departure of a donor support agency. Therefore, inductively seeking to understand why the sustainability of community-managed projects has been sub-optimal in the North West Region of Cameroon enables this study to theoretically contribute to the existing literature on the sustainable management of community projects. For instance, this study explored four project cases and empirical data were gathered to understand the extent to which the sub-optimality of community-managed projects is riddled by socio-cultural issues, community management deficiencies and environmental constraints in the region.

This study has actually analysed the shortcomings associated with the community management strategy adopted in the North West Region of Cameroon (NWRC) based on the perceptions and attitudes of a patrilineal community (Mbai, Bali and Kingomen sites) and a matrilineal community (Fujua-Fundong site) towards them and the analyses obtained have been presented in the form of results. It is hoped that the results will provide the basis for designing an appropriate legal framework and a sustainability policy for the region that not only promote the incorporation of socio-cultural aspects of the grassroots into community management processes, but
also promote grassroots’ governance and environmentally friendly practices. The results also provide a basis for setting up site-specific people-centred paradigms for in situ sustainable community project management in the NWRC and elsewhere in the country. With such a model for in-situ management, the community project beneficiaries will develop a sense of ownership and participation in their projects and this may lead to optimal sustainability.

1.10: Operational Definition of Key Words

A number of variables have been identified within the research objectives, and their usage cuts across a wide range of domains in management, business and social sciences, so that it becomes necessary to define clearly the context in which they are used in this study. In this case, it will become easier to understand and articulate them within the context of the study.

1.10.1 Community

For the purpose of this study, we look at a community as a group of people sharing a given geographic area, either a quarter or a village, who work together to improve living conditions in their locality or community. This definition is adapted from the definition of Bell and Newby (1972) who defined community as a group of people who interact with one another and have common values within a shared geographical location on either local, regional, national or global scales.

1.10.2 Community Management

Community management in this study entails the process whereby ownership and responsibility for sustaining community-based initiatives is being taken care of by the project beneficiary community, usually through collective efforts. It involves the
process of operating local projects to meet the basic needs of community members, collecting revenue for the maintenance of those projects, administration and all of the day-to-day activities of the project (Harvey and Reed, 2007; Njoh, 2011).

1.10.3: Project

According to Keeling (2000) referring to the Project Management Institute (PMI), „a project refers to any temporary endeavour undertaken to create a unique product or service, which usually has a start and an end date”. In the context of this study, community projects refer to those local development activities in the areas of agriculture, rural infrastructure development, education, health care and cooperative activities. Typical examples of such basic schemes in the NWRC include micro drinking water supply, small scale hydro-electric power supply, forest conservation, vaccination and health post, community school, parent-teacher scheme, dam and irrigation schemes that are aimed at improving the livelihood of people in deprived rural communities (Fonjong et al., 2004; Ngwa, 2005).

1.10.4: Community-based stakeholders

In this study, they are those community-based organizations or institutions involved directly or indirectly in the management of community projects such as locally-based organizations, user groups, project maintenance committees, elite groups, local non-governmental organizations, and traditional and municipal councils (Fonchingong, 2009).

1.10.5: Sustainability

For the purpose of this study, sustainability implies the ability to maintain a condition which ensures the reliable and adequate functioning of a community-driven project whereby the benefits of the project continue to be realized by the project end-users.
over a prolonged period of time. Therefore, the ability of a project to meet the objective for which it was created implies strong sustainability (Kumasi, Obiri-Danso, & Ephraim, 2010; Hamukwala et al., 2008; Katz & Sara, 1997).

1.10.6: North West Region

An administrative unit headed by a governor appointed by the president of the Republic of Cameroon. It comprises 38 sub-divisions, 43 municipal councils and a population of about 2.8 million people (Bambuye, 2011).

1.11: Research Structure

This thesis comprises seven chapters (Figure 1.8). It starts with the introductory chapter which introduces the study by grounding the research background, research problem and its significance, geographic background of the study area, research rationale, aim, objectives, questions and the definition of key words. The introduction is followed by a review of the literature related to: (1) theoretical underpinnings of sustainable community management, and (2) challenges affecting the sustainability of community-managed projects. Based on the review of literature related to the sustainable management of community-managed projects, the conceptual framework and the theoretical underpinnings are presented. In this chapter, the associated concepts, theories and models have been thoroughly considered in order to give them meaning within the context of this research. This is followed by a description of the research design and methodology and the type of data collected based on the chosen methodological protocol.

The chapter on the presentation of findings begins with data treatment and analysis related to the Bali, Mbai, Fundong and Kingomen community-managed
projects selected for the purpose of this study. The sixth chapter leads to discussions of the findings with particular focus on how the problems arose, highlighting the physical and human challenges arising from the rural context affecting the sustainable management of community projects. The importance of ensuring ongoing technical support in the implementation of community-managed projects is also discussed in this section. The chapter includes a discussion of the inadequacies of the standard community model in the rural context and how those management deficiencies combined with the physical challenges of the projects result in sustainability problems. The next chapter which presents the recommendation dwells on the analysis and discussion of findings so far undertaken and proposes ways to improve the sustainability of community-managed projects. The last chapter combines the summary and conclusion of this study and is based on the premise that an understanding of community beneficiaries’ priorities enhances the potential of CMPs to be effectively implemented.
Conclusion

This study seeks to gain insights into the underlying causes of the dwindling sustainability of community-managed projects. The sustainable management of community-driven projects is conceptualized using measurable variables such as cost-recovery, deliverables and quality of service. These adopted variables to conceptualize sustainability are described in Chapter 3. The overall purpose of this chapter has been to uncover the underlying factors limiting the sustainability of community-managed projects in the NWR of Cameroon. Despite the rapidly growing
number of community-managed projects in sub-Saharan Africa including Cameroon, on the premise that such projects have the potentials to incorporate community stakeholders’ views into a common platform of being, thinking and acting (Sally et al., 2013; Komovis et al., 2009), the long-term implementation of these projects is riddled by challenges to the community management practices (Yu & Leung, 2015; Che, Zhao, Yang, Li & Shi, 2014; Njoh, 2011). These issues provide the critical essence of this study. The introductory chapter is followed by Chapter 2, which provides a critical review of the literature on the sustainable community management of projects and challenges facing community-managed projects. It concludes by explaining how best to target investments in community-managed projects in order to maximise the utility that the grassroots derive from them, which is fundamental to a well-implemented community-managed project.
Chapter 2: Literature Review

2.1: The Political economy of Cameroon

A critical question in development economics is what kind of reforms the developing countries should undertake to enhance basic service delivery and thereby ameliorate the standards of living for their rural poor and vulnerable people. Decentralization of powers from central government to local councils is one of the key development reforms with widespread implications on wellbeing amelioration (Edoun, 2015; Andrew & Schroeder, 2003). The main argument often put forward to support decentralization policy is that it can improve public service provision by better matching financial, human and material resources with grassroots needs (Blume & Voigt, 2011). Within the context of Cameroon, the limited availability of basic human amenities such as reliable pipe-borne water supply, health care, primary education, electricity supply and road infrastructure servicing in the local areas have most often been levied on weak and inbalanced governmental development policies that seem to focus development in urban areas to the detriment of the rural or village areas (Njoh, 2011; Fonchingong, 2009; Fonjong et al., 2004).

It was not until the 1990s that the government of Cameroon realised that its centralised system of government had been impacting negatively on its rural development (Njoh, 2010; Oyono, 2004). This system made the country remain largely rural with citizens contributing minimally to the process of growth despite the ingenuity of rural communities such as those in the North West Region in terms of self-reliant development initiatives. Law No. 96/06 of 18 January 1996 on decentralization came as a major policy framework and attested to a growing political will towards the reversal of the situation (Crow, 2013; Ngwa, 2005). As a result, this
policy reform triggered many governmental and non-governmental agencies to launch various developmental projects at national and local community levels to improve the socio-economic wellbeing of the rural poor people for the sustainable fulfilment of basic needs.

Unfortunately, the devolution of power to local councils to enjoy administrative and financial autonomy in the management of local interests has not salvaged the situation (World Bank, 2011). The local councils, which deal directly with local communities, were inadequately prepared for decentralization and as a result, the sustainability of community development projects remains low despite efforts employed by the international, national and local development agents (Henry, 2012; Fonchingong & Ngwa, 2006). Efforts for ensuring sustainability of community projects are fading due to improper selection of the management model for the sustainable management of projects in rural areas. For instance, the demand-driven approach, community participation and community management of services delivery are well known and widely applied in local development in Cameroon (Crow, 2013; Sally et al., 2013, Oyono, 2004). Field data and information collected through studies such as this one on the Sustainability of Community-Managed Projects in the North West Region of Cameroon are absolutely needed to improve the decentralization process and rural development. Such information will be useful to the performance of the North-West Rural Development Process whose aim is to provide support to the most disadvantaged rural communities.

Many studies have revealed that community-managed projects (CMPs) are vital for improving grassroots wellbeing particularly in remote and deprived areas (Leventon et al., 2014; Henness, Ball & Moncheski, 2013; Sally et al., 2013; Rawlani & Sovacool, 2011; Vidal & Keating, 2004; McCommon, Warner & Yohalem, 1990).
As a result, projects managed by the local communities have become immensely popular among national and international policy makers and donors on the assumption that involvement of grassroots members can reduce the proportion of people without sustainable access to basic social amenities particularly in the developing countries (Newton et al., 2015; Duvenage, Taplin & Stringer, 2012; Folifac & Gaskin, 2011; Harvey and Reed, 2007).

The strengths and weaknesses of this assumption have been X-rayed by many scholars in existing literature, which will be reviewed in this chapter. In fact, Community-managed projects (CMPs) are put in place either by the government, non-governmental organisations or community-based associations and they expect the projects to be driven locally by members of the communities who are neither highly trained nor professional project managers (Sally et al., 2013; Fonjong et al., 2005). These authors were interested in the various categories of project providers who wanted to ameliorate the living conditions of local communities by providing them with community driven projects and how local community members have limited professional capabilities to run the projects. They were, however, less interested in the fact that many of these project providers focus only on attaining the objective of making the project available to the local community without being concerned about its long-term sustainability, an aspect which is very fundamental in our study.

Working on factors which riddle the sustainable implementation of community-run projects (Marks et al., 2014; Dash et al., 2011; Montgomery et al., 2009; Fonjong et al., 2004) revealed several deficiencies in the management practices of community projects. They include lack of incentives, weak local institutions, insufficiently trained personnel, lack of collaborative planning, weak methods of recovering costs, and inadequate legal and organisational arrangements. These
deficiencies testify to the fact that poor implementation of community projects is a consequence of poor management (Leventon et al., 2014; Simmons, Reynolds & Swinburn, 2011; Komives et al., 2006; Rosa, Kandel & Dimas, 2004). Fieldwork threw more light on this assertion. When the sustainability of community-managed projects is not planned at the level of project conception, community members will lack the management capabilities that are critical in the long-term survival of community projects (Njoh, 2011; Whittington et al., 2009).

Other factors that undermine the sustainability of CMPs, as pointed out by several scholars; include income levels of project beneficiaries, willingness of the users to allocate time, funds and labour for projects; sense of community ownership; political elite; and grassroots participation. At the income level, Kenfack et al. (2009) and Harvey (2007) argued that the community management structure and committee money collection mechanism have the potential to affect the ongoing functioning of community-managed projects in sub-Saharan African countries. When income levels among community members is low, it becomes difficult for them to contribute to running costs and at times community members are bound to pay in kind, thereby complicating the task in rural areas of developing countries where farm-to-market roads are not available or are impracticable. This assertion was investigated and confirmed by fieldwork in Kingomen and Bali.

Regarding the influence of the effects of a real sense of community ownership on the functionality of community-driven projects, Njoh (2011) investigated two water supply projects in Cameroon and concluded that many project providers create situations of us-versus-them, making community members lose a sense of ownership of projects they are expected to run. Avenues for creating the situation of us-versus-them are at times made available by the political elite and have a direct impact on the
sustainability of CMPs in Africa (Sally et al., 2013; John, 2011). These authors were very interested in the negative impact of local communities losing a sense of ownership of projects they run. They were less interested in the neglect of cultural factors that lead to this loss in the sense of ownership, which is an integral part of our study.

The dwindling sustainability of community-managed projects (CMPs) in sub-Saharan countries including Cameroon is not only influenced by community management deficiencies but it is equally affected by factors related to socio-cultural considerations and environmental constraints associated with relief and climate variability and change (Schweitzer & Mihelcic, 2011; Yang et al., 2009; Opare, 2007). Chapter 2 therefore focuses on the factors affecting the sustainability of CMPs with special emphasis on the factors behind their dwindling ongoing implementation, since the aim of this research is to understand why CMPs have had such limited sustainability in the NWRC so that a framework can be developed to guarantee their sustainability. Hence, the chapter is firstly providing a review of literature on the factors behind the dwindling sustainability of community-managed projects. Specifically, the extent to which socio-cultural aspects, community management deficiencies (technical, governance and funding challenges) and environmental constraints associated with relief, climate variability and change affect the sustainable implementation of CMPs in the North West Region of Cameroon are the core focus of this study. The layout of this chapter is presented in Figure 2.1 below.
As shown in Figure 2.1 above, this chapter comprises five main sections. The introduction focuses on major pronouncements associated with the literature on the management of community projects and an outline of the main articulations of the chapter. The first section covers literature that is related to the extent to which knowledge of the cultural background of project end-users is fundamental to the sustainability of community-managed projects. The second section dwells on
literature associated with the impact of human capabilities at grassroots level on the sustainability of projects that are community-managed. The third section discusses the relationship existing between governance in community-managed projects, confidence in physical persons and how these affect the sustainability of projects that are community-driven. The fourth section handles literature related to common funding issues associated with income levels, willingness of the users to allocate adequate funds to project functioning, and how they affect the sustainability of projects that are community-managed. The fifth section reviews literature related to environmental constraints associated with topography, climate variability and change and how these constraints are responsible for the dwindling sustainability of community-managed projects.

2.2: Socio-Cultural Issues in CMPs

Considering that people’s culture conditions the way they think and go about fulfilling their needs, the way they use resources around them, and the way they interact with one another (Kamoche et al., 2015; Jabareen & Carmon, 2010), socio-cultural factors such as belief systems, values and willingness of project users to allocate time and labour are important and vital sustainability issues to maintain the functioning of locally-driven projects (Moller et al., 2012; Opare, 2011; Dixon, 2005). Neglecting the importance of socio-cultural institutions in the lives of community-managed projects is erroneous, as confirmed in Bali and Kingomen.

Attesting to the importance of these values, Olayide et al. (2013), while assessing the sustainable management of community-based biodiversity in Ghana, concluded that management founded on positive community socio-cultural fabrics not only ameliorates the livelihoods of the rural population but equally increases their
resilience in facing sustainability challenges as the people socially bond and become empowered to confront future threats to their local schemes. Similarly, Rantala, Hujala & Kurttila (2012) and Zuo et al. (2014) explicitly stated that in many developing countries, forests and water resources serve an invaluable socio-cultural use. They argued that sacred groves, waterfalls, plants and animals play a significant role in religious, spiritual and healing ceremonies in traditional rural communities.

While these authors laid emphasis on the biocultural values of those resources to local communities, and a species such as the *Dracaena arborea* tree is traditionally considered a symbol of peace and its conservation is guaranteed by traditional means, they were less interested in the fact that many project providers seldom integrate these biocultural values and local knowledge in the entire frame of biodiversity conservation at grassroots level. This aspect of neglect of the role local knowledge of resource management plays in conservation at grassroots level was addressed by Westerman & Gardner (2013). These authors stressed the fact that local knowledge of resource management and the efforts put in to conserve biological diversity through indigenous knowledge are usually ignored by some project providers. The assertion of these authors was verified and affirmed in Mbai Community Forest area during fieldwork.

In a similar perspective, Ormsby & Bhagwat (2010) and Ngwa & Fonjong (2002) opined that in many developing countries, portions of forests, waterfalls for hydro-electricity and catchments for pipe-borne water supply are usually places hosting some important spirits or serving as abodes of the gods of the particular communities. Such places are often declared as sacred and become places where certain rites are performed by their custodians (Ormsby & Bhagwat, 2010; Wadley & Colfer, 2004). The sacred nature of the portions of forests and waterfalls can equally
be associated with the fact that they host the tombs of the ancestors of the communities or are reserved for cremation (Rutte, 2011; Walton, 2008).

These authors emphasized the sacred nature of abodes of the gods of local communities and totemic sites therein, but placed little weight on the fact that project providers make limited contacts with traditional custodians to determine the impact of a project on the cultural sites, practices and beliefs of end-users, which are fundamental in our study. When community forestry, such as in Mbai, denies local communities access to these sacred sites where they commune with the deities who intercede on behalf of the living, it becomes a serious blow, not only to their ancestral tradition, but to their survival (Bhagwat, Nogué & Willis, 2013; Ormsby, 2011; Lozano et al., 2011 and Ngwa, 2002). This inadequate understanding and integration of the anthropological and socio-cultural aspects of project end-users in the entire frame of community-driven projects and the extent to which it undermines the sustainability of local community schemes, was verified and confirmed in Bali and Mbai during fieldwork.

Likewise, Fon Galega II (2006) and Fon Ngum III (2001) were of the view that the waterfalls and forests in the North West Region of Cameroon have a cultural value that cannot be swapped as they play host to Bannerman’s Turaco bird that supplies the local people with feathers for traditional recognition. In addition, Ngwa and Fonjong (2005) ascertained that communities of individuals compete for survival in whatever ecological environment they find themselves. So, base line resource availability in quantity and quality over time become an issue at later stages whereby individuals in the community struggle to use those resources for survival. At this point, conflicts emerge over access, with emphasis on these specific resources and their location in space (Bhagwat et al., 2011; Rutte, 2011). Similarly, Ayorinde (2011)
attributed land and resource use conflict as the main hindrance to the community management of local initiatives in the southwestern region of Nigeria. This assertion was verified and confirmed in the field as most of those using pipe-borne water for small-scale irrigation in Bali and Fundong scramble over it during the dry season for their crops to survive as well as for the forest to harvest wild fruits and medicinal plants in Mbai.

2.2.1: Incentives in the Management of Community Projects

In the course of discussing incentives as one of the sustainability components for the long-term functioning of water and sanitation supplies, Montgomery et al. (2009) argued that effective community motivation encourages community members to develop the willingness to pay for ongoing servicing of projects that are community-managed. Sally et al. (2013) and Harvey & Reed (2007) shared the same view but stressed that individuals and groups are seldom provided with incentivized that will encourage them to participate in or manage community schemes.

Using the case of water supply management in developing countries particularly in sub-Saharan Africa, they noted that although most communities may act to protect their own interests, they will do so effectively when they are properly motivated to participate in activities that also promote the long-term functioning of community projects. At grassroots level payment for services rendered to the community is always marginal and incentives for them to keep rendering the services are always almost absent, with the result that the performance of those expected to supply technical services after the project providers have handed over the projects to the community becomes too low. This low performance of technicians was affirmed in Bali, Fundong, Kingkomen and Mbai study sites by fieldwork.
Similarly, Fonjong et al. (2005) pointed to the fact that incentives for co-operative behaviour, however, must be strong enough to overcome the individual and family costs of participation in projects. When people lack easy access to basic facilities such as water, electricity supplies and forest resources in their communities it poses not only a threat to their livelihoods, but it also severely constrains any ongoing implementation of projects (Hopwood, Mellor & O’Brien, 2005; Kumar, 2005). These authors were interested in the disincentive effects of inadequacies of basic amenities on the sustainability of community-driven projects but placed little emphasis on the factors which engender the inadequacies at grassroots level such as poverty and policy which are important components of this study.

Besides, Anyang (2013) argued that the rapid population growth is likely to trigger risks of social conflict, compelling grassroots communities to practise rationing as a strategy to serve the population with water and power supplies. In the absence of incentives, rationing has often been marred by corruption and nepotism as confirmed by fieldwork in Bali and Kingomen. This practice often provoked anger among the project beneficiaries as they frequently accuse the management committee of preferential treatment in service delivery (Marks and Davis, 2012; John, 2011; Yazici, 2011). The view of the author was observed and confirmed in the field particularly with the management of the Bali water project, as those living in highland quarters of the community were always accusing those managing the scheme of unfair service delivery. This seriously threatened community cohesion and sustainable management of the water supply project.

A real sense of ownership and control of grassroots schemes have been identified to be a strong incentive in the motivation of grassroots populations to fully engage in their sustainable management. According to Njoh (2011) in a study on two
community self-help water supply projects in Mpundu and Bonadikombo, the South West Region of Cameroon concluded that the Bonadikombo project succeeded because the local residents had a real sense of ownership of the project, whereas the Mpundu water project failed because of the lack of a sense of real or potential ownership among the user communities. Similarly, Mandara et al. (2013) and Rondinelli & Burpitt (2000) referring to a water supply project in Tanzania noted that the government’s reluctance to fully transfer the ownership of the project to grassroots committees as promised them by the Danish Aid donor agency made these locals to feel that the project wasn’t truly theirs.

The refusal to transfer ownership served as a disincentive as the community ceded the scheme to the government although it could not monitor breakdowns and make repairs. This scenario was actually confirmed by fieldwork in Mbai where community members abandoned forest patrols, the monitoring of fire and encroachment for farming to the forestry authorities in Kumbo, who could not monitor the forest. In addition, the sustainable implementation of CMPs is threatened by the fact that the management of community projects often relies on voluntary inputs from community members, which people may make for a while but are reluctant to make in the long term. This challenge is made more serious by the fact that there are usually no long-term incentives for community members (Fonchingong, 2009; Harvey & Reed, 2007).

Conversely, in a study of water irrigation scheme in the Philippines (Labonne & Chase, 2011) described the government’s strategy of transferring ownership of the scheme to community associations after the projects were created as a major incentive for grassroots active involvement. In addition, Park et al. (2009) noted that when ownership was handed to those local associations, they were given clear authority to
own and manage their irrigation schemes and the government emphasized that its role was only to provide assistance for organization and creation. The government then provided loans to the beneficiary associations of the irrigation scheme to fund its construction on condition that these village-based associations were expected to be registered as legal bodies in order to be able to refund the government’s loan and ensure the maintenance of the schemes after completion (Mandara et al., 2013; Bollens, 2000; Rondinelli, 1991). This scenario was observed in the Bafut water community project during fieldwork when the government gave a financial grant through the council to support the ongoing extension and rehabilitation services of the community water supply scheme.

2.2.2: Participation in the Management of Community Projects

One way of fostering participation, particularly at community level, is through recognition, which can take various forms. Social and symbolic rewards are among those incentives which are effective in enhancing community participation in a project’s ongoing implementation (Whittington et al., 2009; Komives et al., 2008). Studies in the developing world, particularly in sub-Saharan African nations, demonstrate that instant material rewards such as formal or informal recognition by community or government authorities at village community ceremonies, play a vital role in eliciting community involvement and keeping community-based volunteers much more motivated (Abbas and Lussier, 2010; Collier, 2007; Sachs, 2005). In the same vein, McGowan and Burns (1988) argued that well organized traditional or village ceremonies in the form of festivals or “gala days”, and at which certificates are offered to village project committee members are highly valued and could boost citizens’ active participation in the management of community projects.
Marks and Davis (2012) and Rondinelli & Burpitt (2000) threw more light on the point when they noted that in Sudan, usually, day-long community-based activities are undertaken after water schemes are fully executed, and basic training is given to the female folks on the healthful use of water and to the male folks on water scheme rehabilitation and expansion methods. This was a view shared by Ganu and Boateng (2012) when exploring the potential contribution of the women’s informal sector in Ghana’s local and national development. They held that recognition of women has contributed enormously in motivating them for the upkeep of community initiatives. Although not with women, the incentivizing force of recognition was confirmed by fieldwork in Kingomen. The recognition of the project provider in 2013 by the Fon of Nso motivated him to keep extending the community electricity network even under severe climate change challenges.

According to Opare (2011) and Bennett (2015), organizing recreational activities such as inter-village sporting competitions and grassroots-based poetry and darma contests provide a community cultural platform for entertainment and potential to attract large attendance from varied actors of the community. Similarly, McGowan and Burns (1988) emphasized that such recreational activities should be supplemented over time by the exhibitions of project materials and spare parts for the ongoing technical aspects of the scheme. That would allow the local project managing committees to use such recreational events to disseminate information about the project’s requirements, notably issues regarding implementation procedures and safer water utilization practices (Fonjong et al., 2004; Emmett, 2000). This implies that organizing recreational events in the community not only motivates grassroots participation but provides the forum to publicly acknowledge those people who
complete repair training sessions, all of which are vital to the sustainable implementation of local projects (Kumasi et al., 2010).

In addition, McGowan and Burns (1988) had earlier noted that training incentives from the national government for sustainable management where the local authorities are instructed to encourage and support grassroots active involvement project ongoing implementation is vital. However, such government incentives will only enhance the sustainability of CMPs if local government agents perceive ownership and control of the scheme by the grassroots as not a challenge to their renumerations or privileges such as power and budget. In a situation where these government bureaucrats perceive it as a threat to their position, they are highly likely not going to provide the required support that is crucial in effective community management of grassroots schemes (Bado, 2012; Branca et al., 2011; Reyes and Opillo, 1986). Failure by individual community members to contribute maintenance fees usually leads to disillusionment among project committee members and most often affects community cohesion (Kaunda et al., 2012; Fonchingong, 2009). These authors were more interested in the disincentive dimension, which is associated with lack of motivation to pay maintenance fees. They, however, were less concerned with the various disincentives such as disregard for socio-political institutions and authorities at grassroots, which are an integral part of this study.

2.2.3: Community Cohesion and Conflict

Community cohesion, mobilization and involvement become difficult to achieve in communities that attract large numbers of people with vested interests (Dash et al., 2011; Sobeck, Agius & Mayers, 2007). Although Sun et al. (2010) found that in Ghana, large and diverse communities with higher levels of existing community
groups tend to have functional project committees, this view remains mixed among researchers. Sally et al. (2013), on the contrary, noted that the relationship between project beneficiaries towards the management of the Buea water supply project was strained because of the unwillingness of the management committee to integrate alien settlers, locally known as „come-no-go” or „stranger”, in the community. This stigma of „indigene” and „stranger” relationship has seldom encouraged migrant participation in the local decision-making processes and the situation is further compounded by the fact that the management committee usually has no mechanism in place to adapt its membership to changes in the communities (Olayide et al., 2013; Sally et al., 2011; Fonjong et al., 2005). This was particularly confirmed in Mbai where alien settlers from Oku rather were unwilling to integrate traditional landlords from Nso in the community forestry institution.

The mobilisation of resources to resolve conflicts associated with community-project management is quite often an illusion. Ayorinde (2011) elucidated that while specific disputes can be resolved, the implementation of most community projects is often characterised by a complex interaction among social, political, cultural, economic and natural aspects that defy either quick or enduring resolution. The author stressed that the complexity in this arena is such that the conflict may never be resolved; if that term implies that an agreement is reached that puts an end to those incompatibilities that caused the conflict. Sally et al. (2013) recommended that the most appropriate way to tackle stakeholder conflicts in community-driven projects is to adopt a pluralist perspective to manage the conflict situations rather than to attempt to resolve them. It is not surprising therefore that conflicts such as those observed between project management committees, the traditional landlords, graziers, farmers,
bee farmers and carvers in the North West Region have proven very difficult to be resolved.

Writing on conflicts in community-managed projects in sub-Saharan countries including Cameroon, Folifac & Gaskin (2011) and Njoh (2002) argued that the complex socio-political context at the time and the large number of people with an interest in the community projects left the projects with little chance of resolving the issues. Such an argument notwithstanding, the point is still unclear. By attempting to resolve project conflict, the project management committee is likely to misdirect the task it had and will rather create room for the emergence of more conflicting situations (Fonjong et al., 2004). Regarding conflicts between stakeholders due to vested interest, Roloff (2008) argued that by drawing on a wide range of stakeholders with vested interests, the prospects for appropriate project design and commitment to achieving objectives are likely to be undermined.

Besides, when primary stakeholders are excluded and decisions regarding their fate are taken in their absence, it becomes problematic, and this often enhances misinterpretation of information transmitted to them and acceptance of rules set (Verbeke & Tung, 2013). In line with this assertion, Fellows & Liu, 2013 and Komovis et al. (2009) argued that where project end-users are not participating or consulted on decisions over project management rules, they will be unlikely to accept them. As a result they will not fully support the ongoing implementation of the project. The failure by individual community members to contribute maintenance fees usually leads to disillusionment among project committee members and most often affects community cohesion (Kaunda et al., 2012; Fonchingong, 2009). This situation was observed in the Kingomen community hydro-electric power and Mbai community forest conservation projects in the North West Region of Cameroon
during fieldwork, as conflict of interests among some stakeholder groups who do not perceive a favourable cost-benefit interaction in the projects. Such stakeholders’ conflicting interests put the survival of local projects at risk in the long term (Ivanova-Gongne, 2015; Yang et al., 2015; Oji, 2009; Cousins et al., 2008).

2.3: Environmental Challenges

It is acknowledged that the physical environment through its elements of relief and climate change greatly affects the seasonal and yearly water supply both in quality and quantity in both the developed and developing countries (Batti, 2015; Tange et al., 2015; Sally et al., 2013; Kometa and Ebot, 2012; John, 2011). This implies that environmental degradation directly affects the production and distribution of potable water and therefore influences the long-term functioning of water-dependent schemes such as hydro-electric power and reforestation, given that communities are found at different altitudes (Ako et al., 2010; Westerhoff and Smith, 2009; McCall et al., 2007; Robert, Parris & Leiserowitz, 2005). This section attempts to understand the natural conditions that prevail in the developing world including Cameroon and how they affect the functional sustainability of projects that are community-managed.

2.3.1: Climate Variability and its Impact on CMPs

Addressing the increasing concerns about the availability of water supplies in developing countries, Ako et al. (2009), Andre (2012) and Whittington et al. (2009) noted that due to climate variability and change dams were unable to supply water for drinking and irrigation and for the generation of hydro-electric power in sub-Saharan Africa. Mbih et al. (2014) writing on the “impact of climate change on water depended local schemes” held that climate change in terms of fluctuations in temperature and rainfall amount affects the available water in the drainage basin.
These drainage basins are areas where the rivers and springs used in generating electricity and pipe-borne water for the communities are found (Kometa and Ebbot, 2012).

According to Fonjong et al. (2004), the contemporary unprecedented increase in temperature and drop in rainfall particularly in sub-Saharan countries has reduced the quantity of water available not only for the turning of turbines for the generation of hydro-electricity from dams but has also made safe drinking water scarce. Similarly, Kibuka-Musoke et al. (2012) stressed that low rainfall in most parts of Africa is already posing a problem particularly for small water-dependent schemes such as hydro-electricity, irrigation and pipe-borne supply. In the same vein, it is noted that the use of small streams for this purpose was being affected by rising temperatures especially during the dry season, leading to considerable falls in the volumes of water available for hydro-electricity, pipe-borne water, irrigation and forestation regeneration schemes (Bele et al., 2013; Kumasi et al., 2010; McCool & Stankey, 2004). The views of these authors were confirmed in all the four study sites as the Bali and Fundong community water projects were affected during the dry season, while springs in shrines found in Mbai forest were drying off making the pouring of libations difficult. The Kingomen electricity project also faces problems of reduced volumes of water in the dam, leading to fluctuation in voltage and the destruction of appliances.

The views of these authors were verified and confirmed in Kingomen as during the dry season the scheme suffers from low water volumes. The authors however did not foresee other contributing factors such as irrigation practices along a river course especially during the dry season which may affect the water volume. According to Ako et al. (2013) and Ngala (2012), environmental constraints
compound uses of rivers by community residents for domestic projects such as the moulding of sun dried bricks for house construction as well as the planting of eucalyptus trees along the river which draws up the water that could have been used for hydro-electric generation or pipe-borne water supply. This view was observed in Kingomen during the major field work that took place in April, 2015. Moreover, Aksorn & Charoenngam (2015) and Osabuohien et al. (2015) examining the possible climate change impacts on energy schemes in South Africa upheld that climate change affects the ongoing functioning of community-driven hydro-electric schemes through rainfall and temperature variations. The author elaborated on the role of institutions as an intervening variable in understanding the link between environmental challenges and energy supplies. Osabuoien et al. (2015) opined that continuous strengthening of locally-based institutions would help to address the effect of environmental constraints on water supply or water related projects.

A similar view was put forward by Gwebu (2002), who while writing on Botswana’s energy generation challenges opined that surface water evaporation and reduced runoff were factors that riddled the sustainability of hydro-electric power schemes and consequently needed to be properly monitored, with alternative energy sources explored to mitigate the potential negative impact on climate change. This implies that meteorological elements such as sunshine, wind and humidity as well as other human activities have the possibility to offset the rise in temperature, thereby affecting the availability of water needed for water-dependent schemes (Mbih, 2014; Kumasi et al., 2010; Westerhoff and Smit, 2009; Myers, 2009). Moreover, Ngwa & Fonjong (2002) undertook a close examination of the networks of water distribution in Cameroon and found that the rivers reduce drastically in size in the highland areas during the dry season and in the rainy season their volumes increase, thereby giving
the characteristic of irregular water flows and basin regimes. This assertion was observed and confirmed at the Bali, Fundong, Kingomen and Mbai project sites except for the fact that these areas do not suffer from any drought effect as of now.

2.3.2: Relief and its Impact on CMPs

Relief and the volume of water bodies share an inverse relationship. This implies that the higher the relief, the lower the volumes of water bodies and vice versa (Nteh, 2011). It is found that the undulating nature of an area has the possibility of affecting the ease with which water and other schemes could be made functionally sustainable (Njoh, 2009; McCall & Minang, 2005). Similarly, the link between geographical constraints and project service quality was suggested by Frankema & van Waijenburg (2012) when they argued that weak African growth and development is a consequence of its difficult physical environment.

In the same vein, Wijesinghe & Lai (2011) and Mathie & Cunningham (2003) discussing micro hydro-electricity basics held that the slope gradient determines the quality and quantity of small hydro schemes. This means that the greater the height of the slope from where water flows, the greater the potential quantity and quality of electricity to be produced due to adequate water supply (Sivakumar, Das, Padhy, Senthil Kumar & Bisoyi, 2013). It is argued that small scale schemes such as hydro-electric power; pipe-borne water and forest conservation were highly site specific and determined by the availability of natural features such as relief and water (Kibuka-Musoke et al., 2012; Kumasi et al., 2010; Paish, 2002).

Working on small hydropower projects, Okafor & Hofmann (2004) found that climate variability and deforestation are the major obstacles to the achievement of sustainable small scale hydropower supply in remote rural and peri-urban areas. In a
similar viewpoint Alnakhani et al. (2015) and Kumasi et al. (2010) found that for the conditions necessary for local water-dependent schemes to be sustainable, an all year round catchment or river with tributaries and considerable amounts of rainfall to supply water is vital. Similarly, Enchaw (2009) opined that increasing population in the villages at the lower altitudes of the Kilum-Ijim forest has led to progressive deforestation of the protected forest for agriculture. In the field, steady loss of Mbai Forest was observed and confirmed as some villages have emerged in this community forest area through progressive occupation of the forest by farms and grazing, thereby threatening the sustainability of the protected forest species.

2.4: Technical Capability Challenges

The purpose of this section is to review literature related to human capability deficiencies in terms of quality and quantity of trained personnel and how they are influencing the effective implementation of basic community-driven projects in the developing countries, particularly in sub-Saharan Africa including Cameroon. Although community management is widely recognised to be effective in the provisioning of basic social services, rural and peri-urban communities in less developed countries lack the right technical capabilities to effectively manage their local initiatives (Batti, 2015; Ryan et al., 2012; Driesen and Popp, 2010; Munongo, 2007). In this light, Abiona and Bello (2013) discussing factors limiting grassroots participation and sustainability of community development projects in Nigeria argued that inadequately qualified technicians at grassroots levels and dependence on voluntary technical inputs of community members to run projects was a call for concern.
In the same light, Ako et al. (2010) evaluating efforts made to improve the management of water in Cameroon suggested that training at local council levels may improve water management. Similarly, Ryan et al. (2012) argued that community-managed projects can be rendered more effective by organizing community associations and helping them attain the basic technical skills and resources required to carry out ongoing project operations and extension.

The issue of technical capabilities in community-managed projects as evoked by these scholars was observed in our four study sites and fieldwork enabled us to add another dimension to it. These authors are more concerned with the technical know-how of manipulating equipment with little emphasis on technical issues such as monitoring, evaluation, and social marketing strategies (activities put in place or developed to change end-users’ behaviour towards project repairs payment) for the collection of maintenance fees, which are integral parts of our study. When accountability is poor, it will dissuade community members from paying maintenance fees and putting in physical effort to effect field activities such as patrolling and monitoring, aspects which greatly undermined the sustainability of the Bali and Mbai community-managed projects. Similarly, when appealing social marketing strategies (that is, updating end-users through training workshops) are not employed, it becomes very difficult to collect expected maintenance fees from most community members, as observed in Fundong and Kingomen.

According to Marks and Davis (2012), low sustainability of community-managed projects in many rural communities in sub-Saharan Africa is because of limited knowledge of the beneficiary community-based members on basic maintenance and extension services. In support of this assertion, Opare (2011) attributed grassroots abilities to sustain community-driven projects in Ghana to the
municipal councils’ efforts to elicit grassroots involvement in projects initiation and implementation aspects by initiating some training programmes at grassroots level. Abiona and Bello (2013) examining grassroots participation in the decision-making process and the factors limiting the achievement of sustainable development in Nigeria concluded that inadequate technical skills among other factors were responsible for the limited ongoing project operations. In the same view, Kanayo et al. (2013) reviewing factors limiting the attainment of sustainable development acknowledged on-the-job training as a means to enhance technical skills among local communities. On-the-job training is quite fundamental, as confirmed by fieldwork. The evolution of technology is fast rendering many technicians unable to keep pace, particularly in rural areas where their levels of general formal education are very low. For those who are able to keep pace, their services will be solicited out of their communities leading at times to skills flights as observed in Mbai when Birdlife International handed the project to the community.

By volunteering or taking up an active participation in community-based associations, community dwellers will learn the skills that enable them to best undertake certain local tasks, as well as learning ways to mobilize and take collaborative decisions with other stakeholders (Pernille and Martina, 2013; Mwapachu, 2010). Besides, it is argued that in most rural areas in the developing countries vital members on project committees leave the community or die and sometimes there are no mechanisms to replace such members with trained individuals (Crow, 2013; Harvey and Reed, 2007). On the contrary, where the government invests time and resources to enhance the technical capabilities of grassroots communities to operate and extend basic livelihood services, community-managed projects could be more sustainable (Abiona and Bello, 2013; Karani and Gantsho, 2007).
In this light, Jacobs (2012) analysing the development of the multi-level water governance framework in the Orange-Senqu River basin in South Africa indentified skills flights and lack of capacity as major barriers to effective water management. Armanios (2012) referring to Egypt’s project for rural potable water supply, asserted that poorly trained caretakers have been the main setback to effectively handle water pollution and distribution issues. The author argued that in developing countries only limited effort is being made by municipal or central governments to train community engineers, sociologists and extension agents. Buccus et al. (2008) assessing public participation in municipal processes highlights community experiences of attempting to engage with municipalities in development planning and policy processes, opined that ensuring the sustainability of municipal projects in terms of implementation depends on how well strategies such as community-based development, community health and hygiene related education, local water project design and execution are incorporated into community basic needs.

According to Sally et al. (2013) the sustainable management of grassroots projects depends on the extent to which members of community managing committee are regularly offered training on safety and repairs. They suggested continous follow-up of project staff as a viable way of enhancing of grassroots management capabilities. However, McCall et al. (2007) attributed the inadequate community capacity in most rural communities in the developing world to the false perception of indigenous communities as homogeneous areas of social consensus while undermining internal complexity. For instance, Ako, Eyong & Nkeng (2010) and Fonjong et al. (2004) assessing the indigenous management of water supply schemes in Cameroon argued that the heterogeneous nature of local communities in terms of skills, literacy, belief and needs was largely responsible for the high failure rates of
projects that are community-driven. The authors regretted the fact that in most cases such internal diversity of communities is ignored by project providers.

However, technical constraints to sustainable management of projects and subsequently their ongoing effective implementation are not only limited to the developing countries, for even the emerging countries are not left out (Johnson et al., 2004; Carter, Tyrrel & Howsam, 1999). For instance, Idris (2007) writing on cultural barriers to improved organizational performance in Saudi Arabia argued that cultural and religious traditions have made the country so dependent on foreign technical skills. The author concluded that most Saudis want to be managers, not computer programmers or engineers. Inadequate efforts put in place to effectively organize and offer better training community groups, particularly women, to actively get involved in the ongoing implementation of projects (Ganu and Boateng, 2012) and to train a liaison team of both men and women as local extension workers in the maintenance and use of community schemes pose great challenges to most small scale projects in the developing world (Henness et al., 2013; Ryan et al., 2012; Fonchingong, 2006).

Even though technical constraints remain important in the sustainability of community-managed projects, the main issue facing many poor rural communities in developing countries including the North West Region of Cameroon is not just bringing projects to the local people, but bringing the local people to these projects (Moriarty et al., 2013; Njoh, 2009; Harvey and Reed, 2007). This implies that the most salient challenge is putting in place an effective mechanism for organizing individuals in rural communities to fund and effectively govern their own community projects, through community-based development unions or associations in what Fonchingong (2009) referred to as self-reliant efforts. According to Opare (2011) and Van Houweling et al. (2012), The capabilities of local communities to technically
govern their basic schemes is enhanced when there is effective cooperation at local level between the state agents, local government authorities, NGOs and the private stakeholders.

2.5 Governance/Institutional Issues in CMPs

Operating community-managed projects to the benefit of community project end-users and organizing local skills for administrative and all of the day-to-day activities remain vital for their sustainability. It is argued that ongoing long-term project service provisioning is essentially a process of human organization and the use of technology (Opare, 2011; Harvey and Reed, 2007). Considering sustainability, it is suggested that there are some activities which may promote sustainability with respect to both project initiation and the implementation phase. For instance, accountability, transparency in the management committee, coordination and participation in the project decision-making process affect the sustainable implementation of projects that are community-managed (Sally et al., 2013; Harvey and Reed, 2007; Brackertz & Kenley, 2002).

According to Harvey and Reed (2007) the main governance difficulty facing community-managed projects in sub-Saharan Africa is the deterioration of accountability of members of the management committee and some community residents. Similarly, Anyang (2013) writing on governance challenges in Africa ascertained that the sustainability of community-managed projects depends crucially on the enabling institutional arrangements, which requires grassroots commitment, and accountability of leaders to their community to avoid loss of trust and respect. A similar viewpoint had been put forward by Jacobs (2012) and Brown (2011) when they analysed the development of the multi-level water governance framework in the
Orange Senqu River basin in Southern Africa. The authors found out skills flights, lack of trust and confidence building in the management board were some of the major barriers to effective water supply governance. Although skills flights were less important in our study sites, lack of trust and confidence building in the management board was confirmed by fieldwork in Bali and Mbai.

However, accountability and transparency in local community institutions themselves depend upon factors which enable project management committees to be more answerable to project end-users through mechanisms such as effective communication and compensation as opposed to volunteerism (Ibem, 2009; Colvin et al., 2009; Gorla, 2008; Kulshreshtha, 2008). For instance, the lack of accountability at the grassroots level coupled with inadequate top-down support were observed as major drawbacks to the sustainability of community-managed projects in poor communities in the developing countries (Marks & Davis, 2012; Aginam, 2010; Dasgupta & Beard, 2007). It is argued that the sustainable management of community projects depends on the level of stakeholder networking and coordination of resources at grassroots (Kumasi et al., 2010).

Such grassroots networking allows stakeholders to interact and trust each other, subsequently raising collective participation and effective project communication (Ahimbisibwe & Nangoli, 2012; Emeh et al., 2012, Collamard, 2010). However, it is argued that making a project management committee accountable to the community depends on the full backing of the law and political will, all of which may be beyond the affordability of a poor community (Sally et al., 2013; Komives et al., 2006; Fonchingong, 2005; Fonjong et al., 2004). The assertions of these authors were confirmed by fieldwork, particularly in Bali and Mbai where issues of
accountability and transparency were acute and undermined the sustainability of the projects. By failing to respect benefit sharing quotas, the Fon of Oku decided to seize the working documents of the forest management institutions.

### 2.5.1: Governance in CMPs

The need for local resource coordination has been widely acknowledged in community project governance literature but it is not clear exactly how local resources could be or should be coordinated effectively (Sharma, 2013; Polonsky & Scott, 2005; Fonjong et al., 2004; Gupta, Grandvoinnet & Romani, 2004). Robles-Morua et al. (2009) assessing community-partnered water supply projects in Mexico found that strong networks and clusters of community-based organizations through local partnership provided a viable way to guarantee the long-term functionality of community-managed projects, particularly the water supply programme.

A similar viewpoint had been put forward by Proenca (2003) when the researcher realized that communities could effectively control resources through grassroots coalition building. According to Bakalian & Wakeman (2009) and the World Bank (2008), stakeholder networking is a long-term holistic approach driven by government of developing countries in partnership with private, civil society and other donors at local level in order to produce sustainable service results. In the same vein Njoh (2011) argued that where there is weak interaction among grassroots it undermines straightforward relationship building at local level between project management committees, community-based organizations and local NGOs and in the long term hinders the ongoing effectiveness of community programmes.

The relevance of building stakeholder collaborative networks in projects that are community-managed cannot be underestimated. Quite often, donors would want
to assist large collaborating groups rather than individual groups. Working together could enhance the capacity of communities to bring diverse players together to solve complex project problems that may be beyond the means of a single community (Opare, 2011 and Edward, 2002). According to Beach (2010) and Dale & Newman (2008) building and sustaining community-based networks of collaborations have become vital mechanisms to recognize the complex social issues related to community projects and to plan how such issues could be best addressed. Eskerod & Huemann (2013) examining the impact of project stakeholder management on sustainable development found that sharing of resources and capacity building through networking within communities could enable local stakeholders to take greater responsibility for long-term ongoing implementation of community-managed projects.

However, community governance is a complex and sometimes contested concept in respect of definition and strategies (Dale & Newman, 2008; Cleaver & Toner, 2006). Opare (2011) writing on rural development challenges in Ghana found that weak networking between community-based development organizations was behind the limited ongoing functionality of most community-managed projects. Therefore strengthening local governance institutions through grassroots stakeholder networks is a viable strategy for the sustainability of community-managed projects in poor and vulnerable African communities (Buchenrieder & Balgah, 2013; Bucuane and Mulder, 2007). Despite the widespread recognition of the potential of grassroots collaborative networks to enhance coordination of resources at local levels, networks are difficult to build and even harder to sustain in culturally diverse communities (Apaliyah et al., 2012; Turner, 2009; Roloff, 2008; Svendsen, 2005). This is true in highly heterogeneous communities such as those in the South West Region of
Cameroon and in situations where elite members fan discrimination as was the case of come-no-go in the 1990s that affected the progress of community forestry in this part of the country.

When the necessary conditions for effective stakeholder collaboration and resource coordination are unavailable, the outcome is certainly going to be less effective (Thomson et al., 2013). Collaborative networks among community stakeholders enable the sharing of knowledge, expertise, skills and experiences in projects that are community-driven. This becomes possible only when the concerned stakeholders are willing to bring together their competencies (Plough et al., 2013; Colvin et al., 2009). In addition, Eskerod & Huemann (2013) argued that such interaction enables those local stakeholders involved to learn from and to see the competencies of one another. The benefit of sharing resources and skills is that such competencies would be maximized for the benefit of community projects and thus improving their sustainability (Park et al., 2009). Moreover, Verweij et al. (2013) argues that stakeholder interactions foster a common language, a common set of interests and a shared perspective which is vital in the decision-making process of project network governance. Such networking among stakeholders over time could enable more openness and willingness to share skills, ideas and resources as well as making local stakeholders become comfortable enough to admit their failures and successes (Doloj, 2012; Heath, 2007; Langhout et al., 2002).

However, in spite of the vast acknowledgement of the positive effect of stakeholder collaboration in project communication, project decision-making and sharing of resources (Verbeke & Tung, 2013; Hirshi, 2010; Poole, 2008; Decker et al., 2005), some authors do argue that stakeholders’ collaboration if not well governed might constitute an obstacle to the effective management of community projects (Park
et al., 2012), since stakeholders might need to relearn certain skills and knowledge (Jepsen & Eskerod, 2009; Roloff, 2008). Some fundamental questions as to whether grassroots communities possess the relevant expertise to make meaningful contributions towards their projects, and whether such community-managed projects are functionally sustainable, are yet to be answered (Poole, 2008; Fonjong et al., 2004).

In the course of assessing community-partnered projects in Mexico, Robles-Morua (2007) found that learning networks through collaborative workshops to train and retrain personnel so that people would have the desired skills needed to implement the ongoing management of community-driven projects were lacking. Yet Lee and Park (2009) noted that stakeholder networks can also pose great problems to project implementation. They can lead to potential tension and conflicts among stakeholders over vested interests (Verbeke & Tung, 2013; Fonchingong, 2005). Tensions between project stakeholders often occur due to vested interests and the inability to identify mutually beneficial projects (Crow, 2013; Njoh, 2011a). When stakeholders begin to encounter difficulties with committing time and resources to their networks, the outcome may be problems with attaining project aims (Schneider & Wright, 2013; Bidwell & Ryan, 2006; Weiss, Anderson & Lasker, 2002; Lubell et al., 2002).

Another reason for the limited sustainability of community-managed projects in the developing world has been attributed to the fact that most often the beneficiary communities have no contact with the project implementing agency (Ahimbisibwe & Nangoli, 2012; Njoh, 2011). This implies that effective communication links between the beneficiary communities and implementing agency are vital for continuous servicing of projects in local areas (Kleemeier, 2010; Whittington et al., 2009).
Stakeholder networking and participation in the decision-making for projects become possible when conditions for communication and information sharing among the stakeholders are uncorrupted by differences and vested interests (Dietrich et al., 2010; Levin, 2008). It is argued that one of the primary ways of ensuring project stakeholders’ commitment is effective communication (Poole, 2008). This implies that inadequate flows of information within communities affect not only stakeholder relationships but community cohesion as well. Such inadequacies in information flow lead to misinterpretation, which could create an atmosphere of suspicion in project governance (Cousins et al., 2008; Durley, 2007).

On the contrary, Olla (2008) and Servaes & Malikhao (2007) argued that stakeholder networking and effective communication enhance the sharing of knowledge and skills and thus permit the reaching of a consensus for action that takes into account the aspirations and capacities of all the concerned parties. The relevance of grassroots networking is that it allows local stakeholders to develop good speaking and listening skills towards other project stakeholders (Aaltonen et al., 2008; Olla, 2008). Despite the widespread recognition of effective communication and information sharing among community project managers and how such collaborative networks could enhance the sustainability of projects that are community-driven, in the developing countries sharing and coordinating community-based skills remain weak. This is because the building mechanism for effective communication and grassroots networking in ensuring quality project management depends on appropriate technology, which most rural communities in the developing world do not possess (Sianipar et al., 2013; Robles-Morua et al., 2007).
2.5.2: Decision-Making Process in CMPs

It is acknowledged that equal opportunities in the decision-making process constitute an underlying principle for stakeholder engagement (Burchell & Cook, 2013; Roloff, 2008). This differentiates stakeholder engagement from communications processes which seek mainly to issue a message or influence groups to agree with a decision that has already been made (Ahimbisibwe & Nangoli, 2012; Robles-Morua et al., 2007). Similarly, Kenny (2013) defined stakeholder engagement as the process whereby an organization involves people who may be affected by the decisions it makes or can influence the implementation of its decisions. This implies that stakeholders are capable of supporting or opposing the decisions or being influential in the organization or within the community in which it operates, or hold relevant official positions or are affected in the long term.

While assessing the management of rural irrigation schemes in India, Sharma (2013) stressed that including local stakeholders in decision-making for the purpose of implementing community projects has an advantage in reducing misinformation among the management committee groups in emerging countries. Similarly, Harvey and Reed (2007) argued that participation is a critical tool for sustainable community project management especially where key local stakeholders are actively involved in decisions that relate to the design and implementation of their projects. Forming networks through partnerships would enable communities to pursue dialogue and reciprocity in discussing management challenges regarding their project needs such as cost recovery, repairs and ongoing maintenance (Robles-Morua et al., 2007). These authors were more interested in the fact that all stakeholders should be made part of the decision-making team with little emphasis on the fact that community members may be part of the decision-making process without their views being incorporated in
the final decisions, a situation described by Selener (1997) as assistencialism. Community-managed projects which are initiated by elite member(s) such as the Mbai Community Forest are often clouded with assistencialism.

Although collaborative networks are viewed by researchers as viable way of enhancing active grassroots participation in the decision-making process and trust building, this assertion is still being questioned. A majority of rural and peri-urban communities in developing countries host high illiteracy levels and such educational deficiencies hinder active involvement not only in the decision-making process but also in the governing of community projects (Alasah, 2011; Turner, 2009; Akinbile et al., 2006; Fonchingong & Ngwa, 2005; Fonjong et al., 2004). These deficiencies impede the capacity of communities particularly in sub-Saharan Africa to soundly coordinate their resources towards the ongoing management of local projects (Crow, 2013; Keitumetse, 2011; Harvey & Reed, 2006). The dwindling sustainability of community projects is further attributed to the fact that the politically elite members who usually live in the cities often elaborate policies for rural populations even though they are seldom fully conversant with the problems and areas for which such policies are being elaborated (Mansuri, 2013).

Sahring a similar view point, Rebecca and Rogers (2012) argued that such policies do not usually yield benefit to the grassroots people, rather they lead to limited transparency and confrontations. According to Fonchingong and Ngwa (2005), assessing grassroots participation in infrastructure provision in the North West Region of Cameroon found that the process of community project management is a highly political issue that could become very complicated when cushioned by the influence of powerful elite, and when subjected to unclear communication. Njoh
(2011) further noted that the unclear communication in the management processes sometimes threatens community cohesion by triggering conflicts between project beneficiaries and the management committee.

2.5.3 Communication and Information Sharing in CMPs

Another reason for the limited sustainability of community-managed projects in the developing world is the fact that most often the beneficiary communities have no contact with the project implementing agency (Ahimbisibwe & Nangoli, 2012; Njoh, 2011). This implies that effective communication links between the beneficiary communities and implementing agency are vital for the continuous servicing of projects in local areas (Kleemeier, 2010; Whittington et al., 2009). Stakeholder networking and participation in the decision-making for projects become possible when conditions for communication and information sharing among the stakeholders are uncorrupted by differences and vested interests (Dietrich et al., 2010; Levin, 2008). It is argued that one of the primary ways of ensuring project stakeholders’ commitment is effective communication (Poole, 2008). This is because building mechanisms for effective communication and grassroots networking in making quality project management depends on appropriate technology, which most rural communities in the developing world do not possess (Sianipar et al., 2013; Robles-Morua et al., 2007).

Although it is a truism that appropriate technologies for effective communication are lacking in most rural communities in the developing world, many project providers will want to use less straightforward communication only to attain their set objective of providing the project to the community. This assertion was confirmed in the Mbai Community forest area by fieldwork. While boundary demarcation proved very difficult and conflictual, Birdlife International
communicated it to the local population as an interim strategy even though the NGO knew that it was going to be a permanent conservation strategy.

A necessary condition for stakeholders to network is the common awareness and recognition of a common goal (Roloff, 2008). According to Doloi (2012) stakeholder networks occur when there is the belief that working together can effect change. Without a common belief, working out details of how to focus on collective effort becomes difficult among project stakeholders. Stakeholders must be committed to the network relationship, which can be achieved if all parties are allowed to participate in all the stages of the planning of a project (Eskerod & Huemann, 2011; Svendsen, 2005). Such interaction among local stakeholders facilitates free use and sharing of skills and resources for the benefit of their entire community, with project goals thus attained (Verweij et al., 2013; Turner, 2009; Roloff, 2008). Although these authors rightly stressed the commitment of stakeholders, in many rural communities such as those under study, the role has been to limit the number of stakeholders as much as possible, making the issue of stakeholder identification complex. When stakeholders are merely co-opted, the purpose for which they were brought together is pre-defeated, as they have different intentions in terms of benefits as observed in Mbai and Bali.

Another prerequisite for local stakeholders to network in managing projects that are community-managed is effective communication between the key project parties (Ahimbisibwe & Nangoli, 2012; Neville & Menguc, 2006). Consultations among key project stakeholders must be vigorously encouraged so that all parties can be engaged in the projects at all levels to ensure full participation (Beach, 2010; Hirschi, 2010; Bridger & Luloff, 1999). According to Ahimbisibwe & Nangoli (2012) reciprocal or two-way, ongoing information on project implementation must be
disseminated to concerned stakeholders so that quality decisions can be taken based on shared information.

Furthermore, trust is identified as one critical element when forming stakeholder networks for project management since trust among communities can greatly influence actors” desire to ensure that the project objectives are attained (Virgil, 2010; Servaes & Malikhao, 2007; Hancock, 2001). It implies that in order to collectively maximize scarce resources and to reduce duplication of efforts, community stakeholders should build synergies at the lowest levels to ensure the sustainability of community-managed projects. Interdependence of roles where stakeholders actively take part in decisions regarding the planning, implementation and ongoing maintenance of projects is a necessary condition in stakeholder networks for sustainable management (Verbeke & Tung, 2013; Olla, 2008; Hopwood et al., 2005).

2.6: Economic or Funding Challenges

Economic constraints are a common feature in the management of community-driven projects in developing countries. This section of the literature seeks to fully gain insights into the funding challenges surrounding the sustainable management of projects that are community-driven. The dwindling sustainable implementation of community-managed projects in developing countries has been largely attributed to financial inadequacy at both the national and local levels. For instance, Callamard (2010) offered an overview of the current financial difficulties and their implications for Africa”s development and concluded that limited knowledge of running costs for projects and failure by some individual community members to contribute
maintenance fees significantly affect the ongoing implementation of community-managed projects.

According to Dash et al. (2011), lack of adequate financial resources and weak comprehensive budgetary plans or feasibility studies by locals undermined the implementation of a community watershed scheme in the Indian district of Keonjhar. In the same vein, Khatibi & Indira (2011) opined that direct access to funds, particularly for project end-user groups and project management committees, can engender a sense of responsibility and feeling of ownership which could enhance the sustainable implementation of locally-based schemes. The ability of community-based institutions to effectively raise and manage financial resources remains mixed, as Abiona and Bello (2013) argued. The authors held that poor financial management and low level capabilities of locally-based project committees have often contributed to misunderstanding of the projects’ requirements and this usually leads to incomplete attainment of the project objectives.

Similarly, Kanayo et al. (2012) examining the drawbacks to the sustainable development in sub-Saharan Africa noted that lack of access to financial resources and weak accountability of management institutions were the main hindrances to effective ongoing operation and maintenance in African countries. The assertions of these authors were verified and confirmed by fieldwork even though they were focusing at macro-level with little interest at micro-level for local communities such Bali, Fundong, Kingomen and Mbai where access to financial resources and weak accountability of management institutions are acute.
2.6.1 Funding Mechanisms for CMPs

According to Sally et al. (2013) the main challenge to the long-term operation of community-managed projects emanates from the fact that the management of the projects often relies on voluntary inputs from community members. Harvey and Reed (2007) assessed community management in sub-Saharan Africa and found that the reliance on voluntary input from community members was quite vulnerable because they may voluntarily contribute financially for a while but are reluctant to do so in the long term. Similarly, Labonne and Chase (2011) questioned the potential of community-driven projects to enhance social capital and argued that relying on a few vital individuals for the seeking of funds for community-managed projects, and lack of mechanisms to replace these key individuals in case of transfer or death put the long-term survival of CMPs at stake.

In the same vein, Dash et al. (2011) acknowledged that this constraint is further made more serious by the fact that there are often no long-term incentives for community-based institutions to continue to participate financially in the repairs and extension of CMPs. It seems that financial participation is more conducive to sustainability than other non-financial forms of participation. According to Njoh (2011) participation in rural community development can be in cash or in kind. In-cash is a form of participation in which local people contribute money for the upkeep of their project whereas in-kind participation refers to donation in material or moral forms either voluntarily or compulsorily towards community-managed projects. Payment in kind and cash were observed as common practices in the NWRC in general and particularly in the four study sites, although it was acute in Kingomen. Payment in kind is a practice that became rife in the NWRC during the colonial era when western education was introduced and parents were required to pay fees for
Their children. Due to the scarcity of financial resources and poverty, they usually paid in terms of tins of beans and maize.

This practice still continues due to worsening poverty and has permeated other sectors such as community-run projects, as observed during fieldwork. Cost recovery is vital issue for the financial sustainability of any community-managed project. Cost recovery is required for staffing, training, transport, spare parts, materials, tools, and replacement of units (Sally et al., 2013; Whittington et al., 2009). The cost recovery mechanism is real when the basis of payment, the means of administering and accounting for community project charges, is made by the community. This implies that better cost recovery can ensure sustainability of community-managed projects even though it relies on community willingness to pay for a project’s ongoing repairs and maintenance. The willingness of the grassroots populations to contribute financially for the ongoing cost of maintenance and extension for community-managed projects in most developing countries is affected by the high levels of poverty in rural and peri-urban areas (Crow, 2013; Njoh, 2011).

Income level and the availability of adequate funds to ensure continuous project functioning in poor communities are attributed by Foster (2013) to low income levels of project beneficiaries for the low sustainability of hand pump projects in sub-Saharan Africa. The funding of CMPs is further compounded by the fact that there is a lack of training programmes provided on accounting and fund management before giving full financial responsibility to the community-based management committees, which greatly hinders the ongoing long-term functioning of community projects (Dash et al., 2011; Callamard, 2010; Adam et al., 2002). Several authors have recognized the necessity of enhancing local understanding and skills through various
training programmes to manage project finances (Ryan et al., 2012; Mandala, 2008; Platteau et al., 2005).

In the same light, Ashan and Gunawan (2010) upheld the view that when funds are managed by the project committee and continually monitored by the community development association representing project end-users, the risk of social conflict may be minimized in the long run. Njoh (2011) and Fonjong et al. (2004) put forward the view that lack of accountability in project funds may result in loss of trust, confidence and respect in the project community members and may not only risk social cohesion but also affect the active participation of members of the community in creating an ethos of sustainable project management. Poor accountability in project funds was observed to have resulted in loss of trust, confidence and respect in project community members in two of the communities studied. This is a serious issue in the study sites when it comes to the recovery of costs.

Koontz & Sen (2013) in a comparative study of watershed projects in India and the USA stressed the need to develop the capacity of local community institutions in savings and income-generating activities in case of government defunding. In a similar stance, Bado (2012) referring to rural infrastructure development in the Volta region of Ghana, argued that lack of willingness of local financial institutions to support projects’ committees with funds greatly undermined their ongoing maintenance and extension. This implies that project sponsors need to strengthen the capacity of grassroots to create and promote savings as well as other income-generating activities. Khang and Moe (2008) advocated for direct access to funding as a way to guarantee the long-term ongoing survival of grassroots initiatives. However, this viewpoint on direct access for funds remains questionable on the grounds of the
remoteness of local areas coupled with the fact that banks are practically absent in the rural and peri-urban communities to provide such direct financial access.

Moreover, Karani & Gantsho (2007) evaluating the contribution of the Clean Development Mechanism on poverty alleviation in Africa stressed the role of financial institutions in improving grassroots livelihoods. In addition, Abiona and Bello (2013) and Nyarko et al. (2007) examining the sustainability of community development projects in Nigeria noted that inadequate funding and low income levels of grassroots populations were among other factors impeding the sustainability of local projects. A similar view had earlier been put forward by Forboseh et al. (2003) and Thomas et al. (2000) who when working on the impact of the economic crisis and rural crisis on the environment of the Ijim-Kilum forest site in the North West Region of Cameroon noted that human activities led to the deforestation of more than 74.5km² of the montane forest. This assertion was verified and confirmed during fieldwork as farmers and graziers in and around the Mbai community forest area scramble for grazing and cultivable land in the conservation site, thereby undermining its ongoing sustainability.

**Conclusion**

In spite of the widespread acceptance of the self-reliant community model as a suitable tool that empowers local communities to sustainably ensure ongoing implementation of their projects and to effectively reach out to poor and vulnerable groups, it is still being questioned (Mansuri, 2013; Nkonya et al., 2012; McCommon, Warner & Yohalem, 1990). Empirical evidence on the potential of community-managed projects to continuously meet their purpose over the long term remains mixed (Labonne & Chase, 2011). Among interesting questions capturing the attention
of researchers is the sustainability of donor-supported community projects (Olayide et al., 2013; Njoh, 2011; Mansuri and Rao, 2004). For instance, according to Bado (2012) and Schweitzer & Mihelcic (2012) projects managed by communities are more likely to be sustainable in terms of maintenance than those managed by State agents.

Similarly, Njoh (2011) observes that access to safe drinking water increases for poor and vulnerable people in community-managed more than in state-driven projects. Conversely, community-driven projects that lack continuous external technical, financial and institutional support are not sustainable (Sally et al., 2013; Nkonya et al., 2012; Grieve & Sherry, 2012; Mertens et al., 2000). This chapter throws more light on the extent to which the socio-cultural issues, community management deficiencies and environmental constraints undermine the sustainability of community-managed projects in the context of the North West Region of Cameroon. Although views regarding the challenges facing projects managed by the rural communities in developing countries particularly sub-Saharan Africa remain conflicting; existing literature does acknowledge poor management as the main cause of low levels of sustainability in community-driven projects, even though poor management at grassroots level is largely a consequence of community deficiencies (Moritz, 2008; Harvey and Reed, 2007; Richards, Bah & Vincent, 2004).

Literature reveals the lack of ongoing support from an overseeing institution to motivate and monitor participatory planning; weak capacity building and specialist technical assistance; inadequate coordination of local resources; poor accountability; and environmental constraints associated with topography and climate change as prerequisites for the sustainability of projects that are community-managed. Previous studies acknowledged that community-managed projects continue to fail, despite better understanding of their challenges and efforts made to strengthen community
management capabilities (Kanayo et al., 2012; Labonne and Chase, 2011; Fonjong et al., 2004). Hence, this thesis reviewed a wide range of literature sources (sustainability, management and corporate governance) in order to uncover the underlying factors behind the dwindling sustainability of projects that are community-managed. On the basis of this, a framework was developed that might be used to enhance the sustainability of community-managed project in the North West Region of Cameroon.
Chapter 3: Theoretical and Conceptual Framework

Introduction

A number of concepts, theories and models have been examined to show their relevance in the sustainable management of community projects, on which this study focuses (Figure 3.1). These concepts and theories, in conjunction with the review of literature, facilitated the mapping out of the variables embedded in the research topic, research questions and objectives for effective data collection. This chapter is the continuation of the literature review chapter and it is built on 2 theories, 3 concepts, 2 models and 2 frameworks. It contains an introduction, seven sections which are further broken down into sub-sections and a conclusion.

Figure: 3.1: Outline of the conceptual and theoretical framework
The introduction focuses on the rationale for examining the conceptual and theoretical framework separately from the literature review, and on how the chapter is divided. Section 3.1 focuses on the theory of sustainability with emphasis on how it has been applied across other disciplines. In section 3.2, the theory of community management is reviewed as a composite concept made up of two words: community and management. Section 3.3 handles the appropriate institutional support framework. The concept of stakeholder and its multi-dimensional character is presented in section 3.4. In section 3.5, the model of community-driven governance in projects is discussed. The demand-driven community management model is presented in section 3.6. Section 3.7 dwells on the conceptual framework for this study.

3.1: Theory of Sustainability

With the passage of time the concept of sustainability has acquired substantial load and diverse applications (Kuzdas, Yglesias & Warner, 2013; Harmancioglu, Barbaros & Cetinkaya, 2013). It has undertaken a journey that started with deliberations about the environment and development, then passed through political propaganda (Lynch, 2012; Kiss, 2011) and ended as a strategic tool for sports development and management studies (Bañon et al., 2011; Linsey, 2008). Sustainability was given its theoretical formulation by the Brundtland Commission in 1987 (Kiss, 2011). This concept was later rejuvenated by the 1992 Rio de Janeiro World Summit on Environment and Development (Wiens, 2013). This summit in its Agenda 21 officially states the new outlook towards development and ecological resources management, namely that the environment and development should be managed by an integrated approach in order to guarantee sustainability (Harmancioglu et al., 2013). Section 8 of the Summit’s Agenda emphasizes that sustainability must be achieved in
making decisions for overall development and environmental management at local, national and international levels.

Yet before the Brundtland definition in 1978, the Oxford English Dictionary (1973) literally defined sustainability as the ability to keep or maintain at the proper standard. However, sustainability according to the World Conference on Environment and Development (1987) refers to the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. This definition encompasses both the development and the environmental dimensions of sustainability. In a more refined way, Hodgkin (1994) defined sustainability as the ability of a development project to maintain or expand a flow of benefits at a specified level for a long period after project inputs have ceased. Sara and Katz (1997) put forward a simpler definition of sustainability: as the ability to provide an acceptable level of services throughout the design and implementation periods of the project lifespan. In very few words, Abrams, Palmer and Hart (1998) state that sustainability is whether or not something continues to work over time. Webster et al. (1999) define sustainability of a project as the ability of such project to function continuously keeping physical and non-physical components of the project active, and the ability of the project to continue to benefit the project end-users after external support is stopped.

Since the Rio Summit, sustainability has been a widely popular concept in environmental resources management and development. Sustainability means a long-term instead of a short-term perspective in environmental assessment and development. Along this line, Kuzdas et al. (2013) referring to the Brundtland conference of 1987, stated that sustainability as a concept encompasses three main perspectives of equal significance, namely the environmental, economic and socio-
political perspectives (Figure 3.3). This concept is currently being applied in many fields, especially in policy, planning, marketing, management and business strategy as well as development fields (Bateh et al., 2013; Keitumetse, 2011).

In fact, sustainability is a philosophical concept and thus difficult to measure. Yet there is need to describe it in rather precise terms to assess its relevance to the management of community projects in the context of the North West Region. It is not a fixed or constant goal but is time- and space-related and often depends on current knowledge and goals (Bond, Morrison-Saunders & Pope, 2012; Carvalho et al., 2009; Marshall & Toffel, 2005). Goeminne & Paredis (2010) evaluating the concept of ecological debt noted that many sustainability criteria have been designed, based on quantifiable measures, without overlooking the inevitable immeasurable aspects of sustainable management. It is due to this difficulty that some studies have attempted to conceptualize sustainability in a more simplistic way. For example, Harmancioglu et al. (2013) are among the researchers who conceive sustainability from the economic, social and environmental dimensions (Figure 3.2).

**Figure 3.2: A Narrow Conceptualization of Sustainability**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Dimension</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability</td>
<td>Environmental</td>
<td>Compatibility: how adaptive is the project to the environment? Is the project in harmony with its environment?</td>
</tr>
<tr>
<td></td>
<td>Economic</td>
<td>Efficiency: Is the project self-sufficient in terms of cost recovery? Or are the project users willing to pay for ongoing operations?</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>Equity: Is there equal access and benefit sharing by all community members?</td>
</tr>
</tbody>
</table>

*Source: Inspired by Rio conference report, 1992 and Harmancioglu et al., 2013*
Drawing from the above opinions on the concept of sustainability as well as in Agenda 21 of the Rio de Janeiro World Summit on Environment and Development, it appears that sustainability is fundamentally considered to have three major dimensions: environmental, economic and social. Kuzdos et al. (2014) and Harmancioglu et al. (2013) state that any assessment of sustainability would be premature if it does not address all these three facets. This implies that decision-making on community project management must seek sustainability in the three dimensions; namely, economic (efficiency), social (equity) and environmental (compatibility). A recently added dimension to the three main traditional pillars of sustainability is that which covers institutions (Aksorn & Charoenngam, 2015; Harvey and Reed, 2007). The pillars of sustainability have also been described in the sustainable management of local schemes as the prism of sustainability by Hansmann, Mieg & Frischknecht (2012).

Recently, the effects of climate change on human livelihoods have triggered environmentalists often to pin sustainability to the notions of renewability, resilience and recoverability. Renewability is referred to as the ease with which ecological resources can be replaced, so that sustainability is achieved by restricting the level of use to something at or below the rate of replacement (Kuzdos et al., 2014). Resilience is described as the ability to withstand stress without long-term or irreversible damage, and sustainability is achieved by restraining use to a level below that which exceeds the system”s resilience (Lynch, 2011; Aslam and Collins, 2010). According to Hunter (2013), recoverability is an aspect of sustainability which accepts that detrimental impacts may take place, but concentrates on the rate or frequency of impact in relation to the inherent rate of recovery.
The complexity of the concept of sustainability is depicted in the debate surrounding its measurable criteria. More than two decades after the introduction of the concept of sustainability during the Brundtland Conference (1987), attempts to devise universal objective criteria to measure sustainability have proven very difficult. According to the American Society of Civil Engineers Task Committee on Sustainability Criteria, Loucks (1997) and Gladwell (1999) cited by Harmancioglu et al. (2013) had attempted to define relative levels of water supply sustainability using a combination of measurable criteria such as reliability, resilience and vulnerability. In another perspective Kuzdos et al. (2014) studied sustainability using three criteria, namely reversibility, risk and equity in the context of water governance regimes in Costa Rica. Similarly, De Carvalho et al. (2009) designed a Sustainability Index for integrated water management using a prism to explain what constitutes sustainability. They identified four main dimensions in the prism: social, economic, environmental, political and institutional (Figure 3.3)
From Figure 3.4 above, De Carvalho et al. (2009) developed a more detailed Sustainability Index using 5 key components of sustainability: the socio-cultural component relates to social fairness and equitable distribution; the economic component relates to economically sound principles such as economic growth and cost returns; the environmental component focuses on the protection of the environment and preservation of ecology; the political component means continued support and international stewardship; and finally, the institutional component means sustained capacity and technological progress. Another line of conceptualizing sustainability is that of Carter (1999) called the Sustainability Chain. They suggested motivation, maintenance, cost recovery and continuing support as critical steps to sustainable implementation of projects managed by the local communities.

However, among the critics of sustainability criteria are Lindsey (2008) and Bagheri and Hjorth (2007) who argued that the use of measurement for sustainability
does not make sense; rather, efforts should be made to look for the process indicators to monitor systems for sustainable management. As of now, very little effort has been expended to understand the dwindling sustainability of projects that are community-managed, which arguably require the most attention but at present are the most marginalized types of projects (Sally et al., 2013; Harvey and Reed, 2007). Existing literature seems to suggest that the limited sustainability of projects managed by the local communities is as a result of poor community management practices. This leads us to the theory of community management, a theory associated with community-managed projects on which this study focuses.

3.2 Community Management Theory

Community Management (CM) has become a major tool in the design of rural development projects throughout the developing world. The concept of community management has evolved over the past five decades from paternalistic programmes for obtaining free labour to those that allow and encourage community control (Rondinelli, 1991; Sally, 2013). From the early years of the 1960s, most basic grassroots projects were carried out by State agencies with very slight grassroots involvement. During this time, most national and international assistance agencies understood participation to be limited to voluntary or low-paid, unskilled village labour in the ongoing implementation of grassroots schemes. During the late 1970s and early 1980s, the concept of local participation in the management of the provisioning of basic projects expanded to include consultation with community residents about some aspects of design, and training local caretakers to ensure the monitoring and maintenance (Harvey and Reed, 2007).
In the 1990s, the concept evolved further to imply shifting ownership and responsibility for funding and managing basic schemes to grassroots communities (Fonjong et al., 2004). It is at this phase that initiatives for promoting community management went beyond eliciting the participation of a few local village elders in basic projects design and implementation by the State (Rondinelli, 1991). Much of the project management is now transferred to community groups where control over the operation, maintenance and use of the projects are been accounted for by the community-based groups (Korten, 1986; McCommon et al., 1990). This model of community management implies a different set of relationships between local communities and the government (Figure 3.5).

![Figure 3.5: Evolution of Community Management Model](image)

*Source: Adapted from Rondinelli (1991)*

This means that the Government agents must play a facilitating role in community management rather than being perceived as providers and funders of the delivery of community projects. Thus obstacles to community management could be mitigated if the central Governments provide training and management support to
community-development organizations, and help with the technical aspects of project rehabilitation and expansion (Abiona and Bello, 2013). However, empirical evidence on State-led effort to use central institutions to achieve and promote sustainable management of locally-based projects remains mixed. Studies have questioned the State-led (top-down) approach to management where the central government is viewed as the fundamental stakeholder in the management of national and local schemes.

According to Ndiaye (1999) and Fonjong et al. (2004), State-led management is justified on grounds that it enables the government to fulfil its redistributive function, which is essential to support communities with weak tax bases and communities that lack basic skills and resources (Sally, 2013; Leonard & Marshall, 1982). On the other hand, two positions are used to elucidate states’ inefficiency and failures to use central institutions to manage community-based projects. Firstly, Njoh (2011) and Bates (1981) held that politicians and bureaucrats often take advantage of the state resources to promote their own interests and maximize their own welfare rather than that of the grassroots people. Secondly, Alasah (2011) argued that managers in the State-led approach to management usually tend to maintain master-client relationships and often tend to owe loyalties to their ethnic groups and families rather than to the entire community population. It can be deduced from the above arguments that the fruitlessness of the State-driven development approach and the need to alleviate local over-dependence on external support triggered the transfer of project management from the State agents to the grassroots communities.

The rationale behind the adoption of community management is grounded in the assumptions that it has the potential to allocate local resources equitably, reduce corruption and misuse of resources, and raise the willingness of grassroots to pay for
community services (Sally et al., 2013; Armonios, 2012; Farniyeh & Theodora, 2010). When community management is effective it leads to an increase in the motivation of local residents towards maintaining their community projects. In addition, Harvey and Reed (2007) upheld that effective community management reduces the costs of implementing local projects and enhances their operations and expansion. Besides, Ferniyeh and Theodora (2010) opine that the concept of community management fundamentally provides grassroots members with the opportunity not just to check breakdowns but to make repairs that they can execute more sustainably than government officials.

Moreover, community management was advanced to allow grassroots community-based population to be able to take more expeditious action on project rehabilitation and extension, and to build community skills not only for basic maintenance activities but also for initiating and executing other types of community schemes (Mbih et al., 2014; John, 2011, Fochingong, 2003; Rondinelli, 1991). According to Labonne & Chase (2011), community management is a viable strategy that allows grassroots populations to unveil their basic needs much more accurately than national and municipal authorities. Similarly, Schülenkorf (2012) and Mansuri & Rao (2004) put forward the view that community management has ripple effects in promoting inclusiveness and good governance within poor communities.

Despite the concept of community management being justified by its potential to design projects that are sustainable and more responsive to local priorities (Cicognani et al., 2011; Harvey & Reed, 2007) and its ability to empower grassroots communities to manage and govern their own projects and more effectively target poor and vulnerable groups (Labonne & Chase, 2011) this assertion remains mixed among researchers. Harvey & Reed (2007) questioned the ability of community-
driven management to enhance the sustainability of grassroots projects in the developing countries. They argued that community participation is a prerequisite for project sustainability while community management is not. The question that then emerges is: what is community participation?

Previous studies reveal that the concept of participation in most cases is usually misunderstood and used interchangeably with community management and has become an ambiguous word in the development literature. For instance, it is used to mean active involvement in decision-making and design, and community contributions either materially, financially or intellectually. It has also been used to imply representation of community diversity, and the community taking on ownership and responsibility of the project or having an authority over the decision-making process (Sally et al., 2013; Zone et al., 2013; Virgil, 2010; Kaliba 2002; Ndiaye, 1999; Yacoob and Walker 1991). However, this concept of community management is often misunderstood and used interchangeably with community participation. Community participation is a distinct concept from community management because projects that are under the management of a community can be implemented without effective community participation, and conversely, effective community participation mechanisms can be applied in projects that are not community-managed (Sally et al., 2013).

Harvey and Reed (2007) in their critique of the concept of community management observed a fallacious assumption by proponents of the concept that community management equals greater accountability and responsibility. According to Sally et al. (2013) the capacity of community management to ensure accountability depends actually on the community governing institutions in place and the trust locals have for them. This implies that community participation is a necessary condition for
community-managed schemes to be sustainable. Lesbirel (2011) argues that the literature on community management tends to conceive of communities as equitable social structures. Given that community management is a composite concept comprising community and management, it becomes necessary to clearly articulate community as one of the variables in the conceptual framework and give its relevance and meaning within the sustainable management of community projects in the North West Region of Cameroon.

3.2.1 Concept of Community

Community is a familiar word; everyone uses it. Yet the definition of this concept varies greatly. For example, Psychologists conceive of it as a group formed among members whose solidarity or sense of collectivism is built around interest-based organizations and institutions which they create to fulfil their needs (Ginige, 2010; Jones and Wright, 1987). For Biologists, community refers to a group of organisms sharing a given geographic space or a particular natural environment (Fernback, 2007; Ricklef, 1999). According to Sociologists, community implies a group of people who interact with one another and have common values within a shared geographical location at local, regional, national or global scales (Lesbirel, 2011; Dogbe, 1980).

Economists conceive of a community in terms of the specialization of consumption and production markets as well as division of labour and mutual exchanges (Cutter et al., 2014; Shaffer et al., 2004). From the position of political scientists, community is conceived of in terms of power and legitimate authority to make binding decisions for a particular geographical location (Lesbirel, 2011; Clark, 1973). According to Flint (2010) and Andrea et al. (2008) community is often confused with words like mutual expectation, shared history, values, norms and
patterns of status differentials. It is, of course, none of these things per se. It is
difficult, however, to specify exactly what community is. Social scientists, researchers
and policy makers themselves disagree on the proper definition of community.
Community is derived from the Latin word *communitas*, meaning together’s gift
(Cox, 2008; Edward, 1970). Although the concept of community management
appears to be more recent, its usage transcends modern times. The usage of
community is quite ambiguous due to its multi-dimensional character as
conceptualized by different scholars.

The ambiguity associated with this concept stems from the fact that it is
defined in a myriad of ways and often it assumes homogeneity. Some argue that key
definitions of the concept of community are so abstract that they are empirically
vacuous, vague or even meaningless (Lesberil, 2011; Plant, 1978). The assumption of
homogeneity in the definition of community is quite misleading, particularly when we
consider that there are sub-cultural groups in today’s communities. Turner (1996)
argues that this concept embeds a wide range of socio-economic varieties. In reality
community requires an initial assumption of differing interests among actors
particularly when the population is heterogeneous.

Despite the differing views, Lesberil (2011) propounded that the concept of
community can be conceptualized into four main categories, namely administrative,
spatial, social/ecological and political (Figure 3.6). The existing literature on the
concept of community seems to suggest that it is commonly used to relate to a
collection of people living in close proximity with one another in a rural or an urban
area. Even though community has been perceived as a situation where a collection of
people are living in close proximity to one another in a village or town as a combined
spatio-administrative conceptualization, political theorists attribute deeper
implications and assert that the social and political boundaries of a community can always transcend those geographical and administrative parameters (Lesberil, 2011; Ricklef, 2008; Heywood, 2004).

![Figure 3.6: Conceptual Variability of Community](source)

According to Heywood (2004) spatial communities imply a collection of people in a given geographic location. They can vary from a small neighbourhood to wider areas such as a parish, village or town that share common topographical features such as hills, rivers, lakes, forests and mountains. This implies that a spatial community could include a group of people occupying a mountainous or hilly area. The concept of community can still be pinned down to a regional level which might constitute a range of spatial local communities. For instance, within the Grassland region of Cameroon, the North West Region is a geographically defined community, comprising many communities found adjacent to it. Therefore the word community can be applied to national, international and even regional groupings such as the Asia-Pacific region, Commonwealth, European Economic Community, or even the Earth as a whole like the United Nations community (Lesberil, 2011).
Social and ecological communities according to standard et al. (1999) refer to groups of interacting humans or organisms that share a social or natural space. This implies that they may or may not be confined to spatial and administrative boundaries. Lesberil (2011) affirms that the social and ecological communities are not bound by geography or legal authority, but rather they are bound by interest and even identity. People in such communities tend to share some characteristics in common other than place or jurisdictional boundaries and therefore cut across those boundaries (Kwashie, 2007; Mullender, 2008). According to Liam (2001) and Standrad et al. (1999) the social dimension of community can be sub-divided into occupational, ethnic, religious, gender, regional, electoral and virtual communities. This implies that common interests within communities might forge identity and a sense of attachment (Phoochinda, 2014; Berger, 1988).

Ecologically, community is equally a contested concept in natural sciences. For instance, some do conceive of ecological communities as organisms living in specific habitats that host species which have common biological requirements such as soil type and temperature (Kearney and Zuber-Skerrit, 2012; Fennema, 2004) while others view ecological communities as well organized, with varied species inextricably and complexly linked to one another and to a wider physical milieu (Lyman, 2008; Hill, 2005). The third conceptual dimension of community is administrative. This dimension often, but not always, overlaps with the spatial conception of community. According to Lesberil (2011) administratively defined communities differ from spatially defined ones in that it is the jurisdiction, rather than geography, even though the two may overlap, that determine boundaries. The author described a jurisdictional boundary as a geographical area over which a government body has the legal right to exercise authority. Typical examples of administrative
communities comprise the village, town or city (Alger et al., 2007; Fonchingong and Ngwa, 2005; Lamm, 2001)

The political dimension of community is based on the ability to get people to do what they would normally not do (Lesberil, 2011; Fennema, 2004). Marquardt and Russell (2007) conceive of the political community as not only the governing institutions but also as other interests which make demands on the political system. This implies that the political dimension of a community is different from the economic, social, ecological and administrative dimensions in that its boundaries are determined by the ability to get others to do what they would normally not do.

The complexity in the usage of community has compelled some researchers to suggest that communities should be conceived of in terms of vertical and horizontal (Fremeaux, 2005; Parker, 2004). Where the vertical dimension of communities refers to communities within other communities, such as a regional government broader grouping of local administrative units, national government has authority over a given population living in a given territory of a country or international institutions that may exist in a variety of forms such as the European Union (Mcmillan, 2011; Shields and Seltzer, 1997). The horizontal dimension of communities is conceived of in terms of either economic, ethnic, moral, gender, electoral or virtual communities (Cox, 2008; Totikidis et al., 2005), at different levels of government and hence overlapping (Lesberil, 2011; Nowell and Boyd, 2014). Having critically reviewed literature on the conceptual usage of sustainability, community management and community, it becomes easier to combine these concepts in order to articulate them within the context of this study and hence, the concept of sustainable community management.
3.2.2 Concept of Community-Managed Project

The concept of community-managed projects is quite elusive in the sense that it assumes collective community participation, but in most cases in the North West Region of Cameroon the ongoing management activities of projects are shouldered by just part of the population while the entire community of residents enjoys the results of the projects. For instance, the water project for the villages of Fujua-Fundong-Mentang is enjoyed by all, but not all are contributing towards its ongoing management. It was for this reason that Movuh (2013) questions the extent to which a community-managed project offers local communities an opportunity to derive livelihoods from such projects.

The underpinning philosophy of the concept of community project is founded in what scholars termed „property owned in common” with its associated logic and fallacy. The logic stems from the fact that being a project owned in common, each individual or household has the right to utilize it while ensuring that every individual or household equitably shares the cost of their common project. The fallacy in the logic of commonly owned property lies in the failure to recognise the high quest of all individuals or households to acquire more than their fair share of the project and to pay less than their fair share of the total cost. In like manner, the Greek philosopher, Aristotle, noted that what is common to the greatest number has the least care bestowed upon it (Ostrom, 1990). Following the fallacy in the logic of property owned in common, Garret Hardin (1968) stated that as population grows and greed runs rampant, the commons collapses and ends in „the tragedy of the commons” (Enchaw, 2009; Hardin, 2006).
3.2.2.1 Carrying Capacity and Tragedy of the Commons in CMPs

Like most widely used concepts, the definition of carrying capacity and the tragedy of the commons have attracted the attention of a wide range of multi-disciplinary scholars. The origin of the concept of carrying capacity lies in its use in the shipping industry to describe freight capacity, and a recent review finds the first usage of the concept in an 1845 report by the U.S. Secretary of State to the Senate (Sayre, 2007). Nonetheless, the concept of carrying capacity usually refers to the biological carrying capacity of a population level that can be supported for an organism, given the quantity of food; habitat, water and other life infrastructure present (Ngwa, 2005).

In the developing world, particularly sub-Saharan Africa, the question of how many humans a specific community-driven project could comfortably support seems never to have arisen. Globally this particular question had been avoided until the early 1960s when Hardin (1977) put the situation succinctly in an essay entitled The Tragedy of the Commons. This has been evident as local beliefs and practices are threatened by efforts to carve out land for project construction or resources protection in what are known as community projects without compensation to those who lost their land or resources. It seems that the theory on which the commons problem is based rests on the concept of carrying capacity, which so far has been assumed by some scholars to be static. According to Hardin (1977), the carrying capacity of a particular area is defined as the maximum number of a species that can be supported indefinitely by a particular habitat, allowing for seasonal and random changes, without degradation of the environment and without diminishing carrying capacity in the future (Enchaw, 2009; Ngwa, 2005; Abbott et al., 2001). Garrett Hardin’s The Tragedy of the Commons has proven a useful concept for understanding how mankind has come to be on the brink of numerous environmental catastrophes.
Despite the argument that community-managed projects have the potential to increase transparency, accountability and efficient use of resources by involving members in the decision-making processes of the project (Sally et al., 2013; Opare, 2011; Harvey and Reed, 2007), the ability of local communities to ensure the sustainability of community-managed projects has been largely questioned in sub-Saharan Africa (Anyang, 2013; John, 2011; Rugumanu, 2011). Some observers point to the fact that effective stakeholder networking at the grassroots level is vital in ensuring that community-managed projects satisfy the interests of all stakeholders (Bakker, 2008; Longo and Mura, 2008).

3.3: Socio-cultural theories in community management

Contemporary social researchers have vested so much interest in the development of theories and models that centre on the socio-cultural aspects of community-based management in the developing countries (Jackson, 2013). Unfortunately, the complementary role of these socio-cultural theories and models in community management has received little attention due to the fact that local governments seldom consider grassroots beliefs and norms as a panacea to sustainability loss (Keitumetse, 2014; Jackson, 2011; Grant & Thompson, 1997).

This implies that any attempt to sustainably manage community projects independently of socio-cultural considerations is inadequate. In most societies that are structured around large power differentials, such as feudal hamlets in Europe and colonial possessions in Africa, Latin America and Asia, the lives of the populations are centred on community-based natural resources (Hooker, 2009; Richins, 2009; Armitage, 2005). According to Thakadu (2005) community-based management of schemes and natural resource management depended on local knowledge and skills
that were built up through extended historical experience, in what is described today as resource inventory. The process of inventory usually started with hunters or forest-product gatherers who were mostly women, long before the entire populations moved to settle in the particular site (Enchaw, 2009; Gray et al., 2008; Abbot et al., 2001).

In the developing world including Cameroon, some of the most important natural resources upon which the grassroots communities depend for survival are good climate, plants and animals, caves, and forest compartments that served as catchment areas, wetlands and fragile ecosystems (Keitumetse, 2011; Busapathumrong, 2012). Such naturally endowed areas were not to be easily accessed by community populations because they believed that such areas were inhabited by the gods of the forest through whom the custodians of the local traditions communicated with their ancestors or were used for totemism (Enchaw, 2009; Vecchi and Brennan, 2009; Watson et al., 2002). The first step in managing such forest compartments was to create a myth out of the area by claiming that it was the abode of the gods of the forest. This myth created an aura of sacredness and permitted local authorities and institutions to designate the area as a sacred forest or site (Jackson, 2004; Abbot et al., 2001; Mbenkum and Fisiy, 1992).

Depending on the differences of power and roles, as well as decision-making, the Fon or the particular individual who discovered the spirits in the forest compartment (shrine) could become the priest of such a shrine. This was the case with the Oku Lake (kedzem-mawes) Sacred Forest area, the Lumutu Sacred Forest, Akua-fichua Sacred Forest, Iwe-Awoi or Kongang Sacred Forest and Kovifem Sacred Forest where the Fons of Oku, Kom and Nso respectively are the priests of the shrines (Ako et al., 2010; Agrawal & Chhatre, 2006; Ngwa & Fonjong, 2002). Similarly, other shrines such as Kimanen’s forest, Tokembong’s forest and Iti-Mukain have been
named after those who when hunting were the first to discover the spirits living in them. Based on the myth created, the priest in question elaborated complex norms for the sustainable protection of the sacred forest, together with the animals found in it, which were also considered to be sacred.

Such management norms included declaring the sacred forest out of bounds for cultivation and encroachment was prohibited, reserving special days (*ngokee, *nsamnin in Oku and *ituh ibol, *ituh iyzie in Kom) for the gods of the sacred forests. It is believed that during these traditional off-days the gods of the sacred forests carried out their own livelihood activities and local populations were prohibited from entering and gathering forest products as the gods were not to be disturbed (Peterson et al., 2010; Nkwi et al., 2003).

Another strategy in managing community-based natural resources or vulnerable areas was the use of taboo that ensured sustainability through the prohibition of people from killing sacred animals in and around shrines, such as snakes and chameleons known as children of the shrines (*wan Mawes or child of Mawes). In order to check water pollution, the populations were prohibited from urinating and defecating in streams. All the sacred forests and the plants and animals in and around them were therefore protected *in situ through the mystical and ritual sanctions that were elaborated and were accompanied by a threat of an incapacitating illness, leading to death or death itself if the offending party failed to subject himself or herself to an expensive ritual cleansing process in order to appease the gods (Enchaw, 2009; Hocker, 2009; Abbot et al., 2001).

Beside this form of surreptitious sanction that was at the individual level, there were also communal sanctions meted out by the gods of the land that were related in
part to the ethno-climatology of the local populations. The gods of the land in community project areas used climatic disorders to express their wrath when the man-nature relationship was ruptured through the violation of the norms set for natural resource management. Too much rainfall over a prolonged period or drought that caused paltry harvests were perceived as a wrath of the gods in one or all of the major shrines (Porter-Bolland et al., 2012; Pandit & Bevilacqua, 2011; Maskey, Gebremedhin & Dalton, 2006).

In order to appease the gods and to restore balance and harmony between man and nature, the Fon and his subjects would go to the shrines, pour libations and carry out other rituals. In line with the traditional socio-cultural concepts developed in order to manage and sustain community-based natural resources, sacred forests, shrines and the setting up of management norms such as traditional off-days and taboos were often preferred (Ngwa, 2005, Watson et al., 2002). An understanding of how grassroots communities utilize traditional taboos to effectively sustain their environment could facilitate the sustainability of community-managed projects if integrated in their management practices.

3.3.1: Concept of culture

The term culture is derived from a Latin word „colere”, which means to tend to the earth and grow, or cultivation and nurture (Van Den Steen, 2010; Boyd and Richerson, 2005,). Today, this concept shares its etymology with a number of interpretations (Schein, 1990). For instance, according to Van Den Steen (2010), culture refers to the knowledge of a particular group of people, identified by everything from language, religion, cuisine, social habits, music and arts (Foley, 2008). Similarly, Hofetede and Bond (1984) defined culture as a collective mental
programming: implying that it is part of our conditioning that we share with other members of our nation, region or group but not with members of other nations, regions or groups. In addition, the Oxford Dictionary (2015) defines culture as a way of life, particularly the general customs and beliefs of a particular group of people at a particular time.

Although culture has been proven as an all-powerful and pervasive construct of human existence its conceptualization remains contested (Schwartz, 2013; Schein, 2011; Hofstede & Bond, 1984). As a result, it is problematic to clearly define or measure culture since different disciplines or practitioners adopt radically different approaches to understanding culture (Minkrov & Hofstede, 2012; Bodenstedt, 1990). All the three different above definitions reveal a humanistic view, implying that culture as a concept remains essentially fluid and constantly in motion, making its definition and understanding difficult. However, this study conceptualizes culture from a micro dimension, as the way of life of grassroots people, who utilize traditional taboos, prohibitions and local norms to sustainably govern their communities” basic amenities.

3.4: Community Governance Model

Since the creation of the concept of open source community governance in 1998, much academic research into community governance of projects has followed. Lynn et al. (2000) defines open source community governance as the means of achieving the direction, control and coordination of wholly or partially autonomous individuals and organizations on behalf of the community development projects to which they jointly contribute. However, this concept has received different definitions from
researchers (Markus, 2007; O’Mahony and West, 2006), thus giving the impression that it was created to mean many things.

For instance, some refer to open source community as a type of software license, an approach to development, a type of community and a type of business model. But when the term is used to frame social phenomena its meaning often becomes more elastic (Benford & Snow, 2000). Some theoretical grounding to the principles that constitute community-managed governance was provided by O’Mahony (2007) in his study of open source software communities. The author identified five features associated with the community-managed governance model, namely decentralized decision-making, independence, pluralism, representation and autonomous participation (Figure 3.7).

3.4.1: Decentralized Decision-Making

A community-managed governance model argues that if one group or organization within the community holds all decision rights over the project management, then the project will not be seen as community-managed. It suggests three levels of decision-making that operate in community-managed projects: top level project decisions, sub-project level decisions, and community wide decisions (O’Mahony, 2007). A community-wide decision is a decision on the process, organization or assets of the community. This could include decisions as to whether to allow a commercial organization the use of the community’s image or trademarks, or decisions that affect how the community as a whole may be represented to outsiders. This implies the process of delegating authority to community members at large.
3.4.2: Independence

This model assumes that an independent community management is one that does not rely on any one organization for resources, but could be supported by a multitude of agencies or sponsors, meaning that control over the community projects is independent of any one sponsor but rests with the members of the community itself. This implies that community governance is independent when decision-making at the lowest levels is unencumbered by any single external controlling influence. A community-managed governance system operates either on a voluntary basis or may be paid, but decision-making on the project takes place independently from those not having a stake.
3.4.3: Representation

Howison (2007) postulated that because it is difficult to rest formal control of a project in the hands of many, communities often find themselves needing to establish some means of representing the interests of their members. O'Mahony and West (2006) found that the notion of community project governance in Apache, Gnome, and Debian communities did not start with a representative democracy but moved to one over time. They noted that when representatives are used in a community project, their authority is usually limited to making decisions on behalf of the project as opposed to earning authority over other members.

3.4.4: Pluralism

Another principle associated with the community-managed governance model is that of pluralism. A pluralistic community, according to O'Mahony (2007), is one that allows multiple and perhaps competing points of view in pursuing a course of action. It is assumed that by ensuring pluralism, community-managed projects would not only prevent a dominant control group from forming, but they would encourage the sustenance of a multilateral participant base.

3.4.5: Autonomous Participation

According to Lakhani and Wolf (2005) a community-managed governance model enables potential contributors have the freedom to contribute on their own terms. Participation in community projects is triggered by the opportunity to learn, solve technical problems or improve their skills (Lakhani and Wolf, 2005; Dalle and Jullien, 2003). Having reviewed the model of community-managed governance, one finds that its fundamental principle is that any governance model, whether formal or informal,
should not impinge on members’ freedom to contribute on the basis of their own interests, motivations, and abilities (Howison, 2007).

Despite the wide recognition of the potential of the community-managed governance model in enhancing the sustainability of projects at grassroots levels, some critics have argued that it could be time and resource consuming especially when there is no existing platform of coordination in the grassroots community (Harvey and Reed, 2007; Jackson & Sulley, 2003). Again, it is argued that raising the participation of the grassroots could cause deep conflicts within the community particularly when not all groups are represented in the process (John, 2010; Buccus et al., 2008; O’Brien, 2007; Fonchingong and Ngwa, 2005). Finally, critics suggest that with a large number of participants in the planning process of a project, communication and information sharing among and between stakeholders become ambiguous and troublesome (Nangoli et al., 2013; Robles-Murua et al., 2007).

3.5: The Concept of Stakeholder

This concept is associated with specific research question three, which seeks to evaluate human resource challenges affecting the sustainability of community-managed projects. With the passage of time the stakeholder concept has gained widespread load and diverse applications (Freeman et al., 2010, Welch & Jackson, 2007). It has been widely used across different disciplines, notably in the social science, management and business fields (Emerson et al., 2012; Proenca, 2003; Orts and Struler, 2009). This concept owes its theoretical creation to the Stanford Research Institute in 1963 (Verbeke & Tung, 2013; Scots & Lane, 2000). The concept was later rejuvenated by Freeman (1984) as a group of people who can affect or can be affected by the achievement of the organization's objectives (Fraser, 2013; Scots, 2011). It has
been argued that the stakeholder theory lacks clarity over who the stakeholders actually are (Miles, 2012). In fact, Freeman’s (1984) conceptualization of stakeholder has been criticised on the basis that it is too wide as it considers everybody as stakeholders in just every form (Freeman et al., 2010; Doloi, 2012).

In accordance with Friedman and Miles (2006), the concept of stakeholder has been indiscriminately used and therefore there is need to standardize its usage. Stakeholder usage cuts across various disciplines such as business, management, governments, non-governmental organisations and media studies thus, making its comprehension quite confusing (Freeman et al., 2010; Okoye, Egbuike and Meduoye, 2013). Despite the widespread usage of the stakeholder concept, most who employ it neither define it nor provide any specific understanding of what a stakeholder actually is (Mok et al., 2015; Emerson et al., 2012). Evidence shows that even in academic circles, countless definitions of the word stakeholder have been put forward without any of those suggested ever gaining consensus (Miller and Oliver, 2015; Bonafous-Boucher & Procher, 2010; Sternberg, 2006), and hence there seems to be no single, definitive and generally accepted definition (Emerson et al., 2012; Beach, 2008) (Table. 3.1).
Table 3.1: Conceptual Definitions of Stakeholder

<table>
<thead>
<tr>
<th>Author/Year</th>
<th>Summary of definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeman (1984)</td>
<td>... the relationship between stakeholder and the company</td>
</tr>
<tr>
<td>Starik (1994)</td>
<td>... the position of the stakeholder towards the company</td>
</tr>
<tr>
<td>Freeman &amp; Reed (1983)</td>
<td>... the company as dependent upon the stakeholders</td>
</tr>
<tr>
<td>Clarkson (1994, 1995)</td>
<td>... the stakeholder as running some kind of risk</td>
</tr>
<tr>
<td></td>
<td>... the stakeholder as having an interest in the company</td>
</tr>
<tr>
<td>Hill &amp; Jones (1992)</td>
<td>... the company and the stakeholder as engaged in contractual relations</td>
</tr>
<tr>
<td>Carroll (1993, 1989)</td>
<td>... the company as holding power over the stakeholder</td>
</tr>
<tr>
<td></td>
<td>... the stakeholder having a moral right over the company</td>
</tr>
<tr>
<td>Wicks et al. (1994)</td>
<td>... the company and stakeholder as mutually dependent</td>
</tr>
</tbody>
</table>

Source: Adapted from stakeholder literature, 2015

From the above definitions, it is noted that although each researcher defines the concept of stakeholder differently, they do to a lesser or greater extent reflect the fundamental principle that each company is supposed to take into account the needs, interests and influences of peoples and groups who either impact on or may be impacted by its policies and operations (Emerson et al., 2012; Frederick et al., 1992). For instance, Mitchell et al. (1997) conceived of stakeholders as „any human agency” whereas Starik (1994) referred to stakeholders as „any naturally occurring entities”. Crane et al. (2004) conceptualized stakeholders as „citizens” while Macmillan and Jones (1986) used stakeholders mean a „coalition of people”. The Stanford Research Institute (1963) had initially used the word stakeholders to mean „groups”. For Donaldson and Preston (1995) stakeholders are individuals who influence or are influenced by the organization’s objectives. Hendry (2001), on the other hand, described stakeholders as moral actors. According to Orts & Strudler (2002) stakeholders are participants in an organization. Mattingly (2004) uses the word
stakeholders to imply socio-political actors whereas Philips (1997) conceived of stakeholders as voluntary members of a cooperative scheme.

Clarkson (1995) noted that the concept of stakeholder comprises three fundamental dimensions: the organization, the other actors and the nature of the company-actor relationships. Recently, Norland and Philips (2010) conceptualized stakeholders as shareholders and societal stakeholders. They classified shareholders as internal (executives, employees and trade unions) or external (such as customers, suppliers, banks, investors and competitors), whereas societal stakeholders include local communities, activist groups, civic associations, non-governmental organizations, media, governments and international institutions (Thomspson, 2011; Philips, 2003). Despite the criticisms levied on the usage of the stakeholder concept across different fields, the context in which it is being used needs to be taken into consideration (Miller & Oliver, 2015; Gray, 1996; Mahon, 2002). It implies that anyone looking to develop a schema of weighing stakeholder needs to narrow down the range of stakeholder to focus on the critical ones on which the organization depends for survival. In this context (Figure 3.8), critical stakeholders on which community projects in the North West Region of Cameroon depend for survival include community-based organizations, local authorities and non-governmental organizations (Njoh, 2011; Fonjong, Ngwa & Fonchingong, 2006).
Despite the countless definitions and differing emphases, which might result in distorted conceptual interpretations of the stakeholder concept, a good number of researchers do adopt the definition idealized by Freeman (1984) as individuals or groups that may affect or be affected by the scope of organizational goals. The problem with this conception is that a person, an informal group, an organization or an institution may all be considered a stakeholder.

### 3.6: The Demand-Driven Model

This model is closely associated with research question four which seeks to investigate common funding challenges affecting the sustainability of community-managed projects in the North West Region of Cameroon. This model assumes that cost-recovery becomes possible when participation from project beneficiaries is encouraged at the beginning; involving every household member in technological
choice and institutional arrangements, giving women a bigger role in decision-making, and making project beneficiaries pay for all of the operation and maintenance. Cost-recovery is sometimes difficult in projects controlled by communities due to villagers’ mentality and their continuous attachment to the traditional free use of schemes (Whittington et al., 2009; Evans, 1992). It holds that long-term financial self-sufficiency and reduced dependence on external funds could be achieved through demand-driven solutions whereby user fees are imposed in a careful pricing and billing way.

Similarly, Carter (1999) argued that making project beneficiaries understand the potential benefits of improved quality, quantity, and more convenient and reliable project outcome would encourage payment and cost-recovery. A study conducted by Whittington et al. (2009) on community management of rural water supply projects in Peru, Bolivia and Ghana found that even though the projects were in poor financial shape, they were in working order due to the fact that they were realized on the demand-driven principle. Similarly, Harvey & Reed (2007) argue that community-managed projects in the developing world are kept functioning by access to spares, technical expertise and the community’s own cost-recovery efforts. However, the willingness to pay for community service provisioning depends on factors that at times are beyond the control of poor and vulnerable communities (Figure 3.9).
Figure 3.9: Determinants of the Willingness to Pay for User Fees in Community-Managed Projects

The demand-driven model attributes success in community-managed schemes to financial self-sufficiency, which will allow communities to carry out their own system rehabilitation and expansion. This model argues that the sustainability of community-managed projects is influenced by the willingness of project end-users to pay for user fees. This implies that non-governmental organizations should act as a catalyst and provide post-project management support rather than act as a dispenser of capital subsidies that may undermine community-based cost-recovery efforts, and therefore should work to foster demand-driven management at grassroots (Whittington et al., 2009).

3.7: Conceptual Framework

Although community-managed projects have been widely acknowledged by both the international and national development agencies as the most viable way of uplifting community wellbeing and conserving endemic species as well as mitigating the effect of climate change at the micro level (Tran et al., 2015; Buchenrieder & Balgha, 2013;
Rantala et al., 2012; Njoh, 2011; Alam and Collins, 2010; Chuku, 2010; Fonjong et al., 2004), the mechanisms for ensuring the sustainable management of these projects at grassroots level are frequently overlooked (Ameha et al., 2014; Turner, 2009), and yet they play a significant, often pivotal role in the sustainability of projects that rely on community self-reliant efforts (Nkonya et al., 2012; Kumasi et al., 2010). In this light Sally et al. (2013) assessed the impact of urbanisation on the effectiveness of the community-driven water supply scheme in the South West Region of Cameroon. They found that stranger-native divide and project committee reliance on the municipal council for decision-making threaten the long-term effective implementation of the scheme. Similarly, Njoh (2011) identified a real sense of ownership among the beneficiary population as critical for the sustainability of projects managed by the local communities.

However, the sustainability of community-managed projects in terms of targeting poor and vulnerable groups in developing countries remains a debatable issue (Nkonya et al., 2012; Harvey & Reed, 2007). Some studies argue that community-driven projects have the potential to better meet the needs of grassroots people and provide services that better match with local concerns, culture and environment than externally-driven projects (Abiona and Bello, 2013; Dash et al., 2011; John, 2011). Despite previous studies that have appraised the sustainable management of community projects and their potential to drive local communities out of misery and neglect (Ako et al., 2012; Fonchingong et al., 2009), there were only a few notable exceptions (Akei; 2015; Sally et al., 2013; Harvey & Reed, 2007; Fonjong et al., 2004) who attempted to evaluate the impact of community-driven schemes on local communities and factors affecting the effective running of these projects. As of now, there has been limited attempt made to gain a holistic
understanding of underlying factors behind the dwindling sustainability of community-managed projects in Cameroon, particularly the North West Region where this study focuses.

Inductively seeking to understand why community-managed projects in the region have had such limited sustainability has revealed that the non-incorporation of the socio-cultural and anthropological background of project end-users and subjective identification of stakeholders in community projects, among other factors directly influence project end-users’ real sense of ownership and responsibility over the ongoing operations of projects in this region. This aligns with the view that whenever people perceive local projects as being alien and not theirs, they will feel little or no responsibility for their ongoing support (Crow, 2013; Njoh, 2011; Whittington et al., 2009). The low sustainability levels of community projects in the developing world usually arise when community project providers either make no effort to learn, or simply disregard local realities and beneficiary preferences (Njoh, 2011; Alam and Collins, 2010).

Similarly, Rondinelli (1991) had explored critical factors for sustainable management of rural schemes and identified inter-organizational relationships among national, community and local agents, use of suitable technology to observe, evaluate and obtain feedback, adequate incentives and skills and resources available, as important issues to guarantee the sustainability of community-managed projects (Figure 3.10).
This model was developed and applied in the sustainable management of water supply schemes in the developing countries by Rondinelli (1991) and was later rejuvenated by Njoh (2011) in a study conducted on two community self-reliant water supply projects, in Mpundu and Bonadikombo, South West Region of Cameroon. The study concluded that citizens’ sense of real or potential ownership and control over the project were fundamental for sustainability. It seems that limited levels of sustainability of community projects often result from weak involvement of community members in their conception and planning phases.

On the basis of this framework on the factors influencing the sustainability of projects that are community-managed, three conclusions can be drawn. Firstly, in terms of a real sense of ownership the framework reveals that the willingness of
grassroots to become fully involved in any project’s ongoing management depends on whether the beneficiary population perceives such a project as truly theirs. Secondly, it can be deduced from the framework that the size of a community has far-reaching implications for the sustainable running of community-driven projects, especially when it comes to raising resources either in kind or in cash to carry out ongoing rehabilitations and expansion of the community-managed projects. Thirdly, an important finding from the frameworks and theories discussed above is that the higher the beneficiary involvement is in the planning and decision-making process for their projects, the more sustainable such a project is likely to be. From these conclusions outlined, active involvement of a community in the planning and decision-making process is an important predictor of the sustainability of projects that are community-managed.

Based on an extensive review of literature, frameworks and concepts related to the sustainable management of community projects and data drawn from the field, this study realizes that many studies have paid attention to understanding the link between poor management and the sustainability of community-managed projects (Figure 3.11). Nevertheless, the literature has revealed that the sustainability of community-managed projects is not only riddled by poor management, but it is also riddled by the false perception of indigenous communities as homogeneous areas of social consensus while their internal diversity is ignored by project providers (Sally et al., 2013; Alam and Collins, 2010; Harvey and Reed, 2007; Fonchingong, 2006). However, previous studies tend to assume that the sustainability of community-managed projects is guaranteed whenever the beneficiary population have a real or potential sense of ownership and responsibility over the projects. Practically, even the
sense of ownership and control of local projects among end-users have been influenced by other factors.

Therefore, the proposed conceptual framework developed on the basis of the literature review and fieldwork proposes that if community-managed projects are to be sustainable, the project end-users should perceive them as an integral part of their lives. For this to happen the socio-cultural and anthropological aspects of the project end-users should be incorporated into the entire frame of the project’s management; a careful and honest identification of stakeholders in community projects as well as an increase in community governance capacity and environmentally friendly practices are required (Figure 3.11).
Figure 3.11: Developed Conceptual Framework for sustaining CMPs in the NWRC

The framework opines that the sustainability of community-managed projects depends on the extent to which the project end-users have a real sense of ownership and responsibility over the project’s ongoing operations. This designed framework guided the researcher in answering the specific questions designed to understand: a) To what extent does project providers’ inadequate knowledge of the socio-cultural background of project end-users affect the sustainability of community-managed projects in the North West Region of Cameroon? b) What natural environmental conditions prevail in the North West Region of Cameroon and how do they impact on the sustainability of community-managed projects in the region? c) How do existing
technical challenges at grassroots level influence the sustainability of community-managed projects in the North West Region of Cameroon? d) How do issues of transparency, accountability, the role of the law and confidence affect the sustainability of community-managed projects in the North West Region of Cameroon? e) What are the funding challenges common in the North West Region of Cameroon and how they do undermine the sustainability of community-managed projects in the region?

In fact, the majority of previous studies particularly in the developing countries have focused on the role of poor management in the dwindling sustainability of community-managed projects (Simmons et al., 2011, Ako et al., 2010; Whittington et al., 2009; Komives et al., 2008; Armstrong, 2000). Other studies have considered the impact of population pressure and composition on the sustainability of community-managed projects (Sally et al., 2013; Harvey and Reed, 2007; Elkington, 2006; Opare, 2007). In addition, the effects of climate change on projects that are community-managed are evaluated both in the developed and the developing world (Sánchez, 2015; Marks & Davis, 2012; Taylor, 2009; Lubell et al., 2002). Yet studies in less developed countries, particularly in the NWRC, have often overlooked whether there was any association between the subjective identification of stakeholders in community projects, disregard for socio-cultural and political institutions, poorly trained committee members, limited contacts between project providers and end-users, and increasing temperatures and reducing amounts of rainfall which result in greater incidence of bush fire and threaten the sustainability of community-managed projects in the North West Region of Cameroon. On the basis of these gaps in the literature, the conceptual framework was proposed on how community-managed projects could be sustained (figure 3.11 above).
3.8: Conclusion

Having examined theories, concepts and models associated with the research topic, aim and objectives, their usage and application became easy and the choosing of an appropriate research methodological approach for this study was likewise facilitated. The lesson learnt from reviewing these concepts, theories and models clearly depicts the fact that a theory, concept or model becomes more tenable when it survives scientific assaults. Even within the same schools of thought, the same philosophical underpinnings of a theory are seldom evident. These divergent views are indicative of the fact that the sustainable implementation of community-managed projects depends on a combination of factors which cut across socio-cultural, environmental, technical, governance and economic dimensions.

The review of literature and concepts, theories and models reveals two fundamental implications: that the community management model enables the grassroots to have full ownership and responsibility over the ongoing implementation of projects that are community-driven, and that with the advent of technology and due to the desire of grassroots communities for improved services, a new model is needed to ensure the sustainability of CMPs. This gap fashioned our thinking regarding the sustainability of community-managed projects in the North West Region of Cameroon, and we therefore drew from the sustainability factor models of Rodinelli and Njoh to develop a conceptual framework for this study as shown in Figure 3.11 above.
Chapter 4: Research Design and Methodology

Introduction

Despite the use of a myriad of efforts at both national and local levels to improve the sustainability of community-managed projects in the NWRC, their sustainability remains doubtful. The underlying factors behind the dwindling sustainability of community-managed projects are what this study is seeking to investigate. In order to carry out the study effectively, an appropriate research methodology is designed as a mechanism to achieve the aim of the study. This chapter comprises an introduction, six sections and a conclusion. The introduction focuses on major pronouncements associated with the literature for this study and an outline of the main articulations of the chapter. Section one dwells on literature that is related to the types of research philosophies and their underpinning assumptions. It also puts forward the reasons for the adopted philosophy. Influenced by the adopted philosophy, an inductive approach is discussed in the second section of this chapter.

Section two focuses on the various research approaches, the conditions under which each approach can be used, and the conceptualization of community-managed projects. An exploratory multi-case study design which is adopted is discussed alongside other research designs in the third section. Section four is dedicated to the research strategies vis-à-vis the adopted strategy, which in the context of this study are four community-managed project case studies. In this section an explanation of why this study adopted a cultural approach and not a political approach is also provided. Influenced by the adopted research strategy, a triangulated method of data collection consisting of semi-structured interviews, focus group discussions, questionnaire, field observation and document reviews is discussed in section five.
This section also comprises the sample size, validity, reliability and variables as well as ethical considerations. Finally, data analysis techniques are discussed in section six. The presentation of the findings is undertaken both inferentially and non-inferentially using graphs, charts, tables and other numerical forms. The layout of this chapter is presented in Figure 4.1 below.
The credibility of a research depends on its philosophical choices since they have the potential to influence the assumptions, arguments and interpretations of the research (Bryman & Bell, 2013; Simons, 2009). This implies that the robustness of
analyses which can withstand the test of time is deep-rooted in the choice of the appropriate methodology for the study. All things being equal, if these criteria are met, errors are either completely eliminated or drastically minimised (Yin, 2013). For instance, Kuhn (1970) in his book *The Scientific Revolution* argued that an appropriate research paradigm provides a conceptual framework about how problems should be understood and addressed. Similarly, Creswell (2013) asserts that it is crucial to consider the underpinning philosophical assumptions when designing the methodology, because they have the potential of affecting the research from start to finish.

Therefore, bearing in mind the probability of ontological and epistemological paradigms to influence this research, a careful review of the two paradigms is undertaken in order to link them with the adopted methodological choices. As Easterby-Smith & Thorpe (2010) put it, paradigms offer researchers a philosophical framework for shaping their research. From the above viewpoints it can be argued that ontological paradigms relate to assumptions which deal with what may constitute an objective or subjective reality in the mind of the researcher (Farquhar, 2012; Bryant & Lasky, 2007) whereas the epistemological paradigms on the other hand concentrate on the most appropriate way a research can be carried out to uncover knowledge (Saunders, Lewis & Thornhill, 2012; Creswell, 2013).

### 4.1: Research Paradigms

It is noted that tacit answers to questions about ontology (i.e. what are we studying?) and epistemology (i.e. what is the basis of warranted knowledge about our chosen study?) highly impact upon any methodological engagement (Bryman & Bell, 2013; Saunders et al., 2012). This implies that despite varying stances with regard to
knowledge, constituting assumptions about the nature of truth, the nature of human
behaviour and the possibility of neutral representation of the facts any researcher is
supposed to be investigating: such ontological or epistemological paradigms cannot
be avoided. According to Bryman and Bell (2013), epistemology is concerned with
the question of what is or should be considered as acceptable knowledge whereas
ontology is concerned with the nature of reality. The question is: what is real? Does it
mean that reality exists independently or externally from social actors; or should
reality be considered to be socially built up from the perceptions and actions of social
actors? These ontological positions have frequently been referred to as objectivism
and subjectivism respectively (Easterby-Smith & Thorpe, 2010; Collis & Hussey,
2010).

4.2: Research Philosophy

Influenced by the paradigms discussed above, the various types of research
philosophy are identified and their characteristics highlighted. In the context of this
study four key research philosophies associated with the epistemological paradigm are
discussed. They include positivism, interpretivism, pragmatism and realism (Creswell,
2013). The rationale for highlighting the strengths and weaknesses of the main
philosophical types is grounded in the view of Farquhar (2012) who asserts that
adopting consistency and rigour throughout the research methodology not only
minimizes bias but increases the generalizability of the research findings.

4.2.1 Positivism

The doctrine of positivism revolves around observable reality and searches for
regularities and causal relationships (Saunders et al., 2012). The prime aim of the
positivist is to seek causal relationships in data to create law-like generalizations
through hypothesis testing (Gill & Johnson, 2010; Johnson, Buehring, Cassell & Symon, 2007). It means that a positivist research seeks insights into phenomena on the basis of measuring and observing embedded variables (Collis and Hussey, 2010). Some characteristics of the positivist philosophy have been identified in Table 4.1 below in order to assess its suitability for this study.

Table 4.1: Descriptive aspects of the positivist philosophy

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causality</td>
<td>... science aims to find causal explanations and fundamental laws that explain regularities in human behaviour</td>
</tr>
<tr>
<td>Independence</td>
<td>... researcher needs to be independent from that which is being observed</td>
</tr>
<tr>
<td>Observation</td>
<td>... only knowledge confirmed by the senses can be warranted as knowledge and as such is verifiable</td>
</tr>
<tr>
<td>Operationalization</td>
<td>... concepts need to be operationalized so that they can be measured</td>
</tr>
<tr>
<td>Hypothesis generation</td>
<td>... the purpose of theory is to generate hypotheses which are then tested to allow for explanations</td>
</tr>
<tr>
<td>Objectivity</td>
<td>... science is value-free, i.e. reality is independently derived from human beings</td>
</tr>
<tr>
<td>Reductionism</td>
<td>... problems as a whole are best understood if they are reduced to the simplest elements</td>
</tr>
</tbody>
</table>

Source: Conceived by author from review of Farquhar, 2012

From Table 4.1 it can be deduced that Positivist philosophy sees science as a demonstration of regular causal relationships among observable facts in a deductive way and through observation. In this regard, it seems that positivist researchers will prefer to deal with only observable facts within the boundaries of science. According to O’Donnell, Kramar & Dyball (2013), positivism seeks to obtain predictive information related to the social reality and the external world as the main purpose of science. For instance, positivism advocates the construction of theories of general propositions representing regular causal relationships (Bryant and Lasky, 2007). The
author holds that these theories of general propositions can be obtained only through systematic observation and experiment. For the purpose of the study, positivist logical reasoning seems to be less suitable, the reason being that this philosophy considers observation, structured questionnaire and experiment as the key source to obtain precise empirical knowledge (Bryman and Bell, 2013). Because this study seeks to gain in-depth understanding of what accounts for the low sustainability of projects driven by communities in the North West Region of Cameroon, an interpretivist line of thinking seems to be most suitable.

4.2.2 Interpretivism

The doctrine of interpretivism is extremely easy to pin down and it is concerned with grasping unique truths from individuals or groups with emphasis on understanding rather than seeking objectivism (Farquhar, 2012; Bryant and Lasky, 2007). This philosophy assumes that social reality has meaning for human beings and therefore human action has meaning for them and they act on the basis of the meaning that they attribute to their actions and to the actions of others (Bryman and Bell, 2013). It means that this doctrine enables a researcher to gain access to people’s “common-sense thinking” and hence to interpret their actions and their social world from their point of view. From the above viewpoints related to positivist and interpretivist philosophies it can be asserted that they are not fundamentally in opposition to each other but rather each philosophy requires a different analytical lens for the same data (Acquaye, 2013).

This means that although they seemingly oppose each other in the sense of objectivity and subjectivity, rigorous methodological research choices could complement these doctrines (Farquhar, 2012). It is now clear that the interpretivist philosophy will provide room for an in-depth understanding of the phenomena in the
aforementioned views of this study. Based on some common features that characterize the interpretivist philosophy, this philosophy has been described by some social scientists as the same as phenomenology (Bryman, 2012) and social constructionism (Easterby-Smith & Thorpe, 2010). Such common features of the interpretivist philosophy are presented in Table 4.2.

Table 4.2: Key Assumptions of the Interpretivist Philosophy

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding</td>
<td><em>It means that reality is viewed as socially and societally embedded and exists within the mind. It is fluid and changing and multiple realities are presumed.</em></td>
</tr>
<tr>
<td>Subjectivity</td>
<td><em>This involves interpreting the meanings and actions of actors according to their own subjective frames of reference.</em></td>
</tr>
<tr>
<td>Subjective</td>
<td><em>Knowledge is constructed and based on shared signs and symbols recognized by members of a culture. Research encompasses researchers’ own views and how they have been constructed.</em></td>
</tr>
<tr>
<td>Setting</td>
<td><em>The emphasis is on natural settings, and the subject of research is not removed from what surrounds it in everyday life. It involves an in-depth investigation.</em></td>
</tr>
<tr>
<td>Holistic</td>
<td><em>To interpret a phenomenon, the researcher must look at its parts in terms of its whole and the whole in terms of its parts.</em></td>
</tr>
<tr>
<td>Rich insight</td>
<td><em>By exploring in depth, the researcher can gain a much fuller understanding of the phenomenon.</em></td>
</tr>
</tbody>
</table>

Source: Drawn by author inspired by Farquhar (2012) and Bryman & Bell (2012)

Having outlined the strengths and weaknesses of the interpretivist philosophy through its characteristics, it becomes certain that this study will employ the interpretivist logic of thinking. The reason for adopting this philosophy is presented in detail in sub-section 4.2.4 below.
4.2.3 Pragmatism

The pragmatist philosophy recognizes that there are various ways of interpreting the world and undertaking research (Suanders et al., 2012). This entails the understanding that no single point of view can ever provide the entire picture of the world and that there may be multiple realities about the world. According to Bryman and Bell (2013) pragmatist philosophy emanates from actions, situations and aftermath rather than antecedent conditions as in the case of positivist philosophy. Supporters of this philosophy argue that the most important determinants of a research strategy are the research questions, not necessarily the ontological and epistemological assumptions underpinning it (Bryman, 2012; Saunders et al., 2012; Simons, 2009). Pragmatists do not always use multiple methods; rather they use a method or methods that enable credible, well-founded, reliable and relevant data collection that answer the research questions (Maxwell, 2010; Kelemen & Rumens, 2008).

From the above discussion it can be asserted that the main focus of pragmatist philosophy is the research questions and not the methodological assumptions underpinning the research. This implies that a wide range of methods are explored to deepen the understanding of the research problem by the researcher. For this reason, this study will not adopt the pragmatist philosophical stance.

4.2.4 Realism

According to Kuhn (1971) and Wooldridge (2003) the realist philosophical position relates to scientific enquiry. It supports the positivist stance that objects have an existence independent of human control. Realism equally shares the interpretivist stance that knowledge is socially constructed (Yin, 2009). This means that the realist doctrine blends aspects of positivist and interpretivist philosophies since it acknowledges causality and a high degree of contextual analysis (Easterby-Smith et
al., 2010). Similarly, Harrison (2013) suggests that realism like positivism assumes a scientific approach to the development of knowledge. It can be concluded from the above discussion that the realist philosophical stance is not restricted to one paradigm of thinking but rather it gives the laxity to draw from both (Yin, 2009; Robson, 2002). This philosophy seems to be less suitable not only to answer the research questions but to perfectly complement the adopted methodological choices.

Having understood the basic aims and characteristics of various research philosophies, and considering the questions and objectives formulated to guide this study, the interpretivist line of inquiry is deemed most suitable for this investigation. Figure 4.2 below provides the justification for the adopted philosophy. The rationale for the chosen philosophy is that this study seeks to gain in-depth understanding of the factors responsible for the limited sustainability of community-managed projects, and this philosophy seems suitable. It allows for interaction between the investigator and the objects under investigation, as the only way whereby deeper comprehension can be made (Easterby-Smith et.al, 2010; Jogulu & Pansiri, 2011).

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**Figure 4.2: Chosen Research Philosophy**

[Diagram showing the relationships between research philosophies and their associated methods.]

*Source: Developed from literature on research methods, 2015*
From the above discussion on philosophical assumptions, an alignment of the research questions formulated to guide this study is most suited to the interpretivist line of inquiry. For instance, it allows the researcher and the participants to collectively co-construct findings from their interactive dialogue and interpretation. Supporters of this philosophy argue that humans interpret the world that they inhabit and attribute different meanings to this world. The formulation of research questions on the basis of a comprehensive review of literature related to sustainability of community-managed projects subsequently led to the development of a conceptual framework for the study. This process then paves the way for an inductive approach to theory development.

4.3: Research Approach

The philosophical foundations of inductive and deductive methodological approaches to research are pivotal in enabling an understanding of the relationship between theory and research (Ketokivi & Mantere, 2010). For instance, the importance of thinking of the relationship between theory and research in terms of inductive and deductive approaches has been noted by Saunders, Lewis & Thornhill (2009) and Bryman and Bell (2013). According to Saunders et al. (2009) common approaches used in social science research include inductive, deductive and abductive.

4.3.1: Deductive Approach

This approach entails the development of a theory that must then be subjected to rigorous testing through empirical observation of the facts using data collection (Saunders et al., 2012). It implies that this approach is predominantly used in natural science research where laws make up the basis for explanation of phenomena. As Creswell (2013) puts it, a deductive approach to research relies on concepts that need
to be operationalized in a way that enables facts to be measured, often quantitatively. The argument is that research problems are better understood if they are reduced to the simplest possible elements, known as operationalization or the principle of reductionism. This approach is considered to be less suitable for this study because it is deeply rooted in hypothesis formulation and testing of theory.

4.3.2: Abductive Approach

Contrary to the deductive approach which moves from theory and hypothesis formulation to data collection, and to the inductive approach which starts from data collection and proceeds to theory building, the abductive approach begins with observation of phenomena and then works out a plausible theory of how such phenomena could have taken place (Farquhar, 2012; Steverson, 2005). It is developed from explanatory or theoretical ideas, which result in close examination of particular cases (Bryman, 2012; Yin, 2009). The fact that the abductive approach to research is not a matter of logic, but seeks to generate a new theory or modify an existing theory through additional data collection, makes it less suitable for this research Instead, inductive reasoning seems to be most suitable in enabling the researcher to understand what is accountable for the limited effectiveness of community projects in the study area (Figure 4.3).
4.3.3 Inductive Approach

Unlike the positivist approach to research, which is based on hypothesis formulation and theory testing (Farquhar, 2012), the inductive approach is viewed as most suitable to permit the study to derive a theory from data, by looking for patterns in the data collected. Johnson et al. (2007) put forward the view that a theory developed inductively out of systematic empirical research is more likely to fit with the data.

Considering the fact that the questions accompanying this study are deeply rooted in theories relating to community management, such research questions were formulated to guide the researchers’ understanding of the factors limiting the effective running of community-managed projects in the study area. This line of reasoning puts this study into the trajectory of an inductive research approach. Regarding the specific research questions formulated to guide this study, and given that they seem not to be deeply rooted in theory, an inductive logic thus appears to be the most suitable approach to be followed in finding answers to them. It means that this study is not
seeking theory or hypothesis testing; rather, it is seeking to contribute to the existing theory on the community management of projects.

Therefore, focusing on the sustainability of community-managed projects in the context of Cameroon, on which there is very little existing literature, it would be more appropriate to work inductively by generating data and reflecting upon what theoretical themes the data are suggesting. Besides, this study is not only concerned with the context in which the phenomena are occurring (Bryman and Bell, 2012) but is more likely to work qualitatively and to use a wide range of methods to collect data in order to establish different views on the phenomena (Yin, 2012). Therefore, in order to understand why community-managed projects have had low sustainability in terms of ongoing functioning, an inductive line of reasoning is adopted so as to gain insights into the phenomena. This is in line with the argument of Saunders et al. (2012) that if a research is particularly interested in understanding why something is happening, rather than being able to describe what is happening, it will be more appropriate to undertake such a research inductively rather than deductively.

The outcome of any research is not just influenced by the adopted philosophy and approach to theory (Creswell, 2013) but by the adopted underlying methodological choices such as research design and techniques for data gathering (Robson, 2011; Saunders et al., 2013). The researcher must therefore be conscious of the fact that the validity, reliability and replicability of research findings depend upon the type of research design employed. Methodological choices refer to the general guide of how a researcher wants to provide answers to his/her research questions (Modell, 2010; Creswell, 2013). It should contain clear objectives derived from research questions, specifying the sources from which data collection will be drawn, how the data will be collected and analysed, and discuss ethical issues and the
constraints the researcher will inevitably encounter, for example access to data, time, location and funds (Saunders et al., 2012; Easterby-Smith, 2010; Yin, 2009).

4.4: Research Design

A research design is actually a plan of how a researcher intends to go about providing answers to the specific research questions (Easterby-Smith & Thorpe, 2010). This implies that a research design is a methodological link between the adopted philosophical underpinnings and the subsequent choice of methods to collect and analyse data. There are common types of research designs capable of affecting the credibility of the research findings. They include case study, survey, action research and experimental design (Bryman and Bell, 2013; Farquhar, 2012).

4.4.1 Experimental Design

The experimental design places a high level of confidence in statistical inference, thus ensuring that the significant relationship established raises reliability (Maxwell, 2010) and hence achieves an internal validity that demonstrates cause-effects between the two variables. This design is often preferred in natural science research rather than business research because the independent variables are usually manipulated to examine their impact on the dependent variable (Creswell, 2013). It is not just associated with laboratory research but often grounded in hypothesis (Saunders et al., 2012). This study will not adopt the experimental design because of its close association with laboratory research.

4.4.2 Case Study Design

The need for this design arises out of the desire to explore a phenomenon within its real-life context (Saunders et al., 2012). This enables the researcher to gain an in-
depth understanding of the phenomenon under investigation (Yin, 2012; Rowley, 2002). It implies that the case study design is capable of enabling a phenomenon to be studied in its natural setting so that meaningful and relevant theory is generated from the understanding gained through actual practice (Farquhar, 2012). For this reason it can be argued that the case study design has the objective of presenting a detailed and intensive analysis of the phenomenon. When used for qualitative research, a structured or semi-structured interview guide is employed to draw large amounts of data, which offers an opportunity for the researcher to carry out an in-depth investigation into the problem (Creswell, 2013; Easterby-Smith et al., 2010).

The core feature of case study design is its ability to combine both qualitative and quantitative data collection techniques which, to an extent, enhances the robustness of the analysis, hence adding value to the results (Yin, 2012). Yin refers to the technique of collecting data using interviews, observations and documentary review as data triangulation. Common case study types include critical, revelatory and longitudinal (Yin, 2012). In a critical case the researcher clearly specifies the hypothesis and the chosen case creates an opportunity for better understanding of the conditions in which the findings will be accepted or rejected. The revelatory case is more associated with a laboratory type of investigation to analyse a previous situation that was not considered, whereas a longitudinal case is concerned with how a condition has changed over time (Acquaye, 2013; Bryman & Bell, 2012; Yin, 2012).

Questions related to why, what and how are better answered with a relatively full understanding of the nature of the phenomenon in case study design (Easterby-Smith et al., 2010; Yin, 2012). The use of quantitative and qualitative techniques in case study analysis implies that both inductive and deductive approaches to theory are applicable in case study research. The unique objective of case study design is to
provide an in-depth understanding of the research problem. However, the concept of external validity has been the main concern of researchers undertaking this design. The argument is based on whether the results attributed to a single case can be representative of similar cases (Gill and Johnson, 2010). Despite this concern, case study can contribute to either generating theory or testing theory. Equally, it has a high propensity to provide an in-depth comprehension of a theoretical proposition (Bryman and Bell, 2011; Yin, 2009, 2012; Farquhar, 2012).

For the purpose of this study, a multi-case design is adopted. It seems to be the most suitable design for providing answers to the five specific questions formulated to guide this research. This design not only provided the opportunity to gather qualitative data in connection with more themes but offered the researcher a chance to document multiple perspectives, explore contested viewpoints and demonstrate the influence of key actors (Farquhar, 2012; Acquaye, 2013). The rationale for the adoption of this design is that a range of themes will constitute a platform to understand the underlying factors undermining the sustainability of community-managed projects. Again, the choice of an exploratory multi-case study design is due to scanty literature on challenges of community-managed projects in the North West Region of Cameroon. The third reason for adopting this design is its flexibility and adaptability to changes (Bryman and Bell, 2013). This implies that it may start with a broad focus but becomes narrower as the research progresses.

Unlike the explanatory case study research that establishes causal relationships between variables, the adopted design enables the researcher to gain an accurate picture of the phenomenon on which data was collected. In the context of this study, there are four projects that are community-managed in different localities and across a single period of time (2005-15), although references could still be made out of this
time frame to ease explanation of issues. The four selected community projects are
grouped into years from 2005-15 and by location. The reason for delimiting the time
frame and location is to provide a comprehensive analysis of the chosen cases. It
increases the possibility of replicating the findings across other cases, described by
Yin (2012) as literal replication.

In order to minimize case study criticism on generalizability, rigour,
consistency and coherence are ensured, where the adopted philosophical assumption
and approach stated at the beginning are aligned with the research design, aim,
objectives and questions. Moreover, the analysis of more than one case which is
effectively dealt with in this study increases the replicability of the findings. The
identification of the pattern of association in the variables aids the understanding of
factors behind the sub-optimal sustainable management of community projects.
Conversely, the experimental design gives no room for manipulation. The main
limitation of undertaking a multiple-case study is that it may require a huge amount of
resources and time, usually beyond the reach of an independent researcher (Yin, 2012;
Creswell, 2013). This implies that the decision to carry out a multiple-case study
design cannot be taken lightly. But its strength is that evidence from multiple-case
designs is usually considered more compelling and therefore regarded as being more
robust (Saunders et al., 2012; Bryman and Bell, 2013).

4.2.3: Why the Adoption of a cultural and not a political approach?
The adoption of a cultural approach is in line with the fundamental purpose of
community-driven projects on which this study focuses. Community-managed
projects are created fundamentally to ameliorate the socio-cultural wellbeing of
grassroots populations, and these community projects permeate the socio-cultural
fabrics of indigenous people. These realities justify the adoption of a cultural approach for this study. The suitability of a cultural approach also emanated from the fact that in the North West Region of Cameroon (NWRC) where this study is conducted there is a history of self-reliant development effort which dates back to the colonial era when the local people were governed through their traditional rulers. Today, the NWRC is one of those unique regions in the country where the people are still very closely attached to their culture and traditional institutions. Quite often, the people of this region do not just sit and wait for the government; they initiate their own projects and seek financial and material support from international NGOs. Therefore, this study adopted a cultural rather than a political approach in order to understand the role that the culture of a people whose life revolves around their socio-cultural and traditional institutions can play in any project in the NWRC.

4.5: Data Collection Procedure and Instruments

Depending on the adopted philosophical stance, the method and procedure for data collection can either be qualitative, quantitative or both (Saunders et al., 2012; Yin, 2012). Qualitative data collection is associated with tools such as semi-structured questionnaires and interview guides, whereas quantitative data collection predominantly uses structured questionnaires or closed-ended questions (Creswell, 2013; Bryman and Bell, 2009). According to Yin (2014), qualitative research is deeply rooted in understanding a phenomenon. Therefore its main objective is to qualify data and gain insights from people’s perspectives by the use of non-statistical inferences. This implies that the qualitative method is most appropriate in gaining in-depth data where the principal objective is to provide a detailed understanding of the
phenomenon. The sources for data collection can be grouped into three categories: primary (published and unpublished), secondary and tertiary (Figure 4.5).

**Figure 4.5: Categorization of Data Collection Sources**

Tertiary sources are search tools designed either to help locate primary or secondary data or to introduce a research topic (Saunders et al., 2012). As shown in Figure 4.5 above, tertiary sources are associated with online databases, indexes, catalogues, encyclopaedias, bibliographies and dictionaries. The data collection process was carried out in two phases, namely secondary and primary. The data collection process for this study started with the secondary data. Secondary data collection continued during the primary data collection phase and even beyond. The main instruments used for the data collection were satellite images, maps, voice recorder, pens, pencils, writing papers, tracing papers, photocopiers, flashes, diskettes and printers.

**4.5.1: Secondary Data Collection and Instruments**

The collection of secondary data was predominantly a desk exercise and it was consecrated to the collection of data from published and unpublished sources such as...
web sites, journal articles, textbooks, magazines, dissertations, theses, committee minutes, letters, and central and local government publications. A good part of the secondary data for this study was drawn from online management and business databases such as ProQuest, EBSCO host, Regional Business, ETHIOS, World Bank, Birdlife International and Plan International quarterly reports, UNDP reviews and other international development databases which have comprehensive affirmative information on the management of community projects. During this time the libraries of Cardiff Metropolitan University, London University, University College London, the London School of Commerce and the British Library were used to access online documents related to the management of community basic projects in the developing world, particularly in sub-Saharan Africa.

In addition, the local libraries of the Bamenda Highland Project, the Centre for Environmental Management and Monitoring (CEMMON) Bamenda and archives for the village development associations (VDAs) in Fundong, Bali, Mbai and Kingomen which contained information on some community-managed projects in the NWRC were visited during the pilot fieldwork phase. The maps and satellite images enabled the researcher to gather information on the relief of the study area which influences encroachment, the vegetation types, fire-prone areas and the evolution of the forest with time. Among the data collected from archives was the number of villages directly affected by each of the studied projects, and the estimated numbers of household data were obtained from latest census sheets of 2006 found in the National Institute of Statistics in Yaounde, Cameroon.

The approximate surface area of the Mbai community project areas was gleaned from the library of the Bamenda Highland Project in the town of Bamenda. The map and feasibility study of the Fujua-Fundong-Mentang-Ngwainkuma water
The project was obtained from the regional office of PLAN International in Bamenda town. The surface area and feasibility study for the Mbai community forest project were for an agreed fee. The monographic study of Bali was used to acquire information about the map and the beneficiaries of the Bali community water project. Community-specific issues were consulted from the archives of the Local Management Institutions (LMIs) such as Village Development Associations (VDAs) and the traditional regulatory societies of Kwifon and Nwerong. They provided data about issues such as illegal grazing in the project sites or outside enclaves, farming in the forest conservation sites, settings of fire in the forest and illegal harvesting of Prunus bark.

The advantages associated with the use of a wide range of sources for secondary data collection include the extensive breadth of data available and the input of quality of expertise and professionalism involved (Creswell, 2013; Acquaye, 2013). In the context of the study, approximately eight months were spent doing the data analysis and write-up, thus enhancing the robustness of the analysis. However, there are some concerns raised regarding the secondary data collection. For instance, the first weakness associated with the secondary data collection is its inherent nature due to the non-involvement of the researcher in the collection process (Saunders et al., 2012). Also, due to the geographic location where the data was collected, the collected data may not answer some of the researcher’s key questions, or in some cases the data may be available but might not be available to use by the researcher (Creswell, 2013; Farquhar, 2012).

This study is conscious of the fact that the secondary data might have been affected by a low response rate or poor understanding of the research questions, and then the researcher intends to draw data primarily in order to raise the reliability and
validity of the analysis and findings. It should be noted that secondary data collection was a continuous process.

4.5.2: Primary Data Collection and Instruments

Primary data for this study were collected in five weeks of fieldwork. The main instruments used for the collection of the data were focus group discussions, interviews, GPS, cameras, questionnaire and on-the-spot observation. The data included the views of interviewees and information gathered during focus group discussions on the impact of the limited knowledge of the socio-cultural and anthropological background of project end-users by project providers on the sustainable management of community projects, including issues such as denied access to shrines, lack of real incentives, and lack of expertise in the management of community projects.

In the same vein, information on the relationship between the project end-users and project management committees in terms of accountability, transparency and trust in the area was gathered. The interviewees also provided data on the past and present human activities in and around the project area and their effect on project catchment areas. The interviews revealed the informants’ knowledge of the impact of climate variability and change in terms of the decreasing number of days with rainfall and the increasing length of dry season on not just forest resources but on water and hydro-electric power. Opinions were drawn on the traditional management methods and the traditional values attached to water catchment areas and the forest and its resources.

Furthermore, interviews were used to elicit the perceptions of the informants on factors accounting for the limited functionality of community projects in the study
area. Other data gathered in the field that complemented the secondary data included information on the extent to which limited networking between community stakeholders at the grassroots riddles the ongoing management of community projects in the study area. In addition, the activities of the local people within and at the immediate surroundings of community project areas such as farming and grazing were observed and photographs taken. These photographs that were intended to show the continuous practice of those activities around the project area revealed present project encroachment scenarios.

4.5.3: Validity and Reliability of Primary Data Collection Instruments

In order to ascertain the appropriateness of the content of the interview guide and survey questionnaire for this study, it was subjected to face validity before being taken to the field. My Supervisor and Director of Studies oversaw and confirmed to me that the interview guide and survey questionnaire were valid and reliable to achieve the intended objective. The primary data-gathering process began with a pilot study phase in 2014 after an initial conceptualisation and elaboration phase of the research project in 2013. The process of data treatment and analysis began with the assembling of the interview data collected from the field, coding and categorizing them into themes.

Based on the analysis of data collected through interviews, a total of 100 copies of the survey questionnaire was generated and administered to the project end-users in order to complement their views with those of project managers. The treatment of the data began with weighting the data collected and the “agree” and “disagree” responses for each item attributed one point to allow for quantification. Through this analysis, quantitative data were incorporated with qualitative data. Both
data sets were then introduced in the computer and converted into soft and subsequently hard copies by computer software devices. Software such as Word 2008 was used for typing the work, Excel for statistical treatment of data and transforming numerical data into graphical representation, and Adobe Illustrator for drawing maps. A scanner, digital camera, a USB key and a printer were used for scanning, introducing scanned material into the computer and printing respectively.

Similarly, to ensure that the survey questionnaire was reliable, that is, to be able to elicit the same information always from the respondents, it was subjected to the test-retest reliability test (Bobko, 2001; Ogolo, 1996; Leedy, 1989) to find out if the condition \(-1 \leq r_{xy} \leq 1\) was going to be satisfied and if the contents of the survey instrument could easily be understood. This test was carried out in Buh, one of the village communities in Kumbo Central Sub-Division that has witnessed similar project implementation challenges to those in the Mbai, Bali, Kingomen and Fujua-Fundong-Mentang-Ngwainkuma village communities.

It involved one university and two secondary school drop-outs and a first school leaver to whom the questionnaire was administered twice. The first and second phases of the test administration of the survey questionnaire were carried out at an interval of 7 days and the results of the first administration were considered as the control test. A score of 62 was obtained for each of the four respondents since the initial questionnaire carried 62 questions with the exception of the five questions for the identification of the respondent. For the second administration, the responses to some questions were not exactly the same as for the first administration. All questions with discordant responses were counted for each of the respondents and subtracted from their respective 62 scores to give their second results. The correlation between the two results was calculated in order to get the coefficient of reliability \(r_{xy}\) of the
survey instrument (Table 4.3). The coefficient of reliability ($r_{xy}$) was calculated using the formula:

$$r_{xy} = \frac{\sum XY - n\bar{X}\bar{Y}}{\sqrt{(\sum X^2 - n\bar{X}^2)(\sum Y^2 - n\bar{Y}^2)}}$$

Where: \(\sum\) = sum \(\bar{X}\) = mean of X \(\bar{Y}\) = mean of Y

Table 4.3: Coefficient of Reliability of the Survey Instrument

| N° | Test 1 (X) 18-08-2015 | Test 2 (Y) 26-08-2015 | \(\sum X\) | \(n\) | \(\bar{X}\) | \(\bar{X}^2\) | \(n\bar{X}^2\) | \(\sum X^2\) | \(\sum XY\) | \(n\bar{X}\bar{Y}\) | \(r_{xy}\) | \(\sum Y\) | \(n\) | \(\bar{Y}\) | \(\bar{Y}^2\) | \(n\bar{Y}^2\) | \(\sum Y^2\) |
|----|----------------------|----------------------|----------|------|--------|--------|--------|--------|----------|--------------|------|----------|------|--------|--------|--------|--------|--------|
| 1  | 62                    | 58                   | 248      | 4    | 62     | 5929   | 23716  | 94864  | 84084    | 19712        | 1    | 223      | 4    | 55.5   | 4096   | 22201  | 88804  |
| 2  | 62                    | 56                   |          |      |        |        |        |        |          |              |      |          |      |        |        |        |        |
| 3  | 62                    | 55                   |          |      |        |        |        |        |          |              |      |          |      |        |        |        |        |
| 4  | 62                    | 53                   |          |      |        |        |        |        |          |              |      |          |      |        |        |        |        |
| Total | 248        | 223                  |          |      |        |        |        |        |          |              |      |          |      |        |        |        |        |
| Mean | 62            | 55.5                 |          |      |        |        |        |        |          |              |      |          |      |        |        |        |        |

Source: Fieldwork, 2015

From Table 4.3 it is seen that the coefficient of reliability ($r_{xy}$) of the survey instrument is 1, conforming to the condition of $-1 \leq r_{xy} \leq 1$. Since the coefficient of reliability was more than 0.5, it means that the survey questionnaire was largely going to be reliable. This survey questionnaire was updated to 20 questions after some initial ones were reframed or taken off.

4.5.4: Conceptualisation of the Research Project

The conception of this study began in 2013 with the intention to understand why community-managed projects have been experiencing limited levels of sustainability in the North West Region of Cameroon. This region serves as a good case given its high-incidence implementation level of community-driven projects and the fact that during my voluntary service with the Mentang village development union (MENDU) as branch secretary, I visited many other village development associations and
observed that most of them struggle to sustain their basic social amenities shortly after the departure of the donor agencies. The suitability of the choice of the North West Region is the region’s long history of communal efforts towards development through community-based associations such as village development associations and common initiative groups (Njoh, 2011; Fonchingong & Ngwa 2006). Moreover, the relationship between the candidate and the project is that the candidate comes from the study area and can conveniently access local communities’ documentaries or organize focus group discussions and in-depth interviews with the key rural community project stakeholders for data collection purposes.

During this pilot phase, socio-economic issues such as frequent human activities like graziers being reluctant to take their animals out of project sites, farmers returning into the wetland and project areas, rampant destruction of projects by fire, and indiscriminate harvesting of *Prunus Africana* are commonly observed in the study area. This phase marked the actual beginning of primary data collection for this study. It actually took place in 2013 between 4th and 28th of September, 2014. This phase was intended to serve a dual purpose. Firstly, to provide partial information that was to be used in setting an empirical basis for the study. Secondly, to test the validity and reliability of the interview draft questions in preparation for an eventual data collection for the thesis. The selected four community-managed projects were visited and the criteria used to select them were mainly accessibility in terms of proximity to the road, the time to get to the project site and the availability of information and/or informants that were thought receptive and willing to release authentic information about the phenomenon under investigation.

Before the pilot study was carried out, three graduate students from the department of Geography in the University of Yaounde I, and who come from the
study area, were solicited and groomed on the specificities of the data-gathering instrument and the purpose of the study. These natives helped in reducing suspicion and served as confidence builders and the principal interpreters in some cases throughout the data gathering exercise. Another salient strategy adopted was that of paying courtesy visits to the palaces of traditional rulers. This paid off so much. While in the Mbai project site, a courtesy visit was paid to the traditional ruler. After conducting an interview with him, he opted to offer two of his close collaborators (nchinda) to guide us to identify the heads of the various user groups and forest project management officers. This gesture created much awareness about us and we quickly understood how to ease our task subsequently in the remainder of the villages.

During the pilot phase, the researcher decided to organise 4 focus group discussions before the actual data collection phase as one of the strategies to further reduce suspicion. This strategy paid off very well as the people who participated in the discussions helped to sensitise their communities’ members after they were made to understand the purpose of the study and how it was going to safeguard the interests of the local population. This pilot phase actually enabled the researcher to identify key stakeholders involved in implementing community projects in the North West Region of Cameroon (Figure 4.6).
From Figure 4.6 above, community stakeholders are conceived of as locally-based institutions such as the municipal and traditional councils, village development association (VDA), common initiative groups (CIGs), local non-governmental organizations (NGOs) and elite associations directly or indirectly engaged in ensuring the functioning of community projects in the North West Region of Cameroon.

In each of the project sites visited, a courtesy visit was paid to the traditional authority (chief or quarter head) to notify our presence, purpose and to be given basic guidelines on who could readily provide us with the information needed or facilitate information acquisition. In this connection, the quarter head of Mbai, the Mbai Forest Management Officer, a grazier and a farmer were met. In the Fundong project site the village development chairpersons, project chairman and three traditional notables in Mentang, Fundong village and Ngwainkuma were contacted among others. In the
Kingomen site, the local technician, community development association and elected councillor were contacted. Among other persons contacted in the Bali community project site were the co-ordinator of Bali community water project, the village development chairman, councillor and the deputy mayor. All these persons provided useful information and some were to serve as informants during the actual fieldwork.

While in the field, the Kingomen project site manager was visited and arrangements were made for a formal visit which actually took place between 1st and 30th of April, 2015. However, he provided information on issues affecting the sustainable management of community projects and the available documents instantly. Similarly, the site manager and two field staffs of the Mentang community water project were visited and preliminary information was gathered on the objective of the project, the project user groups, the stakeholders involved in the implementation process and the problems encountered.

4.5.5: Focus Group Discussions

A total of four focus group discussions were held. In each of the four chosen community project sites, a focus group discussion was held with groups of the village community development associations (VDAs). For instance, one in the Mbaï forest project site with those who lost their entire or parts of their farms to the project, one with local farmers/graziers in the Fujua-Fundong-Mentang-Ngwaïnkuma water project site, and one in the Bali water project site with the local authorities made up of the local councillors, project team leader and the close collaborators of the VDA chairman (Table 4.4). In the Kingomen hydro-electric project site one focus group discussion was held with members of the VDAs and farming groups. The focus group discussions enabled us to gather information from persons with a common interest
more quickly. The least attended focus group discussions had five members and the most attended had nine members.

Table 4.4: Focus Group Discussions Held

<table>
<thead>
<tr>
<th>Community project site</th>
<th>Members of VDAs</th>
<th>Members of traditional authorities</th>
<th>Members of project committee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mbai project</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Kingomen project</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bali project</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Fujua-fundong-mantang project</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Fieldwork, 2014

The focus group discussions were different from the interviews conducted as no structured questions were forwarded to the groups in advance. In addition, focus group discussions were based on project user groups and helped to reduce the chances of missing valuable information (reduce level of bias) from those who were disfavoured by the adopted systematic purposive interviewing sampling technique. This paved the way for the major fieldwork which was held between the 1st and the 30th of April, 2015. The criteria used for choosing interviewees, however, were based on membership in project committee, experience or position held in the committee, educational status and how accessible or available the person was.

4.5.6: The Major Fieldwork

The major data collection process took place between 1st and 30th of April 2015. This second phase consisted of holding 12 in-depth interviews in the four community project sites in which a pilot study had been carried out earlier on. In addition, during this phase, a direct observation of the four chosen community-managed projects
(Mbai community forests, Bali water project, Fujua-Mentang-Fundong-Ngwainkuma water project and Kingomen hydro-electrification project) along with the management challenges affecting them was carried out. The intention was to assess the effectiveness of those projects and the extent to which socio-cultural and environmental constraints hinder their sustainability. The observed findings were complemented and corroborated with data from interview guide.

### 4.5.7: Interviews

The main instrument used for data collection for this study was semi-structured interviews. A total of 12 in-depth interviews were conducted within the study area and the informants were drawn from the four chosen project sites (Appendix 1). All the interviews conducted within the study area lasted between 35 minutes and one hour. Three in-depth interviews were held with stakeholders in each of the four selected community project sites (Figure 4.5). These informants were identified during the pilot phase of this study as being very resourceful in terms of information relevant to the research purpose. The identification of some other informants was facilitated by the chairpersons of VDAs responsible for monitoring community projects.
Figure 4.5: Spatial Distribution of Successful in-depth Interviews in the Study Area

The adoption of in-depth interviews as the main instrument for data collection was due to its suitability to help the researcher to capture what is in and on the interviewee’s mind regarding the dwindling sustainability of community-driven projects in the study area. Secondly, it actively engaged the researcher and the informants in identifying and analysing what was responsible for the poor sustainable implementation of community-managed projects. Another major reason for adopting the interview as my main data collection tool is its inherent flexibility to pursue emerging issues and engage in dialogue with participants. Fourthly, the potential of the in-depth interview for uncovering and representing unobserved feelings and phenomena that cannot be observed seems to be most suitable strategy in the understanding of the impact of the socio-cultural and anthropological background of project end-users on the sustainable management of local initiatives. In order to
provide a cross-check on data obtained through interviews, field observation was conducted.

4.5.8: Field Observation

Observation was an important part of this study during the pilot phase and continued in the major data collection phase. It involved what was perceived, heard, seen with the eyes and could be counted. For instance, the livelihood activities of the local population and their natural environment were observed. Community project characteristics were observed together with what the local population were doing to sustain their projects. Grazing and bee farming and other human-related activities in and around the water catchment areas, dam and forest, and the effect of bushfires on the forest and water catchments were equally observed. Using a GPS, the altitude at which water chambers are built and areas of the communities not served by potable water and hydro-electric projects as a result of high relief were observed. In addition, the numbers of project beneficiaries, animals and water catchment areas were used to calculate the human and animal population densities as well as the hydrographic density of the selected areas. Furthermore, the GPS was used to obtain information on the seasonal flow of streams and how they affect water availability for electricity and pipe-borne water supplies in the concerned areas.

The researcher listened to the people describing their socio-cultural theories and models of water and forest conservation with salient aspects being the identification of abodes of the gods, which include watersheds, catchment areas and fragile ecosystems that are subsequently designated as sacred forests for protection using taboos. In the Mbai community forest site the research team observed caves and the trees within and around them and their importance in conservation following their
role as specific resource reservoirs. Photographs of some of what was observed in the field were taken. Field observations provided the investigator with an opportunity to use the feasibility studies to update four community-driven project maps in the North West Region of Cameroon.

The rationale for using observation as a technique for data collection emanates from the fact that it permits a researcher to gain a comprehensive sense of the siting which cannot be obtained solely by speaking with informants. According to Simons (2012), through observing one can discover the norms and values which are part of the institution’s culture or sub-culture. Observation offers another alternative way of capturing the experience of those who are less articulate, unlike interviews that privilege the articulate. Documentary reviews of the selected four cases complemented the interviews and observation methods adopted for data collection. For instance, documents representing annual reports, audit reports, vision statements, rules and regulations, newspapers, bulletins and memos of the managing committee for Mbai community forest project, Kingomen hydro-electrification project, Bali community water project and Fujua-Fundong-Mentang project were reviewed.

4.5.9: Survey Questionnaire

Based on the data drawn from the 12 interviews and four focus group discussions held during the major field work, a survey questionnaire was generated and administered to 77 households in the four project sites in the North West Region of Cameroon that were selected for this study. The use of survey questionnaire was not intended to draw new data but to confirm the data drawn earlier using interviews, focus group discussions and observation, thus adding more credibility to the research findings.
A sample size of 100 for this survey was selected from the 3,376 households in the 20 villages and neighbourhoods that made up the 4 communities considered as the study area, as provided by the latest national census carried out in 2005 and the 2010 population projection. Considering that the sample frame of 3,376 households was in thousands and not hundreds, we noticed that a 3% sample size for the study (Creswell, 2013; Yin, 2009; Nwana, 1982) was convenient due to constraints related to time and material, financial and human resource availability at the researcher’s disposal. Computing the 3% sample size, we had a total of 100 households to which the survey questionnaire was administered following a systematic random sampling that was based on a sampling frame of one copy of questionnaire for every 33 households (Table 4.5). The reason for using the household is that it is much easier to administer a questionnaire in terms of households than actual individuals in the population.

The 33rd household, which was designated as „n” was targeted for questionnaire administration to ease replacement in a single direction of n+1 or n+2 and so on, in cases where respondents were absent or refused to collaborate in the targeted household 33 or 34 or 35. In some households, occupants pleaded to stay with their copies of the questionnaire and fill them out later at their convenience before they were collected. Some other occupants agreed to collaborate but provided very limited information, which did not meet up with the admissibility criterion for their copies to be considered.
Table 4.5: Communities and 3% Sample Size the 4 Project Sites in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>Neighbourhoods</th>
<th>Households</th>
<th>3% Sample size</th>
<th>Effective Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bali CWP</td>
<td>Jam Jam/Gingong I</td>
<td>602</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Ntankoo Hill 1362m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Koppin</td>
<td>120</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Naka</td>
<td>209</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Bawock</td>
<td>299</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Sub-total</td>
<td>4</td>
<td>1230</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>Fundong village</td>
<td>132</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Ngwainkuma</td>
<td>78</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mentang</td>
<td>242</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Fujua</td>
<td>212</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Sub-total</td>
<td>4</td>
<td>664</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Kingomen CEP</td>
<td>Kinchumin</td>
<td>28</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Tonsaiy</td>
<td>31</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Romishiyi</td>
<td>26</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Tatu</td>
<td>30</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ronkih</td>
<td>33</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Village Square</td>
<td>81</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sub-total</td>
<td>6</td>
<td>241</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Mbai CFP</td>
<td>Simonkoh</td>
<td>414</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Lum</td>
<td>92</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Tankiy</td>
<td>54</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Ntovi</td>
<td>92</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mbockenghas</td>
<td>109</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Tadu</td>
<td>480</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Sub-total</td>
<td>6</td>
<td>1241</td>
<td>37</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>3376</td>
<td>100</td>
<td>77</td>
</tr>
<tr>
<td>%</td>
<td>100</td>
<td>100</td>
<td></td>
<td>77</td>
</tr>
</tbody>
</table>

Source: Drawn from fieldwork, 2015

Through a quick verification of the copies of the questionnaire that were either filled or collected later, it was observed that out of the 100 copies taken to the field, 12 copies were those where the occupants refused to collaborate, 8 copies were never returned, 3 copies were scantily filled and 77 copies that were filled and returned met up with admissibility criteria. These 77 copies were those that were classified under
effective respondent (Table 4.6) and were actually considered for data treatment and analysis.

Table 4.6: Effective Respondent in the 4 Project Sites in the NWRC

<table>
<thead>
<tr>
<th>Project name/type</th>
<th>Number of households</th>
<th>3% Sample size</th>
<th>Effective respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bali community-managed water supply</td>
<td>1230</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>Fundong-Mentang water supply projects</td>
<td>664</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Kingomen hydro-electric supply project</td>
<td>241</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Mbai community-managed forest</td>
<td>1241</td>
<td>37</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>3376</td>
<td>100</td>
<td>77</td>
</tr>
<tr>
<td>%</td>
<td>100</td>
<td>100</td>
<td>77</td>
</tr>
</tbody>
</table>

*Source: Drawn from fieldwork, 2015*

The beneficiary population for the chosen four project case studies is in several thousands, and a 3 per cent sample is very appropriate as the researcher could comfortably handle it. Bearing in mind that a systematic random sampling technique was used to get the views of project end-users vis-à-vis those of project managers regarding why projects that are community-managed have had such limited sustainability, a 3% sample size for this study was selected from the total number of households in each of the project case studies based in the study area.

4.6: Data Treatment and Analysis

The process of data treatment and analysis began with the assembling of all the data collected from the field and categorizing the data collected into common themes. The data drawn through interviews were analysed following the main themes in the specific research questions. An inductive thematic analysis was adopted. The rationale
for adopting an inductive thematic analysis is in accordance with Yin (2012) who argues that it is theoretically flexible. This implies that thematic analysis can be used within different frameworks to answer quite different types of research questions (Bryman and Bell, 2012; Farquhar, 2012). Another reason for the adoption of thematic analysis is its ability to address research questions related to people’s views and perceptions (Creswell, 2013; Yin, 2012).

In order to identify patterns of meaning across the interviewed dataset, a rigorous process of familiarization, data coding, theme development and revision was undertaken (Table 4.7).

Table 4.7: Adopted approach to thematic data analysis

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Familiarization:</strong> In this phase, I focused on reading and re-reading the interview data to become intimately familiar with the content of the dataset</td>
</tr>
<tr>
<td>2</td>
<td><strong>Coding:</strong> I used this phase to generate succinct labels (codes) that identify salient features of the data relevant to my research questions</td>
</tr>
<tr>
<td>3</td>
<td><strong>Searching for themes:</strong> During this phase I examined the codes and collated data to identify patterns of meaning</td>
</tr>
<tr>
<td>4</td>
<td><strong>Reviewing themes:</strong> I checked the themes against the dataset to see if they answered my research questions, which were sometimes split, combined or discarded</td>
</tr>
<tr>
<td>5</td>
<td><strong>Defining and naming themes:</strong> Here I developed a detailed analysis of each theme, working out the scope and focus of each theme with respect to my research questions</td>
</tr>
<tr>
<td>6</td>
<td><strong>Writing up:</strong> This phase involved weaving together the analytic narrative and data extracts and contextualizing the analysis in relation to existing literature</td>
</tr>
</tbody>
</table>

*Source: Author’s conception, 2016*
Although the process of thematic data analysis was undertaken in sequential phases, and each builds on the previous, the analysis exercise was typically a recursive process involving movement back and forth between various phases. It should be noted that the data treated and analysed were categorized into main and emerging themes that arose during the interviews and focus group discussion (Table 4.8). From these qualitative data collected, a structured survey questionnaire was used to draw quantitative data and was transformed into soft and subsequently hard copies by computer-assisted data analysis software. For example, the Microsoft Word 2008 and Excel programs were employed to transform empirical data for descriptive representation.

Table 4.8: Main themes guiding the data analysis

<table>
<thead>
<tr>
<th>Main themes</th>
<th>Key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-cultural issues</td>
<td>The failure to consider traditional landlords as one of the user groups, which included wood carvers, bee farmers, rat trappers and tradi-practitioners. The non-incorporation of the belief practices of the project end-users by the implementing agents into community-managed projects (CMPs)</td>
</tr>
<tr>
<td>Environmental constraints</td>
<td>The influence of undulating relief, increasing number of days without rainfall, increasing fluctuations in temperature and sunshine, frequent bush fires, wind and rainfall erosion, causing a drop in water table and water catchment</td>
</tr>
<tr>
<td>Technical capabilities issues</td>
<td>The capabilities of communities in terms of quality and quantity of trained technicians and local guards. Not enough technicians because attempts to train have not been accompanied by sufficient incentives</td>
</tr>
<tr>
<td>Governance challenges</td>
<td>The equitable sharing of project proceeds, issues of transparency and accountability in project implementation, grassroots co-ordination of project resources</td>
</tr>
<tr>
<td>Funding constraints</td>
<td>The poor financing of projects, timid in cash or in kind contribution; unwillingness to pay user fees by project end-users</td>
</tr>
</tbody>
</table>

Source: Derived from fieldwork, 2015
In addition to the key issues based on the interview questions employed during field work by the research, a considerable number of additional themes arose, even though they were not entirely independent but were nevertheless useful in relation to the main aims of this study. It should be noted that these points were generated through the course of the interview and were pointed out by the participants. These emerging themes are displayed with key issues categorized in Table 4.9.

Table 4.9: Emerging themes in the analysis

<table>
<thead>
<tr>
<th>Emerging themes</th>
<th>Key issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder networking/resources coordination at grassroots level</td>
<td>There is active interaction between sub-committee and project end-users in matters of mobilising grassroots resources for the ongoing implementation of community self-reliant projects</td>
</tr>
<tr>
<td>Motivation/Involvement of traditional leaders</td>
<td>The relationship between project caretakers and grassroots members is not cordial because they feel that those managing the projects are making a living out of it. The financial incentives given at the moment are very discouraging to young technicians, resulting in their often abandoning their roles. The exemption of traditional rulers from project-related charges is symbolic to the community people because they are seen as custodians of tradition and the culture of the people.</td>
</tr>
</tbody>
</table>

Source: Major fieldwork, 2015

4.7: Scope and Limitations of the Study

This study seeks to understand why community management as a strategy has failed to ensure the sustainability of community project despite its widespread popularity among international, national and local NGOs. The study uses sustainability not to mean profit maximization and its ramifications except for reference purposes. Instead, sustainability for the purpose of this study is used with respect to ongoing effective implementation of community self-reliant projects. The study did not consider the
entire populations of Cameroon; rather, it focuses only on the potential project beneficiary populations and management committees in the North West Region of Cameroon. The period considered for this study spans from 2005-15 with two strategic years. The year 2005 corresponds to when responsibility for ongoing project repairs and maintenance was transferred to local communities in the study area, whereas 2013-16 is the period during which the whole field survey was carried out. The period 2005-15 represents the post-project era, which is fundamental in assessing the views of the grassroots people vis-à-vis the factors limiting the sustainability of their community-managed projects.

Among the limitations encountered in the field was the fact that some respondents could not read at all, while others were unable to read and immediately understand the contents of the survey instrument during the pilot phases due to low literacy levels. Many of them misconstrued the purpose of the study, as they felt that it was intended to expose them as uneducated. During this pilot phase a few Mbororo individuals contacted were suspicious and unreceptive to unfamiliar visitors partly due to their culture. After the pilot phases, the interview guide and questionnaire contents were adequately simplified for easy reading and understanding. The services of three graduates were solicited to facilitate primary data collection. All the graduates were groomed on the contents and purpose of the questionnaire, while those that were not yet familiar with questionnaire administration were groomed on how to approach respondents, especially the Muslim groups. The main purpose of the three graduates was to serve as confidence-builders. The measures adopted after the pilot phases and the collaboration of key individuals contacted mitigated the difficulties encountered during major fieldwork.
Another limitation to this study was the use of simple and concrete yes/no responses rather than the Likert scale in which a respondent indicates a degree of agreement or disagreement in a multiple choice type format. However, the Likert scale was considered less suitable because the use of a survey questionnaire was not to seek new ideas, beliefs and opinions about the phenomenon under investigation. Instead, the intention for using a yes/no survey questionnaire was just to confirm some of the findings and it was quick given the timeframe needed to complete this thesis. So this thesis was not based on a survey questionnaire but rather on 12 in-depth interviews and four focus group discussions.

The use of yes/no questions was to acquire data quickly from the grassroots so that their views could be complemented or compared with those of top managers (interviewees). The yes and no options ease the treatment of data which began with weighting the data collected and the „yes” and „no” responses for each tick attributed one point to allow for quantification. Since the rationale behind the use of the survey questionnaire was to draw data from end-users and use the data to confirm the views of top managers regarding issues undermining the sustainable management of community projects, straightforward yes/no or agree/disagree options were preferred to a Likert scale.

**Conclusion**

This chapter was dedicated to methodological choices with special emphasis on the adopted research philosophy, approach, design, underlying variables, data collection and analysis methods (Figure 4.8). With the aim of contributing to theory, the method chosen to analyse data drawn from the four community-managed projects was considered very critical to the validity, reliability and replication of the research
results. Considering the fact that high credibility will be attributed to the research outcome if the most appropriate methods are employed, this chapter has clearly justified the choice of the adopted methodological protocol. For instance, the suitability of using multiple case studies design and descriptive analytical tools to understand why the management of community projects has been a herculean challenge in the North West Region of Cameroon were comprehensively explained in this chapter. It is true that there exist alternative ways of analysing qualitative data such as the computer-assisted qualitative data analysis software (CAQDAS) technique. However, the adoption of Nvivo and Excel seemed to be the most suitable analytical techniques in meeting the objectives of this study.

**Figure 4.8: Adopted Research Methodological Framework**

- **Multi-case study design**
  - Interpretivist philosophy
  - Inductive approach
  - Exploratory multiple case study design

**Data collection methods and instruments used**

- **Secondary phase**
  - Tertiary review sources
  - Secondary review sources
  - Primary review sources
  - Databases, catalogues, dictionaries, bibliographies, indexes
  - Journals, books, some government publications, newspapers
  - Theses, reports, some government publications
  - 12 in-depth interviews (open-ended questions), 4 focus group discussions
  - Some annual reports, audit reports, vision statement, newspapers, bulletins and project objectives were reviewed

- **Primary phase**
  - In-depth interviews
  - Survey questionnaire
  - Document reviews
  - 77 semi-structured questionnaires were administered

*Source: Developed from research methods literature, 2015*
From the angle of data collection, the explanation of the data collection, treatment and analysis was provided. This is vital to the acceptance of the replicability of the research findings. Also, the supervisory expertise, resources and technology employed in the data collection process give it the level of quality required. Putting the study along the path of social science reasoning, the objectives are best achieved using the requirements of interpretivism, which strictly follows the social science route. The next chapter focuses on data analysis, interpretation and presentation of the findings. The chapter is presented in sections and sub-sections based on the themes and patterns of relationships in the research objectives.
Chapter 5: Analysis and Presentation of Findings

5.0: Introduction

Data analysis for this study which investigated why community-managed projects have had limited sustainability in the North West Region of Cameroon (NWRC) was carried out in terms of two categories of projects. The first category dwells on two community-managed projects that are largely unsustainable while the second category focuses on two community-managed projects that are fairly sustainable. The first and second sections of this chapter show how knowledge of the cultural background of project end-users and the changing climate influence the sustainability of community-driven projects in the NWRC. The third section of the chapter dwells on governance and technical challenges while the fourth section of the chapter addresses the common funding challenges of community-managed projects in the NWRC.

These data have been analysed and presented in five main sections (5.1, 5.2, 5.3, 5.4 and 5.5) that are further broken down into sub-sections. Sections 5.1 and 5.2 dwell on the sustainability of community-managed projects in the NWRC with respect to socio-cultural and environmental in vivo codes, which are descriptive in nature as derived from the interviewees’ own words. They include denied access to shrines and sacred forests, desecration of sacred forests and shrines, exposure of totemic sites, usurpation, increasing temperature and reducing rainfall, as well as the impact of relief on the functioning of community-managed projects in the NWRC.

The analysis for sections 5.3 and 5.4 dwells on opinions associated with governance and technical challenges such as subjective implementation of laws governing community-managed projects, collaboration between project committee
members, unfair benefit sharing (giving to Caesar what is Caesar’s and to God what is God’s), project providers determining who should and who should not be party to a community project, elitist politics, transfer of tenure rights, inadequate coordination of material resources, inadequately qualified technicians at grassroots level, issues of motivation and/or incentives and possibilities of replacing defective committee members. The analysis for section 5.5 dwells on views associated with funding challenges such as exoneration of government services, absence of key members soliciting funds, increasing running costs, limited knowledge of running costs, payment of technicians and the absence of government policy to pay royalties to communities which conserve their local environment and resources for mainly socio-cultural and ecological purposes.

The qualitative analysis was complemented with quantitative data, drawn from the responses of the project end-users and the numerical secondary data gleaned from existing documents regarding the management of community projects in the four selected case study sites in the NWRC.

5.1: Socio-cultural issues in the management of community projects in the NWRC

*Interview question: Do you think the project providers had adequate knowledge of the socio-culture background of project end-users before implementing the water/electricity/forest project?*

The last decade has recorded the highest number of poorly implemented community-managed projects (CMPs) in the North West Region of Cameroon (Njoh, 2011; Fonchingong, 2009). The reasons have mostly often been attributed to poor funding. But following the views of informants during field work, socio-cultural
challenges seem to be most vital in the sustainability of CMPs in the NWRC. All informants were unanimous that CMPs in the region are faced with socio-cultural challenges which riddle their effective implementation. As quoted from one of the participants:

"...Many project providers in the NWRC seldom consider the socio-cultural and anthropological background of project end-users as being important in the sustainable management of community-driven projects even though the people in this part of the country are so attached to their culture and the traditional institutions they incarnate” (informant B1).

One of the revelations of the findings is that the project providers often focused more on putting in place the projects than on the fundamental elements required guaranteeing the sustainability of those projects. These include neglect of the cultural practices and demystification of the belief system of project end-users, the non-respect of traditional authorities and institutions and traditional priests of shrines, existing socio-political structures, violation of taboos and traditional off-days. From the descriptions given by the interviewees, these socio-cultural elements have a bearing on the long-term effective running of community-managed projects in the NWRC. This was supported by an informant who said:

"...The NWRC is one of those regions in the country where the people are still very closely attached to their culture and traditional institutions. Yet it does not make any meaning to project providers. Quite often, limited or no time at all is spent on understanding the role the culture of a people whose life revolves around their socio-cultural and traditional institutions can play in the life of any project in the NWRC. Whenever limited contacts are made between project providers and end-users, there is a very high probability that socio-culturally-related conflicts will emerge and will undermine the life of even community-driven projects” (informant B2).

It is visible indeed that the four community-managed project areas in the NWRC indicate that there were many socio-culturally-related issues that threatened the sustainability of two of the four projects, while the other where the socio-cultural components were integrated exhibited fair sustainability. For those with precarious
sustainability, the interviewees were of the view that many of the conflicts were due to ignorance and neglect of the socio-cultural and anthropological background of project end-users. An interviewee in the Jam Jam neighbourhood in the Bali community water project area stated that:

"...Many of those who later became community water providers in Bali Nyonga did not exactly know that the Bali community water project started from a socio-cultural perspective. The informant expounded that the idea of the Bali community water project came into being when Fon Galega I converted an indemnity that was paid to the Bali people by the Widikum Clan into a social project – pipe-borne water – for the benefit of his entire subjects. As he explained, the project began as a Ram water plant that was constructed by a German Hydroplan at Mbadmandet village in Bali. When construction work ended in 1957, the Ram water system was handed to the then Bali Rural Council and its technical management was supported by the Public Works Department (PWD) in Bamenda, although Bali community members had to pay maintenance fees with the exception of the Palace (interviewee B1). The views of the interviewee were confirmed by existing literature (Titanji et al., 1988 and Nteh, 2009).

Another interviewee who was part of the Bali water management committee team explained that the Palace was exempted from paying the maintenance fee for two main reasons. The first was the socio-cultural regard the people of Bali have for their Fon and the regulatory society known as Kwifon, of which he is the custodian, and the second was the role the Palace had played in converting the indemnity to a water project. The interviewee expressed indignation about the fact that later project providers of Bali community water also exempted government services, thereby breaching the socio-cultural ties that give a sense of ownership and participation to Bali people towards the water supply project.

"...In his opinion, when Société Nationale des Eaux du Cameroun (SNEC) took over the Bali Community Water project in 1984, it decided to consider the Palace as just one of the public institutions among others such as government services. That equality approach demystified the aura of fear and mystery that usually surrounds the Palace, and therefore rendered it banal, to the disapproval of the ordinary Bali person. SNEC, as he said, was run by French-speaking Cameroonians who are seldom associated with self-reliant development and do not value the attachment of the North West people to their
socio-political institutions. So they did not see why only the Palace should be exempted from paying maintenance charges, and they went ahead to exonerate all government services such as the Sub-divisional office, Gendarmerie Brigade, Police post, Special branch police post, health units and educational units, particularly as they were headed mainly by French-speaking Cameroonians” (informant B3).

Another member of the Bali community water management committee explained that the exemption of government services, to which the local population did not owe any socio-cultural allegiance, discouraged the ordinary Bali man from paying maintenance fees. This breach in socio-cultural ties marked the beginning of sustainability problems in the Bali community water project, the interviewee intimated. In corroboration, the informant said that although SNEC was ousted in 1994 by the people of Bali and a body called Bali Community Water Supply (BACOWAS) was created to take over management, the status quo put in place by SNEC was maintained.

In the opinion of the interviewee:

„...BACOWAS was different from SNEC only in terms of personnel and not policy. Inheriting all the socio-cultural and anthropological problems that SNEC bequeathed, it was evident that the sustainability of Bali community water project was not guaranteed even with BACOWAS. The non-socio-cultural distinction in the exoneration of government services was considered by the beneficiary population of Bali as disrespect for their traditional ruler and cultural practises. This disregard for the socio-cultural and political institutions of the project end-users and their functioning greatly undermined the sustainability of the Bali Community Water Project, Mbai community forest project and many other community-managed projects in the NWRC” (informant B3).

This implies that whenever project providers incorporate the socio-cultural elements of project end-users in the entire frame of a community-managed project, the chances of the project being sustainable will be greater and the reverse is true. The findings actually demonstrate the important role the socio-cultural and anthropological background of a people can play in the sustainability of a community-driven project. Both informants and respondents agreed upon the significance of
incorporating the cultural and anthropological background of project end-users on the sustainability of community-managed projects in the North West Region of Cameroon (NWRC). Here are some of the responses of the participants to the survey questionnaire regarding whether limited regard for the socio-cultural practices and institutions of the project end-users was responsible for the dwindling sustainability of projects that are community-managed in the NWRC (Table 5.1).

Table 5.1: Views of respondents on whether limited regard for socio-cultural practices riddles the sustainability of Community-Managed Projects in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Does limited regard for socio-cultural practices of project end-users by project providers riddle the sustainability of projects in your community?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Bali</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>Fundong</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Kingomen</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Mbai</td>
<td>27</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77</strong></td>
<td><strong>51</strong></td>
</tr>
</tbody>
</table>

Source: Drawn from fieldwork, 2015

From Table 5.1 it is observed that most of the respondents confirmed the assertion that project providers in the NWRC do not consider the socio-cultural practices of project end-users as integral parts of the ongoing implementation of community-managed projects. A total of 66.2% response score against 23.4% agreed that the disregard of socio-cultural institutions and practices actually marred the sustainability of their community-managed projects, particularly in the Bali and Mbai project sites. As for Fundong and Kingomen, almost all the respondents were unanimous that their community water and electricity projects respectively, integrated the socio-cultural aspects of project end-users, which largely reduced internal problems. In corroboration, an interviewee in Kingomen made a distinction between what she called internal and external problems.
“... socio-cultural issues are more internal since they form the entire day-to-
day life of project end-users and the project end-users master their intricacies
better. The entire traditional authority in Nso is in favour of the Kingomen
small-scheme hydro-electricity project. The problems facing the project do not
have anything to do with the socio-cultural life of the local people”
(Interviewee K2).

The logic of her argument appeared very tenable as she concluded that
incorporating the beneficiary socio-cultural considerations is most fundamental in
determining the sustainability of projects that are community-managed since they
directly affect the social life of people in their community. Informants in the Fundong
and Kingomen project areas unanimously acknowledged that their socio-cultural
institutions and practices were integrated into the project management processes
thereby enhancing their sustainable. The opinions of the interviewees were confirmed
in the existing literature on community management of projects in the North West
Region of Cameroon (Ngala, 2012; Ako et al., 2010; Fonchingong and Ngwa, 2006).

**Interview question: What do you think is the future of community-managed
projects without due consideration for the socio-cultural sites and social life of the
beneficiary population by project providers?**

The informants from all the four project areas were unanimous that only a few
project providers in the NWRC have understood the importance of incorporating the
socio-cultural aspects of end-users into community-managed projects. Many
contemporary project providers in the region keep neglecting that fact even though
community-managed projects such as community forests/water/hydro-electric power
are among the most sensitive to socio-cultural considerations. An informant was
asked whether the creation of community projects has affected the cultural sites,
practices and social life of people in their community and the interviewee made
allusion specifically to the Mbai community-managed forest conservation. He argued
that:
"... the acquisition of the Mbai community forest conservation project in the NWRC, particularly from 1995 to the present, made it difficult for priests of shrines and sacred groves to commune with their ancestors due to the fact that the shrines and sacred groves were carved and put within the community forest area, and were henceforth owned and controlled by community forest management institutions. The traditional landlords were not considered as one of the users’ groups, which included wood carvers, bee farmers, rat trappers and tradi-practitioners” (informant M1 in Tankiy neighbourhood).

In addition, during a focus group discussion with some members of the Fundong water management committee board, they said that some community-managed water projects elsewhere in the NWRC created problems of non-recognition and usurpation of the rights of traditional landlords, which impacted negatively on the sustainability of community-driven projects. An interviewee in Buh shared his experiences as the traditional landlord of Tadu, specifically the neighbourhood of Kidzem within the Mbai community forest area. The interviewees held that:

"... in 1972, an NGO called the Swiss Association for Technical Assistance (SAT) was contacted by the grazing Muslim community in Tadu to provide water to Tadu community. All traditional negotiations were made and the project took off well. But the situation changed from the 1990s with the advent of multi-party politics in Cameroon. The Muslim community began discriminating and depriving residents of Kidzem and accusing them of throwing waste (such as condoms) into the water tanks and using the water to produce corn beer. When the residents of Kidzem contacted the traditional landlord for negotiations, the Muslims ignored him and even when the residents of Kidzem proposed having a separate scheme, the Muslims rejected the proposal. After challenging the authority of the traditional landlord, they were not satisfied and rather used a lot of money to influence the administration to apprehend the traditional landlord” (informant M2).

This view has been supported by another member of the Mbai traditional council who explained that the arrest of the traditional ruler of Tadu brought in an atmosphere of tension, suspicion and hatred between the different ethnic groups in the community to the extent that after his release, the traditional landlord used his sho-oh ngven¹ to solicit the ancestors to intercede on his behalf. The interviewee noted:

¹ A calabash containing raffia palm wine and a peace plant which is entrusted to a traditional landlord by the Fon as a sign of acknowledgement of his tenancy over a tract of land.
"... When the traditional landlord used his sho-oh ngven and performed counter rites in his shrine near the catchment area, water availability became a problem. This confirms the spiritual powers of the traditional ruler in matters of sustaining development” (informant M3)

A member of the community forest guard added that even when experts from another non-governmental organization (NGO) called HELVETAS took over from SATA, and attributed the shortage of water in Tadu to climate change and proposed reforestation, which was done with technical assistance from the National Agency for Forest Development (ANAFOR), the problem persisted. As a result, the Tadu Water Management Committee (TWMC) resorted to water rationing to no avail and by 2007 the situation deteriorated and the Tadu scheme was having water only in July, the interviewee noted. In 2014, Kidzem neighbourhood negotiated with the traditional landlord and got its water from a different catchment and the flow had no problem. The Muslims in the TWMC attempted to negotiate behind the scenes with Kidzem community in vain and in early 2015, the TWMC was forced to dialogue with the traditional landlord. After paying cleansing charges, other traditional rites were performed at the catchment again and water started flowing from March although it could not supply the entire Tadu community in the Mbai area.

The dwindling sustainability of the Mbai community-managed forest conservation project can be understood better through the concept of mother and emerged villages as succinctly described by Enchaw in 2009. An informant representing one of the Mbai community forest management institutions noted that:

"... The unprecedented growth in the number of settlements in and around the Mbai community forest areas has reduced its size. This is caused by increasing human activities such as farming, grazing, calving, building and hunting actions in and around the forest area” (informant 3).
Field informants acknowledged that the local populations have been migrating from mother villages at lower altitudes to settle in farmsteads on the upper slopes of Mount Oku as a means to reducing the distance trekked to and from their farms. These farmsteads, which usually grew in numbers as relations and friends joined their peers, subsequently became transformed into permanent residences, and later on became villages. Some of these emerged villages became recognised with time and featured on census lists as independent villages (Table 5.2).

Table 5.2: Emergence of villages in and around the Mbai Forest conservation area (1958-2015) and the impact on its sustainability

<table>
<thead>
<tr>
<th>Mother villages</th>
<th>Primary emerged villages</th>
<th>Secondary emerged villages</th>
<th>Prospective emerged villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Villages</td>
<td>Recognition period</td>
<td>Villages</td>
<td>Recognition period</td>
</tr>
<tr>
<td>Ntur</td>
<td>Before 1958</td>
<td>Kai</td>
<td>1969</td>
</tr>
<tr>
<td>Buh</td>
<td>Before 1958</td>
<td>Simonkoh</td>
<td>1969</td>
</tr>
<tr>
<td>Jiyane</td>
<td>Before 1958</td>
<td>Ibal</td>
<td>1976</td>
</tr>
<tr>
<td>Ichim</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lang</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mbockevu</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ibal</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ngemsiba</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ngvainkei I</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mbesa</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anyajua</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tada</td>
<td>Before 1958</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>6</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

Source: Fieldwork, 2014-15. Mbai site village* Non-Mbai site village

Table 5.2 shows that 15 villages (mother villages) considered to have territories in and around Mbai conservation were created before 1958. This observation is supported by the 1963/64 and 1984 aerial photographs and the 1958-84 Landsat ETM² image of the Kilum-Ijim Forest Project (KIFP) area. Following the

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² Enhanced thematic mapper
criteria adopted by the project for villages liable to establish a forest management agreement (FMA) with the forestry administration as single or joint communities, these 15 villages are the only mother villages considered to have territories in the KIF area and the rest are primary and secondary emerged villages. Some potential mother villages that were not part of the FMAs were Buh, Tadu, Djottin, Mbam-Oku, Kichu, Elwin and Achain. A further eight villages that emerged in the course of time were added to the 15 mother villages and five of these six villages featured on the 1969 Census list while one featured on the 1976 Census list. After 1976, another group of six villages emerged and featured for the first time on the 1987 Population and Housing Census list.

During fieldwork, it was observed that 13 large settlements with potentials of villages (as seen on Table 5.2), were quite close to the forest conservation area and up until October 2014 (personal observation) no official document acknowledges them as full villages. An informant supported this view by acknowledging that:

"...in 2010 when the results of the 2005 national census were released some of these newly created settlements featured on the census sheets as autonomous villages. Others gained this status in the course of time but no official document, as of 2015, carried them as full villages. The growth of these villages is at the expense of protected forest as large portions are cleared up for either settlement or farming activities" (interviewee M3).

It should be noted that the three individuals interviewed in the Mbai project site were unanimous that the Mbai community forest conservation project is found in an area where there are lots of land tenure problems between local stakeholders (Oku and Nso fondoms) with vested interests in the community forest resources. An informant who was part of the management team stated that:

"The traditional landlords performing sacrifices in Mbai community forests are from Nso, although migrants from Oku have shown interest in becoming
part of the project, but the Nso traditionalists are not willing to accept them” (informant M3).

A similar opinion was put forward by an interviewee in Buh Village, who is a traditional landlord of a patch of forest which is part of the Mbai Community Forest. He noted that those providing community-managed projects in the NWRC have quite often neglected the socio-cultural and anthropological background of the project end-users. Using a geographico-anthropological approach, the informant said that:

„As concerns the management of the community forest (MCF) and other community forests in the NWRC, the first thing is that the region is predominantly a grassland area, referred to as the Grassfields, and many of the community forests (CFs) are concentrated in relics of montane forests and gallery forests in catchment areas. These montane and gallery forests are largely the abodes of the gods of the people and that is why many of them consist of sacred groves and shrines. These abodes of the gods were successfully conserved through traditional means even before the advent of community forestry (CF) in the country in 1995, which was the application phase of the 1994 Forestry and Wildlife Law that instituted the concept” (informant M3).

When the respondents were asked whether the putting in place of community-managed projects without due consideration of the cultural sites (shrines and groves), practices and social life of the project beneficiaries threatened the sustainability of CMPs in the region, their views revealed that the non-integration of socio-cultural sites, practices and social life of project end-users in the entire frame of community catchment and forestry management led to wanton denial of access to sacred groves and shrines as (Table 5.3). All the 77 grassroots members who participated in the survey questionnaire were of the view that some community-driven projects in the NWRC have led to denied access to sacred groves and shrines.
Table 5.3: Responses of respondents on whether the future of community projects is not guaranteed without due consideration of the cultural site and social life of project end-users by the project providers in the NWRC

<table>
<thead>
<tr>
<th>Project type</th>
<th>No. of respondents</th>
<th>Do you agree or disagree that failure to consider the cultural sites and social life of project end-users in the entire frame of community project management affects sustainability?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Bali CWP</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Kingomen CEP</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Mbai CWP</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77</strong></td>
<td><strong>77</strong></td>
</tr>
</tbody>
</table>

Source: Drawn from fieldwork, 2015

From Table 5.3 it is observed that all the respondents were unanimous that those providing projects to their local communities in the NWRC have made very limited efforts to recognise the sacred sites or understand the beliefs and social life of the people in and around the project areas or catchment.

In line with these responses, an interview in the Mbai project area pointed to the fact that the non-consideration of natives’ socio-cultural practices and sites reduced the chances of the project provider having a good knowledge and understanding of the inextricable link that exists between nature and the socio-cultural and anthropological life of the local people in the villages adjacent to the community projects. As quoted by the informant:

"... the project provider did not understand the type of socio-cultural and tenure relationships existing between the villages of Buh and Tadu (mother villages) on the one hand, and Lum, Ntovi, Simonkoh and Tangkiy (emerged villages) on the other. Similarly, the project provider did not understand the socio-cultural and religious relationship existing between the traditional landlords and the forest. If these aspects were well taken care of, traditional landlords could have been considered one of the user groups of the forest and forest resources” (informant M2).
Interview question: Do you think that disassociating traditional belief systems in the management process of community projects engenders socio-cultural conflicts which threaten the sustainability of CMPs in the region?

5.1.1 Traditional off-days and conflicts in CMPs in the NWRC

Traditional off-days or Country Sundays, where there are joint resources, were noticed in the field to be a source of socio-cultural conflicts that threatened the sustainability of community-driven projects. An interviewee in Simonkok explained that:

"...traditional off-days are those days of a traditional week which are reserved for the gods of the land. The informant said that during these days, which are often two, no one is authorised to go to the farm or forest or specific streams because his or her presence will disturb the tranquillity or activities of the gods of the land" (interviewee M2).

It was noticed during fieldwork that these two days differ between different cultures although they carry the same symbolism. An informant in Bali explained that for every culture, the first traditional off-day marks the day the pioneer, traditional and spiritual and religious ruler of the land died, and the second traditional off-day stands for the day he was sent to join the other ancestors. This is the reason for which the two traditional off-days are successive, the informant noted. Since there were no means of preserving corpses for several days, the tradition was that one night of wake-keeping was enough. Country Sundays in some cultures in the NWRC are Ambelle: agor and abekum, Bali: foncham and nko’ntan, Kom: tu-boli and tu-i-yui, Nso: nguelum and kiloveiy, and Oku: ngockse and nsanen. The issue of traditional off-days created internal and external conflicts that affected the sustainability of community-driven projects, particularly community forests in the NWRC (Table 5.4).
Table 5.4: Views of respondents on whether the violation of traditional belief systems (taboos) engenders conflicts that undermine the sustainability of community-managed projects in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Do you agree or disagree with the idea that your community projects tend to demystify traditional belief systems, leading to violation of taboos such as traditional off-days?</th>
<th>Is it true that a conflicting relationship between project providers and Kwifon (priest of shrines and sacred groves) riddles the sustainability of CMPs?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agreed</td>
<td>Disagreed</td>
<td>No idea</td>
</tr>
<tr>
<td>Bali</td>
<td>29</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Fundong</td>
<td>14</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Kingomen</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Mbai</td>
<td>27</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>77</td>
<td>71</td>
<td>0</td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>100</td>
<td>92.2</td>
<td>0</td>
</tr>
</tbody>
</table>

*Source: Drawn from fieldwork, 2015*

The responses of the respondents as presented on Table 5.4 clearly indicate that socio-cultural ties are still very strong in the NWRC and are determinant in the sustainability of many community-managed projects in the region. From Table 5.4 it is observed that 92.2% of the respondents were of the view that projects such as community forests have been effective in demystifying traditional beliefs and have led to the violation of taboos such as traditional off-days. This aligns with the views of an informant in Mbai village who stated that:

"...when patrol team members assigned with monitoring the community forests are mixed or come from different cultures which do not coincide, it will be obvious that respect for the traditional off-days in Mbai will be susceptible to defiance" (informant M2).

The forest management officer (FMO) of Mbai community forest who was one among the three interviewees in the Mbai area said that the issue of traditional off-days also created a number of socio-cultural conflicts that amplified the threats to the sustainability of community forests in North West Region of Cameroon (NWRC). Corroborating this assertion, the informant said that:
"...if we take the case of Mbai community forest, it will be realised that, some villages are in Nso Fondom, while others are in Oku, and these two fondoms do not have exactly the same traditional off-days. The informant pointed out that this aspect of traditional off-days was not taken into account by Birdlife International, which was operating under the umbrella of the Kilum-Ijim Forest Project and it created internal problems among the members of forest patrol teams. He said patrol team members from Oku usually accused those from Nso of violating their traditional off-days and vice-versa” (informant M2).

This was because patrol team members from Nso did not see why they should not go to the forest during a “country Sunday” that they do not respect, and vice versa. These internal conflicts were not resolved and they kept undermining the effectiveness of the patrol team as they became afraid of becoming victims of surreptitious punishment. This is just one of the socio-cultural challenges that affect the sustainability of community forests and other community-driven projects in the NWRC although other factors, which are associated with environmental, economic, technical and governance challenges, also contributed.

Interview question: Apart from the neglect of the traditional beliefs of end-users by project providers as you rightly said, what do you think is the future of a community project without due consideration of the socio-political structures that the project beneficiaries incarnate?

5.1.2 Socio-political structures and conflict in community-managed projects in the NWRC

At grassroots level, issues of land tenure, resource ownership, management and use are addressed by socio-political structures. Quite often these structures are excluded from the community project planning and decision-making phase, making community management of basic projects a problem rather than a solution to ameliorate the wellbeing of people in deprived communities. During an interview in Simonkoh, a forest management officer of the Mbai community forest explained the issue of tenure and tenure transfer, and noted that the transfer of tenure rights has been one of those socio-cultural indicators that directly affect the sustainability of community-driven
projects in the NWR of Cameroon. The interviewee referring to community forest held that:

"...community-managed forest conservation projects commonly called community forestry, were and are a government eco-centric construct for ecological purposes, without any regard for the institutional value of the people in the country in general and NWRC in particular. The informant explained that the non-integration of the cultural institutions of the people into community-driven projects in general and community forests in particular, is creating conflicts between the Fon (head of traditional institutions) who is the custodian of the land and members of forest management institutions (FMIs) who are running the community forests” (Informant M3).

In addition, another interviewee explained that many of the conflicts between the forest management institutions (FMIs) and the traditional authorities (kwifon, fon and traditional landlords) in Kom, Nso and Oku stem from the fact that these traditional authorities accuse Birdlife International and the forestry administration (Government of Cameroon) of having transferred tenure rights from existing socio-political institutions making decisions on the ownership and management of natural resources at grassroots to young people who have no legitimacy in matters of tenure at grassroots level (Figure 5.2).

**Figure 5.2: Transfer of tenure rights from traditional landlords to people who do not have authority in matters of tenure in the Mbai community forest area**

<table>
<thead>
<tr>
<th></th>
<th>Traditional landlords with tenure rights</th>
<th>Users of land with no tenure rights</th>
<th>Community forestry</th>
<th>Users’ gained tenure rights</th>
</tr>
</thead>
</table>
A field informant who happened to be a representative of one of the traditional landlords in the Ngongbaa area expressed much indignation regarding the fact that those to whom they leased land for farming have constituted themselves into villages and have become the managers of their forest. The informant was making allusion to the villages of Mockenghas, Tangkiy (Fonmboh) and Simonkoh. In the field, a general pattern of progressive colonisation of the fertile upper slopes of the Mbai community forest was noticed. Field informants acknowledged that the local populations have been migrating from mother villages at lower altitudes to settle in farmsteads on the upland as a means to reducing the distance trekked to and from the farms. These farmsteads, which usually grew in numbers as relations and friends joined their peers, subsequently became transformed into permanent residences, and later on became villages, thereby provoking encroachment into the Mbai community forest conservation project area. In the communities of Lum, Ntovi, Simonkoh and Tangkiy, which own the Mbai Community Forest (MCF), those who responded to the survey questionnaire and interview guide were unanimous that community forestry in the NWR and the entire country was not sustainable due to socio-cultural, environmental, governance, technical and economic challenges.

All three interviewees in the Mbai community forest project area shared the same view that within the socio-cultural domain, community-managed forest conservation projects where exogenous NGOs such as WWF and Birdlife International with public utility status play the role of project providers, the government through these NGOs imposes who is to manage the forest and what is to be done in the forest with no regard for the socio-cultural and anthropological background of the project end-users. An informant in Mbai forest area explained that:
most often, some of the project providers and younger peoples in the communities use the pretext of existing tenure laws, which prescribe that all land belongs to the State, to perpetrate land tenure atrocities against the traditional leaders who are locally regarded as the custodians of the land and the totems therein. This approach creates a situation of competition which is articulated around us-versus-them. Such an atmosphere gives room for law enforcement, which is characterised by policing and reprisal measures, all of which succeed only within the few years that the NGOs are in the field to sponsor the activities of the project, the informants pointed out” (informant M3).

Similarly, an informant in the Kingomen community electricity project argues that combining a law enforcement approach and a participatory approach by project providers in the same communities, and without enough sensitization, is a clear nurturing of a missing link. Law enforcement and policing measures are important and recommended, but when it is clear that they will be counter-productive, a more appealing strategy could be sought, the interviewee noted. One informant in Lum village, a neighbourhood of Mbai community forest, asserted that some of the atrocities which are in the form of desecrating the abodes of the totems at grassroots level are often fought back by the gods of the land through surreptitious punishment inflicted on defaulters of the customs. The informant explained that:

“...at times the gods become aggressive towards the resources which they consider are being exploited illegitimately. Their aggressiveness is expressed in the form of surreptitious vandalisation of the resources intended to be conserved through community forestry. For instance, 12 separate forest fires have been recorded in the Mbai community forest project site and among these fires three spread from farms into the forest. The other nine originated mysteriously from within the heart of the forest either on grasslands or from inaccessible valleys”(informant M1).

The NWRC is quite heterogeneous, with a segment of its population made up of indigenous people who have enriched the socio-cultural values and institutions of the region. This peculiarity of the socio-cultural values and institutions of indigenous groups in the sustainability of community-managed projects can be perceived from the role played by the Mbororo. Interviewees in Bali were of the opinion that
segments of some communities in the NWR of Cameroon that are made up of Mbororo indigenous peoples, carry out community water projects without taking a holistic socio-cultural approach. The 1st Deputy Mayor noted that:

“....Mbororo indigenous peoples are graziers and by their migratory culture their dwellings are temporary and these are the reasons for which they settle on high relief pasturelands in single-room huts. As a group that upholds the values of decency and socio-cultural morality, they prefer potable water points to be at great distances from their dwellings. This informant opined that Mbororo children need to go and fetch water very far so that before they return, the parents must have had the opportunity to make more kids” (informant B1).

A Mbororo informant in the Fundong community water project area confirmed this assertion of the 1st Deputy Mayor of Bali. This Mbororo informant said that this practice was rife among them when they were still not sedentary and living in huts. As he said, their current sedentary practice has made a few of them start constructing permanent multiple-room dwellings that can ensure privacy at any moment although some others still live in huts and their socio-cultural attitudes have not changed. The interviewee decried the fact that project providers do not make any effort to understand and incorporate this socio-cultural dimension of the Mbororo, which is very fundamental in the sustainability of the water projects. As they said, quite often project providers consider the Mbororo indigenous group to be uncivilized and working against the development of the community, particularly as Mbororo, wherever they settle in the NWR and Cameroon, is a subsumed entity of a main community. As one informant in Fundong narrated:

“....Whenever the Mbororo ethnic group notice that project providers have marginalised them or want to go against their socio-cultural way of life, they simply refuse to collaborate. When they refuse to collaborate, project providers usually used the law and policing measures to realize the project in their neighbourhood. This usually becomes a source of conflicts and quite often the installations are vandalised shortly after the project is realized, particularly as the Mbororo live close to the catchment areas” (informant F3).
An informant in the Bali water project sites attested that the Mbororo usually take their animals to drink in some collecting chambers to express their disapproval, acts which lead to water pollution.

5.2: Participants’ views on environmental influences on community project sustainability in the NWRC

Prevailing environmental conditions in the North West Region of Cameroon (NWRC) greatly influence the sustainability of community-driven projects, although with varying degrees depending on the type of project and the site occupied by a community. Among the environmental challenges advanced by field informants are varying relief, drainage, climate and climate change. The natural environment of the NWRC is predominantly high relief area, thus the name Western Highlands (Kometa and Ebbot, 2012; Enchaw, 2009). The relief is quite undulating and greatly influences settlement sites due to historical factors of security and the type of livelihood activities carried out by the different communities, as indicated by the views of the interviewees and responses of the respondents in the four study sites (Table 5.5).

Interview question: What is the attitude of those people living in high relief parts of your community towards supporting the ongoing implementation of the water supply/hydro-electricity/forest conservation project?

In the study sites of Bali, Fundong and Kingomen, interviewees threw more light on how environmental factors keep undermining the sustainability of their community-driven projects. The 1st Deputy Mayor in Bali explained that:

„„.pipe-borne water in Bali Sub-division has gone through three main phases and all the phases have been affected by relief and other environmental challenges. The informant specified that the ram pumping system which was the first and started in 1957, was limited to the neighbourhoods of Jingong 1, 2, 3, and 4, Boh, Mbadmandet, and Bawock villages found in the low-lying central part of Bali as the ram could not pump water to high relief settlements such as Koppin and Mantum, which are the highest altitude villages in the..."
sub-division and were not supplied with potable water, the informant noted. In corroboration, the interviewee said that the ram pumping system provided only public taps at strategic junctions of the neighbourhoods that were supplied due to its limited carrying capacity” (informant B1).

The second phase of the pipe-borne water in Bali, the interviewee noted, was the electric pumping system brought by SNEC in 1984 and the third phase is the current one, which is the gravity system which has been introduced to supplement the electric pumping system. Using a gravity system means that all settlements below the catchment will seldom be supplied by the distribution centre, the interviewee noted, and went on to state that SNEC had to suspend taps that were already functional in some upland villages due to the high cost of pumping the water. Similarly, participants in a focus group discussion held in the upland neighbourhood in Bali said that:

"...the suspension from SNEC was welcomed by the entire grassroots because they were served monthly bills when they had not consumed any water, as only air was flowing from their taps and not water. The participants said that the situation was being compounded by the prolonged dry season and reducing and erratic rainfall events in Bali. According to them, Bali has been witnessing a situation whereby temperatures are increasing and rainfall is reducing in the course of time” (informant B2)

**Interview question: How do an increasing number of days of no rainfall and reduced water discharge from the aquifer in the catchment area affect the sustainability of community water supply/hydro electricity/forest conservation projects?**

Existing climatic data from the Regional Meteorological Centre in Bamenda threw more light on the assertion of the informants. In this centre, it was observed that climatic data that was already processed for easy exploitation by researchers at the time of study was that ranging up to 2005. But the period that made more meaning to our study ranged from 1998 to 2005 (Table 5.5).
Table 5.5: Temperature and Rainfall Variability in the NWRC (1998-2005)

<table>
<thead>
<tr>
<th>Month</th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>J</th>
<th>A</th>
<th>S</th>
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<th>N</th>
<th>D</th>
<th>Mean annual</th>
<th>Total</th>
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<tr>
<td>Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>14.4</td>
<td>18.1</td>
<td>18.2</td>
<td>20.2</td>
<td>19.6</td>
<td>19.2</td>
<td>18.5</td>
<td>18.7</td>
<td>18.7</td>
<td>18.5</td>
<td>19.5</td>
<td>19.8</td>
<td>19.4</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>20.4</td>
<td>21.6</td>
<td>21.6</td>
<td>20.5</td>
<td>20</td>
<td>18.9</td>
<td>18.4</td>
<td>18.4</td>
<td>19.1</td>
<td>18.7</td>
<td>19.9</td>
<td>19.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>20.4</td>
<td>21.9</td>
<td>23.5</td>
<td>20.4</td>
<td>22.3</td>
<td>18.8</td>
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<td>18.9</td>
<td>20.3</td>
<td>19.9</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>24.9</td>
<td>24.1</td>
<td>22.6</td>
<td>23.5</td>
<td>24.5</td>
<td>22.5</td>
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<td>Average</td>
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<td>21.5</td>
<td>21.2</td>
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<td>19.9</td>
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<td>19.9</td>
<td>19.9</td>
<td>20.9</td>
<td>21.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>0</td>
<td>0</td>
<td>26</td>
<td>270.5</td>
<td>243</td>
<td>293</td>
<td>553.2</td>
<td>418</td>
<td>598</td>
<td>390</td>
<td>19.2</td>
<td>11</td>
<td>235.2</td>
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<td>2000</td>
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<td>220.3</td>
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<td>244.3</td>
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<td>237.8</td>
<td>214.8</td>
<td>505.5</td>
<td>411.8</td>
<td>331</td>
<td>79</td>
<td>258.1</td>
<td>3097.6</td>
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<td>2005</td>
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<td>81.4</td>
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<td>280</td>
<td>354</td>
<td>314.5</td>
<td>316.8</td>
<td>665.3</td>
<td>555.2</td>
<td>1.45</td>
<td>0.75</td>
<td>242.3</td>
<td>2907.8</td>
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<tr>
<td>2010</td>
<td>17.9</td>
<td>22.1</td>
<td>212.6</td>
<td>216.4</td>
<td>298.2</td>
<td>428.4</td>
<td>352.6</td>
<td>490.3</td>
<td>354.7</td>
<td>218.4</td>
<td>70.4</td>
<td>3.2</td>
<td>223.7</td>
<td>2684.8</td>
</tr>
<tr>
<td>Average</td>
<td>16.2</td>
<td>34.7</td>
<td>136.1</td>
<td>264.5</td>
<td>266.4</td>
<td>382.8</td>
<td>364.5</td>
<td>359.9</td>
<td>530.9</td>
<td>393.8</td>
<td>105.5</td>
<td>23.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Regional Meteorological centre, Bamenda, and fieldwork, 2015
It is noticed from Table 5.5 that temperatures increased from 14.4°C in 1998 to 20.9°C in the year 2010 for the month of January. During this same period, particularly from 2000 to 2010, rainfall decreased from 3,097.6mm to 2,684.8mm. During the dry season of 2010, which lasted from October to March, the temperatures were high with a maximum value of 25.4°C within this period recorded in November, while a minimum value of 22.2°C was registered in July. The mean annual temperature of Bali Sub-division has increased from 19.4°C in 1998 to 23.6°C in 2010. The impact of the increasing temperature on the amount of rain that falls in Bali per year is in two dimensions. The first is that the length of the dry season is increasing steadily in Bali and the second is that the number of days of rainfall in Bali is reducing with time. These observations were confirmed by an informant from the Regional Meteorological centre in Bamenda. In the opinion of an informant:

"...these climatic events were recent but generalised phenomena in the entire NWR of Cameroon. He pointed out that such fluctuations in rainfall and temperature have affected the discharge of springs, streams and rivers in the North West Region of Cameroon and have equally led to the emergence of new diseases that affect crops, particularly coffee, Irish potato and a species of cocoyam also called colocassias" (informant B1).

Plotting the aggregated mean rainfall and temperature values obtained from the centre in the form of an ombrothermic diagram for the period 1998 and 2010 (Figure 5.3) shows these climatic abnormalities clearly. This is indicative of the threatened sustainability of community-managed projects in the NWRC by environmental challenges such as relief and climate change.
An informant from Ngwainkuma village in the Fujua-Fundong-Mentang community water project site shared the same view. When asked to comment on the influence of climate-related issues on the sustainability of their water supply project, he said that:

"...their community-managed water is gravity-driven, and those who live in high relief areas usually face problems of water shortage during the dry season. In addition, he said that there is a new phenomenon whereby the dry season starts before the end of September and extends to April, and during this period, some of their taps flow with very low pressure, while others do not flow at all and when it rains heavily, they face problems of water pollution (informant F3).

In the Kingomen project site, the issues of prolonged dry season, erratic rainfall, and rain of high intensity were said to influence the volume of water in the locally constructed dam and thus the fluctuating voltage that they receive. As the informant put it,

"...during the dry season the voltage is too low and during periods of erratic rainfall of high intensity, the voltage is usually very high. The low and high voltage causes damage to their appliances" (informant K1).
In addition, the Kingomen project coordinators said that one of the major challenges they face is that of clearing off debris or load that is usually transported by run-off and the River “Tonsaiy” on which the dam is constructed. This load, as the informant said, blocks the turbines engendering low voltage even during the rainy season. This assertion confirms what Ngala (2014) observed in a study on the contribution of local hydro-electricity generation in the socio-economic development of Kingomen-Kumbo. The authors succinctly put it that:

“...seasonal variations in the volume of water in the River “Tonsaiy” that supplies water needed to spin the turbine leads to low power generation in Kingomen during the dry season” (informant K1).

During a focus group discussion with some Kingomen project beneficiaries, they pointed to the fact that frequent fluctuations in voltage with season are detrimental to household electrical appliances and to human life.

**Interview question: What is your opinion about the threat from dry season-related fires on the future of your community-managed water supply/hydro-electricity distribution/forest conservation projects?**

All informants in the Mbai community forest conservation site were of the view that relief does not have any significant influence on the sustainability of their community forest conservation project. On the contrary, they said that climate change, characterised by a prolonged dry season, has rendered the forest vulnerable to bushfires. The interviewees narrated that the:

“...Mbai community forest conservation project suffers from natural and man-made fires that destroy it on a yearly basis. The man-made fires are the accidental and wilful fires from graziers, bee farmers and crop farmers adjacent to the forest. The natural ones are those from lightning and those associated with mystics. In addition, the traditional landlord of Mbockenghas said that climate change has caused some of the springs in their shrines, which are used for libations, to almost get dry and that bushfires are also destroying some of their shrines” (informants M1, M2 and M3).
The views of those who responded to the survey questionnaire on environmental challenges throw more light on the research question which seeks to understand how environmental constraints associated with topography; climate variability and change riddle the sustainability of community-managed projects in the North West Region of Cameroon (Table 5.6). Some of the interviewees in Kingomen and Mentang affirmed that the seasons have been distorted, as rainfall has become unpredictable, and that they are losing mastery of their ethno-climatology.

Table 5.6: Cumulated views of respondents on environmental factors influencing the sustainability of their community-driven projects in the NWR of Cameroon

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Do you think that the following natural environmental elements are a real threat to the ongoing effective running of community-managed water supply/hydro-electricity power/forest conservation projects in the NWRC?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High relief dwellers do not derive same benefits from CMPs.</td>
</tr>
<tr>
<td>Bali CWP</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Kingomen CEP</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Mbai CFP</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>46</td>
</tr>
<tr>
<td>%</td>
<td>100</td>
<td>59.7</td>
</tr>
</tbody>
</table>

Source: Drawn from fieldwork, 2015

From the responses of the respondents on Table 5.6, it is noticed that for those community-driven projects that are directly associated with water their sustainability is greatly influenced by varying relief, climate change and drainage, while for those that are concerned with forest and conservation, their sustainability is greatly influenced by climate/climate change. For instance, 59.7% of the respondents were of the view that the varied relief of Bali Sub-division, Fundong-Mentang-Fujuan...
Ngwainkuma and Kingomen has made it difficult for their community-managed water and electricity projects to satisfy all parts of the communities.

5.3: Governance/Technical challenges in CMPs in the NWRC

Another set of challenges that are influencing the sustainability of community-managed projects in the NWRC is that associated with governance and technical capabilities at the grassroots level. These governance and technical challenges go a long way to compounding the prevailing socio-cultural and environmental difficulties that influence the sustainability of community-managed projects in this part of the country. In the NWRC, the effective implementation of most of the community-managed projects is largely stifled by the subjective application of laws governing these projects; the low levels of accountability and collaboration between project committee members; loss of trust and respect for project committee members; unfair benefit sharing; inadequate coordination and use of ill-adapted material resources; issues of motivation and/or incentives, and the possibilities of replacing defective committee members.

Similarly, issues such as project providers determining who should and who should not be party to a community project, inadequately qualified technicians at grassroots level, and the mixing of party politics in community-managed projects are attested by the field interviewee and those who responded to the survey questionnaire.

Interview question: Do you think party politics is affecting the coordination of local stakeholders towards the smooth running of a hydro-electricity/water supply/forest conservation project in your community?

5.3.1: Governance Challenges
Perceiving governance through the prism of the role of law, accountability, equity participation, and engagement and effectiveness vis-à-vis community-managed projects in the NWRC, there is plenty of scope to believe that the functioning of two of these community-managed projects in the study area is sub-standard, while for two, it is effective. Interviewees in Bali were of the opinion that there are many managerial problems that cropped up in the course of time which have impacted negatively on the functioning of the Bali Community Water Project. In Jam Jam neighbourhood, interviewees noted that:

"...our neighbourhood hosts one of the main catchments at Keunjah and tank for Bali community water, yet Jam Jam neighbourhood is not supplied with water. The interviewee alleged that Jam Jam being at a higher altitude was noticed earlier that it could not easily get water from the catchment through gravity, and so a young technician from the neighbourhood was entrusted with the task of mapping out a pipeline that could enable the neighbourhood to have water by gravity. This task was effectively accomplished by the technician and advertised for sponsorship, the informant narrated. When the elites of Bali noticed that the project had won some grants, and what was left was the execution phase, they decided to hijack the project from the young technician who even lost his life while attempting to resist the injustice, the informant intimated" (informant B2).

In addition, another informant said that when the project was hijacked, the mapped out pipeline was modified on grounds that the initial one was too lengthy. The informant stated that this modification of the pipeline made it difficult for the authorities in Bali to respect the law on the primary beneficiary of the outcome of a project vis-à-vis Jam Jam neighbourhood. Such a subjective implementation of the law on the primary beneficiary was compounded in Bali by the absence of respect of promises by project providers. An informant who happens to be a member of the traditional council in Naka and Koppin alleged that:

"...when BACOWAS decided to extend the community water supply network after taking over the management of Bali water in 1994, community members were requested to buy 25mm pipes and to dig pipelines. According to this informant, the request was met but up to 2010 when Bali Rural Council took
over; BACOWAS had not honoured its promise. This weakness in governance in Bali strained the relationship between the project provider and neighbourhoods such as Bossa, Gungong, Jam Jam, Koppin, Mantum, Mbeluh, Mundum, Naka and Wosing” (informant B1).

Drawing inspiration from the cases of the management of community forests, Tadu Community Water Project and Kumbo Community Water Project, one of the forest management officers noted that the project providers did not integrate the cultural practices of the people into the community forest conservation project before handing it over to them. To corroborate this assertion an informant who happened to be a member of the traditional council of Mbai said that:

„The acquisition of Mbai Community Forest was a surprise to them even though they have been traditional landlords of forest patches within MCF and other neighbouring community forests for ages. In his opinion, all the community forests in and around the area were products of elitist politics, which overrode the socio-cultural life of the people and undermined the sustainability of these community-driven forests in the long term” (informant M3).

The interviewee from Buh pointed out that in 1995 they were asked by the forestry administration in Kumbo, some elite members and officials of Birdlife International to apply for community forests so that the forests containing their sacred groves and shrines could be conserved as community forests using modern strategies. As this informant narrated:

„...the elite and officials of Birdlife International gave them to understand that it was one way through which the government wanted to involve local people in the management of their own forests, and the traditional custodians decided to observe how the situation unfolded. Little did the local forest custodians know that they were just being contacted to assist the forestry administration in Kumbo, the elite members and the officials of Birdlife International to achieve their initial objective (informant M1).

According to him, the introduction of community forestry in the area brought two immediate problems. The first and more important was that it led to denied access to the sacred groves and shrines of the forest custodians found in the forest, and the
second was that it led to a land tenure crisis between Oku and Nso Fondoms, which was compounded by the fact that the traditional landlords and the local people did not know much about community forestry.

**Interview question: Do you think the exoneration of traditional leaders from forest conservation/ water supply/hydro-electricity project management responsibilities riddle their sustainability?**

All the informants in Mbai shared the same view as those in Bali regarding governance difficulties. These respondents alleged that the primary beneficiary law was subjectively applied, thereby excluding traditional leaders from community forestry. One of the interviewees narrated that with the creation of Mbai community forest,

"...traditional landlords lost all the tributes usually paid to them by members of user groups. Instead, the Mbai forest management institution (FMI) instituted quotas which it received from these user groups. The informant further said that the functioning of the project provider was tele-guided by some political elite members, the informant noted” (informant M1)

This assertion was confirmed further by an interviewee in Mbai who held that:

"... The Oku elite are using their political influence to control Mbai Community Forest and the land adjacent to the forest, which was leased to people from Oku to use on a temporary basis. The interviewee said that this was the reason which the project provider had to use but user groups had to apply the law on the primary beneficiary without taking the socio-cultural and anthropological relationships into consideration. The interviewee further alleged that the shrines of traditional leaders were carved and incorporated into Mbai Community Forest in order to keep away the traditional leaders on grounds that the forest belonged to the government. These governance injustices strained the relationship between the project provider (in this case, members of Mbai Forest Management Institution, and the traditional leaders) ( informant M3).

In another dimension, but still within the framework of governance, an informant in Simonkoh noted that members of Mbai Community Forest and all the other Community Forests in NWR are failing to respect the provisions of the Simple
Management Plan (SMP) and the Fondom Agreed Wide Rules (FAWRs) which state that 5% of all proceeds from the sale of *Prunus africana* bark harvested from the Community Forests should be given to the Fon. On the contrary, the elected Forest Management Officer (FMO) and the appointed Delegate of the Forest Management Institution (DFMI) were quarrelling over *Prunus* bark to the disapproval of the Fon and his subjects. Further evidence of the threatened sustainability of Mbai Community Forest and all the other Community Forests in the region claimed to be under Oku, is that the Fon of Oku seized all the working documents of the Forest Management Institutions, the informant stated.

On the contrary, the Fundong Community-Managed Water Project and Kingomen Community Electricity Managed-Project are not so affected by governance problems. Kingomen, however, was alleged to be suffering governance problems associated with the absence of cordial relationships, no mechanisms to replace defective project providers and poor accountability. The project chairperson in Kingomen attested to lack of collaboration when he said that:

"...there is a management committee for the Kingomen community-managed hydro-electricity project where he, a mere first school leaver and technician, could not understand why the secretary finds it difficult to develop minutes or the chairperson to call for meetings" (informant K1).

A female informant in Kingomen had a counter-view when she said that the project coordinator is managing the project as his personal business and was simply using the name of the community for it to be sponsored. The interviewee pointed out that:

"...not everyone in the community is supplied and even among those who are supplied, during rationing, the coordinator becomes so discriminatory. Many people who were initially supplied with power have either refused the supply or their lines have been suspended by the provider because of socio-political and economic reasons, the interviewee noted. For instance, the Kingomen
Health Centre, which was supplied initially, no longer has light due to party politics differences” (informant K2).

In that connection, the project coordinator said that though some people have refused to be supplied, they still use the power to charge their phones either in bars or in the homes of neighbours. The project coordinator added that young people in the community were accusing him of not training them, whereas they were not coming for training. Many of these governance issues that were raised for and against by the informants were observed during field work. Some of them stem from the fact that a king is seldom respected at home and the fact that since the power was generated by their son, he should be entitled to no motivation and/or incentives (personal observation). The project provider is rather being acclaimed by those who are slightly away from Kingomen such as the Palace of Nso and the Lord Mayor of Kumbo Urban Council who have been providing some financial and material assistance for the standardization of the scheme. The informant noted that:

“...some people are trying to politicize the project and at the same time accusing me of running the project as a private business whereas the chairperson of the project is not calling for meetings. In addition, committee members are not collaborating to even see to it that people pay the agreed token for consumption bills. The network may not even be extended again for people do not want to pay even the running cost. There are some people who do not want to collaborate, some even requested that their lines should be suspended and I did so. But you will be surprised that when you go to drinking places around the Village Square here, you will find them charging their phones with the same light that they have rejected. Some women struggle to keep using the light but a good number of them pay in kind and it becomes a problem for me to go and sell the farm produce in Kumbo” (interviewee K1).

Interview question: How cordial is the relationship between project committee members and the rest of the community members in terms of trust and respect?

Elsewhere in the country, similar socio-cultural conflicts emerged and threatened the sustainability of community forests and other community-managed
projects in the NWRC. In this region of Cameroon, for instance, the local communities around the Kilum-Ijim area are made up of natives who are assumed to be the traditional owners of the forest and non-indigenes who are users. Attempts at identifying who is or is not a member of the community have been problematic in the process of establishing community forests. The indigenes were reluctant to work with non-indigenes who mainly use the forest as they considered them to be „strangers”, an informant noted.

The difficulties encountered in making indigenes work with non-indigenes stifled not only local participation in community forestry but the water and electricity supply projects in the NWRC. Judging from the responses of the respondents to the survey questionnaire, there is no significant difference in the extent of socio-culturally-related conflicts in community-managed projects where the provider is exogenous or endogenous. All the respondents in the four study sites were unanimous that where the problem lies is at the level of the type of relationships existing between project provider and project beneficiary (Table 5.7).

Table 5.7: Cumulated views of respondents on whether the type of relationship between project provider and project beneficiary affects the level of socio-culturally-related conflicts in community-managed projects

<table>
<thead>
<tr>
<th>Project site</th>
<th>Main project providers by name</th>
<th>Origin of project provider</th>
<th>What do you think is the type of relationship between the project providers and end-users?</th>
<th>How does such a type of relationship trigger socio-culturally-related conflicts in CMPs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bali CWP</td>
<td>SNEC</td>
<td>Exogenous</td>
<td>Top down</td>
<td>High</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>Plan International</td>
<td>Exogenous</td>
<td>Partnership</td>
<td>Very low</td>
</tr>
<tr>
<td>Kingomen HEP</td>
<td>Illustrious son</td>
<td>Endogenous</td>
<td>Partnership</td>
<td>Very low</td>
</tr>
<tr>
<td>Mbai CFP</td>
<td>Birdlife International</td>
<td>Exogenous</td>
<td>Top down</td>
<td>Very high</td>
</tr>
</tbody>
</table>

*Source: Drawn from fieldwork, 2015*
From Table 5.7 it is noticed that there are three exogenous project providers against one endogenous. While Bali and Mbai with exogenous (external or alien partner) project providers experience high levels of socio-culturally-related conflicts that threatened the sustainability of the projects, Fundong with also an exogenous project provider rather experiences a very low level of socio-culturally-related conflicts. Similarly, in Kingomen where the project provider is an illustrious son who partnered with the project end-users, the project experiences a very low level of socio-culturally-related conflicts. The interviewee narrated:

"... You will agree with me that whenever limited contacts are made between project providers and end-users, there is a very high probability that socio-culturally-related conflicts will emerge and will tend to affect the life of even community-driven projects negatively. Waterfalls for community hydro-electricity projects and water catchments for the tapping of community potable water in the NWRC are most often areas of totemism for the custodians of the traditions of the people. Project providers who know all these make sure that they do not go against as the local people will cause problems (informant K1).

This implies that in projects where the relationship between project providers and project end-users is founded on a partnership basis, the project providers tend to acquire adequate knowledge of the socio-cultural and anthropological background of end-users, and by extension, integrate such sustainability-enhancing dimensions of the people into the entire frame of the projects. It is the reverse for imposed project providers where the relationship is founded on a top-down or master/servant relationship. An informant narrated that between 1957 and 1984, Bali community water did not face any sustainability threats. The absence of sustainability threats can be explained based on the fact that the project was carried out through the concerted efforts of the Bali people and the Germans who had earlier signed a cooperation pact with Zingraff who represented the German Administration. Through this pact, the
Germans understood the importance of the socio-cultural components of the people of Bali in any project that had to succeed there.

This was what SNEC failed to understand, particularly as it was imposed on the Bali water project, the informant noted. On the contrary, those where the development association of project end-users partnered with alien project providers, such in Fundong-Mentang community water project, the sustainability of the project was not threatened. Rather, the project has expanded to include Fujua and Ngwainkuma, which were not part of the community water project at the start. An informant in Mentang Village said that:

"...socio-cultural conflicts were avoided between the project providers and the custodians of the Ikuo Shrine as adequate measures were taken not to temper with the shrine, which is close to the second catchment for the Fundong-Mentang Community Water Project. The shrine was never desecrated or relocated. In a similar manner, the priest of Ibein Shrine in Mentang had no problems with the project because the passage of the pipeline notified the gods of the shrine" (informant F3).

This implies that the project providers took care of the socio-cultural life of the local people and it was one of the reasons for which the Fujua-Fundong-Mentang-Ngwainkuma Water Project is functioning well and extending. It was observed during field work that the problems faced by the Fundong-Mentang-Fujua-Ngwainkuma community water project were that of pollution in Ngwainkuma when it rains heavily and the fact that the technician decided to use very small pipes for the network while the waste pipes were very large, meaning that more water from the catchments does not serve the population.

Similarly, the Kingomen community electricity scheme, which was intended to cover only the neighbourhood called Village Square, has extended to six other neighbourhoods of Kingomen such as Kinchumin, Romishiyi, Ronkih, Tabah, Tatu
and Tonsaiy with no socio-culturally-related conflicts. The project provider, who was one of the interviewees in Kingomen, alleged that:

"...in 2013 the Palace awarded him a red feather as a sign of recognition for the success of the Kingomen Community electricity project. In fact many socio-economic structures that were uncommon in Kingomen became erected as a result of the availability of electricity. Among these socio-economic structures were bars, shops, grinding mills and barber’s shops. At the same time many households were and are exploiting the power for various purposes such as lighting, charging of mobile phones, play radios and TV sets and to drive their electrical appliances. It means an improvement of the living conditions of the local people, the informant stressed” (informants K1).

In the same positive line, another interviewee affirmed that after the decoration, the Mayor of Kumbo Urban Council provided the management committee with some money. This money, the interviewee stated, was used to acquire a transformer, a number of nine-metre-long poles and cables from Energy of Cameroon which they used to replace most of the improvised material such as locally fabricated transformers, cables from tyres and locally harvested and untreated poles, the informant noted. All these replacements were noticed during fieldwork although parts of some of the neighbourhoods still use improvised material (personal observation, 2015).

The issues of motivation and/or incentives are very crucial for the life of this project. Community members in Kingomen have no real perception of the running cost of the scheme and many of them believe that since the turbines are turned by water, they need to make no additional effort.

"...at grassroots level, there are seldom long-term management incentives since the belief is that as a member of a community, one needs no incentives to work for his people. Those who attempt to motivate the project provider did that in kind by offering a few baskets of cocoyams, buckets of maize and beans, and bundles of vegetables to compensate for the power they consume” (Informant K1).
These views of informants were confirmed by some of those who responded to the survey questionnaire. It was during the administration of the questionnaire that many of them realised and actually acknowledged that the community members have not been doing much to support the project provider and enhance the sustainability of the Kingomen community-managed hydro-electricity project. The responses of the respondents indicate that aggregate percentages show an overall negative effect of governance challenges on the sustainability of community-driven projects in the NWRC although many of these challenges manifest more on Bali Community-managed Water Project and Mbai Community Forest Project (Table 5.8). The table shows that 72.7% of the respondents were of the view that subjective implementation of the primary beneficiary law in Bali and Mbai have prevented some community members from having access to potable water despite the fact that they participated in material acquisition and the digging of pipeline trenches. As for the Fundong-Mentang Community-managed Water Project and the Kingomen Community-managed electricity Project, the level of governance as indicated by field informants is considerable although with some difficulties.
Table 5.8: Cumulated views of respondents on the influence of governance issues on the sustainability of community-managed project in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Do you agree or disagree with the following governance issues affecting the effective ongoing running of community-managed projects in the region?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The primary beneficiary law is subjectively implemented</td>
</tr>
<tr>
<td>Bali CWP</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Kingomen CEP</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Mbai CFP</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77</strong></td>
<td><strong>56</strong></td>
</tr>
<tr>
<td><strong>%</strong></td>
<td><strong>100</strong></td>
<td><strong>72.7</strong></td>
</tr>
</tbody>
</table>

*Source: Drawn from fieldwork, 2015*

From Table 5.8, it is observed that 76.6% of the respondents acknowledged that unfair benefit sharing was orchestrated by elitist politics. A 76.6% and a 74% of the respondents respectively alleged the absence of cordial relationships and loss of trust and respect for the project management committee as common governance issues in the North West Region (NWRC). The waste of money, energy and time, together with the absence of the role of law, has actually affected collaboration between the project provider of Bali Community Water and the community members who resisted payment of water and electricity bills, and this undermined the sustainability of the community water project.

*Interview question: Do you think that inadequate qualified technicians at grassroots level and weak coordination among them affect community ability to sustain projects that your community is running?*
5.4: Technical challenges riddling CMPs in the NWRC

The issue of technical challenges is not limited to community-managed projects in the NWRC. Most development projects in Africa and developing countries as a whole face these challenges. The difference is that at grassroots level, such as is the case with communities in the NWRC, the technical challenges are acute due to a number of factors as a near absence of formally trained technicians (Table 5.9), limited management capabilities, lack of networking, motivation and poverty, as interviewees affirmed. All the respondents were unanimous on the issue of limited trained personnel when they noted that in a case where there are very few trained persons; when busy with other things, water that is flowing from a broken pipe or blackout into which the community finds itself because of a simple electrical fault will continue until when the technician is available.

In this light, informants from Bali explained that:

"...one of the greatest technical problems with our community-driven projects in the NWRC is that when experts from the developed world come and carry out feasibility studies and realized projects in rural areas such as those of NWRC, their perception of the situation of the project during and after realization is that which reflects the background of the project expert. Under such circumstances, there are many components of the project which are done with a lot of assumptions. For instance, the experts will believe that one person trained within a short period of time will continue to build his/her technical capacity through networking, which is seldom the case at grassroots level.”(Informants B1 and K1).

In addition, the informant who happens to be a member of the municipal council pointed out that one person is usually trained to technically manipulate the equipment in terms of very basic repairs, and not on equity, benefit-sharing, monitoring and evaluation, and other governance issues, which are also very important in ensuring the sustainability of these community-managed projects. The interviewees confirmed the overwhelming low levels of human capabilities at
grassroots level in terms of quality and quantity and how such inadequacy of technical expertise affects community-managed projects in the NWRC. As they put it:

"...local communities in the NWRC, as is the case elsewhere in the country, does not have the required technical manpower to manage some of the community projects. In his view, projects such as sensitive community projects, especially water and forest conservation schemes, ought to be run by the councils. The informant said that the absence of qualified technicians, inadequate information and poverty have often pushed local communities in the NWRC to use local unqualified expertise to carry out feasibility studies for their intended community projects, which in the long run lead to many technical problems. Estimates and running cost have often been suboptimal, the informant pointed out" (informants B1, B2, B3).

The issue of poor estimates of projects’ running costs is compounded further by the phenomenon of community solidarity, which is a common feature of the populations in the NWR of Cameroon, as observed by the 1st Deputy Mayor of Bali. Potable water and electricity extension takes place without due consideration of the estimated carrying capacity of the projects. In Fundong-Mentang and Kingomen projects it was observed that the use of low carrying capacity or improvised material to realize community-managed projects was leading to resource wastage and making the projects less sustainable. The sizes of the pipes and cables used are seldom in relation to the actual demand. The use of 25mm diameter pipes for transporting potable water from the catchment to the community and 63mm diameter pipes for waste water pipes was the order in the communities of Fujua-Fundong-Mentang-Ngwainkuma, Tadu and Bali (personal observation).

At times pressure on the pipes is so high to the extent that they explode causing undue breakdowns that deprive community members of water. The tapping of water from above principal conveyor pipes rather than by the sides or below was also observed in the field to be a common technical challenge. Some project end-users were of the view that the tapping of the water from above was responsible for the low
pressure they usually experience or no flow of water from their taps. Technicians were accused of poor work and some of them were even charged with financial impropriety. In the Kingomen project site, the issue of technical challenges was even more serious. The project coordinator said that his highest qualification was First School Leaving Certificate and his electrical knowledge was from the repair of motorbikes. The informant affirmed that:

“...the Kingomen small-scheme hydro-electricity project was implanted without any prior feasibility studies being carried out and the carrying capacity of the scheme was unknown. According to the informant, the initial idea was to generate power for his business store at the Village Square and from his estimate of the debit of River Tonsaiy there was no need for any feasibility studies. As the informant said, even the running cost was not important because he knew that his business was going to cover it. But when the project started, the issue of community solidarity came in and he involved the whole community, thereby complicating the project” (informant K1).

The informant went further to explain that at the early stage of the project, everyone wanted light and every young person wanted to become a practising electrician irrespective of their low levels of electricity knowledge. They went ahead to improvise the material used and the use of wires from burnt tyres as cables were not common. But in the course of time, community members became sensitized and their attitude started changing.

**Interview question: what training activities have you put in place to build the capacity of community members in the sustainable management of community water/hydro-electricity/forest conservation projects?**

In Mbai where forest conservation was expected to be sustainable with the introduction of community forestry, technical challenges were also enormous as field informants attested. Near absence of human capacity in terms of trained personnel to carry out forest inventory, forest regeneration and monitoring were impacting
negatively on the sustainability of Mbai community-managed forest. Some informants in Mbai said that:

...forest regeneration, monitoring and evaluation have been major problems in Mbai community forest because the forest is on fire almost every dry season and there is little knowledge of multiple value trees that can arouse regeneration interest of community members” (informants M1, M2).

In the same dimension, all the respondents in those villages adjacent to Mbai Community Forest acknowledged the introduction of livelihoods programmes by the Kilum-Ijim forest project. Some of the informants made a distinction between what they were practising before and what the project introduced, but did not know if the project initially planned for such programmes because they were short-lived. They used „project“ as a prefix for what the project introduced or improved upon. For instance, they chose to say the project’’s tree nursery, project’’s beehive, project’’s banana, project’’s grass for Vetiver, and so on. All of them acknowledged not being trained or provided with the necessary inputs to practise their livelihood activities. An informant held that:

„...the project selected those with whom to work and concentrated its activities in some villages. He explained that they could not provide the materials needed for training as demanded by the project. Few who were chosen and collectively trained on hive making, salt lick, fruit tree propagation, marcotting, grafting, vegetable growing, banana, potatoes, and oil palms multiplication using the project’’s resources were expected to train others free of charge, but that was not the case as they demanded not only material but also compensation in order to train them” (informant M2).

In the absence of this training, the pressure that was exerted on the forest by the increasing population continued and aggravated with time; putting the sustainability of Mbai community forest to test. Field informants attested that there was much unsustainable harvesting of prunus bark, wood for carving, encroachment for farming and the taking of more animals to range in the forest immediately the project wound down. The situation worsened when the Kwifon and Fon seized the
documents of the Mbai forest management institution, which for some time was more 
or less managed by just three persons who were active only when it was the season to 
exploit prunus bark.

Informant K3 ascertained that:

"...Well it is a small scheme just for a village community and the technical 
challenges may not be so many. But we would have expected the project 
initiator to have trained some young people by now to handle issues of wiring 
people’s homes and carrying out minor repairs even in his absence. It is not 
normal that the least fault users must wait until the project initiator is around 
for the problem to be solved. He is a businessman who is so busy and we do 
not know why he is not training young people in the domain. Due to this 
absence of formal training, many people in Kingomen have become self-
practising electrician which is a very risky thing.”

The responses of the respondents to the survey questionnaire as shown on 
Table 5.9 below confirm the assertions made by interviewees that community-driven 
projects in the NWRC suffer from technical challenges. Interviewees in the Mbai and 
Bali project areas explained that formally trained technicians worked for their 
community-managed projects only during the realization phase when the supporting 
NGOs are there with a good level of technical expertise. After the realization of the 
project, the local population is expected to continue ensuring the technical expertise, 
which is not always available or so limited because when the experts are about to 
return, they will sparingly train one person who is expected to ensure the technical 
expertise needed for the life of the project. Just one person, who is trained within a 
very short period, is usually loaded with the work and at times he prefers doing other 
lucrative things for a living since he/she is not usually employed full-time by the 
community, one informant in Bali noted.
Table 5.9: Views of respondents on technical issues affecting local communities’ ability to sustain their projects in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Do you agree or disagree that the project providers did not adequately train grassroots technicians/committee members on how to carry out extension and repair works in case of breakdowns?</th>
<th>How many trained technicians are working for your Community-managed Projects (CMPs)?</th>
<th>Do you agree or disagree with the statement that the near absence of expertise at community level to generate, monitor and evaluate CMPs riddles their sustainability?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0-2</td>
<td>3-4</td>
</tr>
<tr>
<td>Bali CWP</td>
<td>29</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kingomen CEP</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mbai CFP</td>
<td>27</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Drawn from fieldwork, 2015

The table shows that all respondents, 100%, who responded to the survey questionnaire affirmed that there are very limited numbers of trained technicians or forestry guards working for their community-managed water/electricity/forest projects. Again, all the 77 respondents acknowledge that inadequacy in quality and quantity of trained technicians negatively influences the sustainability of their community-managed projects.

5.5 Economic challenges hindering the sustainability of Community-Managed Projects in the NWRC

Interview question: it is well known that funding challenges are common with all projects. What specific funding challenges do you face in running the hydro-electricity/water supply/forest projects in this community?
Economic challenges or funding difficulties are a common feature of all projects although community-managed projects in the North West Region of Cameroon (NWRC) have some peculiarities. Many of the economic challenges faced by community-managed projects in the NWRC stem from the fact that the projects are quite often opportunistic in nature. Whenever a community has an opportunity to get any community-managed project, they use their culture of self-reliant development to acquire the project even when many issues concerning the sustainability of the project are either not understood and/or addressed at the initial stage. With the exception of the Fundong-Mentang-Fujua-Ngwainkuma community-managed water project all the other three projects chosen for this study encompass this opportunistic character. For instance, the informants explained that:

"...at the outset, the Kingomen small-scheme hydro-electricity project was not intended to serve the entire village community. The extension idea came when the project was already ongoing due to community solidarity. The project went operational without any prior feasibility studies, and therefore, the carrying capacity of the scheme was unknown, and the extension policy, the extension cost and the running cost were not addressed. All these unknown factors tend to complicate the economic dimension of the community-managed project, particularly as the scheme relies on philanthropic gestures and the fact that payment of electricity bills by users is mostly in kind. This obviously impacts negatively on the financial resources required for the smooth functioning of the scheme" (informants K1)

In addition to the funding challenges facing Kingomen community-managed electrification, informant K3 narrated that:

"...It has not been long that we had transformers and some SONEL cables and poles thanks to the financial support of the Mayor of Kumbo. Due to funding difficulties, the first lone transformer that was used for the project was fabricated by the project initiator and people here were using sticks as poles and wires gotten from burnt tyres as cables. You can still find many of these cables crossing from one compound to another and in people’s homes. The payment of bills is not regular and some people pay in terms of baskets of farm produce, which makes it difficult to buy spare parts for emergency repairs. If there were finances, the scheme could have already extended to all neighbourhoods in the village."
The same scenario can be observed with the Bali Community-managed Water Project. Bali people did not plan for a community water project. But when an indemnity was paid to them, they simply diverted the funds to a community-driven water project without taking into consideration the necessary economic components that guarantee the sustainability of the project. An informant, who is a former Mayor of Bali Rural Council, said that the last thing that made SNEC to take over the management of water in Bali in 1984 was that the machines of the ram pumping system became broken and outdated and there was no money to repair or replace them. The informants noted that:

"...a token sum of £1.20 (FCFA 1000) that was agreed to be paid by each family once after every three months to make up for the running cost became difficult to be collected. Some people deliberately refused to contribute because government services were exonerated, others wanted to pay in kind and yet others refused because they claimed that they did not consume the water or that the money they pay as bills was not being accounted for, the interview held."

Similarly, an interviewee in the Fundong project area noted that:

"...the token sum of £1 (FCFA 750) that each family was levied to pay once after every three months to make up for the running cost was difficult to be collected. The informant noted that there are many problems of financial impropriety that have dissuaded community members from paying maintenance fees or digging pipeline trenches. All these led to accumulation of bills and a rupture in the functioning of the whole system with most of the taps closed" (informants B1 and F1).

**Interview question:** What is your opinion about the willingness of community members to financially, or otherwise, contribute to the running of hydro-electricity/water supply/forest conservation project in this community?

In corroboration with regard to the willingness of the rural people to contribute towards the running of their basic projects, an informant in Naka noted that:

"...there are many problems of financial impropriety that have dissuaded community members from paying maintenance fee or digging pipeline trenches. All these led to accumulation of bills and a rupture in the functioning of the whole system with most..."
of the taps closed. The informant stressed that when BACOWAS took over management in 1994, the situation grew worse as community solidarity intensified and affected the collection of maintenance fee” (informants B1 and B2 noted).

In the Mbai area, the opportunistic syndrome was also very present and even served as a disincentive. Field informants held that:

„...the local population in Mbai study site embraced community forestry because it was an opportunity to make fast cash since the project provider recruited persons and was offering huge wages to them. Little did they know that when the community forest must have been acquired, it would be handed over to them and they would become those to generate funds for forest regeneration, monitoring and evaluation” (informant M1).

The views of interviewees were supported by the responses of 77 respondents who were administered a survey questionnaire in the four project sites (Table 5.10). A high response rate in the different project sites reveals that funding is still a major hindrance to the sustainability of community-managed projects in the NWR of Cameroon.

Table 5.10: Cumulated views of respondents on the extent to which funding challenges have riddled the effort of local communities to sustain community-driven projects in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Do you agree or disagree with the view that the exoneration of fons’ palaces and government services from paying running costs for CPs made grassroots members become reluctant to pay for their own share of the project’s running costs?</th>
<th>Do you agree or disagree that the community project committee did not adequately estimate the long-term running cost and did not actually map out viable funding mechanisms for future innovations, extension and management of the projects?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>No idea</td>
<td>Disagree</td>
</tr>
<tr>
<td>Bali CWP</td>
<td>29</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td>Fundong CWP</td>
<td>14</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Kingomen CEP</td>
<td>7</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Mbai CFP</td>
<td>27</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>77</td>
<td>73</td>
<td>2</td>
</tr>
<tr>
<td><strong>%</strong></td>
<td>100</td>
<td>94.8</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Source: Drawn from fieldwork, 2015
The table shows that respondents were unanimous that the water/electricity/forest conservation projects in the four projects areas are not financially self-sufficient, giving a 98.7% response rate, whereas just 1.3% said they had no idea (Table 5.10). The table also shows that all the 77 people who responded to the survey questionnaire agreed that the exoneration of Fons” palaces and government services from paying running costs for community projects made the local population become very reluctant to pay for their own share of the running cost. There was no one who disagreed with the assertion that the exoneration of Fons” palances and government services from paying running costs for community projects make local populations become reluctant to pay for their own share of the projecty’s running costs.

Conclusion

On the basis of data analysis and presentation of findings using both qualitative and quantitative evidence from field respondents and documentation, and from the view that the cultural background of a people shape their thinking, belief system and practices, it is a truism to say that all community-managed projects in the North West Region of Cameroon (NWRC) are inextricably linked to the socio-cultural and anthropological background of the people in this part of the country. Despite the essential role played by environmental conditions, governance, and technical and economic dimensions in the sustainability of community-managed projects, a missing link must have been established if project providers fail to start with what makes a people and what they master most before realizing and handing over basic projects to local communities.
Such a missing link dissociates the end-users from the project, rendering its effective long-term implementation vulnerable. One of the revelations of the findings is that the project providers often focused more on putting in place the projects than on the fundamental components required guaranteeing the sustainability of those projects. These fundamental components in the NWRC are the socio-cultural issues, which at times are compounded by environmental conditions such as climate change and relief. For instance, climate change has negatively affected the volumes of springs and brooks, which are fundamental in traditional rites, while relief has deprived some local communities of water availability in terms of quality and quantity. More light is thrown on the findings in the discussion chapter, with special emphasis on the close association between the research findings and existing literature.
Chapter 6: Discussion Results and Recommendation

6.0 Introduction

The main objective of this chapter is to discuss the data analysed in the previous chapters against the existing literature on challenges faced by projects that are community-managed. The discussion of the findings presented in this chapter focuses on understanding why projects that are community-managed have had such limited sustainability in the North West Region of Cameroon. The study has been articulated around the underlying challenges undermining the sustainability of community-managed projects in four project sites in the region. These challenges cut across socio-cultural, economic, technical, governance and environmental that engendered limited sustainability of the forest conservation/water/electricity supply projects since the project providers did not adequately incorporate the socio-cultural and anthropological background of the local populations of Mbai, Bali, Fundong and Kingomen into the holistic frame of the community project management.

The extent of the discussion centres on the researcher’s perceived understanding of how participants presented the data to him during fieldwork. The study was guided by five specific objectives and 12 in-depth interviews and 4 focus group discussions were conducted. The views of the 12 informants were confirmed by 77 respondents who provided responses to the survey questionnaire that carried 20 questions on each. The data gathered through the questionnaire, interviews, focus group discussions and field observation, and then analysed paved the way for the discussion of the findings against the objectives and the drawing up of meaningful conclusions. The discussion of the findings has been presented in a serial order. This
means that data analysed related to specific research objective 1 is discussed first, followed by objective 2, then 3, 4 and 5.

6.1: Data analysed related to research objective 1

Research objective 1: To find out the extent to which knowledge of the socio-cultural background of project end-users is fundamental in the sustainability of community-managed projects in the North West Region of Cameroon. The objective seeks to understand the degree to which non-incorporation of the cultural practices and way of life of the people in the NWR of Cameroon in the processes of community project decision-making riddles the sustainability of community-managed projects in the region.

In the process of implementing community projects in the North West Region of Cameroon (NWRC), the project-providers and the Governmental agents have seldom incorporated the socio-cultural practices and institutions of the project beneficiary population. Njoh (2011) acknowledges the influence of traditional authority in the success of rural projects in Cameroon. According to this author, the long-term successful implementation of any community project depends on whether the beneficiary population perceives the project as truly theirs. Unfortunately, the gross disregard for the grassroots traditional authority and their cultural practices has undermined the long-term effective running of community projects in the developing world, notably NWRC (Duxbury & Jeanotte, 2010; Fonchingong, 2009; Enchaw, 2009).

There is evidence from the interviewees to the research that the gross neglect of the cultural practices of traditional landlords and project end-users led to the
limited sustainability of community-managed water/electricity/forest projects in the NWRC. It is argued that a people cannot adhere to any development effort that does not coincide with their daily socio-cultural life. Field informants notably in the two project areas experiencing very low sustainability levels acknowledged that the projects distorted their social values such as religious authority. For instance, an informant in Mbai forest conservation project area explained that they could no longer have access to their shrines in the project’s demarcated site and, therefore, were unable to perform their yearly sacrifices at the end of which they received tributes in the form of honey, maize, beans, rat intestines and rat parcels. The informant further noted that the situation was compounded by the fact that some villages such as Buh, Meluf and Tadu were not considered as having territories in the forest area.

By compromising the social life of the local people in Buh, Meluf and Tadu villages, the project triggered a situation where local residents were deprived of their only source of livelihood activities. Also, when the government issued permits to aliens to commercially exploit the bark of *Prunus africana* from Mbai and since these aliens did not subject themselves to the local norms governing forest protection in the community, they violated the taboos and traditional off-days without suffering any surreptitious punishment. The consequence was that their daring attitude instigated indigenous people to review their belief system and invade the forest and forest-based resources. This militated negatively against the sustainable management of Mbai community forest conservation projects.

Similarly, in the Bali community-managed water supply project an interviewee narrated that the exoneration of the Palace from paying maintenance fees was due to two main reasons. The first was the socio-cultural regard the people of Bali have for their Fon and the regulatory society known as Kwifon, of which the Fon
is the custodian, and the second is the role the Palace played in converting the indemnity to a water project. The interviewee expressed indignation as to the fact that later project providers of Bali community water also exonerated government services, thereby breaching the socio-cultural ties that give a sense of ownership and participation to Bali people towards the water supply project (informant B2 noted). Beside, in the opinion of informant B1, when Société Nationale des Eaux du Cameroun (SNEC) took over the Bali Community Water project in 1984, it decided to consider the Palace as just one of the public institutions among others such as government services. That equality approach demystified the aura of fear and mystery that usually surrounds the Palace, and therefore rendered it banal, to the disapproval of the ordinary Bali person (informants B1, B2 and B3 noted).

These views of interviewees were confirmed in existing literatures (Njoh, 2011; Nteh, 2009; Titanji et al., 1988). According to Nteh (2009) SNEC was controlled by French-speaking Cameroonians who are seldom associated with self-reliant development and do not value the attachment of the North West people to their socio-political institutions. So they did not see why only the Palace should be exonerated from paying maintenance charges, and they went ahead to exonerate all government services such as the Sub-divisional office, Gendarmerie Brigade research, Police post, Special branch police post, health units and educational units, particularly as they were headed mainly by French-speaking Cameroonians.

All informants in the Bali project area were unanimous that the exoneration of these government services, to which the local population did not owe any socio-cultural allegiance, discouraged the ordinary Bali man from paying maintenance fees. This breach in socio-cultural ties, as Figure 6.1 depicts, marked the beginning of sustainability problems in the Bali community water project (interviewees B1, B2 and
B3 intimated). In line with the views of interviewees, another reason for the dwindling sustainability of community-driven projects was that when the central government noticed that Bali community water was well managed by the then Bali Rural Council it mounted pressure for the state corporation, SNEC, to take over its management. When Bali Rural Council ceded to the pressure, socio-cultural conflicts of ownership and cultural regard set in.

The constant change of the project provider of Bali community water project, as Figure 6.1 depicts, attests to the precarious sustainability of the water project as its management keeps changing from one project provider to another. Table 5.1 also indicates that 10.4% of the respondents did not know whether the disregard for socio-cultural institutions and practices was causing any problem to community-managed projects in the NWRC. Many of the respondents were among those who were not close to the Palaces and knew very little of how traditional institutions function in the NWRC.

Figure 6.1: Socio-Cultural Breach Model of Bali Community-Managed Project in the NWRC

Source: Conceived from the documentary archives of BACOWAS, 2015
This breach in socio-cultural ties marked the beginning of sustainability problems in the Bali community water project. Although SNEC was ousted in 1994 by the people of Bali and a body called Bali Community Water Supply (BACOWAS) was created to take over the management, the status quo put in place by SNEC was maintained. In the opinion of those interviewed in Bali, the leaders of BACOWAS were caught in a dilemma. Though these leaders were natives of Bali community, they did not want to create conflicts with the government services, which had been exonerated, and at the same time could not impose maintenance charges on the Palace.

One of the participants during a focus group discussion held in the Bali water project site recalled that Britain colonised former West Cameroon and their indirect rule succeeded very well in the region, due to the strong socio-cultural attachment subjects had for their traditional and religious authorities. The British Foreign Office, which was involved in colonial issues, quickly understood that by passing through these central traditional and religious authorities, who were the Fons, the colonialists were going to govern the people easily with limited policing measures, and this was exactly what they did, the participant intimated.

Complementing the views of interviewees, respondents to the survey questionnaire in Bali and Mbai community project areas overwhelmingly recognised the impact of socio-cultural practices and institutional disregard on the limited sustainability of projects that are community-managed in the NWRC. Out of 77 people who responded to the survey questionnaire, 52 of them making up 66.2% agreed that little regard for socio-cultural institutions and practices riddles the sustainability of their community-managed projects.
Specifically, in Bali project site out of a total of 29 respondents 26 agreed, zero disagreed and 3 said they had no idea whereas in Mbai project site out of a total number of 27 responses, 23 agreed, zero disagreed and 4 said that they had no idea respectively (Table 6.1). This demonstrates that the project prevented the local populations of Mbai and Bali from having access to their shrines, grazing lands, farms, eucalyptus bushes, hunting zones, carving wood and water catchments in the forest without compensation or alternatives provided to them.

Table 6.1: Respondents' views on whether limited regard for the socio-cultural practices of project end-users by project providers riddles communities' efforts in sustaining their water/hydro-electric/forest projects in the NWRC

<table>
<thead>
<tr>
<th>Project site</th>
<th>No. of respondents</th>
<th>Did limited regard for socio-cultural practices riddle the sustainability of projects that your community is managing?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Bali</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>Fundong</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Kingomen</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Mbai</td>
<td>27</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>51</td>
</tr>
<tr>
<td>%</td>
<td>100</td>
<td>66.2</td>
</tr>
</tbody>
</table>

*Drawn from fieldwork, 2015*

These opinions of the respondents emphasized the fact that the project prevented the local populations of Mbai and Bali from having access to their shrines, grazing lands, farms, eucalyptus bushes, hunting zones, carving wood and water catchments in the forest without compensation or alternatives provided to them. The forest is a resource bank for the bio-culture of the people adjacent to Mbai Community Forest. Their peace plants, and those plants such as *Schefflera abyssinica*, locally known in Oku Language as djia, which local people use for carving statues that depict their anthropological life and evolution, their medicinal plants and animals,
and those they use for initiation as well as their totemic sites are all found in the forest and the catchment areas. The communities adjacent to Kilum-Ijim Forest compartment which own community forests such as the Mbai Community Forest, formed relatively closed systems in which natural resources were managed through complex interplays of reciprocities and solidarities long before 1994 when community forestry began in Cameroon. They used different social values such as religious authority, caste predestination and taboos to determine most of their natural resource management decisions and the related sharing of costs and benefits.

The existence of this elaborate and effective traditional system of conservation in the study area did not mean much to Birdlife International, which was the project provider. In this connection, the respondents held strongly that project providers who are aliens do not usually subject themselves to the local norms governing natural resource (forest and water) protection in the local communities, and since they violate established taboos and traditional off-days reserved for the gods of the land without suffering any adverse consequence, the local population, particularly the young people, keep reviewing their beliefs and attitudes towards the abodes of the gods (Macleod, 1987; Mbenkum and Fisiy, 1992). This has been an eloquent manner of diluting the myth system of the people cushioned by elaborated taboos and the fear of surreptitious sanctions.

The change in beliefs and attitudes by the young people who make day-to-day physical contact with the resources predisposes these resources to severe sustainability challenges. For instance, the forestry administration of Cameroon issued permits to aliens to commercially exploit the bark of *Prunus africana* from Mbai

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3 These are either Cameroonianians who are not from the NWRC or non-Cameroonianians who work for international NGOs or the forestry department of Cameroon.
conservation forest and since these aliens did not subject themselves to the local norms governing forest protection in the community, they violated the taboos and traditional off-days without suffering any surreptitious punishment.

The consequence was that their daring attitude instigated young people to review their belief system and they invaded the forest and forest-based resources (Ako et al., 2010; Ngwa, 2005). A people who earlier on lodged an objection against the creation of Oku Mountain Forest Reserve, on grounds that they were capable of conserving the forest, could not continue to uphold traditional symbols and interpretations when it was dawning upon them that aliens were violating the prescribed taboos with impunity and at the same time enriching themselves from local resources. Worse still, Birdlife International did not incorporate the traditional system of conservation of the local populations into its conservation strategies, an approach which is at variance with the propositions of many researchers based on research results from several regions across the African continent.

Examples of the Baka Forest in East Cameroon (Maisels et al., 2001), non-wood products in Makueni District in Kenya (Mbuvi and Boon, 2009), San in the Central Kalahari Game Reserve in Botswana and the Pygmies around the Dja Reserve (Keitumetse, 2011), the Mboko in Congo Brazzaville (Sonwa et al., 2012) are among some of the most glaring cases. The socio-cultural missing link depicted by the findings, brings into focus the issue of whether community-managed projects should be considered objective-oriented or process-oriented. In the two project sites of Mbai and Bali, the project providers never considered community-managed projects as being process-oriented. It seems true that a people cannot adhere to any development endeavour that does not identify with their daily socio-cultural life.
Some community-managed project providers tend to put themselves in the position of civil engineers who construct roads, bridges and buildings and go away, knowing that their objective has been attained. Such an objective-bound approach is sub-optimal within the context of community-managed projects as it militates against sustainability. A project that is realized for a people and to be run by this people for their benefit and for an undetermined timeframe, must necessarily incorporate the units of social life of such a people for it to take a first step towards sustainability. A community-managed project that is a source of distortion of the units of socio-cultural and religious life of a people (Alexander et al., 2011; Abbot et al., 2001) is one that bears no traits of sustainability, as is the case with the Bali and Mbai community-run projects. A community-run project is more of a process as it is embedded with traits of continuity, and therefore has the potential for its sustainability to be verified.

On the other hand, the responses of the respondents to the survey questionnaire in the Fundong and Kingomen community project areas confirm the relevance of incorporating the socio-cultural practices of a project beneficiary population into the sustainable management of a community project. For instance, in the Fujua-Fundong-Mentang-Ngwainkuma project area, out of 14 people who participated in the survey questionnaire, 1 agreed, 12 disagreed and 1 had no idea, making up 7.1%, 85% and 7.1% respectively (Table 6.1 above). Similarly, in the Kingomen project area 6 out of 7 respondents giving an 86% disagreed with the view that limited regard for socio-cultural institutions and practices undermines their community projects.

It was alleged during field work that shortly after the project management of Fujua-Fundong-Mentang-Ngwainkuma was passed on to the community, the gods of the land, believed to be dwelling in Ebein and Ikuo Shrines, were invited through
libations and incantations to intercede for the sustainability of the entire water scheme. Furthermore, the effective ongoing implementation of the Kingomen rural electrification project was attributed to the traditional benediction from the Fon of Nso at the start of the project when he requested the *Shuuhfai* of Kingomen to perform rites, which literally meant tying the crossing rope where the dam was to be constructed. Since the project provider incorporated this socio-cultural dimension and the project took off well and keeps extending in the course of time, the Fon of Nso decided to recognise him with a red feather in the year 2013.

What emerges from the analysis and discussion of the findings related to research objective 1 reveals that dissociating the cultural and anthropological background of a people from the management of their community projects constitutes a missing link in the whole effort to ensure long-term ongoing effective implementation of projects, as indicated by the responses of interviewees, focus group participants and the respondents (Table 6.1) as well as existing literature (Njoh, 2011; Nteh, 2009). This implies that whenever project providers incorporate socio-cultural components in the entire frame of a community-managed project, the chances of the project being sustainable will be greater and the reverse is true. The Catholic Church understands this role of culture in the lives of Africans very well and had to introduce Ecclesia in Africa for acculturation. Findings related to the Bali community water project and the Mbai community forest on the one hand, and those related to the Fujua-Fundong-Mentang-Ngwainkuma community water project and the Kingomen community electricity project on the other, were used to elucidate these opposing views. This means that research objective 1 has been achieved.

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4 A representative of the Fon of Nso to whom a calabash called *sho-oh ngven* that contains wine and a peace plant is handed as a symbol of authority to perform rites in shrines since the Fon performs his in sacred forests.
Effective strategies for the conservation and sustainable management of community-driven projects should begin with the local populations living in and around the project area, including their traditional practices and beliefs (Movuh, 2013; Neba and Fonjong, 2002). The close link between local peoples and their resources has made them key players in resource management and has enabled them to have knowledge systems and control mechanisms that are related to good stewardship and appropriate sanctions against misusers (Enchaw, 2009; Mope Simo, 2000). It is, therefore, necessary for resource management and development projects practitioners to integrate the values of the traditional and social structures in their areas of operation into their activities if environmental resilience is to be achieved.

6.2: Data analysed associated with research objective 2

Research objective 2 is among those with multi-variables and was intended to find out how environmental constraints associated with topography, climate variability and change impact on the sustainability of community-managed projects in the North West Region of Cameroon. In order to adequately understand the existing influence of topography, climate variability and change on community-managed water/electricity/forest conservation project in the NWRC, opinions were drawn from both field informants and respondents.

According to informants in the four selected project sites, prevailing environmental conditions in each of the sites influence the community-driven projects directly although with varying degrees depending on the type of project, as indicated by the responses of the respondents in Table 5.6 above and the interviewees’ views. From the responses of the respondents in Table 5.6, it is noticed that for those community-driven projects that are directly associated with water their sustainability
is greatly influenced by the differences in relief, climate change and drainage, while for those that are concerned with forest conservation, their sustainability is greatly influenced by climate or climate change. For instance, 59.7% of the respondents were of the view that the varied relief of the Bali, Fundong-Mentang-Fujua-Ngwainkuma and Kingomen project areas has made it difficult for the community-managed water and electricity projects to cover all communities.

In the three project study sites of Bali, Fundong and Kingomen, interviewees threw more light on how these environmental factors keep undermining the sustainability of their community-driven projects. The 1st Deputy Mayor in Bali expounded that pipe-borne water in Bali Sub-division has gone through three main phases and during all the phases it was realised that the production and distribution of pipe-borne water in the sub-division was directly affected by the nature of the relief and other environmental challenges. The central part of the sub-division is a basin while the surrounding areas consist of highlands with some peaks having altitudes above 1,400m (Figure 6.2). The informant specified that the ram pumping system which was the first and started in 1957, was limited to the neighbourhoods of Jingong I, 2, 3, and 4, Boh, Mbadmandet, and Bawock villages found in the low-lying central part of Bali as the ram could not pump water to high relief settlements.

The informants cited villages such as Bossa, Koppin, Mbeluh Kubadt, Gungong, Mundum and parts of Boh as villages not having pipe-borne water due to undulating relief among other factors. Extending the water network to these villages is very expensive and demands enormous manpower from the residents. As a consequence, the inhabitants in these high relief villages are deprived of potable water and they continue to depend on unsafe water from springs and streams. Many of the communities in Bali occupied the high relief parts of the sub-division in the southern
and eastern regions of the study area for security purposes since Bali has been involved in many tribal conflicts with its neighbours. These highest altitude villages once served as satellite villages for the Palace, which was founded in the basin. Even though in the course of time, peaceful co-existence started reigning, low-lying land had become scarce and the highland villages could not relocate to low-lying areas, and they therefore keep suffering the influence of relief with respect to potable water supply (informant B1 noted).

In corroboration, interviewee B3 said that the ram pumping system provided only public taps at strategic junctions of the neighbourhoods that were supplied due to its limited carrying capacity. The second phase of the pipe-borne water in Bali was the electric pumping system brought by SNEC in 1984 and the third phase is the current one, which has incorporated a gravity system that was introduced to supplement the electric pumping system and to check the running cost. Using a gravity system means that all settlements below the catchment will seldom be supplied by the distribution centre and as a result SNEC at that time had to suspend taps that were already functional in some upland villages due to the high cost of pumping the water.
In addition to relief, climate variability and change is one of the factors riddling the sustainability of CMPs in the developing countries (Marks and Davis, 2013; Sally et al., 2013; Njoh, 2011; Fonjong et al., 2004). In the North West Region of Cameroon, this assertion was confirmed. The findings in all of the four community project areas revealed that the increasing situation of a prolonged dry season and reducing and erratic rainfall were thereby making the effective implementation of
community projects problematic. All the interviewees were unanimous that the NWRC has been witnessing a situation whereby temperatures are increasing and rainfall is reducing in the course of time.

This assertion of the interviewees was confirmed by existing climatic data in the Regional Meteorological Centre in Bamenda. Table 5.7 shows that temperatures increased from 14.4°C in 1998 to 20.9°C in the year 2010 for the month of January. During this same period, particularly from 2000 to 2010, rainfall decreased from 3,097.6mm to 2,684.8mm. During the dry season of 2010, which lasted from October to March, the temperatures are high with a maximum value of 25.4°C within this period recorded in November, while a minimum value of 22.2°C is registered in July. The mean annual temperature in the region has increased from 19.4°C in 1998 to 23.6°C in 2010.

The issue in question may not be these climatic anomalies per se. Rather, what seem very preoccupying are the consequences of the climatic anomalies. For instance, during the dry season period, the local populations of Bali as is the case with the other communities in the NWRC, witness low discharge from the various streams and rivers from where water is captured and distributed to the populations of the subdivision. This reduction in the amount of water discharge directly affects the flow and pressure of pipe-borne water captured from the Ntsi Gola streams. The situation is growing worse in the course of time as some of the springs draining to the Ntsi Gola streams have dried up completely, putting the management of Bali community water into serious difficulties as conflicts with some users keep increasing.

Another dimension of the consequences associated with the prolonged dryness is the fact that forest, bushes and farms are predisposed to bushfires. For instance, the
Kilum-Ijim Forest where Mbai community forest is found (Figure 6.3) as well as other pockets of forest in Mbiame, Nkambe, Bafut and Ambelle has of late been witnessing frequent bushfires. These fires destroy the forests and their resources and accentuate the problems of water discharge and scarcity further as the catchment areas of the streams become exposed and susceptible to evaporation, which has increased due to increasing dry conditions.

Figure 6.3: Forest destruction by fire in the Mbai reserve within the Kilum-Ijim Forest Project area

Source: From the 2001 forest fire and vegetation map of KIFP and fieldwork, 2015

The findings related to objective 2 reveal that all community-managed projects in the NWRC face the preoccupying issues of prolonged dry season, erratic rainfall, and difficult relief. For instance, in Kingomen, the unprecedented rainfall usually of
high intensity influences the volume of water in the locally constructed dam and the voltage that they receive, implying that during the dry season the voltage is too low and during periods of erratic rainfall of high intensity, the voltage is usually very high. The low and high voltage causes damage to their appliances. Thus, participants’ unanimous affirmation of the assertion that seasons have been distorted as rainfall has become unpredictable and the local people are losing mastery of their ethno-climatology, meaning that research objective 2 has been achieved.

6.3: Discussion of findings associated with research objective 3

Research objective 3 seeks to ascertain the quality and quantity of existing human resources at grassroots level in the North West Region of Cameroon and how these influence the sustainability of community-managed projects in the region. In greater details, this objective was set to understand whether limited numbers of trained technicians and guards at grassroots levels is undermining the long-term ongoing effective implementation of CMPs in the NWRC.

A critical look at the findings provided by field interviewees, those who participated in focus group discussions and the respondents to the questionnaire reveals a number of interesting aspects with respect to the quality and quantity of human resources at grassroots level in the North West Region of Cameroon. It can be deduced from the findings that an absence of qualified human resources in terms of number and experience, together with poverty, have often pushed local communities in the NWRC to use local unqualified expertise to carry out feasibility studies for their intended community projects, which in the long run lead to many technical problems. For instance, in Mbai where the forest conservation project was expected to be
sustainable with the introduction of community forestry, technical challenges were also enormous as field informants attested.

The near absence of human capacity in terms of trained personnel to carry out forest inventory, forest regeneration and monitoring were impacting negatively on the effective implementation of the Mbai community-managed forest. It was alleged that forest regeneration, monitoring and evaluation have been major problems in the Mbai community forest because the forest is on fire almost every dry season. One of the most challenging technical issues faced by the Mbai community-managed forest was that of forest regeneration, as alleged by participants of a focus group discussion held in Simonkoh. In their opinion, portions of Mbai community forest were lost to bushfire almost every year and needed to be regenerated.

Unfortunately Mbai community forest is a montane forest that requires well adopted trees, which the local population was not trained to identify and/or to obtain. They were of the view that Birdlife International did not create any partnership between the National Centre for the Development of Forests, known in French as Centre National de Développement des Forêts (CENADEFOR), and them to ease the acquisition of such trees in case of regeneration needs. CENADEFOR is the authorised institution in Cameroon with public utility status to assist communities and companies in matters of forest regeneration.

The absence of this partnership implied that the members of the Mbai community forest management institution were not going to carry out any effective forest regeneration for the sustainable management of the forest. Similarly, the local peoples found it difficult to carry out monitoring and evaluation using GPS because the training they had was too short and they could not easily master the manipulation
of the GPS in terms of taking way points or tracking in the forest where there were violations of forest management norms such as illegal harvesting of *Prunus* bark, carving wood, grazing or encroachment for farming. In the same domain of training, it was observed during a focus group discussion in Simonkoh that the participants were unanimous that in the course of assisting their community to acquire Mbai community forest, the project provider introduced alternative livelihood activities in order to check human pressure on the community forest.

That notwithstanding, very few local people were sparingly trained and provided the necessary inputs to practise the livelihood activities. Some of these participants said that the project selected those with whom to work and concentrated its activities in some villages more than in others. In addition, those who were trained to train others demanded not only material but also compensation for them to be trained on hive making, salt lick, fruit tree propagation, marcotting, grafting, vegetable growing, banana, potatoes, and oil palms multiplication. Ineffective training of the local populations on livelihood activities meant that the pressure on Mbai community forest would persist, thereby undermining its sustainability.

The responses of those who responded to the survey instruments show that even the other three community-managed projects of Bali, Fundong-Fujua-Mentang-Ngwainkuma and Kingomen were facing similar technical challenges. For these projects, it was alleged that the limited knowledge of the local population has led to the acquisition of substandard materials such as pipes, adhesives, cables and other accessories for repairs, particularly as the Cameroonian market is flooded with low quality Chinese goods. The technical challenges in Kingomen were compounded by the fact that the project provider was alleged to be hesitant in training younger people for fear of competition. Some other project providers, after the realization of
community projects, will wait until when they are about to hand over the project to the local population to sparingly train one person who is expected to ensure the technical expertise needed for the life of the project.

Just one person, who is trained within a very short period, is usually loaded with work, and at times this caretaker technician prefers doing other lucrative things for a living since he/she is not usually employed full-time by the community and what the community offers is usually not commensurate with the services he/she renders. All the interviewees in the four project areas were unanimous on this issue, particularly as the caretaker technician may be expected at times to render services as part of his/her contribution for the upkeep of the community. The implication is that when there are very limited trained technicians and when they are busy with other things, water that is flowing from a broken pipe or a blackout in which the community finds itself because of a simple electrical fault will continue until the technician becomes available.

This assertion is confirmed by Njoh (2011) and Fonchingong (2010) who argued that one of the greatest technical problems with community-driven projects in the NWRC is that when experts from the developed world come and carry out feasibility studies and realize projects in rural areas such as those of developing countries, their perception of the project during and after realization is that of the background of the expert. Under such circumstances, there are many aspects of the project which are undertaken with many assumptions. For instance, in Bali it was alleged that project donors often believe that one person trained within a short period of time will continue to build his technical capacity through networking, which is seldom the case at grassroots level.
The Bali community water project demonstrated this scenario as usually only one person is trained in the technical manipulation of equipment, in the case of community water and electricity projects, and not on equity, benefit-sharing, monitoring and evaluation issues, which are also very important in ensuring the holistic long-term ongoing implementation of community-driven projects. Even at the level of technical manipulation of equipment there is still a major problem which is caused by technological improvement in the equipment used. This is where the absence of building technical capacity through networking at grassroots level becomes even more challenging within the context of community-managed projects. The change from analogue to digital exceeds the abilities of many technicians at grassroots level and therefore calls for refresher courses for capacity building if they are to ensure the technical sustainability of the community-managed projects, of which they are the caretakers.

This is the same situation that was faced by many workers in Europe and America with the advent of the Industrial Revolution. Caretaker technicians at grassroots level in many of the communities in the NWRC as well as in the entire developing world, have low levels of formal education although they may be practically adept in the trades they practise. Under such circumstances, they find it very difficult to adapt to changing technology, thereby rendering community-managed projects technological orphans. The respondents to the survey questionnaire were unanimous that all community-driven projects in the NWRC suffer from technical challenges. Out of the 77 people who were administered the survey questionnaire, all alleged that only one or two formally trained technicians work for their community-driven project.
According to their responses, the limited number of formally trained technicians at the grassroots levels often makes real estimates and running costs of the projects difficult to assess. All 77 respondents, giving a 100% response, rate acknowledged that adequately trained technicians negatively influence the ongoing long-term effective implementation of their community-managed projects.

6.4: Discussion of findings associated with research objective 4

Research objective 4 was stated to be to understand the relationship existing between governance in community-managed projects, confidence in physical persons and the sustainability of community-managed projects in the North West Region of Cameroon. Perceiving governance through the prism of the role of law, accountability, equity participation, and effective engagement vis-à-vis community-managed projects in the NWRC, there is plenty of scope to believe that the functioning of two (Bali and Mbai) of the four community-managed projects that were studied in our research area is sub-standard, while for the other two (Kingomen community electrification and Fujua-Fundong-Mentang-Nkwainkuma community-managed project), governance was fairly effective.

Governance challenges within the domain of community-managed projects in the NWRC stem primarily from complete neglect, on the part of project providers, of the governance dimension in community-managed projects. Project providers in the NWRC focus on training caretaker technicians who are expected to continue providing technical expertise after the project has been handed over to the local community, without incorporating the training of local populations on equity, benefit-sharing, accountability, effectiveness, monitoring and evaluation, and other governance issues, which are also very important in ensuring the holistic long-term
sustainability of community-driven projects. This neglect has been the source of many problems among community members after the project provider has realised his/her objective. This is another dimension which throws more light on the fact that community-driven project providers ought to consider these projects not as objective-bound but as process-oriented.

In the field, it was observed that in the Bali community-managed water project and Mbai community forest conservation project where governance was below expectation, many of the problems among community members that were undermining the sustainability of the projects were associated with vested interests and greed from local stakeholders, all of which are integral parts of equity and benefit-sharing. It was alleged that a local technician in 2012 successfully advertised the Bali community-managed water project for sponsorship. When the political elites of Bali noticed that the project had won some grants and that what was left was the execution phase, they decided to hijack the project from the young technician who even lost his life while attempting to resist the injustice. When the project was hijacked, the mapped out pipeline was modified on grounds that the initial one was too lengthy. This modification of the pipeline orchestrated by elitist politicians created an atmosphere of suspicion and tension between the grassroots population and some members of community management board.

In addition, field informants held that when BACOWAS promised to extend the water supply by the time it took over management of Bali water in 1994, community members were requested to buy 25mm pipes and to dig pipelines. The local people honoured the request but up to 2010 when Bali Rural Council took over management, BACOWAS had not honoured its own engagement, implying a failure in effectiveness. This weakness in governance in Bali strained the relationship
between the project provider and neighbourhoods such as Bossa, Gungong, Jam Jam, Koppin, Mantum, Mbeluh, Mundum, Naka and Wosing, thus leading to loss of trust and respect for the project management. The waste of money, energy and time, together with the absence of the role of law, has actually affected collaboration between the project provider of Bali Community Water and the community members who resisted payment of water and electricity bills, and this undermined the sustainability of the community water project.

In Mbai community forest conservation area, it was observed that the Oku elite were using their political influence to control the forest reserve project and the land adjacent to the forest reserve, which was leased to people by Oku to use on a temporary basis. Interviewees argued that the influence of these political elite was felt at the level of boundary demarcation and the choosing of stakeholders of the community forests. When the Mbai community forest conservation project was launched in 1995, non-participatory and policing approaches were used to demarcate the boundary to the disapproval of traditional landlords and the priests of some shrines and sacred groves. Many of the shrines and sacred groves were carved and included in the reserve area, which the local people were forbidden to access even though their livelihood depended upon it.

The prevailing conflictual situation in the Mbai forest area confirms the views of Njoh (2011), Harvey and Reed (2007) and Ngwa (2005) that social peace is always threatened when the culture of the project beneficiary populations is ignored. Juxtaposing forceful eviction of traditional shrines and local populations from the forest with community participation in community forestry seems to have been defeated by the actual situation on the ground. The fact that boundary demarcation overlapped community forestry in the Mbai area implies that the haste with which the
project metamorphosed from law enforcement to a community participatory approach provided plenty of scope for a cosmetic reformulation of its purpose, all of which harmed livelihoods. Enforcing bans on farming and grazing as conservation strategies without providing adaptable alternative livelihood means to the affected populations was a sub-optimal approach and is analogous to planning to fail.

Similarly, the interviewees were of the view that elitist politics made the project provider subjective in choosing stakeholders of the community forests. Exclusion of graziers from community forestry in Mbaï area was against the community forestry law, which says that part of a community forest could be reserved for agro-pastoral activities. The consequences were that the local people became aggressive towards the forest and its resources from the time of demarcation, especially as farmers and graziers were being apprehended and dragged to court. Coincidentally, the greatest fires in KIF Forest were recorded between 1994 and 2005 although the forest has been facing a problem of fire before and after this period.

In March 2004, the most severe fire in this forest occurred and a large part of compartments 2 and 3 of Mbaï Community Forest was burnt down and a notable of Manchok lost his life while attempting to put it out. This aggressiveness towards the forest and its resources easily metamorphosed into renewed pressure on the forest when Birdlife International finally handed over the community forest to the local community to manage it as Mbaï Community Forest. The aggressive situation was made worse following the scarcity of survival land and resources outside the forest reserve boundary. For instance, attempts by various groups of people to own and exploit substantial portions of land within the project areas have resulted in conflicts or open confrontations in many of the communities found adjacent to community project sites in the NWRC.
Another consequence of the influence of the political elite was that the non-participatory boundary demarcation process led to serious conflicts between Nso and Oku Fondoms and between Oku and Mbesa Fondoms. According to interviewees in Mbai, the project provider made a serious mistake by adopting a user-groups approach and by applying the law on primary beneficiary without making any effort to gain an understanding of the socio-cultural and anthropological relationships of the local populations. The interviewees alleged that the shrines of traditional landlords were carved and incorporated into the reserve and wetland in order to keep away the traditional landlords on grounds that the forest and wetland areas belonged to the government, an aspect which undermined equity. The decision of the project initiators not to include traditional landlords among the project decision-makers at the outset instituted a communication barrier that persisted, even when the project finally decided to bring the traditional leaders to the negotiation table.

The keeping away of the traditional landlords, farmers and graziers and taking their interest into consideration in their absence, prevented members of this user group from getting clear information about their fate, and information that filtered out from the decision-making meetings reached them in a confused and distorted form. Benefit sharing and accountability in the Mbai community forest conservation area have not been friendly. The exclusion of traditional landlords, farmers and graziers from community forestry meant that they were shunned from sharing in the benefits that accrue from community forestry. Firstly, they could not have access to the forest and its resources upon which their livelihoods depend. Secondly, they were excluded from all financial benefits generated from the sale of *Prunus* bark and other forest resources found in the community forest. Thirdly, the traditional landlords were put in such a disadvantaged situation that made it so difficult for them to collect royalties
from their tenants, as noticed from Table 5.10. Fourthly, the 5% proceeds allocated to the Fons were not respected by the members of the various forest management institutions (FMIs).

This frustrating situation therefore created considerable animosity and instigated the Fon of Oku to seize the working documents of the FMIs. These benefit-sharing governance injustices strained the relationship between the project provider (in this case, members of Mbai Forest Management Institutions), and the traditional landlords, farmers and graziers whose livelihoods revolve around the forest and its resources. The weaknesses associated with poor governance in community-managed projects in the North West Region of Cameroon were affirmed by a total response rate of 76.6%. The vested interest and influence of political elite was ascertained to have riddled further the sustainability of community-managed projects in the North West Region of Cameroon.

Another governance issue raised was that of motivation and/or incentives that appear to be very crucial in the life span of any community-managed project. Community members in Bali and Kingomen have no real perception of the running cost of the scheme and many of them believe that since the turbines are turned by water they need make no additional financial effort. At grassroots level in all the four project sites, it was observed that there were seldom any long-term management incentives since the belief is that as a member of a community, one needs no incentives to work for one’s own people. Those who attempt to motivate the project service provider do so in kind by offering a few baskets of cocoyam, buckets of maize and beans, and bundles of vegetables.
It was during the administration of the questionnaire that many of them realised and actually acknowledged that the community members have not been doing much to support the effective implementation of their community-managed projects. The findings related to research objective 4 together with existing literature and field work threw more light on the fact that the non-participatory boundary demarcation of Mbai community project, subjective identification of project stakeholders, misconception of poverty at grassroots, and the flaws in the legal instruments have a significant bearing on benefit-sharing and the effective functioning of community-managed forest/water/electricity projects in the NWRC.

This means that, the forceful expulsion of farmers and graziers from the designated project sites, exclusion of traditional landlords from project decision-making, the non-consideration of traditional structures as potential stakeholders and worsening poverty seldom encourage the local people to perceive projects in their community as truly theirs and to support their ongoing implementation. Based on the views of informants and as confirmed by the responses of the respondents, it seems true to believe that the rift between traditional and government agents promotes activities that are against the sustainability of community-managed projects in the NWRC.

6.5: Discussion of Data analysed related to research objective 5

Research objective 5 seeks to investigate common funding challenges in the North West Region of Cameroon and how they affect the sustainability of community-managed projects in the region. Specifically, this objective attempts to understand the willingness exercised by grassroots peoples in paying for the ongoing
implementation/cost-recovery of local projects and the sustainability of community-managed projects in the NWRC.

According to Fonchngong (2012) and Fonjong et al. (2004), whenever a community in this region has an opportunity to gain a community-managed project, the culture of self-reliant development to acquire the project is often used even when many issues concerning the sustainability of the project are either not understood and/or not addressed at the initial stage. This aspect is actually associated with the vulnerability of the local communities in the NWRC in terms of financial self-sufficiency. It was observed in the field that with the exception of the Fundong-Mentang-Fujua-Ngwainkuma community-managed water project all the other three community-managed projects chosen for this study encompass this opportunistic character. For instance, at the outset, the Kingomen small-scheme hydro-electricity project was not intended to serve the entire village community; the idea of extending it came when the project was already ongoing due to community solidarity.

The project went operational without any prior feasibility studies since the project provider just wanted power that could serve his store, and therefore the carrying capacity of the scheme was unknown, and the extension policy, the extension cost and the running cost were neither planned nor addressed. All these unknown factors tend to complicate the financing dimension of the community-managed project, particularly as the scheme relies on philanthropic gestures and payment in kind. The fact that many users of electricity in Kingomen carry out payment of bills with buckets of beans and potatoes, makes it difficult to generate adequate financial resources to run the small scheme. Kingomen is a small rural community some 37km east of Kumbo Town and it is characterised by a poor road network that makes it difficult to transport buckets of beans and potatoes to the market centre. This
obviously impacts negatively on the financial resources required for the smooth functioning of the scheme.

The same scenario can be observed with the Bali Community-managed Water Project. Bali people did not plan for a community water project. But when an indemnity was paid to them, they simply diverted the funds to a community-driven water project without taking into consideration the necessary economic components that are fundamental in guaranteeing the sustainability of the project. An informant, who is a former Mayor of Bali Rural Council, said that the last thing that made SNEC take over the management of water in Bali in 1984 was that the machines of the ram pumping system became broken and outdated and there was no money to repair or replace them. The informant alleged that even when the token sum of £1.20 (FCFA 1000) was levied on each family to pay once after every three months to make up for the running cost it was difficult to collect.

It was observed that some people deliberately refused to pay bills because government services were exonerated, others wanted to pay in kind and yet others refused because they claimed that they did not consume the water or that the money they pay as bills was not being accounted for. In line with the early assertion of Sally et al. (2013) on mismanagement of funds and other resources meant for community-driven projects by members of the managing committee, it was gathered from a female interviewee in Naka that there are many problems of financial impropriety that have dissuaded community members from paying maintenance fees or digging pipeline trenches. All these affected the smooth collection of maintenance fees and led to accumulation of bills and a rupture in the functioning of the whole system with most of the taps closed.
In the Mbai area, the opportunistic syndrome was also very present and even served as a disincentive. Field informants held that the local population in the Mbai study site embraced community forestry because it was an opportunity to make brisk cash since the project provider recruited persons and was offering huge wages to them. Little did they know when the community forest was acquired that it would be handed over to them and it was they who were then to generate funds for forest regeneration, monitoring and evaluation. This is the reason why accountability in the Mbai forest conservation area became riddled with fraud. From huge wages with the project to meagre sums generated mainly from the sale of *Prunus* bark, it was difficult to reconcile the two. Instead of using the money generated to run the community forest, the management committee members found it too minimal to satisfy their personal needs. In addition, the fate of the Mbai forest conservation project becomes precarious when conflicts and unclear and less-than-straightforward communication reign supreme in a subsistence community. From the response scores of the respondents (Table 5.10), it is evident that the funding crisis facing the Mbai project does not provide an enabling environment for the effective long-term sustainable conservation of forestry and forest-based resources in the Mbai area.

It is also noticed from Table 5.10 that excluding the traditional landlords from the collection of forest loyalties created anger among the Fon and the local people, thereby rendering the forest vulnerable to ruthless exploitation. Although the Fundong-Mentang-Fujua-Ngwainkuma and Kingomen project areas are observed to be successful in terms of implementation, cost-recovery difficulties resulting in the use of improvised material to replace or repair community-managed projects in NWRC are making the projects less sustainable. For example, in the Fundong and Kingomen project areas, the sizes of the pipes and cables used seldom correspond to
the actual demand. The use of 25mm diameter pipes for transporting potable water from the catchment to the community and 63mm diameter pipes for waste water was the order in the communities of Fundong-Mentang-Fujuja-Ngwainkuma, Tadu and Bali. This situation is compounded by financial impropriety from members of the project committee.

Consonant with Njoh (2011) and Fonchingong (2009) who propounded that when a community population perceives a project truly as theirs, they will actively participate in cash or in kind to ensure the long-term functioning of the project, the local populations in Mbai and Bali were unwilling to contribute actively towards their community projects because they felt that their project provider rendered them passive stakeholders, particularly as the provider kept reminding them that all the forest in Cameroon belongs to the government. The disrespect of the socio-cultural background of the rural poor in the North West Region of Cameroon by project providers made them nurse the impression that their community projects were not truly theirs, and therefore they saw no interest in contributing to ensure the long-term functioning of projects which are not theirs. This brings into focus the relativism in the value of community-managed projects.

These views are in harmony with the issues raised in the problem statement for this study and they require adequate site-specific or disaggregated solutions, which are here below presented in the form of recommendations for policy makers and community development practitioners.
Recommendations

6.6: Integrate the socio-cultural background of project end-users in the entire frame of community projects management

The findings of this study reveal that the non-incorporation of the cultural beliefs, practices and livelihoods of the project end-users by the project providers severely riddles the sustainability of community-managed projects in the North West Region of Cameroon. Information gleaned from secondary sources as well as qualitative data collected from the field reveal that the difficulties faced by the Mbai community-managed conservation and Bali community-managed water projects emanate from the fact that the project providers (BirdLife International and SNEC respectively) had very limited knowledge of the socio-cultural and anthropological background of project end-users, whereas the Kingomen rural electrification scheme and Fujua-Fundong-Mentang-Ngwainkuma community-water project were observed to be sustainable in terms of effective implementation because the project providers (Illustrious son and PLAN International) incorporated the socio-cultural aspects of the project end-users into the management of these projects.

The communities of Kingomen in Nso and Fundong-Mentang in Kom formed relatively closed systems in which water catchment and natural resources were managed through complex interplays of community solidarities. They used different social values such as religious authority, caste predestination and taboos to determine most of their natural resource management decisions and the related sharing of cost and benefits. The existence of this elaborate and effective traditional system of management in the study area did not make much meaning to the project providers in Mbai and Bali. But in the Kingomen and Fujua-Fundong-Mentang-Ngwainkuma
projects the traditional backgrounds of project beneficiaries were incorporated into the management processes of local projects.

The failure to incorporate the socio-cultural and anthropological background of project end-users in the running of community-managed projects has been acknowledged by many researchers and scholars based on research results from several regions across the African continent. From examples of the Post-construction Support and the Sustainability of Rural Water Projects in Ghana (Komovis et al., 2009), Do community-driven development projects enhance social capital? Evidence from the Philippines (Labonne and Chase, 2011), Community-driven development: A viable Approach to Poverty Reduction in Rural Burkina Faso (Badu, 2012); Community vulnerability to cyclone hazards in coastal Bangladesh (Alam & Collins, 2010), and Municipal councils, International NGOs and Citizen Participation in public infrastructure development in rural settlement Cameroon (Njoh, 2011) provides among some of the most glaring cases.

Effective strategies for ensuring the sustainable management of community projects in the North West Region of Cameroon should begin by understanding and incorporating the traditional practices and beliefs of the local populations living in and around the forest or water catchment areas of the concerned communities. The close link between local peoples and the environment in which they reside, as noted in the Kingomen and Fundong-Mentang community projects, has made them key players in the sustainable management of these schemes in their communities. This link has enabled them to have knowledge systems and control mechanisms that are related to good stewardship and appropriate sanctions against misusers (Enchaw, 2009). It is, therefore, necessary for donors of community projects and implementing practitioners
to integrate the traditional and social activities of project beneficiary populations into their project operations if ongoing long-term effective management is to be achieved.

6.7: Effective co-ordination of resources at grassroots levels

The study reveals that the project providers did not consider training enough local technicians and guards as being fundamental in the sustainability of community-managed water/forest/electricity projects in the NWRC. The absence of such technical capabilities at grassroots levels has made it difficult for a myriad of existing community-managed projects in the region to become functionally viable. This challenge of insufficient trained personnel at the grassroots level in terms of numbers and experience is a common feature of projects under the management of communities in the country. This phenomenon is even more serious with the Mbai and Bali community projects as no specific funds are usually allocated for training project engineers and managers to ensure the ongoing implementation of community-managed projects.

It is therefore suggested that project providers should make the building of capacity of project beneficiaries a pre-condition before transferring ownership to the grassroots. If the culture of training local project managers becomes an integral part of community development packages, enough initial funds will be allocated for it, and there would be the possibilities of carrying it over a long period of time for the adequate building up of the capacities of the local populations. The findings of this study revealed that the Fujua-Fundong-Mentang-Ngwainkuma community water and Kingomen community electrification projects were effectively been implemented despite an acute shortage of trained technicians and qualified project managers in these communities. Informants attributed the successful implementation of these
projects to effective coordination of resources at grassroots level where the local stakeholders shared their knowledge, expertise and experiences within these projects which are community-driven.

Such interaction enabled those local stakeholders to learn from one another and to see the competencies of each other. The benefit of sharing resources and skills, as in the case of Kingomen and Fuji-Fundong-Mentang-Ngwainkuma villages, enables these communities to bring diverse players together to solve emerging and re-emerging project problems that were considered to be beyond the means of a single community. For instance, Alam and Collins (2010) advocated for intra community cooperation as a coping when they explored vulnerability to cyclone hazards in coastal Bangladesh. Similarly, Turner (2009) and Enfield et al. (2009) argue that building and sustaining community-based networks of collaboration have become vital mechanisms to recognize complex social issues related to community projects and to plan how such issues could be best addressed.

The main difficulty faced by the Mbai forest conservation and Bali water projects that riddled their sustainability was limited networking among their grassroots stakeholders, as opposed to the Kingomen and Fuji-Fundong-Mentang-Ngwainkuma community projects which had effective grassroots collaborative networking. In Bali, for instance, the interaction between SNEC as the project implementing agency on the one hand, and the traditional Palace, Kwifon and the local populations on the other hand, was often tense. The decision of SNEC to consider the Palace the same as other government services by exonerating these government services from payment of water bills constrained the relationship between the Palace and SNEC. The situation caused the local people to become reluctant to mobilize resources towards the ongoing long-term implementation of the project.
Similarly, in the Mbai forest conservation project it was observed that there were no coordinated efforts between the forest management institutions (FMO and DFMI) and the Fon (custodian of tradition); instead, they spent time quarrelling over the sharing of forest loyalties.

If effective coordination of grassroots resources is not put in place as one of the strategies to improve the sustainability of these community-managed projects in the North West Region of Cameroon, the growing human and environmental pressure on these sensitive projects will be blown out of existence within the next few years, particularly as most community-driven projects in this region are presently not operational. By improving the coordination of resources at the lowest level in communities, wastage and duplication of scarce resources will be reduced, contributing to sustainable implementation of these basic community projects.

It is in the domain of rural development that the contemporary policy of the government to strive for rural self-sufficiency in the country is laudable. The policy, however, should not be limited only to providing inputs and financial resources to rural communities as is the case with the present decentralization programme, but should incorporate the training of community engineers and sensitize local populations to more effective bottom-top or internal mobilization of resources. Assistance could be sought from the United Nations Development Programme (UNDP), BirdLife International, Plan International, SATA, British/Canadian/Japanese overseas departments for international development, the Heifer Project International (HPI), which have successfully implemented wellbeing projects in many parts of this region either through the local municipal councils or by directly supporting community-based development organizations (such as BACODAS, ABADU,
FUVIDA, MENDU) for the long-term functioning of community-driven projects with little impact on the environment.

6.8: Complementary application of traditional and modern tenure in community project should be adopted

Tenure rights of rural communities, as in the case of the Mbai community-managed forest conservation project, have proven to be a strong incentive for enhancing the sustainability of the project. Unfortunately, through the influence of modern legal laws, Africa governments have institutionalised State monopoly in natural resource management including forests while relegating local communities to the background. By virtue of Article 2 of the 1968 law, the ownership of forests in Cameroon is regulated by the Land Tenure Code of 1963. This introduced the concept of „national lands”, which is synonymous with terres vacantes meaning land belonging to no one (Njoh, 2009; Ngwa, 2005). This is a mere assumption that has implicitly impacted negatively on conservation as it has established a relationship of „us-versus-them” between traditional and modern conservators.

This non-participatory approach has rendered traditional and modern conservators becoming competitive rather than collaborative in the process of the Mbai community-managed forest conservation project. The findings reveal that both traditional and modern tenure relations exist in the Mbai area and it is unlikely that any desirable and feasible conservation of the forest can be possible while shunning customary tenure. Modern tenure, although arguably adequate in matters outside forest and wetlands or water catchment areas, is insufficient for and inconsistent with contemporary natural resource management paradigms. Such paradigms encompass devolution of States from management and collective tenure advocated by indigenous
people who are victims of continuous loss of rights over their source of livelihood due to the non-recognition of their customary tenure (Ako et al., 2010; Enchaw, 2009). In order to improve sustainable management of forest reserve and wetlands in the North West Region of Cameroon particularly in the Mbai area, positive aspects of modern and traditional tenure systems and forest management should be integrated for complementarity (Table 6.2).

Table 6.2: Description of the traditional and modern conservation systems in Mbai forest conservation project area

<table>
<thead>
<tr>
<th>Traditional system</th>
<th>Modern system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetlands and forest-based resources are owned by a more physical stakeholder (the community) whose interest is primarily in natural resource management</td>
<td>Wetlands and forest-based resources are owned by a moral stakeholder (the State) whose interest in natural resource management is secondary</td>
</tr>
<tr>
<td>Monitoring in sacred forests is less expensive as it is effected through the forces of belief and such forces are enshrined in traditional symbols (totems) and spirits</td>
<td>Monitoring in modern protected areas is more expensive as it is done by physical persons using telemetric systems and field surveys</td>
</tr>
<tr>
<td>Setting up of traditional off-days to reduce pressure on the wetlands and forest-based resources</td>
<td>Imposing bans and laws to reduce pressure on the wetlands and forest-based resources</td>
</tr>
<tr>
<td>The denial of access to wetlands and forest-based resources is mild</td>
<td>The denial of access to wetlands and forest-based resources is harsh</td>
</tr>
<tr>
<td>Governance is culturally built and adequately coincides with the social life of the people</td>
<td>Governance is alien and less adapted to ground truth or reality</td>
</tr>
<tr>
<td>Traditional system of natural resource management is mutually inclusive</td>
<td>Modern system of natural resource management is mutually exclusive</td>
</tr>
</tbody>
</table>

Source: Adapted from Enchaw, 2009 and Fieldwork, 2015

Table 6.2 describes the main characteristics of the customary and legal system of natural resources management advocated by some researchers in the developing world such as Cameroon. For instance, Enchaw (2009) assessing the effectiveness of conservation strategies in the Kilum-Ijim mountain forest in Cameroon recommended a complementary adoption of modern and traditional tenure systems so that deforestation could be tackled. The author argues that the modern system of
conserving natural resources based on bans and prohibitions were too expensive and less sustainable. Similarly, Njoh (2009) argued that the traditional system of conserving forest resources is mutually inclusive whereas the modern system of managing forest resources is mutually exclusive. About 50 per cent of this table has been adapted from the work of Enchaw and Njoh (2009) and the rest was drawn from fieldwork (2015).

Closely associated with the shunning of customary tenure in the domain of wetlands and natural forest management is the subjective identification of stakeholders in community project implementation. While community management intends to raise the participation of local populations in project implementation and sustainability in order to contribute to ameliorating their living conditions, unfortunately the adopted modern legal instrument governing the functioning of Mbai forest conservation and wetlands in the NWRC undermines traditional tenure relations that are rooted in socio-cultural, economic and political solidarities. An informant evoked that the definition of a community with potentials to own a community forest is too problematic as it seems to alienate some potential stakeholders such as traditional landlords and those living in mother villages. It did not consider as fundamental the essential argument that tenure regimes are social in nature and are embedded in cultural backgrounds that make them different in different geographical spaces and in time (Enchaw, 2009).

In communities with solid social structures such as in the North West Region of Cameroon, traditional landlords, the Fon and Kwifon constitute reliable socio-political institutions that make decisions on the use, ownership and management of natural resources at grassroots level. In the Nso Fondom for instance, where
responsibilities are clearly shared, the Fon is in charge of administration while the Mntar Nso (30 families of Nso) who are the traditional landlords control the land, lease it out to users, and collect tributes, part of which goes to the Fon (informants M1, M2 and M3 noted). As earlier noted by Njoh (2009) and Enchaw (2009), tenure relations that are based on reciprocities and solidarities are prone to putting users closer to the wetlands or forest estate than the traditional landlords. Most often, the users are youths or aliens (the case of Mbai) with neither traditional tenure rights nor modern land titles. Under such circumstances, stakeholder identification based on those closest to the wetlands or forest estate is misleading, as it alienates important stakeholders, undermines cost-benefit sharing, and negates the community project.

The recommendation to make here is that if the two tenure systems are integrated, it will create an enabling environment for the effective implementation of community forest/electricity/water in the NWRC. Firstly, it will debug the process of identifying potential stakeholders for the sustainable management of natural resources. Secondly, such an approach will enhance an acceptable cost-benefit analysis for the development of a desirable and feasible benefit-sharing mechanism. Thirdly, integrating traditional and modern tenure will create a sense of recognition and involvement, which is fundamental at grassroots level for the sustainability of projects that are community-managed.

6.9: Governance in community-managed projects in the NWRC

There is growing consensus that for community-managed projects to succeed in poor communities, they require good governance that provides an enabling environment for the local populations to wrest a living and to improve upon their living standards. Good governance in the management of community projects is articulated around
effectiveness in the role of law, accountability, participation and engagement, and equitable sharing of project-related benefits and responsibilities. Good governance in community-managed projects focuses on the 4Rs (rights, responsibilities, revenue/returns from the projects, and relationships) between local stakeholders.

Taking the case of Mbai community forest conservation where the entire local population shared the cost of conserving it, the project-related benefits are not being equitably shared. Instead, many of those who incurred greater losses and protested were apprehended and alienated on grounds that they were against the project, while those who lost almost nothing were incorporated into the management and continue to reap the greatest benefits, with some even gaining tenurial rights. This absence of equity has created tension that keeps mounting and militates against the original objective of the conservation project. In order to mitigate the situation, an appropriate benefit-sharing mechanism should be established in the Mbai area based on roles and responsibilities.

The role of law and accountability are ineffective in all the four studied projects area because of not only greed and bad faith but also poverty, less straightforward communication, misconception, and the fact that the local population has low knowledge of legal interpretations and accounting. A combination of poverty and less straightforward communication led to misconceptions in the Mbai and Bali project areas. Locally recruited individuals who worked for the projects were not made to understand that becoming members of forest management institutions (FMIs) or the project management committee for the implementation of community forestry/water/electricity supply was not synonymous with acquiring permanent employment. Instead, they developed a feeling that the remuneration they received when working for the projects would continue unchanged. This misconception gave
rise to covert arrangements and at times the situation is compounded by the complicity of some members of the judiciary and the civil administration.

A wide range of mechanisms can be used to mitigate this situation of dwindling sustainability of community-managed projects in the North West Region of Cameroon. Firstly, building the capacity of the local people on legal matters, responsibilities and relationships between stakeholders through education will greatly improve upon the role of law and accountability in the Mbai/Bali/Kingomen/Fujua-Fundong-Mentang-Ngwainkuma community project areas. Secondly, project staff should learn to communicate clearly to local populations on matters of remuneration. Thirdly, projects should integrate cost-recovery strategies and income-raising components that outlast their life span so that local populations should be able to maintain long-term improved living conditions.

Moreover, another governance issue that needs to be considered in the Mbai project is that most of the forest users are in emerged villages and they obtained farm land on a temporary basis from traditional landlords in mother villages by providing a fowl or £2 (FCFA1, 500) and a calabash of raffia palm wine or £0.7 (FCFA500). In turn, the traditional landlords perform yearly sacrifices on the land leased, at the end of which they receive tributes in the form of honey, maize and beans. However, the advent of community forestry in the Mbai area excluded the mother villages from being members of community forest institutions. The exclusion of mother villages where traditional leaders were found confirmed permanent hold of land that was leased by these traditional leaders on a temporary basis, and therefore deprived them of their religious authority as they could no longer have access to their shrines in the forest. At the same time they were unable to perform their yearly sacrifices at the end of which they received tributes.
Chapter 7: Summary of the Findings and Future Research

Introduction

At the outset of this study, one aim and five specific objectives were set in an effort to adequately identify, assess and formulate a more effective framework for the sustainable management of community-driven projects in the North West Region of Cameroon (NWRC). In a more elaborate manner, this study intended to investigate the underlying factors that riddle the sustainability of projects that are community-driven in the NWRC so that a grassroots-centred paradigm of project implementation can be set for sustainable management of community-managed projects in the study area.

Information on the extent to which the objectives of this study have been attained has been presented in Chapter 6, which covers the discussion of the research findings and recommendations for how the phenomenon of the limited sustainability of community-managed projects could be addressed. This thesis comprises seven chapters and Chapter 5 carries the responses of the respondents for the study and a range of secondary information drawn from the archives of forest management institutions (FMIs) and community-based organizations (CBOs) during field work. The findings in this chapter were analysed descriptively using non-inferential statistical tools such as tables, averages, percentages and pie and bar charts. That notwithstanding, the relationship between the variables in the specific objectives have been analysed descriptively using both the views of informants and secondary data drawn from existing documents in the field.

Chapter 7 is divided into a summary of the findings, contributions to knowledge, research implications to management and the perspectives for future
research. Section 1 of this concluding chapter summarizes the presentation, analysis and discussion of the relevant data used in achieving the objectives that guided this research. Section 2 focuses on the research contribution to knowledge. The third section dwells on the research implications to management with emphasis on the policy implication of the study. The fourth section deals with suggestions for further research. A major discovery of this thesis is that among other factors, the sustainability of community-managed projects in the study area depends on the extent to which the project providers incorporate the anthropological and socio-cultural background of project end-users into the ongoing implementation of the projects.

7.1: Contribution to Knowledge

One of the fundamental contributions of this study to the scientific management of projects is related to the orientational perception of community-managed projects. The study generated ample empirical data to support the fact that project providers quite often perceive community-run projects as being objective-oriented rather than process-oriented, an aspect which is innovative. But realizing and handing down project management to a local community is objective-orientation, and objective-oriented community projects are exocentric and do not guarantee sustainability.

Therefore, this study advocates for a grassroots-centred paradigm model which incorporates the socio-cultural and anthropological background of project end-users, bottom-top and intra-community coordination of resources at grassroots level, appropriate cost-recovery strategies put in place to raise the willingness of community members to financially pay for ongoing project running costs, the building of grassroots governance capabilities in basic legal matters, careful and honest
identification of community stakeholders and community-based environmental friendly activities for the sustainable management of community projects (Figure 7.1).

**Figure 7.1: A grassroots-centred paradigm framework for sustainable management of community projects in the NWRC**

This developed framework argues that the strategies adopted so far by project providers to drive local communities into being self-reliant as well as to render them more responsible for the management of their basic projects in the NWRC were not effective. They did not adequately incorporate the socio-cultural and anthropological background of project beneficiaries in the entire frame of community project management. The implementation of these projects disregarded the traditional beliefs and practices of end-users and engendered loss of access to shrines, groves and forest-based or water-based resources without providing alternatives.

The framework further argues that despite the widespread popularity of community management as a bottom-up development strategy that allows grassroots
community members to have overall responsibility for the ongoing implementation of their projects, it is not an absolute guarantee for sustainability. Handing down project management to a local community is not synonymous with sustainability. It concludes that if community-managed projects are to be sustainably implemented, they require: 1) project providers to incorporate the traditional beliefs and practices of project end-users into the entire community project management processes; 2) careful and honest identification of stakeholders in community projects; 3) environmentally friendly practices; 4) increase in governance capacity at grassroots level with respect to accountability and transparency among the project management committees; 5) appropriate cost-recovery strategies put in place to raise the willingness of community members to financially pay for ongoing project running costs. This framework, if well adapted to local realities in the North West Region of Cameroon (NWRC), may have a practical contribution to the holistic management of community projects. This framework if well implemented could transform community-managed projects from being special activities in the communities into a normal way of life of the local people, thereby improving their sustainability.

An interesting contribution of this study to theory is the identification of underlying challenges limiting the sustainability of community-managed projects in the rural setting of the North West Region of Cameroon. These types of site-specific challenges may be very difficult to identify or quantify when analysing micro development practices. When they are even identified, they are usually vaguely or loosely addressed, especially in the marginalized rural areas. As per sustaining community-managed projects, its empirical outcome is on the inextricable link existing between community-managed projects and the cultural and anthropological background of a people. Project providers use an exocentric approach which riddles
the sense of ownership and responsibility on the part of project beneficiaries. Dissociating a community project from the socio-cultural and anthropological life of a people defeats the very notion of a community project or belonging to the community, a situation which was found to be compounded by the limited regard of project providers for the governance capacity of project beneficiaries and environmentally friendly practices.

Another practical contribution of this study is the type of methodology adopted. The methodology for this study incorporated an unfamiliar dimension. Case study research works are predominantly qualitative in nature. This study, however, did not only end with the qualitative variables and data, but integrated quantitative variables and data for complementarities and verification of empiricism. Similarly, the study made a shift from the use of a single unit of analysis for single related projects to a multiple unrelated projects analysis (hydro-electric power/water supply/forest conservation) at micro level, which is also innovative in nature as previous studies have focused on the evaluation of one or two community-driven water supply or forest conservation or irrigation projects. For instance, Sally et al. (2013) assessed factors undermining the long-term operation of water supply in Buea, and Njoh (2011) investigated two water supply projects in the South West Region of Cameroon to understand why one was a success and the other was a failure. Ngala (2012) evaluated the impact of rural electricity supply on rural livelihoods in the NWRC; Enchaw (2009) assessed forestry conservation strategies in the Killum-Ijim project area.

This is seen as an overly simplistic approach to understand holistic factors limiting the sustainability of community self-reliant projects in Cameroon, particularly in the North West Region of Cameroon. The policy-related contribution
of this study is the development of a site-specific people-centred framework for in-situ sustainable management in the NWRC that could be more enabling for the grassroots to sustainably managed projects for social, economic and environmental benefits. These in time will ameliorate the living conditions of the poor and vulnerable groups in this region.

7.2: Implications to management

What emerges from the data generated, analysed and presented in the various chapters of this thesis has enabled the study to conclude that the strategies adopted for the sustainable management of community-driven projects in the NWRC area did not adequately incorporate the socio-cultural and anthropological dimension in the entire frame of community self-reliant project management and are, therefore, not efficient. Issues examined up to this point reveal that the outcomes of projects in the study area exhibit sub-optimality in terms of sustainability. Community management is an issue that permeates the socio-cultural fabrics of humanity and should be addressed consensually using local realities.

So far, the strategies adopted to ensure the effective management of community-managed projects are more top-down, insufficient for and inconsistent with the livelihoods of the local populations in the study area, and therefore need to be rethought. The ineffective implementation of these community-managed projects calls for urgent adoption of a holistic paradigm of implementing grassroots projects in NWRC area. Such a paradigm should be characterised by a simplified and clearly articulated anthropologically-centred community project management approach. Such an approach will ensure that community members assume full ownership, control and responsibility for the effective ongoing long-term implementation of those projects.
that are community-driven, thus alleviating poverty among poor and vulnerable
groups in these deprived communities.

The execution of projects and handing them over to local communities is not
the surest way or any guarantee of safeguarding their sustainability and ameliorating
the living conditions of people in the remote rural areas over time. A holistic approach
consisting of a myriad of parameters needs to be explored and exploited for the
effective implementation of community-managed projects in this region to stand the
test of time. Within this context, therefore, it is suggested that researchers should test
the empirically derived hypothesis which states that „an understanding of the socio-
cultural and anthropological background of project end-users is fundamental in the
sustainability of any projects that are community-managed”.

This assertion can be tested in different regions of Cameroon or other parts of
the developing world in order to increase the generalizability of the research findings.
A comparison study could also be carried out to assess the levels of effectiveness
between community-driven projects in terms of targeting poor and vulnerable and
local council-led projects in the region. A study of that nature will create awareness
for the government to facilitate rural development in council areas that experience
acute shortages of basic social infrastructure amenities. Strengthening rural
communities to become self-reliant in their struggle for safe drinking water, sustained
electricity supply, and preservation of the heritage of the country through forest
conservation, plays a role in carbon sequestration and in maintaining water sources
and good climate, both of which are desirable.
7.3: Suggestions for Future Research

Transferring the management of community projects to community members is no guarantee of safeguarding the sustainable management of the projects. Within the context of Cameroon, it is suggested that further research should evaluate the role women play in sustaining community-managed projects in the North West Region of Cameroon and how these projects are perceived in terms of gender. In most communities in the sub-Saharan African countries including Cameroon, the issue of gender regarding the management of community-based resources and projects is often neglected, thereby shunning potential stakeholders. Further research is, therefore, recommended in the domain of gender and community-project management in the North West Region in particular and Cameroon at large. Such a study would elicit empirical data that could arouse awareness in policy-makers and lead to the empowerment and/or the building of the capacity of the female folk who stand out as community stewards and viable stakeholders in the use and management of community-based projects in poor rural areas.

A further study should also be carried out on ecotourism in the study area in order to generate empirical data on the touristic potentials and the possibilities of developing ecotourism in the Mbai community forest conservation area and in Bali, Kingomen and Fundong topographic features such as wetlands, hills, rivers, Lake Oku and valleys. The results of such a study will arouse the interest of the elite and the government to expand the tourism industry of the country in the study area. The development of this industry will impact positively on State revenue and the livelihood of the local populations and open up this area to the global economy. Projected economic studies on forest-based industries in the study area are recommended, particularly in the Mbai forest conservation area, and these should
include honey processing, wood handicraft, paper craft and medicinal product packaging for a start. Combined feasibility studies, starting from an identification of the quantities and qualities of these resources, followed by transformation for targeted markets, should gradually reduce the level of poverty in the NWRC.

Considering the Kingomen small scale community-managed hydro-electricity power supply, further research is therefore recommended to promote the continuity of this locally-driven project. Studies should be carried out to make way for the possibility of using two or more turbines in the Kingomen hydro-electric scheme. If studies could be carried out to make way for a second turbine in Kingomen small scale hydro-electric power generation there could be an increase in the quality and amount of electricity produced. As such the area covered by the scheme will equally be extended. This suggestion if well implemented may resolve future problems such as an increase in the number of project users arising from an increase in the number of households causing high demand for hydro-electric power supply.

Further research should evaluate community-managed projects in the North West Region and compare them with other community projects in Cameroon in terms of fighting for poverty alleviation. Such studies should take into account the possibility of community-managed projects to target poor and vulnerable groups. In this case the living conditions of people in the region will be ameliorated and as such the rural exodus which is often engendered by the search for a better life will be greatly reduced. With the current decentralisation process, studies should be carried out to make way for municipalities to monitor effectively the implementation of community-driven schemes in their different areas of jurisdiction. In so doing, some degree of discipline and order may be guaranteed in the use and exploitation of local resources for the benefit of the rural inhabitants.
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### Appendix 1: Interviews

<table>
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<tr>
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<td>Place</td>
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<tr>
<td>Interviewee</td>
<td>B1(Mr Ernest Wandum)</td>
</tr>
<tr>
<td>Position of interviewee</td>
<td>Project coordinator</td>
</tr>
</tbody>
</table>

**Interview question**

I am a PhD research student at Cardiff Metropolitan University in the UK. I am asking you for help in our assessment of the sustainability of Community-Managed Projects in the North West Region of Cameroon. Do you think the project providers had adequate knowledge of the socio-cultural background of the end-users before implementing the water supply/electricity/forest project in your community?

**Interviewee response**

"...many project providers in the North West Region of Cameroon seldom consider the socio-cultural and anthropological background of project end-users as being important in the sustainable management of community-driven projects even though the people in this part of the country are so attached to their culture and the traditional institutions they incarnate."

**Question**

What do you think is the future of community electricity/water supply/forest projects without due consideration of socio-cultural sites and social life of the beneficiary population?

**Response**

"...yes, Mbororo indigenous peoples are graziers and by their migratory culture their dwellings are temporary and these are the reasons for which they settle on high relief pasture lands in single-room huts. As a group that upholds the values of decency and socio-cultural morality, they prefer potable water points to be at great distances from their dwellings. Mbororo children need to go and fetch water very far so that before they return, the parents must have had the opportunity to make more kids." The informant further noted that even many of those who later became community water providers in Bali Nyonga did not exactly know that the Bali community water project started from a socio-cultural perspective. The informant narrated that the idea of Bali community water project came into being when Fon Galega I converted an indemnity that was paid to the Bali people by the Widikum Clan into a social project – pipe-borne water - for the benefit of his entire subjects. As he explained, the project began as a Ram water plant that was constructed by a German Hydroplan at Mbadmandet village in Bali.

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When construction work ended in 1957, the Ram water system was handed to the then Bali Rural Council and its technical management was supported by the Public Works Department (PWD) in Bamenda, although Bali community members had to pay maintenance fees with the exception of the Palace.

**Question**

Thank you very much. Besides socio-cultural challenges that you face, are there any others? I know you’ll be considering project-related conflicts like you mentioned but beyond that since the handing over of this project to the community?

**Response**

“.….yeah, another major challenge that we face in effectively implementing our community project is climate variability. These climatic events are recent but generalised phenomena in the entire NWR of Cameroon now." He pointed out that such fluctuations in rainfall and temperature have affected the discharge of springs, streams and rivers in the North West Region of Cameroon and have equally led to the emergence of new diseases that affect crops, particularly coffee, Irish potato and a species of cocoyam also called colocassias.

**Question**

With regard to enhancing the management capabilities of local people, what training activities have you put in place to build the capacity of community members for sustaining community water supply/electricity/forest conservation projects?

**Response**

“.….one of the greatest technical problems with our community-driven projects in the NWRC is that when experts from the developed world come and carry out feasibility studies and realize projects in rural areas such as those of NWRC, their perception of the situation of the project during and after realization is that which reflects the background of the project expert. Under such circumstances, there are many components of the project which are done with a lot of assumptions. For instance, the experts will believe that one person trained within a short period of time will continue to build his/her technical capacity through networking, which is seldom the case at grassroots level.”

**Question**

In terms of winning the confidence at the grassroots, how cordial is the relationship between project committee members and the rest of the community members in terms of trust and respect?

**Response**

“.….when BACOWAS decided to extend the community water supply network after taking over the management of Bali water in 1994, community members were requested to buy 25mm pipes and to dig pipelines."According to this informant, the request was met but up to 2010 when Bali Rural Council took over BACOWAS had not honoured its promise. This weakness in governance in Bali strained the relationship between the project provider and neighbourhoods.
such as Bossa, Gungong, Jam Jam, Koppin, Mantum, Mbeluh, Mundum, Naka and Wosing.

<table>
<thead>
<tr>
<th>Question</th>
<th>What is your opinion about the willingness of community members to financially, or otherwise, contribute to the running of hydro-electricity/water supply/forest project in this community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>“...A token sum of £1.20 (FCFA 1,000) was agreed to be paid by each family once after every three months to make up for the running cost but it became difficult to be collected. Some people deliberately refused to contribute because government services were exonerated, others wanted to pay in kind and yet others refused because they claimed that they did not consume the water or that the money they pay for bills was not being accounted for.”</td>
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<td>Interview</td>
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<tr>
<td>Interviewee</td>
<td>B2 (Mr Philip Langi)</td>
</tr>
<tr>
<td>Position of interviewee</td>
<td>Project technician</td>
</tr>
<tr>
<td>Interview question</td>
<td>What do you think is the future of community projects without due consideration of the socio-cultural background of the project beneficiaries?</td>
</tr>
<tr>
<td>Interviewee response</td>
<td>“...the NWRC is one of those regions in the country where the people are still very closely attached to their culture and traditional institutions. Yet it does not make any meaning to project providers. Quite often, limited or no time at all is spent on understanding the role the culture of a people whose life revolves around their socio-cultural and traditional institutions can play in the life of any project in the NWRC. Whenever limited contacts are made between project providers and end-users, there is a very high probability that socio-culturally-related conflicts will emerge and will undermine the life of even community-driven projects.”</td>
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<tr>
<td>Question</td>
<td>What is the attitude of those people living in high relief parts of your community towards supporting the ongoing running of the water supply/hydro-electricity/forest conservation project?</td>
</tr>
<tr>
<td>Response</td>
<td>“...pipeborne water in Bali Sub-division has gone through three main phases and all the phases have been affected by relief and other environmental challenges.” The informant specified that the ram pumping system which was the first and started in 1957, was limited to the neighbourhoods of Jingong I, 2, 3, and 4, Boh, Mbadmandet, and Bawock villages in the low-lying central part of Bali as the ram could not pump water to high relief settlements such as Koppin and Mantum, which are the highest altitude villages in the sub-division and were not supplied with potable water. As a result, these highland quarters and villages seldom became motivated to participate in the ongoing implementation of the water scheme.</td>
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<tr>
<td>Question</td>
<td>Thank you very much. Besides the issue of inadequate qualified project staff at grassroots level as you rightly mentioned, do you think weak coordination of resources among community stakeholders affects the sustainability of community projects that your community is running?</td>
</tr>
</tbody>
</table>
| Response | “...unfortunately, formally trained technicians who worked for their community-managed projects were poorly prepared to fully take over the project management as it was only during the realization phase that the supporting NGO decided to train a few individuals to cater
for the project. Even the few people trained in different villages do not work together or rarely collaborate and this leads to a long wait for a broken pipe to be replaced or water in the tank to be treated.”

**Question**
Do you think party politics is affecting the collaboration of local stakeholders towards a smooth running of the hydro-electricity/water supply/forest conservation project in your community?

**Response**
“...our neighbourhood hosts one of the main catchments at Keunjah and the tank for Bali community water, yet Jam Jam neighbourhood is not supplied with water.” The interviewee alleged that with Jam Jam being at a higher altitude it was noticed earlier that it could not easily get water from the catchment through gravity, and so a young technician from the neighbourhood was entrusted with the task of mapping out a pipeline that could enable the neighbourhood to have water by gravity. This task was effectively accomplished by the technician and advertised for sponsorship, the informant narrated. When the decision-makers/elites of Bali noticed that the project had won some grants, and what was left was the execution phase, they decided to hijack the project from the young technician who even lost his life while attempting to resist the injustice.

**Question**
It is well known that funding challenges are common with all projects. What specific funding challenges do you face in running the hydro-electricity/water supply/forest project in this community?

**Response**
“...there are many problems of financial impropriety that have dissuaded community members from paying maintenance fees or digging pipeline trenches. All these led to accumulation of bills and a rupture in the functioning of the whole system with most of the taps closed.” The informant stressed that when BACOWAS took over management in 1994, the situation grew worse as community solidarity intensified and affected the collection of maintenance fees. “Also, when the central government noticed that Bali community water was well managed by the then Bali Rural Council, it mounted pressure for the state corporation, SNEC, to take over its management. When Bali Rural Council ceded to the pressure, sociocultural conflicts of ownership and cultural regard set in and eventually hampered people’s willingness to fund our community water supply project.”
| **Interview** | 3 |
| **Date** | 09/04/15 |
| **Time** | 4.30pm |
| **Place** | Bali Village |
| **Interviewee** | B3 (Mr Emmanuel Nah Lela) |
| **Position of interviewee** | Project committee member |
| **Interview question** | Do you think that disassociating traditional belief systems from the management process of community projects engenders socio-cultural conflicts which threaten the sustainability of CMPs in the projects in the region? |
| **Interviewee response** | This breach in socio-cultural ties marked the beginning of sustainability problems in the Bali community water project, the interviewee intimated. He said that although SNEC was ousted in 1994 by the people of Bali and a body called Bali Community Water Supply (BACOWAS) was created to take over the management, the status quo put in place by SNEC was maintained. In the opinion of the interviewee, the leaders of BACOWAS were caught in a dilemma. Although these leaders were natives of Bali community, they did not want to create conflicts with the government services, which had been exonerated, and at the same time could not impose maintenance charges on the Palace. |
| **Question** | Right, apart from socio-cultural issues as you just mentioned, do you think the increasing number of days of no rainfall and reducing water discharge from the aquifer in the catchment area affect the sustainability of community-managed water supply/electricity generation/forest conservation projects? |
| **Response** | "...our community-managed water is gravity-driven, and those who live in high relief areas usually face problems of water shortage during the dry season. In addition, there is a new phenomenon whereby the dry season starts before the end of September and extends to April, and during this period, some of their taps flow with very low pressure, while others do not flow at all and when it rains heavily, they face problems of water pollution." |
| **Question** | Besides inadequate qualified staff at grassroots level, do you think inadequate coordination of resources among community stakeholders affects the projects that your community is running? |
| **Response** | "...one of the greatest technical problems with our community-driven projects in the NWRC is that when experts from the developed world come and carry out feasibility studies and realize projects in rural areas such as those of NWRC, their perception of the situation of the project during and after realization is that which reflects the background of the project expert. Under such circumstances, there..." |
are many components of the project which are done with a lot of assumptions. For instance, the experts will believe that one person trained within a short period of time will continue to build his/her technical capacity through networking, which is seldom the case at grassroots level. This situation is further compounded by lack of sharing of skills and ideas at local level.”

<table>
<thead>
<tr>
<th>Question</th>
<th>Do you think the exoneration of traditional leaders from forest conservation/water supply/hydro-electricity project management responsibilities riddles their sustainability?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>“...yes, when Société Nationale des Eaux du Cameroun (SNEC) took over the Bali Community Water project in 1984, it decided to consider the Palace just as one of the public institutions among others such as government services. That equality approach demystified the aura of fear and mystery that usually surrounds the Palace, and therefore rendered it banal, to the disapproval of the ordinary Bali person.” SNEC, he said, was run by French-speaking Cameroonians who are seldom associated with self-reliant development and do not value the attachment of the North West people to their socio-political institutions. So they did not see why only the Palace should be exonerated from paying maintenance charges, and they went ahead to exonerate all government services such as the Sub-divisional office, Gendarmerie Brigade, Police post, Special branch police post, health units and educational units, particularly as they were headed mainly by French-speaking Cameroonians. The informant indicated that it was evident that the sustainability of the Bali community water project was not guaranteed, even with BACOWAS who could not impose maintenance fees on the Palace and Government offices.</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>It is well known that funding challenges are common with all projects. What are the specific funding challenges you face in running the electricity/water supply/forest project in this community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>„…there is a token sum of £1.20 (FCFA 1000) that was agreed to be paid by each family once after every three months to make up for the running cost but it became difficult to be collected. Some people deliberately refused to contribute because government services were exonerated, others wanted to pay in kind and yet others refused because they claimed that they did not consume the water or that the money they pay as bills was not being accounted for.”</td>
</tr>
</tbody>
</table>
Apart from the neglect of the traditional beliefs of end-users, what do you think is the future of a community project without due consideration of the socio-political institutions that the project beneficiaries incarnate?

"Yes, as you can see, the acquisition of Mbai community forest conservation project in the NWRC, particularly from 1995 till the present, made it difficult for priests of shrines and sacred groves to commune with their ancestors due to the fact that the shrines and sacred groves were carved and put within the community forest area, which were henceforth owned and controlled by community forest management institutions.” The informant stated that the traditional landlords were not considered to be one of the user groups, which included wood carvers, bee farmers, rat trappers and traditio-practitioners. This informant in Tankiy neighbourhood explained that the non-consideration of the people’s traditions led to denied access to sacred shrines and groves in the forest, and that has riddled the sustainability of the Mbai community forest. He said that the refusal of the local population to perform the traditional rites in and around the forest conservation areas has seldom encouraged the local people to check the forest against bushfires and deforestation.

What is your opinion about the threat of dry season-related fires on the ongoing implementation of your community-managed water supply/hydro-electricity/forest conservation project?

"The Mbai community forest conservation project suffers from natural and man-made fires that destroy it on a yearly basis. The man-made fires are both accidental and wilful fires from graziers, bee farmers and crop farmers adjacent to the forest. The natural ones are those from lightning and those associated with mystics.” The traditional landlord of Mbockenghas added that climate change has caused some of the springs in their shrines, which are used for libations, to become almost dry and that bushfires are also destroying some of their shrines.

What training activities have you put in place to build the capacity of community members in sustaining community water supply/hydro-electricity/forest conservation projects?

"...the project selected those with whom to work and concentrated its
activities in some villages." He explained that they could not provide the materials needed for training as demanded by the project. Few who were chosen and collectively trained on hive making, salt lick, fruit tree propagation, marcotting, grafting, vegetable growing, banana, potatoes, and oil palms multiplication using the project’s resources were expected to train others free of charge as they demanded not only materials but also compensation in order to train them.

**Question**

Thank you very much. Besides the socio-cultural, environmental and technical challenges that you mentioned earlier, do you think party politics is affecting coordination of local stakeholders towards a smooth running of the hydro-electricity/water supply/forest conservation project in your community?

**Response**

"...Oku elites are using their political influence to control Mbai Community Forest and the land adjacent to the forest, which was leased to people from Oku to use on a temporary basis." The interviewee said that this was the reason which the project provider had to use but user groups had to apply the law on primary beneficiary without taking the socio-cultural and anthropological relationships into consideration. The interviewee further alleged that the shrines of traditional leaders were carved and incorporated into Mbai Community Forest in order to keep away the traditional leaders on grounds that the forest belonged to the government. These governance injustices strained the relationship between the project provider (in this case, members of Mbai Forest Management Institution, and the traditional leaders), the informant noted.

**Question**

What is your opinion about the willingness of community members to financially, or otherwise, contribute to the running of hydro-electricity/water/forest conservation project in this community?

**Response**

"...the local population in the Mbai study site embraced community forestry because it was an opportunity to make fast cash since the project provider recruited persons and was offering huge wages to them. Little did they know that when the community forest had been acquired, it would be handed over to them and they would become those to generate funds for forest regeneration, monitoring and evaluation.

"...again, most of the forest users are in emerged villages and they got farm land on a temporary basis from traditional landlords in mother villages by providing a fowl or £2 (FCFA 1,500) and a calabash of raffia palm wine or £0.70 (FCFA 500). In turn, the traditional landlords perform yearly sacrifices on the land leased, at the end of which they received tributes in the form of honey, maize, beans, rat intestines and rat parcels." The interviewee mentioned that
the advent of community forestry in the area excluded the mother villages from being members of community forest institutions. People in the mother villages became reluctant to support the ongoing implementation of the project, he said.

**Sub-question**

Do you mean to say that refusal of access to shrines and groves is limiting the sustainability of your community-forest conservation?

**Response**

"...yes, it is already close to a year since the Kwifon of Oku led by the Fon seized all the acquisition and working documents of 6 of the 7 community forests in Kilum Mountain Forest area, which the Fon claimed is under his authority. The reason for the seizure of these documents was simply that the socio-cultural norms were not respected and governance was extremely poor." Questioned why it was that the Kwifon and not the forestry administration had seized the documents, the Forest Management Officer (FMO) for the Mbai Community Forest Management Institution and his female secretary said that the Fon and Kwifon are the custodians of the forest and that they monitor the forest and activities within it on a daily basis, unlike the forestry administration, which does not monitor the project on a daily basis.
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<tr>
<th>Date</th>
<th>12/04/15</th>
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<tbody>
<tr>
<td>Time</td>
<td>10.35am</td>
</tr>
<tr>
<td>Place</td>
<td>Mbai Village</td>
</tr>
<tr>
<td>Interviewee</td>
<td>M2 (Mr Fongeh Ibrahim)</td>
</tr>
<tr>
<td>Position of interviewee</td>
<td>Forest management officer (FMO)</td>
</tr>
<tr>
<td>Question</td>
<td>What do you think is the future of a community project without due consideration of the socio-cultural structures that the project beneficiaries incarnate?</td>
</tr>
<tr>
<td>Response</td>
<td>„...Such a project won”t last. For instance, in 1972, an NGO called the Swiss Association for Technical Assistance (SATA) was contacted by the grazing Muslim community in Tadu to provide water to Tadu community. All traditional negotiations were made and the project took off well. But the situation changed from the 1990s with the advent of multi-party politics in Cameroon. The Muslim community was accused of discriminating and depriving residents of Kidzem for throwing waste (such as condoms) into the water tanks and using the water to produce corn beer. This could have been avoided if the project providers had considered the culture of the Muslims and the traditional natives of Nso before implementing the project. When patrol team members assigned with monitoring the community forests are mixed or come from different cultures which do not coincide, it will be obvious that respect for the traditional off-days in Mbai will be susceptible to defiance. The project provider did not understand the type of socio-cultural and tenure relationships existing between the villages of Buh and Tadu (mother villages) on the one hand, and Lum, Ntovi, Simonkoh and Tangkiy (emerged villages) on the other. The project provider also did not understand the socio-cultural and religious relationship existing between the traditional landlords and the forest. If these aspects had been well taken care of, traditional landlords could have been considered as one of the user groups of the forest and forest resources.”</td>
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<tr>
<td>Question</td>
<td>What is the attitude of those people living in high relief parts of your community towards supporting the ongoing implementation of the water supply/electricity/forest conservation project?</td>
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</table>
| Response | „...As you can notice, the Mbororo ethnic group will prefer to settle in isolated parts of the main village community due to their grazing culture. Most often they do not enjoy the same benefits from project fallouts and whenever they notice that project providers have marginalised them or want to go against their socio-cultural life practices, they simply refuse to collaborate. When they refuse to collaborate, force is used to realise any project in their
neighbourhood. This usually becomes a source of conflicts and quite often the installations are vandalised shortly after the project is realised, particularly when the Mbororo live close to the catchment areas.”

| Question | Do you think inadequately qualified staff at grassroots level and limited coordination of skills among community stakeholders affect the sustainability of projects that your community is running? |
| Response | „... As you can see, the greatest technical problems with our community-driven projects in the region is that when experts from the advanced countries come and carry out feasibility studies and realize projects in rural communities, the way they perceive the project during and after realization reflects of the background of the project expert. As a result, there are many aspects of the project which are done with a lot of assumptions. For example, they will believe that one person trained within a short period of time will continue to build his/her technical capacity through networking, which is seldom the case at grassroots level.” |

| Question | Do you think the exoneration of traditional landlords from forest conservation/water supply/electricity projects management responsibilities riddles their sustainability? |
| Response | „...traditional landlords lost all the tributes usually paid to them by members of user groups. Instead, the Mbai forest management institution (FMI) instituted quotas which it received from these user groups.” The informant further said that at grassroots level there are seldom long-term management incentives since the belief is that as a member of a community, one needs no incentives to work for one’s own people. Those who attempt to motivate the project management team did that in kind by offering a few baskets of cocoyams, buckets of maize and beans, and bundles of vegetables. The informant further explained that when the rights of the traditional landlords were seized the gods become aggressive towards the resources which they consider are being exploited illegitimately. This informant further claimed that the aggressiveness of the gods is expressed in the form of surreptitious vandalisation of the resources intended to be conserved through community forestry. For instance, 12 separate forest fires have been recorded in the Mbai community forest project site and among these fires three spread from farms into the forest. The other nine originated mysteriously from within the heart of the forest either on grasslands or from inaccessible valleys.” |

| Question | What are the specific funding challenges you face in running the electricity/water/forest conservation project in this community? |
| Response | „...the project went operational without any prior feasibility studies at community level. Funding for forest regeneration, monitoring and
evaluation have been a major problem in the Mbai community forest conservation projects because the forest is on fire almost every dry season. Therefore, the carrying capacity of the scheme was unknown, the extension cost and the running cost were not addressed by the FMIs on the one hand and traditional landlord on the other hand. All these unknown factors tend to complicate the economic dimension of the community-managed project, particularly as the scheme relies on philanthropic gestures and the fact that payment of electricity bills by users is mostly in kind. This obviously impacts negatively on the financial resources required for the smooth functioning of the scheme.”

<table>
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<tr>
<th>Sub-question</th>
<th>Response</th>
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| Of what significance are the traditional off-days to the Mbai community-managed forest conservation project? | „...traditional off-days are those days of a traditional week which are reserved for the gods of the land." The informant said that during these days, which are often two, no one is authorised to go to the farm or forest or specific streams because his or her presence would disturb the tranquillity or activities of the gods of the land. When patrol team members assigned to monitor the community forests are mixed or come from different cultures which do not coincide, it will be obvious that respect for the traditional off-days in Mbai will be susceptible to defiance, the informant pointed out.

„...if we take the case of Mbai community forest, it will be realised that, some villages are in Nso Fondom, while others are in Oku, and these two fondoms do not have exactly the same traditional off-days." The informant pointed out that this aspect of traditional off-days was not taken into account by Birdlife International, which was operating under the umbrella of the Kilum-Ijim Forest Project and it created internal problems among the members of forest patrol teams. As he said, patrol team members from Oku usually accused those from Nso of violating their traditional off-days and vice-versa. |
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<tr>
<th>Interview</th>
<th>6</th>
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<tbody>
<tr>
<td>Date</td>
<td>13/04/15</td>
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<tr>
<td>Time</td>
<td>11.30am</td>
</tr>
<tr>
<td>Place</td>
<td>Mbai Village</td>
</tr>
<tr>
<td>Interviewee</td>
<td>M3 (Den Mborong)</td>
</tr>
<tr>
<td>Position of interviewee</td>
<td>Traditional landlord</td>
</tr>
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</table>

**Question**
What do you think is the future of community projects without due consideration of the socio-cultural structures of the project beneficiaries?

**Response**

"... The non-socio-cultural distinction in the exoneration of government services was considered by the beneficiary population of Bali as disrespect for their traditional ruler and cultural practices. This disregard for the socio-cultural and political institutions of project end-users and their functioning greatly undermined the sustainability of the Bali Community Water Project, Mbai community forest project and many other community-managed projects in the NWRC." The informant expounded that the non-integration of the socio-cultural values and institutions of the people into community-driven projects in general and community forests in particular is creating conflicts between the Fon (head of traditional institutions) who is the custodian of the land and members of forest management institutions (FMIs) who are running the community forests."

"... the denial of access rights has led to another phenomenon which is that of usurpation of the rights of traditional custodians. During the start of the demarcation of Mbai Community Forest and all the other neighbouring community forest, some rites were performed though not by the rightful traditional custodians."

**Sub-question**
Thank you very much. Apart from the non-consideration of socio-cultural structures that you just mentioned, how has the forest conservation project affected the cultural sites, the practices and social life of the people in your community?

**Response**

"... As concerns the management of the community forest (MCF) and other community forests in the NWRC, the first thing is that the region is predominantly a grassland area, referred to as the Grassfields, and many of the community forests (CFs) are concentrated in relics of montane forests and gallery forests in catchment areas. These montane and gallery forests are largely the abodes of the gods of the people and that is why many of them consist of sacred groves and shrines. These abodes of the gods have been successfully conserved through traditional means even before the advent of community forestry (CF) in the country in 1995, which was the application phase of the 1994 Forestry and Wildlife Law that
instituted the concept. Denied access to sacred shrines and groves in the forest has riddled the sustainability of Mbai community forest.” The informant said that the refusal of local population to perform the traditional rites in and around the forest conservation areas has seldom encouraged the local people to check the forest against bush fires and deforestation.

<table>
<thead>
<tr>
<th>Question</th>
<th>Does the threat of dry season-related fires affect the sustainability of your community-managed water supply/hydro-electricity/forest conservation project?</th>
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</thead>
<tbody>
<tr>
<td>Response</td>
<td>„...during the dry season our community forest conservation project suffers from natural and man-made fires that destroy it on a yearly basis. The man-made fires are the accidental and wilful fires from graziers, bee farmers and crop farmers close to the forest reserve. The natural ones are those from lightning and those associated with mystics. In addition, the traditional landlord said that climate change has caused some of the springs in their shrines, which are used for libations, to become almost dry and that bushfires are also destroying some of their shrines located inside the forest area.”</td>
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<thead>
<tr>
<th>Sub-question</th>
<th>Thank you so much. Besides bushfire-related incidents that riddle your forest conservation project as you rightly mentioned, are there any others? I know you will be considering environmental challenges like the increasing number of days without rainfall and rising temperatures but beyond that what is the attitude of those people living in high relief parts of your community towards supporting the effective implementation of the water supply/electricity/forest conservation project?</th>
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<tbody>
<tr>
<td>Response</td>
<td>„...The fluctuations in rainfall and temperature have affected the discharge of springs and rivers in the region and have equally led to the emergence of new diseases that affect crops, particularly coffee, Irish potato and other food species.” The informant noted that people in the neighbourhoods of Tadu and Buh villages found at high-lying part of Mbai are seldom encouraged to actively support community projects because they seem to feel that they only barely benefit from them,...also, there is a phenomenon of unprecedented growth in the number of settlements in and around the Mbai community forest areas which has reduced its size. This is caused by increasing human activities such as farming, grazing, calving, building and hunting actions in and around the forest area.”</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>Do you think that uncoordinated settlements of people close to the Mbai community-managed forest are doing more harm than good to its sustainability?</th>
</tr>
</thead>
</table>
| Response | „...yes, in 2010 when the results of the 2005 national census were released some of these newly created settlements featured on the
census sheets as autonomous villages. Others gained this status in the course of time but no official document, as of 2015, carried them as full villages. The traditional landlords performing sacrifices in Mbai community forests are from Nso, although migrants from Oku have shown an interest in becoming part of the project, but the Nso traditionalists are not willing to accept them. This creates conflicts among interested community groups. The acquisition of Mbai Community Forest was a surprise to them even though they have been traditional landlords of forest patches within MCF and other neighbouring community forests for ages." In his opinion, all the community forests in and around the area were products of elitist politics, which overrode the socio-cultural life of the people and undermined the sustainability of these community-driven forests in the long term.

<table>
<thead>
<tr>
<th>Question</th>
<th>Do you think the exoneration of traditional leaders from forest conservation/water supply/hydro-electricity project management responsibilities riddles their sustainability?</th>
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</thead>
<tbody>
<tr>
<td>Response</td>
<td>&quot;...traditional landlords lost all the tributes usually paid to them by members of user groups. Instead, the Mbai forest management institution (FMI) instituted quotas which it received from these user groups.&quot; The informant further said that the most often, some of the project providers and younger people in the communities take the pretext of existing tenure laws, which prescribe that all land belongs to the State, to perpetrate land tenure atrocities against the traditional leaders who are locally regarded as the custodians of the land and the totems therein. This approach creates a situation of competition which is articulated around us-versus-them. Such an atmosphere gives room for law enforcement, which is characterised by policing and reprisal measures, all of which succeed only within the few years that the NGOs are in the field to sponsor the activities of the project as well as law enforcement within the project area. &quot;...When the traditional landlord used his sho-oh nyen and performed counter-rites in his shrine near the catchment area, water availability became a problem. This confirms the spiritual powers of the traditional ruler.&quot;</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>What is your opinion on the willingness of community members to financially, or otherwise, contribute to the running of electricity/water/forest conservation projects in this community?</th>
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<tbody>
<tr>
<td>Response</td>
<td>&quot;...the haste with which the community forestry process took place, particularly the Mbai forest conservation project, did not allow project providers such as Birdlife International, which was the NGO providing technical and financial assistance in the project area, to make adequate contacts with the forest custodians to master their...&quot;</td>
</tr>
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</table>
socio-cultural and anthropological settings. Also, at grassroots level, there are seldom long-term management incentives since the belief is that as a member of a community, one needs no incentives to work for his people. Those who try to motivate the project management team did that in kind by offering a few baskets of cocoyams, buckets of maize and beans, and bundles of vegetables.”

<table>
<thead>
<tr>
<th>Sub-question</th>
<th>What do you think is the future of the Mbai community project without due consideration of traditional institutions of end-users?</th>
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</table>
| Response      | “...community-managed forest conservation projects, commonly called community forestry, were and are a government eco-centric construct for ecological purposes, without any regard for the socio-cultural values and institutions of the people in the country in general and NWRC in particular.” The informant expounded that the non-integration of the socio-cultural values and institutions of the people into community-driven projects in general and community forests in particular is creating conflicts between the Fon (head of traditional institutions) who is the custodian of the land and members of forest management institutions (FMIs) who are running the community forests. 

“...most often, some of the project providers and younger people in the communities take the pretext of existing tenure laws, which prescribe that all land belongs to the State, to perpetrate land tenure atrocities against the traditional leaders who are locally regarded as the custodians of the land and the totems therein. This approach creates a situation of competition which is articulated around us-versus-them. Such an atmosphere gives room for law enforcement, which is characterised by policing and reprisal measures, all of which succeed only within the few years that the NGOs are in the field to sponsor the activities of the project as well as law enforcement within the project area.”
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<tr>
<th>Question</th>
<th>Response</th>
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<tr>
<td>Do you think the project providers had adequate understanding of the culture and religious beliefs of the end-users before implementing the water supply/hydro-electricity/forest conservation project?</td>
<td>&quot;...the project provider [in this case Plan International] did understand the type of socio-cultural relationships existing between Fujua, Fundong and Mentang villages. Similarly, the project provider understood the influence of traditional landlords on their communities and included them as members of the water project management committee. If this strategy hadn’t been taken care of, traditional landlords could have used their position and influence to discourage their subjects from any support for the water project.”</td>
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<tr>
<td>How does the increasing number of days of no rainfall and reducing water discharge from the aquifer in the catchment area affect the sustainability of water supply/hydro-electricity/forest conservation projects?</td>
<td>&quot;...Our community-managed water is gravity-driven, and those who live in high-relief areas usually face problems of water shortage during the dry season. In addition, there is a new phenomenon whereby the dry season starts before the end of September and extends to April, and during this period, some of their taps flow with very low pressure, while others do not flow at all, and when it rains heavily they face problems of water pollution especially when run-off carries waste into the water tanks.”</td>
<td></td>
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<tr>
<td>Is it true that scarce qualified staff and poor coordination of existing skills stifle the sustainability of projects that your community is running?</td>
<td>&quot;...we experience severe shortage of trained technicians in our communities. For instance, in Fundong village we have just one technician to carry out repairs in case of breaks or when a head tap needs to be replaced. The technician is looking after more than 47 standpipes alone, which to me is too much for one individual. Effort to train young managers has failed because there is weak incentive for being a community worker. But there is much cooperation and sharing of skills between the community technicians in Mentang and Fundong villages.”</td>
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<tr>
<td>How cordial is the relationship between project committee members</td>
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**Interview** 7
**Date** 16/04/15
**Time** 11.10pm
**Place** Fundong Village
**Interviewee** F1 (Funjom Lawrence)
**Position of interviewee** Project coordinator

**Question**
"...the project provider [in this case Plan International] did understand the type of socio-cultural relationships existing between Fujua, Fundong and Mentang villages. Similarly, the project provider understood the influence of traditional landlords on their communities and included them as members of the water project management committee. If this strategy hadn’t been taken care of, traditional landlords could have used their position and influence to discourage their subjects from any support for the water project.”

**Question**
How does the increasing number of days of no rainfall and reducing water discharge from the aquifer in the catchment area affect the sustainability of water supply/hydro-electricity/forest conservation projects?

**Response**
"...Our community-managed water is gravity-driven, and those who live in high-relief areas usually face problems of water shortage during the dry season. In addition, there is a new phenomenon whereby the dry season starts before the end of September and extends to April, and during this period, some of their taps flow with very low pressure, while others do not flow at all, and when it rains heavily they face problems of water pollution especially when run-off carries waste into the water tanks.”

**Question**
Is it true that scarce qualified staff and poor coordination of existing skills stifle the sustainability of projects that your community is running?

**Response**
"...we experience severe shortage of trained technicians in our communities. For instance, in Fundong village we have just one technician to carry out repairs in case of breaks or when a head tap needs to be replaced. The technician is looking after more than 47 standpipes alone, which to me is too much for one individual. Effort to train young managers has failed because there is weak incentive for being a community worker. But there is much cooperation and sharing of skills between the community technicians in Mentang and Fundong villages.”

**Question**
How cordial is the relationship between project committee members
and the rest of the community members in terms of trust and respect?

**Response**

"...the issues of motivation and/or incentives are very crucial for the life of this project. Community members in charge of managing our water supply project have a respectful and friendly relationship with the project end-users in terms of accountability even though most of the grassroots members of the community have no real perception of the running cost of the scheme and many of them believe that since the project is managed by local people of the community, they need to make no additional effort. Those who attempt to motivate the project service provider did that in kind by offering a few baskets of cocoyams, bucket of maize and beans."

**Question**

It is well known that funding challenges are common with all projects. What specific funding challenges do you face in running the hydro-electricity/water supply/forest project in this community?

**Response**

"...we depend on our village development association for funding and this is usually made available in January after the annual fundraising has been held. The water management committee for Fundong village is given £180 (150,000 FCFA) yearly for water supply maintenance. This is far too small for the challenges that we meet and even the beneficiary populations sometimes find it difficult to contribute money when a head tap is destroyed and needs to be replaced. They often complain of poverty and some prefer to pay in kind by giving a bucket of corn or beans."
<table>
<thead>
<tr>
<th>Interview</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>Date</td>
<td>17/04/15</td>
</tr>
<tr>
<td>Time</td>
<td>10am</td>
</tr>
<tr>
<td>Place</td>
<td>Fundong Village</td>
</tr>
<tr>
<td>Interviewee</td>
<td>F2 (Christopher Mbang)</td>
</tr>
<tr>
<td>Position of interviewee</td>
<td>Project technician</td>
</tr>
</tbody>
</table>

**Question**

What do you think is the future of community projects without due consideration of the socio-cultural practices of the project beneficiaries?

**Response**

"...I think that the project may fail if the project providers do not incorporate aspects of the cultural belief and practices of project end-users." The informant added that most providers of community-managed projects in the area seldom integrate the socio-cultural and anthropological background of project end-users as being important in the sustainable management of community-driven projects even though the people in this part of the country are so attached to their culture and the traditional institutions they incarnate.

**Question**

What is the attitude of those people living in high relief parts of your community towards supporting the ongoing implementation of the water supply/hydro-electricity/forest conservation project?

**Response**

"...the gravity-driven system, which started in 2005, was limited to the neighbourhoods of Fujua, Fundong village and Mentang in the low-lying western part of the main water project catchment at Fujua hillside. The system could not pump water to high-relief settlements such as Laikom, Ngwah and Abuh, which are the highest altitude villages in the sub-division, and they could not be supplied with potable water." The informant noted that the site of the main water catchment on the highest relief part of the community enables it to pump water all year round to the western low-lying villages of Fujua, Mentang, Fundong and Mentang.

**Question**

What training activities have you put in place to build the capacity of community members in the management of community water supply/hydro-electricity/forest conservation projects?

**Response**

"...we overwhelmingly experience low levels of technical capabilities in terms of quantity and quality in the running of our community-driven projects. For instance, the Fundong-Mentang-Fujua-Ngwainkuma water supply main line (over 17 miles pipeline) is being looked after by just two local technicians. Efforts have been made by the village development association (FUVIDA) to recruit and train young technicians for handling community-related project issues but very limited success has been achieved."
Young people are so much interested in pursuing their careers than engaging with community projects. Also, the sizes of the pipes and cables used are seldom in relation to the actual demand. The use of 25mm diameter pipes for transporting potable water from the catchment to the community and 63mm diameter pipes for waste water pipes was the order in the communities of Fundong-Mentang-Fujua-Ngwainkuma. At times pressure is so high on the pipes to the extent that the pipes explode, causing undue breakdowns that deprive community members of water.”

<table>
<thead>
<tr>
<th>Question</th>
<th>How cordial is the relationship between project committee members and the rest of the community members in terms of trust and respect?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>„„the relationship has been mixed. Some elite and officials of our communities have attempted to use the project to make political gains. But members of our water management are open-minded and work very closely with the grassroots. Whenever money is raised and spent, the grassroots people are invited and provided an account of how the money was spent. We equally make sure that those who are chosen to implement this project are people of integrity.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>It is well known that funding challenges are common with all projects. What are the specific financial challenges you face in running the hydro-electricity/water supply/forest project in this community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>„„although our community-driven water supply project is quite sustainable, like any other project that is driven by the community in the NWRC it faces some funding issues. For instance, most often it takes longer for the managing committee to recover cost incurred in the case of damage or a rupture. Some community members refuse to contribute and some prefer to pay in kind than in cash. However, the culture of self-reliant development to acquire basic amenities for their communities has strengthened solidarity at local level and this is helps in cost-recovery efforts.”</td>
</tr>
<tr>
<td>Interview</td>
<td>9</td>
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<tr>
<td>Date</td>
<td>18/04/15</td>
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<tr>
<td>Time</td>
<td>09.15pm</td>
</tr>
<tr>
<td>Place</td>
<td>Fundong Village</td>
</tr>
<tr>
<td>Interviewee</td>
<td>F3 (Mr Marnus Chia)</td>
</tr>
<tr>
<td>Position of interviewer</td>
<td>Project caretaker</td>
</tr>
</tbody>
</table>

**Question**

Do you think the project providers had adequate knowledge of the culture and religious beliefs of the end-users before implementing the water supply/hydro-electricity/forest conservation project?

**Response**

"...socio-cultural conflicts were avoided between the project providers and the custodians of the Ikuo Shrine as adequate measures were taken not to temper with the shrine, which is close to the second catchment for the Fundong-Mentang Community Water Project. The shrine was never desecrated or relocated. In a similar manner, the priest of Ibein Shrine in Mentang had no problems with the project because the passage of the pipeline was notified to the gods of the shrine." The informant noted that the project did not violate or affect the traditional systems. (Traditional off-days are those days of a traditional week, which are reserved for the gods of the land.) The informant said that during these days, which are often two, no one is authorised to go to the farm or forest or specific streams because his or her presence will disturb the tranquillity or activities of the gods of the land.

**Question**

What is the attitude of those people living in high-relief parts of your community towards supporting the ongoing implementation of water supply/hydro-electricity/forest conservation project?

**Response**

"...the Mbororo ethnic group often choose to settle in high-relief or isolated areas of the community because they are always in need of pasture land to graze their cattle. This makes it expensive and at times hard to extend community project services to their neighbourhood. Whenever they notice that service providers have marginalised them or want to go against their socio-cultural life practices, they simply refuse to collaborate. This usually becomes a source of conflicts and quite often the installations are vandalised shortly after the project is realised, particularly as the Mbororo live close to the catchment areas or along the main water supply line."

**Question**

What training activities have you put in place to build the capacity of community members in the management of community water supply/hydro-electricity/forest conservation projects?

**Response**

"...Due to the lack of formally trained technicians to work for the implementation of our community-run projects after they are been implanted by NGOs with a good level of technical expertise, we do
get refresher training on how to improve our services. The local population is expected to continue ensuring the technical expertise, which is not always available or so limited because when the donor agency is about to return, they will sparingly train one person who is expected to ensure the technical expertise needed for the life of the project. Just one person, who is trained within a very short period, is usually loaded with work and at times this only trained person prefers doing other lucrative things for a living since he or she is not usually employed full-time by the community."

**Question**
Do you think party politics is affecting the collaboration of local stakeholders towards the smooth running of an electricity/water supply/forest conservation project in your community?

**Response**
"...the activities of our water project provider from start to finish were tele-guided by some politically elite members and the elite using their political influence to control how the project ought to be executed. This made the local population perceive the project as not truly theirs and any effort to collect funds for repair purpose is often difficult."

**Question**
What is your opinion on the willingness of community members to financially, or otherwise, contribute to the running of electricity/water/forest projects in this community?

**Response**
"...the token sum of £1 (FCFA 750) that each family was levied to pay once after every three months to make up for the running cost was difficult to collected. Some people deliberately refused to pay and others preferred to pay in kind and yet others refused because they claimed that they did not consume the water or that the money they pay for bills was not being accounted for." The informant noted that there are many problems of financial impropriety that have dissuaded community members from paying maintenance fees or digging pipeline trenches. All these led to an accumulation of bills and a rupture in the functioning of the whole system with most of the taps closed.
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<thead>
<tr>
<th>Interview</th>
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<tbody>
<tr>
<td>Date</td>
<td>21/04/15</td>
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<tr>
<td>Time</td>
<td>1PM</td>
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<tr>
<td>Place</td>
<td>Kingomen Village</td>
</tr>
<tr>
<td>Interviewee</td>
<td>K1 (Mr Emmanuel Bongwirnso)</td>
</tr>
<tr>
<td>Position of interviewee</td>
<td>Project initiator/Chairperson</td>
</tr>
<tr>
<td>Question</td>
<td>What do you think about the future of community-managed projects in the NWRC without consideration of the socio-cultural aspects of the local communities in their management?</td>
</tr>
<tr>
<td>Response</td>
<td>“...You know the NWRC is one of those regions in the country where the people are still very closely attached to their culture and traditional institutions. So if these community projects are to succeed, the culture of the people which is their daily life and institutions should be part of the projects. Our own small project here in Kingomen has taken care of that from the time the Fon of Nso authorised the Shuufai of Kingomen to perform the initial rites which serve as setting the fire. But you will find out for yourselves as you are moving that many of those community projects in the NWRC which lack these socio-cultural aspects are rejected by the people.&quot; The case of community forests here in Nso is very clear. Community forestry has made traditional landlords lose their rights and respect. Our community electricity project is not like that. Another traditional thing that we did was to negotiate for some traditional rites to be performed so that those whose totems were going to be affected by the project would be relocated. This was not done by force as the village people needed the project so much. In 2013 the Palace awarded me a red feather as a sign of recognition for the success of the Kingomen community electricity project. In fact, many socio-economic structures that were uncommon in Kingomen became erected as a result of the availability of electricity. Among these socio-economic structures were bars, shops, grinding mills and barber’s shops. At the same time many households were and are exploiting the power for various purposes such as lighting, charging of mobile phones, playing radios and TV sets and to drive their electrical appliances. It means an improvement of the living conditions of the local people.”</td>
</tr>
<tr>
<td>Sub-question</td>
<td>Thank you very much, but why are the socio-cultural aspects of the local people not integrated in the realisation and management phases of some of the community projects in the NWRC?</td>
</tr>
</tbody>
</table>
| Interviewee response | “...The first thing is that community project providers in the NWRC differ. Some of them do not know the culture of the NW people and quite often they spend limited or no time at all to understanding the
culture of the people and the fact that their life revolves around their socio-cultural and traditional institutions. This means that for anything to work well in any community in the NWRC, the socio-cultural units and traditional institutions of the people must play an important role. You will agree with me that whenever limited contacts are made between project providers and end-users, there is a very high probability that socio-culturally-related conflicts will emerge and will tend to affect the life of even community-driven projects negatively. Secondly, waterfalls for community hydro-electricity projects and water catchments for the tapping of community potable water in the NWRC are most often areas of totemism for the custodians of the traditions of the people. Project providers who know all these make sure that they do not go against as the local people will cause problems. Specifically with regards to our rural electrification supply project, during the dry season the voltage is too low and during periods of erratic rainfall of high intensity, the voltage is usually very high. The low and high voltage causes damage to our appliances and at times makes it hard for us to supply all quarters in the village with light.”

<table>
<thead>
<tr>
<th>Question</th>
<th>Are you aware of the phenomenon of climate change? Is the Kingomen community-managed hydro-electricity project affected by climate variability and change?</th>
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<tbody>
<tr>
<td>Response</td>
<td>“...one of the major challenges we face is that of clearing off debris or load that is usually transported by run-off and the River Tonsaiy on which the dam is constructed.” This load, the informant said, blocks the turbines engendering low voltage even during the rainy season.</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>How cordial is the relationship between project committee members and the rest of the community members in terms of trust and respect?</th>
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<tbody>
<tr>
<td>Response</td>
<td>“...even among the committee members the relationship seems not cordial and I cannot actually explain why. There is a management committee for the Kingomen community-managed hydro-electricity project where I am a mere first school leaver and technician, and I cannot understand why the secretary finds it difficult to develop minutes or the chairperson to call for meetings.”</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Sub-question</th>
<th>In what ways are you motivated for the services you render to this community?</th>
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<tbody>
<tr>
<td>Response</td>
<td>“…at grassroots level, there are seldom long-term management incentives since the belief is that as a member of a community, one needs no incentives to work for one’s people. Those who attempt to motivate the project provider did that in kind by offering a few baskets of cocoyams, buckets of maize and beans, and bundles of vegetables to compensate for the power they consume.”</td>
</tr>
</tbody>
</table>
**Question**

Thank you very much. What other challenges can you think of that are limiting the sustainability of the Kingomen small-scheme hydro-electricity project?

**Response**

"...the Kingomen small-scheme hydro-electricity project was implanted without any prior feasibility studies being carried out and the carrying capacity of the scheme was unknown. The initial idea was to generate power for my business store at the Village Square and from the estimated debit of River Tonsaiy there was no need for any elaborate feasibility studies. Even the running cost was not important because I knew that my business was going to cover it. But when the project started, the issue of community solidarity came in and I involved the whole community, thereby complicating the project. Also, there is a lack of young people to work as technicians with me in the project. Young people in Kingomen are not interested to come for me to train them and I cannot force myself to train them. And there have been severe financial difficulties that have made us improvise the material used. The Mayor of Kumbo Urban Council, however, provided the management committee with some money. This money was used to acquire a transformer, a number of nine-metre long poles and cables from Energy of Cameroon which were used to replace most of the improvised material such as locally fabricated transformers, cables from tyres and locally harvested and untreated poles."

**Question**

Which are the governance issues that Kingomen small-scheme hydro-electricity project is facing?

**Response**

"...to politicize the project and at the same time accusing me of running the project as a private business whereas the chairperson of the project is not calling for meetings. In addition, committee members are not collaborating to even see to it that people pay the agreed token for consumption bills. The network may not even be extended again, for people do not want to pay even the running cost. There are some people who do not want to collaborate, some even requested that their lines should be suspended and I did so. But you will be surprised that when you go to drinking places around the Village Square here, you will find them charging their phones with the same light that they have rejected. Some women struggle to keep using the light but a good number of them pay in kind and it becomes a problem for me to go and sell the farm produce in Kumbo."
**Interview**

**Date**  
22/04/15

**Time**  
11.35am

**Place**  
Kingomen village

**Interviewee**  
K2 (Mrs Ernestine Jingla)

**Position of interviewee**  
Member of project coordinating team

**Question**  
Do you think the Kingomen community-managed hydro-electricity project faces a number of socio-cultural problems as is the case with many other community-driven projects in the NWRC?

**Response**  
"...socio-cultural issues are more internal since they form the entire day-to-day life of project end-users and the project end-users master their intricacies better. The entire traditional authority in Nso is in favour of the Kingomen small-scheme hydro-electricity project. The problems facing the project do not have anything to do with the socio-cultural life of the local people."

**Sub-question**  
Thank you very much. What then are the major problems facing the Kingomen community electricity project?

**Response**  
"...financial, training, limited collaboration and climate change. The financial problems are very serious because project end-users prefer to pay bills in kind and when there is a bit of money the project provider manages it alone. People here are poor and women are those struggling that this light should be in their homes. Some men have their own type of problems with the project initiator and do not have time with the light although you will find them charging their phones using the current in drinking places. This has discouraged us from collaborating and participating fully in the project. As concerns training, young people are not being trained to carry out even minor repairs in the absence of the project provider. When there is any fault, one must wait till the project provider comes. Even if it means that you will wait for days. This is the main reason that you will find many boys here struggling to do repairs and at times installations even though they are not trained. The issue of training young people seems to be complicated because some boys will say that the project initiator does not want to train them but when you meet the project initiator he will be complaining that the work is too much for him and that there are no young people who are interested to work with him so that he can train them. But many people in Kingomen feel that the project initiator does not want to train young people for fear of competition. After everything this is a wonderful project, which everybody has to support. If the project is succeeding today it is thanks to the effort of the project initiator and some philanthropic persons such as the Mayor of Kumbo who has enabled us to get some..."
The village people are still to do enough for the smooth running of the project. Who could have imagined that Kingomen was going to have light! Everybody is happy with the project but there are politicians who are struggling to discourage others, coupled with the low levels of education of the people.”

<table>
<thead>
<tr>
<th>Sub-question</th>
<th>Response</th>
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<tbody>
<tr>
<td>Yes, you talked of climate change. How does it affect the ongoing implementation of your community-managed hydro-electric project?</td>
<td>“...sasonal variations in the volume of water in the River Tonsaiy that supplies water needed to spin the turbine leads to low power generation in Kingomen during the dry season. During the rainy season, there are days that the voltage is too high causing bulbs and other appliances to blow out. Many phones tend to have problems here with batteries because of the unstable nature of the voltage. When the voltage is very low we cannot use the grinding machines and you know that our people eat corn fufu every day. Even boys who are running barbing saloons face the same problems of low voltage and the destruction of shaving machines. These problems are persisting like this because people are poor and do not have money to buy stabilizers.”</td>
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</table>
Good morning Mr Bim, do you think that community-managed projects in the NWRC such as the Kingomen rural hydro-electricity supply project face socio-cultural challenges that affect their sustainability?

"...some actually face serious cultural problems while others do not. Community-managed projects that are initiated by people who are not from the NWRC tend to neglect the fact that we in the NWRC are so attached to our culture and our traditional institutions. Here in Nso any project that excludes the Fon (Palace), Nwerong which is also called Kwifon (the regulatory society) and the Shuufais and Fais can never work. The failure of many community forest projects in the NWRC is because of these cultural problems. The community forests in Kilum-Ijim are facing problems today because the culture of the people was neglected and even when the Fons were called up in the course of time to give their consent, many things had already gone wrong which were difficult to correct. That notwithstanding, many of those community-managed projects in the NWRC such as the Kingomen electricity project do not face these cultural problems. The Fon, the regulatory society and the Shuufais of Kingomen are integral stakeholders of the project. The Fon even recognised the project initiator in 2013 as an illustrious son with a red feather."

Are you aware of climate change? How does it influence the Kingomen community-managed electricity project?

"...climate change has distorted rainfall patterns and rainfall seems to be reducing every year making the volume of River Tonsaiy over which the dam is constructed to be reducing. As the volume reduces, the current generated also reduces, leading to low voltage particularly during the dry season. In the course of the year we may experience heavy rains that will lead to overflow of the dam and when it happens like that the voltage may become too high. During periods of low voltage many activities in the village which are power-driven are grounded and during periods of high voltage, many people will lose their appliances including bulbs and telephones. Besides the destruction of appliances, when the dam overflows, transported material at times will block the turbines depriving us of power or causing low voltage."
<table>
<thead>
<tr>
<th>Question</th>
<th>What technical challenges is the project facing?</th>
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<tbody>
<tr>
<td>Response</td>
<td>„...Well it is a small scheme just for a village community and the technical challenges may not be so many. But we would have expected the project initiator to have trained some young people by now to handle issues of wiring people’s homes and carrying out minor repairs even in his absence. It is not normal that the least-fault users must wait until the project initiator is around for the problem to be solved. He is a businessman who is so busy and we do not know why he is not training young people in the domain. Due to this absence of formal training, many people in Kingomen have become self-practising electricians which is a very risky thing.”</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>How cordial is the relationship between project committee members and the rest of the community members in terms of trust and respect?</th>
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<tbody>
<tr>
<td>Response</td>
<td>„...at times, community-managed projects are bound to have problems between project committee members. For instance, the project initiator of the Kingomen small-scheme hydro-electricity project is using the project to advertise himself, making the other committee members feel uncomfortable. When he was given a red feather by the Fon, he did not make it clear that it was a collective effort because all of us in the management committee have been working for the success of the project. Although he started the project as a personal initiative, when the village people expressed the need to be part of it and a management committee was formed, the perception of the project initiator of the Kingomen small-scheme hydro-electricity project was supposed to change. Even from the name you will notice that it does not clearly indicate that it is a community-managed project. There is a management committee but the project initiator still wants to do everything alone, particularly as he is the technician who masters all technical aspects concerning electrical work. So the other committee members have become passive although not against the project. At times when meetings are to be organised he is not always available and we are afraid to organise meetings in his absence for fear of being accused of trying to hijack the project.”</td>
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<tr>
<th>Question</th>
<th>In what way are you of the management committee motivated for the services you render to the community?</th>
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<tbody>
<tr>
<td>Response</td>
<td>„...not actually motivated. But the project initiator uses some of the food that some people give as compensation for the light they consume for himself. Some committee members try to motivate themselves when they collect bills, which is not correct. This is probably where the project initiator wants to control the finances alone.”</td>
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<p>| Question | Thank you very much. Are you now saying that there is lack of |</p>
<table>
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<tr>
<th>Question</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>It is well known that funding challenges are common with all projects. What are the specific funding challenges you face in running the electricity/water/forest project in this community?</td>
<td>”...many problems. It has not been long that we had transformers, and some SONEL cables and poles thanks to the financial support of the Mayor of Kumbo. Due to funding difficulties, the first lone transformer that was used for the project was fabricated by the project initiator and people here were using sticks as poles and wires gotten from burnt tyres as cables. You can still find many of these cables crossing from one compound to another and in people’s homes. The payment of bills is not regular and some people pay in terms of baskets of farm produce, which makes it difficult to buy spare parts for emergency repairs. If there were finances, the scheme could have already extended to all neighbourhoods in the village.”</td>
</tr>
<tr>
<td>Transparency in the management of the funds?</td>
<td>”...Actually, Committee members feel that the project initiator is still considering the project as his private business because he manages all the money alone. Even when assistance is given by the State or a private individual, he decides on what to use for the project alone and he buys everything for the project alone. But the project is ongoing and expanding, which is a good thing.”</td>
</tr>
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Appendix 2: Questionnaire

I-INTERVIEW GUIDE

I am a PhD research student at Cardiff Metropolitan University in UK. I am asking you for help in implementing my PhD research project by giving me some of your time for interview.

I am requesting an interview lasting between 45 minutes to one hour. You can assist us to foster this research by co-operating in our assessment of the sustainability of Community-Managed Projects in the North West Region of Cameroon. The interview questions are enclosed. I would like to tape the meeting to conserve time and lessen the burden of handwritten notes. I would like to give you my assurance that the conversation will be totally confidential.

With your help, Cameroon and African researchers like me will acquire invaluable skills that will be useful for the sustainability of projects back home and our emergence. We are hopeful you will co-operate with us towards achieving the desired goals.

Enclosed with this letter is a contact address, which you may use to indicate your willingness to co-operate with us. Thank you for the courtesy of your assistance.

Very sincerely yours,

Victor Agha-Ah Mah

Tel: +447438322020

E-mail: mahvicky17@yahoo.co.uk
Research Objective 1

To find out the extent to which knowledge of socio-cultural background of project end-users is fundamental in the sustainability of community-managed projects in the North West Region of Cameroon.

Questions

1) Do you think the project providers had adequate knowledge of cultural and religious beliefs of the end-users before implementing the water/hydro-electricity/forest conservation project?

2) What do you think is the future of a community-managed project without due consideration of the cultural sites, practices and social life of the beneficiary population?

3) Do you think disassociating traditional belief systems in the management process of community projects engenders socio-culturally related conflicts which threaten the sustainability of CMPs in the region?

4) Apart from the neglect of traditional belief of end-users by project providers, what do you think is the future of a community project without due consideration of the socio-political structures that the project beneficiaries encarnate?

Research Objective 2

To understand how environmental constraints associated with topography, climate variability and change impact on the sustainability of community-managed projects in the North West Region of Cameroon.

Questions

5) What is the attitude of those people living in high relief parts of your community towards supporting the ongoing implementation of water supply/electricity/forest conservation projects?

6) Do you think an increasing number of days of no rainfall and reducing water discharge from the aquifer in the catchment area affect the ongoing running of water/hydro-electricity/community forest projects?
7) What is your opinion about the threat of dry season-related fires on the ongoing running of your community-managed water supply/hydro-electricity/forest project?

Research objective 3

To ascertain the quality and quantity of existing human resources at grassroots level in the North West Region of Cameroon and how these influence the sustainability of community-managed projects in the region.

Questions

8) Do you think inadequate qualified technicians/committee members at grassroots level and weak coordination resources among community stakeholders affect the sustainability of projects that your community is running? ............................................

9) What training activities have you put in place to build the capacity of community members in managing community water/electricity/forest conservation projects?

Research objective 4

To examine the relationship existing between governance in community-managed projects, confidence in physical persons and the sustainability of community-managed projects in the North West Region of Cameroon.

Questions

10) Do you think party politics is affecting the coordination of local stakeholders towards the smooth running of a hydro-electricity/water supply/forest conservation project in your community? ..............................................................

11) Do you think the exoneration of traditional leaders from forest conservation/water supply/electricity project management responsibilities riddles their sustainability? ..............................................................

12) How cordial is the relationship between project committee members and the rest of the community members in terms of trust and respect? .............................................
Research objective 5

To investigate common funding challenges in the North West Region of Cameroon and how they affect the sustainability of community-managed projects in the region.

Questions

13) It is well known that funding challenges are common with all projects. What are the specific funding challenges you face in running the electricity/water/forest project in this community? .................................................................

14) What is your opinion about the willingness of community members to financially, or otherwise, contribute to the running of the hydro-electricity/water/forest project in this community? .................................................................
II-SURVEY QUESTIONNAIRE

I am asking you for help in fostering my PhD research project by co-operating in our assessment of the underlying issues limiting the sustainability of Community-Managed Projects in the North West Region of Cameroon. I would like to give you my assurance that your views and identity will be kept strictly private and confidential.

With your help, Cameroon and African researchers like me will acquire invaluable skills that will be useful for assessing the sustainability of projects back home and our emergence. We are hopeful you will co-operate with us towards achieving the desired goals.

QUESTIONS

Answer questions on table 1 by ticking the correct option
<table>
<thead>
<tr>
<th>No.</th>
<th>Project identification</th>
<th>Community water project</th>
<th>Community electricity project</th>
<th>Community forest project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Which of the project(s) is run by your community/village?</td>
<td>Agree</td>
<td>Disagree</td>
<td>Agree</td>
</tr>
</tbody>
</table>

**Identification of project provider**

<table>
<thead>
<tr>
<th>1b</th>
<th>Who provided the project to your community?</th>
<th>Our development association</th>
<th>Answer tag</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1b</th>
<th>Who provided the project to your community?</th>
<th>Our development association and the council</th>
<th>Answer tag</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1b</th>
<th>Who provided the project to your community?</th>
<th>An NGO in our community</th>
<th>Answer tag</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1b</th>
<th>Who provided the project to your community?</th>
<th>An NGO out of our community</th>
<th>Answer tag</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1b</th>
<th>Who provided the project to your community?</th>
<th>An illustrious son/daughter</th>
<th>Answer tag</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1b</th>
<th>Who provided the project to your community?</th>
<th>Our sons and daughters in the Diaspora</th>
<th>Answer tag</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N°</td>
<td>Question tag</td>
<td>Community water projects</td>
<td>Community electricity projects</td>
<td>Community forest projects</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>--------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td></td>
<td>Do the following socio-culturally related aspects negatively affect the implantation and running of community water/electricity/forest projects in the NWRC?</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
</tr>
<tr>
<td>1</td>
<td>Do limited regards for socio-cultural practices by project providers riddle the sustainability of water supply/hydro-electric/forest conservation projects?</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
</tr>
<tr>
<td>2</td>
<td>Do you agree or disagree that failing to consider the cultural sites and social life project of end-users in the entire frame community project management affect their sustainability?</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
</tr>
<tr>
<td>3</td>
<td>Do you agree or disagree with the idea that your community project tends to demystify traditional belief systems leading to violation of taboos such as traditional off-days?</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
</tr>
<tr>
<td>4</td>
<td>Is it true that conflicting relationships between project providers and kwifon (priests of shrines and sacred groves) riddle the sustainability of projects in your community?</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
<td>Agree  Disagree  No idea</td>
</tr>
</tbody>
</table>
Table 3: Answer questions by ticking **Agree; strongly agree, Disagree, strongly disagree** where applicable in the community projects you know in the NWRC

<table>
<thead>
<tr>
<th>No.</th>
<th>Do you think the following climate-related issues affect the long-term effective implementation of community-managed water/electricity/forest projects in the NWRC?</th>
<th>Community water/electricity/forest projects</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you agree or disagree that high relief dwellers do not derive same benefits from CMPs in this region?</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Do severe dry conditions during the dry season favour bushfire accidents in and around your project site?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Are increasing declines in volumes of water sources affecting community ability to sustain their local projects?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>What is your opinion on the following governance challenges affecting the smooth management of community water/electricity/forest projects in the NWRC?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Community water projects</strong></td>
<td><strong>Community electricity projects</strong></td>
<td><strong>Community forest projects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Agree</td>
<td>Disagree</td>
<td>No idea</td>
<td>Agree</td>
<td>Disagree</td>
<td>No idea</td>
</tr>
<tr>
<td></td>
<td>Do you agree or disagree that the level of socio-culturally related conflicts in CMPs depends on the type of relation between project providers and end-users?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Agree</td>
<td>Disagree</td>
<td>No idea</td>
<td>Agree</td>
<td>Disagree</td>
<td>No idea</td>
</tr>
<tr>
<td></td>
<td>The primary beneficiary law is subjectively implemented in your community-managed project?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Agree</td>
<td>Disagree</td>
<td>No idea</td>
<td>Agree</td>
<td>Disagree</td>
<td>No idea</td>
</tr>
<tr>
<td></td>
<td>Is it true that some project providers use community projects as their private enterprises for generating personal income?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Table 5: Answer questions by ticking **Agree; No idea; Disagree** where applicable in the community projects you know in the NWRC.

<table>
<thead>
<tr>
<th>No</th>
<th>Do you agree or disagree with the following funding challenges affecting the sustainability of community-managed projects in the NWRC?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Question tag</td>
</tr>
<tr>
<td></td>
<td><strong>Community water project</strong></td>
</tr>
<tr>
<td>1</td>
<td>Exoneration of Fons’ Palaces and government services from paying running costs for community projects makes grassroots populations become reluctant to pay for their own share of the project’s running costs</td>
</tr>
<tr>
<td>2</td>
<td>The Community project committee did not adequately estimate the long-term running cost and did not actually map out viable funding mechanisms for future innovations, extension and management of its projects</td>
</tr>
<tr>
<td>3</td>
<td>The absence of the key community members who were soliciting funding for the running of your community projects or their sudden passive participation has made it difficult for your community to have funding for the project</td>
</tr>
</tbody>
</table>
Table 6: Answer questions by ticking **Agree; No idea; Disagree** where applicable in the community projects you know in the NWRC

<table>
<thead>
<tr>
<th></th>
<th>To what extent do the following technical challenges affect the sustainability of community-managed projects in the NWRC?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Question tag</td>
</tr>
<tr>
<td></td>
<td>Community water project</td>
</tr>
<tr>
<td>1</td>
<td>Project providers did not adequately train grassroots technicians/committee members to carry out extension and repair works in case of breakdowns</td>
</tr>
<tr>
<td>2</td>
<td>Low levels of expertise at grassroots level to regenerate, monitor and evaluate projects riddle the sustainability of community-managed projects in the NWRC</td>
</tr>
<tr>
<td>3</td>
<td>The numbers of trained technicians working for your community-managed projects are insufficient?</td>
</tr>
</tbody>
</table>

THANK YOU FOR COLLABORATING