



**Beyond Policy Design: REDD+ Implementation and  
Institutional Complexities of Environmental Governance in  
Cross River State, Nigeria**

Thesis submitted for the degree of Doctor of Philosophy at the University  
of Leicester, United Kingdom

By

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August 2017

# **Beyond Policy Design: REDD+ Implementation and Institutional Complexities of Environmental Governance in Cross River State, Nigeria**

## **Abstract**

Reducing Emissions from Deforestation and Degradation plus enhancement of forest carbon stock (REDD+) was designed and negotiated at the post-Kyoto climate conventions as an efficient and cost-effective climate change mitigation policy. The primary focus is to introduce incentive-based forest conservation initiatives for reducing carbon emissions from deforestation and degradation in forest-rich countries in order to achieve 'win-win' conservation and development objectives. Within the REDD+ governance framework, carbon is to be captured, commodified, measured, and traded on the market by a diverse set of actors under various bilateral and multilateral arrangements. This thesis contributes to the environmental governance literature by making complexities embedded in REDD+ design and implementation legible. This is achieved by drawing on critical institutionalism theory and geographical concept of place to examine how place-based values, motivations, emotions and institutional bricolage practices are shaping REDD+ implementation and forest governance in Cross River State, Nigeria. It also contributes to the debates about mainstream institutionalists' assumptions that human behaviour is rational, self-seeking and so collective action can be influenced by crafting institutions in order to direct policy outcomes. Multi-method approach to data collection and analysis consisting of interviews, focus groups, questionnaires, manual coding, social network analysis, and Q-methodology were used for the study. Results show that the REDD+ process in Nigeria is characterised by unequal power relationships among the stakeholders which is causing legitimacy, equity and justice concerns. It was discovered that the forest communities in the study areas are complex entities that are responding to REDD+ and other bureaucratic forest related policies such as the proposed superhighway project differently through institutional bricolage practices. It is argued that applying uniform forest governance policies for all the communities would continue to produce unexpected outcomes in the study areas. This is because the communities have different motivations for collective action. Such motivations consist of an intricate blend of economic, emotional and moral rationalities and values which are embedded in communities' distinct histories and social interactions. It is suggested that institutions of forest governance should be place-based and could be pieced together through formal and informal bricolage practices rather than introduced externally. This approach is particularly relevant for development interventions involving communities that still hold intrinsic motivations for environmental conservation.

## Publications

1. Adeniyi P. Asiyebi, Albert A. Arhin, **Usman Isyaku** (2017) REDD+ in West Africa: Politics of Design and Implementation in Ghana and Nigeria, *Forests*, 8(3), p.78.
2. **Usman Isyaku**, Albert A. Arhin, Adeniyi P. Asiyebi (2017) Framing justice in REDD+: centring Transparency, Equity, and Legitimacy (TEL) in Readiness Implementation in West Africa. *Environmental Conservation* p.1-9.

## Conferences

1. Environmental Studies Association of Canada (ESAC) Conference held at the University of Calgary, Canada, May-June 2016. Title of paper: '*An Institutional Framework for Examining Justice in Ecosystem Governance: A study of Nigerian REDD+ Project.*'
2. International Society for the Scientific Study of Subjectivity (Q Methodology) Conference held at Seeport Hotel Ancona, Italy, September 2015. Title of presentation: '*Using Q Methodology to understand Conservation-related Emotions.*'
3. 10<sup>th</sup> Interdisciplinary Social Sciences Conference held at the University of Split, Croatia, June 2015. Title of presentation: '*Not Exactly for the Money: Motivations for Forest Conservation in Cross River State, Nigeria.*'

## Acknowledgements

Working on this PhD thesis for four years has been both interesting and challenging. I gratefully acknowledge the kind support, words of encouragements, best wishes and prayers I received from many people during this period. I am most grateful to Almighty God for the gift of wisdom, endurance, and spiritual sustenance during my emotional and psychologically difficult times.

Special thanks to my supervisors Dr Caroline Upton and Dr Jen Dickinson (now at the University of Winchester) who have provided me with invaluable feedbacks and mentorship during the PhD process. Their academic expertise and experience have really shaped the quality of this thesis especially at the final stages. I also appreciate the contributions of Professor Jenny Pickerill who was my second supervisor during the first two years of my PhD before moving to the University of Sheffield.

I would like to thank the Federal Government of Nigeria for funding my PhD programme through the Petroleum Technology Development Fund (PTDF) Overseas Scholarship Scheme. The financial support I received from Ahmadu Bello University Zaria Nigeria has also contributed to this success, for which I am saying thank you.

To all my friends at Leicester such as Asmau Garba Sani, Dr Yahaya Zayyana Ibrahim, Dr Bashir Adamu, Dr Idris Jega, Saad Ibrahim, Isah Hamisu, Bello Bichi, Joke Onojeghuo, Nkeiruka Oniya, Dr Helena White, Hannah Brooking, Sarah Thornton, Dr Mustapha Kose, Dr Murtala Chindo and Abubakar Abdullahi. To my all-time friends in Nigeria: Mukhtar Ibrahim, Lt Cmdr Ismail Bature Gambo, Sani Jubrilla Abdullah (Omoba), Sule Ashiru (Teku), Isa Danyaro.

Special appreciations to my mother Ummul-khair Ahmad, step father Muhammad Dasuki, ex-father-in-law Alhaji Hassan Abubakar. To my siblings: Dr Aminu Isyaku, Ahmad Isyaku, Hassan Isyaku, Haruna Isyaku, Bilkisu Isyaku, Maryam Isyaku, Fatima (Magajiya) Isyaku, Abdulaziz Isyaku, Umar Isyaku, Sani Isyaku, Islama Dasuki, Sabila Dasuki, Ahmad (Gwadabe) Dasuki, Umar Dasuki (Shannu). My cousins Aliyu (Coach), Hajjaju Ibrahim Khaleel, Hassan Ibrahim Khaleel, Hussaini Ibrahim Khaleel, Zeenatu Mahmood, Faeza Mahmood, Abdulrasheed Saleh Michika.

Special regard to my adorable son Abdallah Usman Isyaku who had suffered from daddy's absence for too long. I really love you and have always missed you son!

## **Dedication**

I dedicate this work to my late father Alhaji Isyaku Abdullahi who had nurtured my quest for knowledge and aspiration for attaining the highest educational status right from cradle.

## Abbreviations and Acronyms

<b>ATF</b>	Anti-Deforestation Task Force
<b>CAMM</b>	Conservation Association of the Mbe Mountains
<b>CCDC</b>	Community Conservation Development Committee
<b>CERCOPAN</b>	Centre for Education Research & Conservation of Primates & Nature
<b>CRNP</b>	Cross River National Park
<b>CRSFC</b>	Cross River State Forestry Commission
<b>DIN</b>	Development in Nigeria
<b>EI</b>	Ekuri Initiative
<b>FAO</b>	Food and Agricultural Organization
<b>FDF</b>	Federal Department of Forestry
<b>FFI</b>	Fauna and Flora International
<b>FMAWR</b>	Federal Ministry of Agriculture & Water Resources
<b>FME</b>	Federal Ministry of Environment
<b>FMF</b>	Federal Ministry of Finance
<b>FOEN</b>	Friends of the Earth Nigeria
<b>FRI</b>	Forestry Research Institute
<b>HCCC</b>	House Committee on Climate Change
<b>ICEED</b>	International Centre for Energy Environment & Development
<b>NCF</b>	Nigerian Conservation Foundation
<b>NCRC</b>	Nature Conservation Research Centre

<b>NESREA</b>	National Environmental Standards & Regulations Enforcement Agency
<b>NGO</b>	Non-Governmental Organisation
<b>NGOCE</b>	NGO Coalition for Environment
<b>NOSDRA</b>	National Oil Spills Detection & Response Agency
<b>NPC</b>	National Planning Commission
<b>NPS</b>	National Park Service
<b>OSN</b>	One Sky Nigeria
<b>PAND</b>	Pandrillus
<b>PNI</b>	Pro-Natura International
<b>REDD+</b>	Reducing Emissions from Deforestation & Degradation
<b>SCCD</b>	Special Climate Change Department
<b>SCE</b>	Senate Committee on Environment
<b>TDA</b>	Timber Dealers Association
<b>TFG</b>	Tropical Forest Group
<b>UCDG</b>	University of Calabar Department of Geography
<b>UCDWM</b>	University of Calabar Department of Wildlife Resources Management
<b>UNDP</b>	United Nations Development Program
<b>UNEP</b>	United Nations Environment Program
<b>WCS</b>	Wildlife Conservation Society

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# Chapter One – Introduction

## 1.1 Background

'Now, the government is coming to show interest because of REDD+. They realized that they can make a large chunk of money that is why the Ekuri forest community is being praised for our conservation efforts. We have been the custodians of the forest, we stay close to it and know how to monitor the forest more than the government. All the government forest reserves in the state are empty because they don't care. They are not reserving anything. Yet, the communities who own the largest forests will not be consulted properly or give their consent before starting the REDD+ project. ...we have the best managed forest in the whole country if not West Africa, and now we heard that the government will only allocate 10 per cent of the total REDD+ money to us. Meanwhile, we can cut down and sell a single tree that could earn us up to one million Naira (5,000 USD). We know that we are sitting upon trillions of Naira worth of forest but we decided to keep it!'

*(Elder and member of Ekuri forest community in Cross River State, 27<sup>th</sup> September 2013).*

For more than a decade after the emergence of REDD+ on the global policy agenda, perspectives from West Africa remain less well documented in the academic literature compared to Central and East African countries. As a Nigerian with a background in geography and global environmental change I became fascinated by the emerging REDD+ rhetoric and how it is attracting the attention of forest-rich countries. I decided to contribute to these debates by undertaking a PhD on this contemporary topic using Nigeria as a case study.

In Nigeria, REDD+ as a forest governance policy instrument means that the project must be situated in the tropical rainforest of Cross River State in the Niger Delta region. This region contains the largest portion of the remaining forests in Nigeria. Nigeria is one of the first REDD+ countries in Africa. Oyebo et al. (2010) reported that Nigeria's 9.6 million hectares of forest cover is disappearing at a phenomenal rate compared to other countries of the world. More than half of the country's forests are located in Cross River State, which is why it was chosen as a REDD+ demonstration site. As a UN-REDD partner country, the government of Nigeria at federal and state levels are currently undertaking several governance and institutional reforms to make the country REDD+ ready. Early preparatory stages of the project involved identifying demonstration sites that are considered viable for carbon concessions. At this stage three forest clusters were identified namely: (1) Afi/Mbe Mountains (2) Ekuri, and (3) Mangrove.

Each of these forest clusters comprise of several communities and have been operating successful community-based forest governance systems for many decades. For example, the Iko-Esai community have been managing their forest in partnership with an international conservation NGO called Center for Education Research and Conservation of Primates and Nature (CERCOPAN) for ecotourism purposes. Kanyang II and Buanchor communities are situated adjacent to renowned wildlife sanctuaries and have also been practicing community-based wildlife conservation in partnership with an international NGO called Wildlife Conservation Society (WCS). The Ekuri community which is made up of Old and New Ekuri villages own and manage about 33,000 hectares of ancestral forests. As the winners of 2004 United Nations Development Programme (UNDP) Equator Initiative Award, Ekuri is considered as the largest and most successful community managed forest in West Africa (UNDP, 2012). This forest has been successfully managed by the local communities since the 1980s as a form of community response to environmental threats from forest logging in adjacent communities. For many years, the Ekuri communities have resisted government's attempts to impose logging concession arrangements with private companies in exchange for infrastructural development. Under the community NGO called the Ekuri Initiative (EI), several policies and programmes related to sustainable management and conservation of the community forest have been pursued. Today, the Ekuri community has an efficient governance system that comprises existing communal forest ownership, an accountability structure, benefit-sharing mechanisms and a land use management plan.

REDD+ was designed by experts to address the global climate problem threatening human existence. However, Hulme (2009) argued that the climate change problem is neither the crises of the environment nor that of the market but rather the crises of governance. Right from its inception, REDD+ has become a global project of environmental governance involving complex cross-scalar interactions between actors and their interests (Thompson et al., 2011). The question of power relationships between these actors is key to addressing these governance crises. I am particularly interested in understanding these power dynamics because forests remain the main life support systems for poor rural communities in Cross River State and elsewhere.

Research shows that forests are valued by millions of poor rural communities around the world as major sources of food, fiber, water, energy supply and other bundles of ecosystem services for livelihoods (Leach et al., 1999, Thoms, 2008). Yet, about one quarter of the world's tropical forests are inhabited and managed by poor and marginalized indigenous communities (Sunderlin et al., 2005). Concerns about livelihoods dependence by forest peoples and indigenous communities raised a myriad of questions about legitimacy, accountability and transparency in the REDD+ process. Despite the United Nations Declaration for the Rights of indigenous Peoples to participate in the management of natural resources, local communities are continually excluded in most participatory forest projects, so much so that there is a wide gap between global narratives and implementation realities (Agarwal, 2001, Pasgaard, 2013, Evans et al., 2014). In addition, lessons from market based forest projects implemented under the Clean Development Mechanism (CDM), Payments for Ecosystem Services (PES) projects, and Community Forestry (CF) projects from many parts of the world are often marred by unequal distribution of benefits (Blom et al., 2010); exploitative contract arrangements (Bond, 2009); and elite capture by some of the most influential actors (Agrawal and Angelsen, 2009).

In addition to power relationships, plurality of forest values and motivations for nature conservation among the communities became obvious to me during the pilot fieldwork phase. Place attachment and identities linked to global and local environments formed an important part of conservation narratives in these communities which are rooted in their ancestral relationships, histories and social norms. I also observed that local forest governance institutions and experiences, preferences seem to be different from one community to another. Therefore, a place based approach to understanding these complexities becomes useful for this study. I pulled together these important dimensions of governance from the literature to create an analytic framework used for unpacking these relations and explained how they are shaping REDD+ implementation in Cross River State.

This chapter begins by showing how the scientific relationship between forests and climate change mitigation that underpins REDD+ was established. It traces the historical emergence of REDD+ on the global environmental governance policy

agenda. The chapter also presents contextual debates about environmental ethics and climate justice issues in relation to REDD+. It then introduces how and why a critical institutional approach to the analysis of REDD+ is important within the broader framing of place as a contextual unit of analysis. The vignette above points to the intricacies of REDD+ implementation in Cross River State which this study is trying to examine.

## **1.2 Forests and Climate Change**

The term 'global warming' was coined to describe the actual and potential rise in annual average surface temperatures due to anthropogenic forcing in the climate system. It was projected that human activities will pollute the atmosphere with increased concentrations of carbon dioxide from fossil fuels sources that will insulate the earth with thermal radiation. This process will add up to 7 gigatonnes of carbon annually which is capable of increasing average temperatures by 1.5°C to 4°C, thereby altering the global biogeochemical cycles (Houghton, 1996, Hansen, 1998, Drake, 2000, Rosenzweig et al., 2008).

Forest carbon pool exists as above and below ground biomass containing significant quantities of carbon distributed over large tropical and subtropical regions of the world. Greenhouse gas emissions inventories revealed that tropical deforestation resulting from unsustainable land use practices in developing countries represent the second largest source of pollution after fossil fuel combustion (Stern, 2007, Pan et al., 2011). In addition, scientists have discovered that the global forests contain significantly large quantities of terrestrial carbon which could end up into the atmosphere if disturbed or degraded. Similarly, the Food and Agricultural Organisation estimated that 4 billion hectares of the earth surface is covered by forests amounting to about 31 per cent of total land area (FAO, 2010). It is also reported that forests can also function as large terrestrial carbon sinks that could capture and sequester about 2.4 petagrams of carbon per year (Pan et al., 2011). Therefore, effective management of forest ecosystems can sequester large quantities of carbon and ultimately reduce large scale atmosphere-biosphere fluxes (Dixon et al., 1994, Houghton, 2005). Nonetheless, carbon source from tropical deforestation remained unaccounted for by the UNFCCC's Kyoto Protocol Agreement.

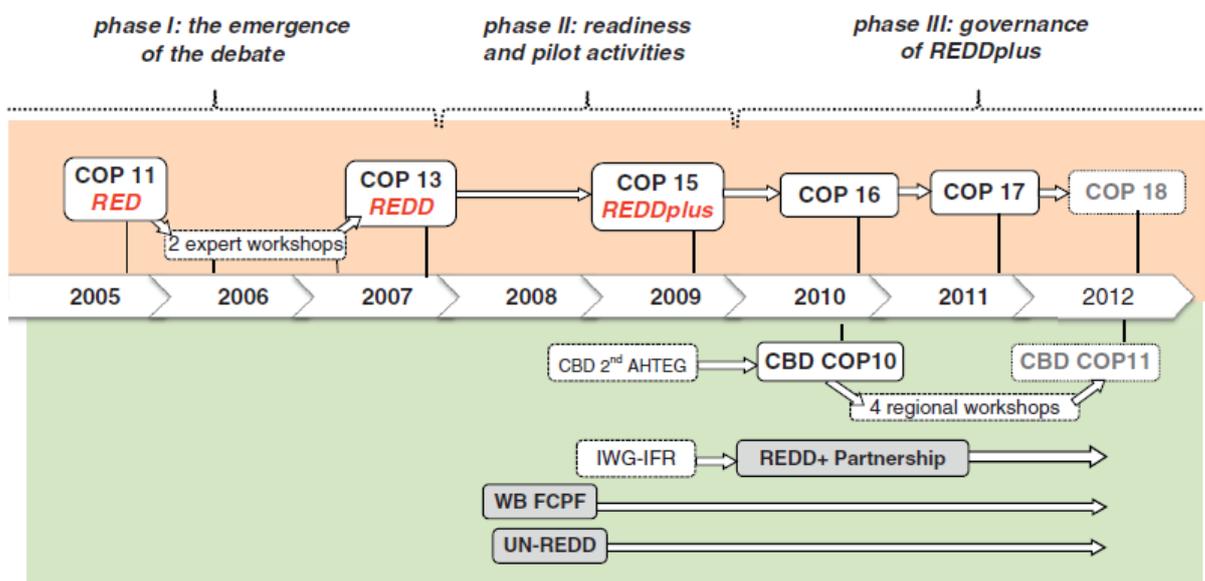
### **1.3 The Emergence of REDD+**

In response to this policy gap, Reducing Emissions from Deforestation and Degradation and enhancement of forest carbon stock (REDD+) mechanism has emerged and negotiated under the UNFCCC's post-Kyoto conventions. It was designed as a market-based climate change mitigation instrument that will create financial value for forest carbon to be issued as incentives to developing countries with measurable emission reduction from forest sources. Simply, countries that agree to reduce deforestation to a significant level will receive financial compensation commensurate to their performance. According to the Eliasch (2008) review, REDD+ is capable of reducing deforestation by up to 75 per cent by the year 2030, making it a relatively cheap, effective and efficient climate change mitigation option (Angelsen, 2009).

The idea of REDD+ began as an extended debate about the use of market-based mechanisms in natural management and sustainability, which has now become the largest Payment for Ecosystem Services (PES) experiment within the context of global climate change governance (Corbera, 2012). Pistorius (2012) documented that the REDD+ discussions have been taking place in 3 main phases: (a) emergence and debates (b) readiness and pilot activities (c) governance.

At the COP-11 in Montreal in 2005, the idea of REDD+ was introduced by Papua New Guinea and Costa Rican country representatives who submitted a proposal on behalf of the Rainforest Nations for establishing reducing emissions from deforestation (RED) based on compensated payments. The proposal was laudable because it was an innovative departure from the Kyoto Protocol's avoided deforestation approach that aimed at tackling displaced emissions, and enabling developing countries to willingly participate and benefit without restricting their economic growth. It was also framed as a win-win solution for climate change mitigation, biodiversity conservation and socio-economic development in participating countries (Gupta, 2012, Phelps et al., 2012). At the same time, the proposal was seen as a complex institutional arrangement requiring technological expertise, funding sourcing, commitment and broad acceptability by industrialised nations. Therefore, committees were set up to work out the technicalities as to how it can be effectively implemented. Two years later at the COP-13 in Bali, the negotiators agreed that RED scope should be expanded to include

forest degradation from land use (REDD) and was included into the agreed Bali Road Map as part of the post-Kyoto climate agreement. In spite of a few unresolved issues about Monitoring Reporting and Verification (MRV) and reference baselines, REDD discussion at the COP-14 in Poznan was largely successful. In Poznan, the scope of REDD was once again expanded to include the sustainable forest management and enhancement of forest carbon stocks in developing countries as part of the compensations which is represented by the (+) symbol in the REDD+ acronym, see figure 1.1.



Source: Till Pistorius (2012)

Figure 1.1 Emergence and developments of REDD+

Following this expansion, a committee of experts was formed to investigate its overall implications and come up with a robust suggestion on how it can be implemented taking into account expected complex funding arrangement. At COP-16 in Cancun, other members have suggested a further addition of reducing emissions from agricultural and other land use change to make it REDD++ (Gupta et al., 2013). Meanwhile, shortly after the conference in Bali, funding arrangements were also negotiated at COP-15 in Copenhagen with member countries agreeing to establish the Green Climate Fund that will finance REDD+ related activities that have already entered the second phase. Furthermore, debates about REDD+ financing were concluded at the COP-19 conference in Warsaw where a significant breakthrough was

achieved. For example, under the new Warsaw Framework for REDD+ developed countries have agreed to fund a performance-based greenhouse gas emission from developing countries. This decision has brought the unexpected end to the stalemate in financing arrangement and legitimizes REDD+ as one of the post-Kyoto climate change mitigation mechanisms to be adopted under the UNFCCC in 2015. The recognition of the role of forests in climate change mitigation at the COP-22 conference in 2015 have brought an end to the uncertainties of REDD+. Now countries have ratified their commitments towards its financing in the Paris Agreement.

However, in spite of the stalemate in recognising REDD+ as a legally binding climate change agreement at the successive COP meetings, several REDD+ readiness projects have begun to proliferate in many parts of the world under various bilateral and multilateral arrangements (Reinecke et al., 2014). In 2007, the UN-REDD programme was launched by joint partnerships between United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), and Food and Agricultural Organization (FAO) for the purpose of financing and governing the implementation of REDD+ demonstration activities. It also draws from its pool of expertise to design and implement capacity building programmes, MRV, and social safeguards in all its current 64 partner countries across Africa, Asia-Pacific and Latin America. The World Bank's Forest Carbon Partnership Facility (FCPF) is another global implementing partner and major source of REDD+ financing. By 2014, the UNREDD programme has disbursed more 250 million USD to these countries, while the FCPF spent more than 50 million USD supporting REDD+ related activities in 13 countries (Buchner et al., 2014). In addition to these sources of funds, Norway has entered into bilateral funding agreements with several countries for REDD+ demonstrations. Norway had become the single largest donor, and based on mutually agree terms, it began to engage with countries that have large forests such as Indonesia, Brazil, Tanzania and Guyana.

Yet, recent evaluations of many REDD+ projects indicate the failure of effective implementation strategies which are often exacerbated by poor commitment of donors as well as structural problems inherent within neoliberal conservation mechanisms (Fletcher et al., 2016). Within the literature these issues are broadly discussed under environmental ethics and climate justice.

### **1.3.1 Ethical Issues**

Existing debates within environmental philosophy reflect attempts to justify the design of environmental policies on the basis of anthropocentric ethic, non-anthropocentric ethic or a combination of both. These ethical fault lines are rooted in meta-normative worldviews about human's consumptive and exploitative activities on the natural environment which often inflict irreversible negative impacts on both living and non-living things (Elliot, 2001, O'Neill, 2001). Environmental ethics, either anthropocentric or non-anthropocentric, attempt to advance arguments that justify moral responsibilities for the inclusion of both humans and/or non-humans in conservation efforts. Founded on predominantly anthropocentric moral traditions, Western philosophy have for a very long time focused on human-centred ethics which formed the basis for conventional conservation policy approaches (Gudorf and Huchingson, 2010). Market-based approaches such as REDD+ and other Payment for Ecosystem Services (PES) schemes designed around the Millennium Ecosystem Assessment (MA) and The Economics of Ecosystem Services and Biodiversity (TEEB) reports are driven by neoclassical economic theory that is mostly concerned with allocating resources for maximum satisfaction of human wants. It is a utilitarian anthropocentric ethic that argues for the conversion of ecosystem services into valuable 'natural capital' to be used in economic development as well as to justify policy choices. The concept is underpinned by a neoliberal stance that the global ecosystems provide free services to humans, and ascribing market values to such services will motivate nature protection. Theoretically, neoliberalism can be described as a set of economic and political practices that are characterised by strong property rights, free market and trade that will improve human well-being (Gómez-Baggethun and Ruiz-Pérez, 2011).

Recent popularity of economic valuation and commodification of ecosystem services can be traced back to the seminal works of Costanza and Folke (1997) and Daily (1997) who claimed that the entire human civilisation and economy are sustained by natural ecosystem goods and services worth trillions of US dollars annually. They claimed that this huge natural capital has been taken for granted by policy makers and ecosystem services users alike. Therefore, market instruments are seen as efficient ways of

correcting conservation problems since resource owners and users have now become aware of the economic values of ecosystem benefits (Jack et al., 2008).

It is argued that the term 'ecosystems services' itself represents another socially constructed concept underpinning the materiality of value attached to the natural environment in the pursuit of neoliberal capitalism (Robertson, 2012). Researchers working under this paradigm have developed and applied several monetary and non-monetary valuation approaches and tools for different ecosystem services categories, resources types, and countries for the purpose of mainstreaming of these services into policy making. More recently, geographic information systems are increasingly used as decision support tools in modelling and mapping multiple ecosystem services at different spatial scales. This emerging trend has raised concerns that market based ecosystem approaches are modified ways in which neoliberal ideas are encroaching into environmental policy making by converting ecosystems into tradable commodities (Kosoy and Corbera, 2010, McElwee, 2012). In the same vein, Arsel and Büscher (2012) argued that market based mechanisms create trademarked commodity which are then incorporated into the global system of capitalism at the peril of nature itself. Such process is tantamount to what McCauley (2006) called 'selling out on nature' by isolating and protecting only those ecosystem services that are deemed valuable to humans at the expense of non-valuable ones. McCauley further maintained that nature is too precious to be sold and the value of nature's intrinsic and non-intrinsic benefits are infinite and cannot be quantified using any monetary or non-monetary metrics. Such process of selective valuation of ecosystem system services is argued to be unwarranted and unethical because it tends to mask or even promote inherent social and environmental justice concerns (Matulis, 2014). These assertions resonate with Brockington (2011) that market based conservation creates fictitious commodities by actors whose underlying purpose is to generate wealth by pretending to save nature. Holmes (2012) also asserted that neoliberalizing nature is nothing but a system of creating biodiversity billionaires who are investing and taking advantage of business opportunities in the ecosystem market place.

### 1.3.2 Justice Issues

Central to the discussion of environmental governance is the unresolved argument about climate justice. Earlier theorists such as Rawls (1971) argue that justice permeates through different structures of human society such as laws, institutions and decision making processes, and a justice lens must be deployed to address social, political and economic inequalities. Building on Rawls' theory of social justice which emphasizes on fairness in the distribution of costs and benefits such that all actors are adequately compensated, the idea of justice in climate change governance has been used to challenge some of the fundamental assumptions of REDD+. There are three thematic arguments within the climate justice literature that have direct implications for REDD+.

First, is the argument about historical responsibility for climate change that could potentially serve as the basis for allocating responsibility for adaptation and mitigation among countries. At the 1992 Rio Earth Summit, member countries ratified a seemingly equitable global climate change treaty based on "common but differentiated responsibilities and respective capabilities" (see UNFCCC, 1992 Article 3-1), upon which commitments and obligations will be allocated (Pan, 2004). The agreement recognised that Annex 1 countries (industrialised countries) have a history of large greenhouse gas emissions and so must take more responsibility for mitigation. The argument is that reducing greenhouse gas emissions entails identifying countries, particularly in the global South, that will be unfairly disadvantaged if they are forced to show involuntary commitment at the expense of the well-being of their citizens (Roberts & Parks, 2007). As a result, most developing countries' negotiators stressed that industrialised countries must bear greater responsibility for climate change adaptation and mitigation compared to developing countries in order to ensure distributive justice. However, Roser & Seidel (2016) argued that applying the historical responsibility approach is not a straightforward process as there are complex issues underpinning its guiding principles. For example, the polluter-pays principle takes into account those who are responsible for past emissions, and provides that those countries must bear the cost of climate change abatement in proportion to their contribution to the problem. Similarly, the beneficiary-pays principle allocates the cost

of climate change mitigation to countries in the global North that are currently enjoying high economic growth which originated from indiscriminate fossil fuel combustion during the period of industrial revolution. This means that developing countries must be adequately compensated for this historical inequality by present day beneficiaries. This argument is proposed despite the contrary arguments about unfair burden on present generations for the actions of their ancestors and scientific ignorance of the impact of greenhouse gas emissions at that time (Caney, 2009).

Second, the 1992 Agreement also suggested that countries could bear the burden of climate change based on their respective economic and technological capabilities to finance climate change projects. Instead of using historical responsibility to determine climate change obligations, this approach reflects different countries' ability to pay for their actions. This implies that not only the rich countries that are living emissions-driven affluent lifestyles, even developing countries that are living within subsistence threshold are expected to contribute (Caney, 2009, Harris, 2009, Roser & Seidel, 2016).

Third, there is an egalitarian argument to climate justice which advocates for equal rights in greenhouse gas emissions for all countries. In this case, fair distribution can only be achieved if equal share of emission quota is allocated to countries in proportion to the size of their population (Tomlinson, 2016). Tomlinson suggests that for climate equity and justice to be achieved, countries or individuals should not limit their emissions if their economic growth cannot meet a minimum threshold of well-being for the people.

Since the main objective of REDD+ is to reduced emissions that will bring global benefits, paying significant attention to the politics of differentiated responsibilities between the global North and South will help in determining climate justice (Suiseeya, 2016). Fletcher et al. (2016) suggested that one of the ways to tackle this problem is to move away from the conception of REDD+ as a market based mechanism to that which will offer compensation to communities for their conservation efforts. This will allow for equitable resources redistribution in such a way that forest rich countries and communities can take control of their resources while managing the forest commons for global benefits.

#### **1.4 Conceptual and Theoretical Approach**

In this study place is used as a conceptual lens for examining the local disparities in REDD+ policy implementation in Cross River State. Throughout the literature there is an obvious lack of geographical work on the role of place in REDD+ and such tends to mask important details about the role of emotions and human experiences in shaping policy implementation. Yet, this framing remains relatively obscured in the way global environmental governance policies are framed (Feitelson, 1991, Devine-Wright, 2013). A conceptual definition of place is contested among scholars. However, this study adopts Cresswell's (2008, p.135) who defined place as 'particular constellations of material things that occupy a particular segment of space and have sets of meanings attached to them'. Again, many geographers have written about place from different epistemologies and ontologies. This study approached it from a phenomenological perspective. Phenomenology of place is particularly relevant because it allows for people and environments to be studied as an intricately enmeshed and integrated whole from which meanings and experiences can be discerned (Seamon, 2011). This study draws insights from Tuan's (1974,1977) experiential phenomenology to examine environmental perceptions, attitudes and values and how they relate to conservation behaviour and REDD+ implementation in the Nigerian context. A place-based focus is novel in that it contributes to the understanding of the scalar dimensions of place attachment as it relates to REDD+ governance in forest communities and the implications for environmental concern and policy compliance.

Theoretically, this study draws on critical institutionalism as developed by Cleaver (2001), Cleaver (2002), and Koning (2011) to examine power relationships between multi-level institutions involved in REDD+ implementation in community-managed forests in Cross River State. In addition to the issues of power, this theoretical perspective is valuable because it challenges the mainstream institutionalism's rational choice assumptions about human behaviour as self-seeking individuals in a common pool resource dilemma upon which contemporary environmental policies are built. Rather than designing institutional arrangements to predict or influence the outcomes of social-environmental relationships, critical institutionalists pay attention to inherent dynamics and complexities of practices. Therefore, furthering critical institutionalism

involves drawing on institutional bricolage practices in order to make such complexities explicit (Cleaver and De Koning, 2015). Nonetheless, within the broader theoretical framing of critical institutionalism the mechanism through which people's values, emotions and motivations are collectively shaping institutions are not well studied. This study contributes to the critical institutionalism theory by identifying place-based values, emotions, and dynamics of motivations as significant components driving collective action, and bricolage practices. Bringing literatures on critical institutionalism and REDD+ together and discussing them around the concept of place much more explicitly will provide new insights as to why policy implementation often produces unexpected outcomes. These insights will be useful to explain disconnects between global policy articulations and local realities of implementation particularly in West African context where resource governance regimes constitute patchworks of colonial and post-colonial arrangements.

### **1.5 Research Question and Aims**

Approaching the study of REDD+ from these conceptual and theoretical perspectives has helped in formulating the following research question: How do place-based values, motivations, emotions and institutional bricolage practices shape REDD+ implementation and forest governance in community managed forests in Cross River State, Nigeria? This question will be addressed using the following aims:

Aim one: To examine how place-based motivations for forest conservation, emotions and values affect forest governance. This involves identifying the subjective discourses about forest values, mechanisms of intrinsic motivation and motivation crowding effects in the REDD+ regime.

Aim two: To analyse the institutional design and implementation of REDD+ and other forest policies in Cross River State, Nigeria. This will be achieved by examining communities' historical circumstances, power relations and stakeholder participation in policy processes.

Aim three: To identify and examine the social and institutional structures interacting with bureaucratic institutions and how they are shaping forest governance in the REDD+ pilot communities.

## **1.6 Thesis Structure**

Chapter two is divided into 4 parts. Part one reviews the literature on different approaches in environmental governance. This part also reviews the gendered dimensions of environmental governance as they relate to climate change and natural resources management. Reviews of social/policy network analysis literature in relation to REDD+ and other forms of environmental governance are presented. It also critically examines the geographies of REDD+ in terms of implementation and the divergence between policy expectation and empirical realities. Part two reviews the literature on local environmental knowledge, values and motivations in the context of global climate change policy and nature conservation. Part three reviews the concept of place, its ontological approaches and how it shapes pro-environmental behaviour. Part four reviews the literature on mainstream and critical institutionalism theories in relation to environmental governance and their relevance for this study. This chapter also presents an analytic framework from the gaps identified which guides the study.

Chapter three presents and justifies the methodological design and approach used for the study. It includes detailed discussions of qualitative and quantitative methods employed, sources of data and analytic techniques. It also contains critical reflections about the conceptual, methodological and logistical challenges faced by the researcher. It also presents the researcher's positionality in relation to the research processes and interest of funding organization.

Chapter four introduces the study area. It describes the physical settings such as climate, vegetation, relief and also political boundaries. It presents details of the socioeconomic background, deforestation and its drivers as well as forest management systems in the study area. A brief description of the REDD+ pilot sites is also presented

Chapter five which is the first analysis chapter draws on the researcher's empirical materials to discuss the perceptions of forest values and the motivations for forest conservation among forest communities. Q methodology as an approach to scientific study of subjectivity is used to identify emerging discourses. Using Q analysis, the chapter examines the basis for conservation behaviour and how it could be promoted or undermined by introducing REDD+ into the communities. Different mechanisms of

motivation crowding effects are identified and their overall implications for REDD+ governance discussed.

Chapter six is the second analytic chapter in which issues about forest governance, actors and power relations in REDD+ are presented. It begins by tracing the historical developments of forest policies in Nigeria and the way REDD+ was negotiated and nested within national and sub-national arrangements. This chapter applies social network analysis to examine power relationships among actors in the Nigerian policy process. It also examines property rights, community participation as well as governance of free, prior and informed consent in the Nigerian REDD+.

Chapter seven addresses the bricolage practices in community forestry institutions. It uses two REDD+ project communities to show how bricolage practices are shaping communities' responses to introduced forest policies. It proposes a conceptual framework for analysing these practices and the ways in which they are impacting on REDD+ and other proposed projects in community forests.

In chapter eight summary and conclusion are presented based on the overall research question and specific aims. The empirical and theoretical contributions of this study to the literature are discussed.

## **Chapter Two – Literature Review**

### **2.1 Introduction**

This chapter reviews extensively the literature relevant for this study, and it is divided into 4 parts. The first part reviews the literature on the concept of environmental governance and its different approaches. Part two presents a review on environmental values, local environmental knowledge and motivations for nature conservation within the context of REDD+ and payment for ecosystem services. In part three the concept of place and emotions in relation to human experiences and environmental behaviour are presented. The theoretical background of the study is presented in part four with focus on mainstream and critical institutionalism approaches. Finally, conclusion and emerging research gaps which this study aims to address are also presented.

### **PART ONE**

#### **2.2 Environmental Governance**

The term 'governance' has many definitions because of its varied historical and intellectual roots and contextual applications. However, the central themes linking these definitions are about shifts towards collective action for improving the effectiveness of institutions of managing social and political affairs of people beyond the monopoly of state governments (Kooiman, 1999, Kooiman, 2003, Kersbergen and Waarden, 2004). Drawing on these concepts, Lemos and Agrawal (2006, p.298) defined environmental governance as 'set of regulatory processes, mechanisms and organizations through which political actors influence environmental actions and outcomes'. The environment has now become a subject of global governance since contemporary environmental problems have widespread consequences beyond localized political boundaries (Castree, 2003). Addressing environmental problems through governance means that certain decisions will now be created, regulated and contested by a new set of discourses, multi-level actors and institutional arrangements that may conform or conflict with national and local circumstances (Bulkeley, 2005, Arts, 2006, Biermann and Pattberg, 2008). For decades several governance regimes and environmental discourses were used to shape paradigms and justify policies in

many different ways (Arts et al., 2010). These include decentralized and market based governance mechanisms.

### **2.2.1 Decentralized Governance**

In developing countries, local environmental policies are increasingly aligned with these global discourses. Influenced by international donor agencies, reduced funding by state governments and international NGOs, contemporary governance in the forestry sector was implemented through decentralized and market-based mechanisms (Agrawal et al., 2008). For example, following the Brundtland Commission Report in the late 1980s, buzz words and catch phrases such as 'decentralization', 'devolution', 'co-management', 'Community-Based Natural Resources Management (CBNRM)', 'Community Forest Management' (CFM), as well as 'Integrated Conservation and Development Projects (ICDP)' began to emerge in response to the discourse that communities are very central to resources management. The premise was that community involvement would produce ecologically, socially and economically sustainable outcomes since indigenous peoples possess local knowledge and traditional practices that will help in governing their local environments (Ostrom, 1990, Tsing et al., 1999). Under this arrangement, states' power over natural resources would be shared with resource-based rural communities thereby allowing them to have a voice and participate in decision making processes. Thus, many scholars supporting this shift have argued that participation could reverse the problem of marginalisation (Martin and Sherington, 1997), improve public trusts (Richards et al., 2004), and encourage the process of social learning (Blackstock et al., 2007). Hence, most bilateral and multilateral development organisations began to key into this paradigm so much so that it was difficult for project proposals that did not mention community participation to attract any funding at that time (Lundy, 1999). Nonetheless, decentralization was also critiqued by many scholars because it has failed to produce expected outcomes of conservation and development, community empowerment and equitable participation (Twyman, 2000, Shackleton et al., 2002, Pagdee et al., 2006a, Anderson et al., 2015).

Some scholars have attributed the failure of community-based approaches to natural resources management and conservation to experts' overly simplistic assumptions

about the concept of 'community'. Agrawal and Gibson (1999) argued that communities are usually envisioned as small units of socially organised and homogenous people who share common norms and interests about their resources. They argued that such assumptions tend to mask complexities embedded in spatial and temporal differentiations regarding communities' internal relationships, historical circumstances as well as engagements with variety of external actors and their interests. Agrawal and Gibson suggested a political approach to resources management with a focus on institutional arrangements and processes that will lead to equitable and sustainable outcomes. In the Sub-Saharan African context, Cleaver (1999) also identified the paradoxes that are inherent in adopting community participation as a normative approach to development interventions. She argued that the idea of politically discernible communities with a uniform and localised decision-making system, commonly agreed power structures and cultural practices with sufficient knowledge to make informed choices is nothing but a myth. Owing to this mythical existence of an ideal community in practice, various experts defined the term and designed policies from their own individual perspectives and interests thereby making them difficult to implement in different contexts (Kumar, 2005, Head, 2007). Despite the repeated call for policy reorientation towards institutions rather than communities, community-based project interventions have multiplied and continue to cause more harm than good particularly in the forestry sector of developing countries (Kamoto et al., 2013).

### **2.2.2 Market-based Governance**

In recent years, payment for ecosystem/environmental services (PES) has been widely promoted as a radically new paradigm in environmental governance and conservation. PES projects are designed to replace indirect conservation and development approaches such as the CBNRM, ICDP based on the assumption that better efficiency can be achieved if people are rewarded for their conservation efforts. Wunder (2005) defined PES as voluntary monetary exchanges where owners of well-defined and potentially secured ecosystem services are sold to an individual or group of buyers for the purpose of maintaining the supply of such ecosystem services over long periods of time. He suggested that payments should only be made to claimants of resources

ownerships and use rights either through direct cash payments or indirect ways of providing critical infrastructure and services as documented in pre-determined contracts.

REDD+ is a coupled climate change and forest conservation governance instrument that represents the world's largest experiment in PES governance. It was designed to function based on the market demand and supply of carbon credits in return for equivalent payments of existing market value or other forms of incentive transfers from developed to developing countries. However, early lessons from REDD+ demonstrations across Asia, Africa and Latin America reveal growing divergence between policy formulation and implementation on the ground. Some of the widely-reported problems are: (a) funding arrangement (b) free, prior and informed consent (c) tenure and property rights (d) benefit sharing arrangement.

(a) Funding Arrangement:

During REDD+ negotiations, one of the unresolved uncertainties is how projects can be financed given the huge costs of annual emissions reductions that runs into billions of US dollars. In 2009, at the UNFCCC's COP-15 meeting in Copenhagen, agreement was reached by country representatives, the UN and other multinational companies that adequate and consistent funding would be provided in support of REDD+ under the so-called Copenhagen Accord. Yet, uncertainties remain as to whether this funding arrangement will be fund-based (funded directly by contributions from industrialised nations without recourse to performance) or market-based since most of the country proposals fell under one of these two approaches. Either way, it is argued that the design of a REDD+ financing mechanism will have implications for the pursuit of equitable distribution of benefits as well as reduction in rural poverty (Brown et al., 2008). The fund-based argument was put forward by Brazil which proposed that direct payments should be made to countries that have demonstrated significant reduction in forest carbon emissions against an acceptable reference baseline. This funding could come either as a reward for stabilizing existing forest stock in countries with historically low deforestation rates, or as take-off grants for countries that need to build capacity to participate in REDD+ (Egenhofer, 2008). Although Brazil was accused of bias by other smaller forest nations because it will be the potential major beneficiary, its

proposal has since become popular among other member countries. Bezerra (2015) reported that following Brazil's proposal, other Latin American countries have also become interested in a fund-based mechanism because they feel that other important forest ecosystem services beyond carbon capture and storage are included which would otherwise be lost in a market-based system. Proponents of fund based system argued that the market system will only benefit global financial institutions and capitalists who control the carbon market while forest peoples remain disadvantaged. Accordingly, Brazil created the Amazon Fund in 2008 and was able to attract massive funding mainly from Norway with potential additions from other bilateral agreements in the future. This success can be explained by the global interest in Brazil as the site of the world's largest tropical rainforest. On the other hand, a market-based mechanism was proposed by the Coalition of Rainforest Nations based on the assumption that existing CDM markets could be used for trading REDD+ carbon credits. Proponents of this mechanism argued that it would ensure sufficient amounts of money while allowing private investors to thrive under a strictly performance-driven arrangement (Egenhofer, 2008). However, critics have argued that industrialised countries will likely refuse to purchase carbon credits from developing countries where there is evidence of weak governance and monitoring capacity. This situation will therefore not ensure the much-needed permanence<sup>1</sup>. Some critics argue that it may result in a repeat of the CDM's Certified Emissions Reduction (CER) market scenario, where uneven distribution of market finance by investors was observed in favour of countries with emerging economies (Angelsen, 2008, Ebeling and Yasué, 2008).

Others have questioned the efficiency of existing voluntary carbon offset markets and their roles in providing the required REDD+ financing. For example, Lederer (2012) argued that trading carbon credits from both CDM and REDD+ could potentially produce too much of the commodity on the market, resulting in drop in prices as demand outstrips supply. Drawing on datasets obtained from the Carbon Catalog – a comprehensive data repository for global carbon offsets - Conte and Kotchen (2010)

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<sup>1</sup> Permanence is a situation where the stability of a carbon pool is maintained indefinitely by allowing forest carbon offsets - especially those used for the generation of carbon credits - to remain undisturbed. For definition, see SKUTSCH, M. & TRINES, E. 2010. Understanding permanence in REDD. K: *TGAL Policy Paper*.

observed a highly unstable carbon pricing on the market especially for forestry-based offsets with prices significantly lower for projects in developing and least developed countries compared to those in industrialised nations. Conte and Kotchen's explanation for this price differential is that non-industrialised countries are lacking in technical capacity for monitoring, projects, are run under insecure tenure, and there is absence of good governance that will facilitate permanence. This situation also reflects the dynamics of demand and supply of forest goods and services under the forest certification schemes where products from tropical countries were either boycotted or least patronised on the global markets. Nevertheless, global efforts have been underway to secure committed REDD+ financing. One of the most recent attempts was the adoption of the Paris Agreement at the COP-21 climate change conference in Paris in December 2015. Article 21 of the Paris Agreement clearly maps out long term finance pathways through various mechanisms such as the Green Climate Fund, Global Environment Facility and other channels to the tune of 100 billion US dollars by the year 2020. This ambitious target is a commitment towards achieving the Warsaw Framework for REDD+ that was ratified at the COP-19 conference in Warsaw, Poland, and which aimed at financing results-based climate change mitigation activities under REDD+.

(b) Free, Prior and Informed Consent (FPIC)

Implementing REDD+ is generally characterised by unequal power relationships between actors and institutions of forest governance involved in decision making processes. This is because a successful REDD+ requires 'transformational change' involving reforms in economic, social and political structures both within and outside the forestry sector (Angelsen et al., 2012). Forest governance experiences in many parts of the world show that ineffective participation and representation of indigenous communities in forest governance is one of the main reasons why projects fail (Pagdee et al., 2006, Bockstael et al., 2016). The process of free, prior and informed consent (FPIC) has been introduced in REDD+ to ensure that indigenous peoples are not marginalised. For a long time FPIC has been a widely-applied tool for protecting the rights of indigenous peoples under the 169<sup>th</sup> International Labour Organization Convention and variety of other contexts such as human rights, self-determination,

development and medical practice (Carodenuto and Fobissie, 2014, Hanna and Vanclay, 2013, Barelli, 2012). Within the REDD+ context, provisions for FPIC came under the Cancun Agreement's safeguards requirement for countries in order to avoid doing harm and to empower indigenous people. This concern followed several demonstrations by networks of indigenous people who referred to REDD+ as a form of carbon colonialism and demanded more rights. These civic demonstrations and growing criticisms led to the pursuit of rights based REDD+ that will comply with the provisions of Article 26 of the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (Maguire, 2014). According to the UNDRIP document, Article 26 clearly stated that: "(1) Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. (2) Indigenous peoples have the right to own, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired. (3) States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned" (UNDRIP, 2007: 10).

Under the UNFCCC, provisions for FPIC means that indigenous peoples must hold the rights to grant or withhold their consent for REDD+ implementation in their forests. It is also a promotive form of safeguard mechanism for REDD+ that will avoid doing harm while reducing poverty and improving community welfare (Arhin, 2014). However, reports show that most countries struggled to interpret what FPIC actually meant, therefore, at the initial stages project proponents obtained consent through oral rather than formal documented processes (Angelsen et al., 2012). This necessitated the UN-REDD programme to publish detailed guidelines and an operational framework for seeking FPIC in accordance with international law for its partner countries. Documented evidence shows that lack of standardised FPIC processes in most REDD+ countries is already resulting in procedural injustice (Suiseeya and Caplow, 2013). In Cameroun, Awono et al. (2014) reported that community participation through FPIC was deliberately postponed at the Mount Cameroun project site. The authors argued

that the REDD+ proponents are working on alternative livelihoods options for the communities under the guise of community development initiatives without even mentioning the word 'REDD+'.

In Vietnam, McElwee (2016) reported that forest management has historically been dominated by the central government. The local people, private land owners, and regional governments have to seek for approval from the central government before they initiate any forest project or extract resources. Drawing similarity with the case of Cameroun, Pham et al. (2012) and Di Gregorio et al. (2013) argued that indigenous people in Vietnam are also not properly involved in REDD+ negotiations and there is very little information dissemination and the central government is still playing a dominant role. More recently, Pham et al. (2015) also stated that the legal framework for REDD+ in Vietnam does not contain formal FPIC procedures, therefore the processes are adapted and applied subjectively by proponents in order to tally project designs with expected outcomes.

Similar situation was also reported in Indonesia. At the inauguration of the UN-REDD program in 2010, the proponents promised an all-inclusive REDD+ that would engage civil society and indigenous people throughout the decision-making processes and implementation. However, Lathifah (2012) and Howell (2015) argued that the project wasn't implemented as intended. They maintained that the failure of REDD+ in the Indonesian Central Sulawesi can be attributed to absence of a formal FPIC process due to the usual top-down policy approach of the government. As a result, FPIC remains a mere rhetoric of future intentions on the minds of the REDD+ proponents in Indonesia. It can be argued that REDD+ in Indonesia, as it is the case in most countries, is progressing without incorporating indigenous communities' interests and other relevant stakeholders because the government is afraid of political empowerment of minority groups against resource control or self-determination.

#### (c) Tenure/Property Rights

In the last decade, about 27 percent of tropical forests were recorded as being under various customary and communal tenure arrangements with increasing forest rights being devolved to local communities in these countries (Agrawal et al., 2008). Scholars

have argued that one of the main pre-requisites for successful REDD+ implementation in developing countries is security of property rights for forest owners. For example, Phelps et al. (2010a) suggested an expanded approach to REDD+ country selection criteria to include not only high forest cover but other important factors such as quality of forest governance and secure land tenure rights that will preserve the rights of indigenous peoples. For stability to be guaranteed throughout the duration of carbon based projects tenure issues have to be resolved in an equitable and just manner (Cotula and Mayers, 2009, Sunderlin et al., 2009). Unfortunately, most of the world's dense forest covers are located in countries with ill-defined and heavily contested land tenure systems and property rights (Naughton-Treves and Wendland, 2014, Sunderlin et al., 2008), which makes this a key challenge for REDD+. Even at preparatory stages there are reports of displacements of indigenous peoples from their traditional lands. For example, Beymer-Farris and Bassett (2012) reported an attempt by REDD+ proponents to displace the indigenous Warufiji tribe in Tanzania from their ancestral lands. According to Beymer-Farris and Bassett, the indigenous claim to the Rufiji delta was threatened by a strong coalition between the government and other international actors under the guise that their livelihoods activities were causing damage to the mangrove forests. Although this claim was refuted by Burgess et al. (2013), who argued that that the attempted eviction was historically contingent on earlier reports of large scale forest loss and therefore had nothing to do with REDD+ readiness preparations, Beymer-Farris and Bassett (2013) maintained that the World Wildlife Fund (WWF) was responsible for crafting a negative environmental narrative against the Warufiji people in preparation for REDD+.

Similarly, in Laos, Broegaard et al. (2016) reported that the rural communities at project sites are at risk of exclusion from accessing natural resources under the REDD+ regime because tenure remains subject to re-negotiation and manipulation by the state authorities. Tenure renegotiation in this case echoes the fears of forest recentralisation under REDD+ by some scholars because forests have now become more valuable as global commons that could generate billions of dollars in monetary income. As a result, central governments are likely to argue that forests will be at risk of disturbance under

community management in order to reverse decentralised forest governance arrangements (Phelps et al., 2010b, Sikor et al., 2010).

Another dimension of property rights that is critical to REDD+ implementation is carbon tenure. Under the REDD+ regime the value of forests has increased because carbon is converted into another forest commodity. Thus, carbon commodification is adding to the tenure complexities which has direct bearing on the success or failure of REDD+. There are fears that local people can be disenfranchised by more powerful actors who are seeking to grab carbon benefits (Agarwal, 2009). In some countries, the activities of these carbon speculators have already been reported. In Papua New Guinea for example, there was widespread media allegations that some 'carbon cowboys'<sup>2</sup> have started cutting carbon deals with several landowners in collusion with the country's Office of Climate Change and Carbon Trading (OCCCT) without the local landowners knowing the implications of their actions (Babon et al., 2012). Larson et al. (2013) opined that the situation in Papua New Guinea was taking place because of the country's unique tenure arrangement where almost all the lands have been under customary ownership and so the state has no legal claim to the forests. They further argued that such opportunistic behaviour was also reported in Brazil and other countries and in most cases, they happen before countries are able to reform existing land tenure or work out new carbon tenure legislations.

In a study of 19 REDD+ projects across Asia, Africa, and Latin America, Sunderlin et al. (2014) argue that majority of REDD+ countries were at various stages of tenure reforms and forest land and carbon remain insecure and contested between indigenous people, multinational companies, private individuals and national governments. In spite of the relevance of carbon tenure security, however, Karsenty et al. (2014) opined that the whole carbon rights narrative is misleading and totally unnecessary within REDD+ or any PES arrangement. This is because earnings from carbon credits can easily be allocated based on collective contributions to emissions reductions by bundle of rights owners under the proposed compensation for conservation easement<sup>3</sup> framework.

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<sup>2</sup> The term 'carbon cowboy' is popular in Peru and was initially referring to an Australian businessman who was offering money to local forest communities in exchange for carbon stored in their forest.

<sup>3</sup> Here the authors refer to easement as the right to use land without having legal ownership as mutually agreed or enforced by law.

Karsenty and co-authors further argued that linking rights to carbon credits will only encourage rent seeking in natural ecosystems and exclusion of indigenous rights to natural resources. Contemporary debates about land and carbon tenure arrangement and rent seeking under REDD+ is a manifestation of the green grabbing phenomenon where environmental sustainability concerns are invoked by a group of transnational actors (experts) in order to justify acquisition of land resources for commercial activities in developing countries (Fairhead et al., 2012). In this process, they argued, land ownership, control, access arrangements will be transfigured to serve western vested interests in a manner similar to accumulation by dispossession and neo-colonialism.

#### (d) Benefits Sharing

Tenure (in) security and funding arrangement have direct bearing on how REDD+ benefits are shared. Benefits sharing is determined by the set of rules and governance structures for compensating for ecosystem services provisions in a PES arrangement. Broadly speaking, benefits sharing is embedded under the social dimension of REDD+ safeguards which relates to measures and processes that will protect local communities from being harmed by policy interventions (Moss et al., 2011, Aicher, 2014). Under the UNFCCC's 2010 Cancun Agreement, social and ecological safeguard systems are integral components of REDD+ implementation. Yet, establishing a robust benefit sharing mechanism across different levels that is acceptable to all stakeholders remains one of the challenges of REDD+ governance and implementation. These challenges are centred on the characteristics of beneficiaries (e.g. who is in or who is out); processes of payments (e.g. direct or indirect); temporalities of payments (e.g. advance or performance-based); nature of benefits (e.g. monetary incentives or project interventions) that will ensure equity and legitimacy of projects (Gebara, 2013).

Within the literature, different criteria for selecting beneficiaries were identified by Luttrell et al. (2012). First, beneficiaries must be those stakeholders with legal rights to forests either through customary or statutory claims. This is problematic for most countries because of ill-defined and contested tenure. For example, in a global comparable study of tenure conditions in REDD+ countries, Sunderlin et al. (2014) observed that in all the countries there are problems of formal land titling, restrictions of use by government, and competition among multiple users. This situation makes

land tenure susceptible to revocation. For example, in Cameroun there is uncertainty as to how carbon benefits can be linked to statutory and customary land rights thereby leading to agitations for land reforms in order to secure community rights to carbon credits (Awono et al., 2014).

Second, Luttrell et al. (2012) also suggested that benefits should go to those who are directly affected by the project whether or not they are involved in carbon emission reduction as suggested and practiced in Tanzania. In this arrangement benefits are either allocated based on input or output related parameters which are measured by participation and performance respectively. Each of these pathways has its merits and demerits in terms of payments for actual emissions reduction or compensating for opportunity costs. The choice of performance or participation for benefits sharing depends on agreed financing mechanism for REDD+ as fund based or market based in the future.

Third, benefits could be allocated according to forest stewardship to communities that have a historic record of effective forest management. Luttrell et al. (2012) reported that such arrangements are already in place in Brazil, Tanzania and Peru where indigenous forest communities are given incentives for sustaining forest protection. However, this arrangement does not conform to the additionality requirements of REDD+. Lastly, benefits could be shared amongst all actors involved in effective REDD+ implementation including private land owners, communities, and government agencies as practiced in Papua New Guinea and Tanzania.

Benefit sharing processes for ecosystem services or biodiversity conservation can be direct or indirect (Ferraro and Kiss, 2002). Direct REDD+ payment involves cash disbursement to group of actors with demonstrable conservation efforts as royalties , or indirectly in the form of ecotourism, water quality or improvement of general environmental health (Karsenty et al., 2014, Peskett et al., 2008). However, Kerr et al. (2014) argued that cash payments have varying effects on collective action in a PES setting and alternative payment types are preferred in variety of contexts. These include development projects and conditional land tenure arrangement with people who use land illegally or where weak customary tenure rights exist.

### 2.2.3 Gender and Environmental Governance

Since the 1975 United Nations Decade for Women conference in Mexico, gender issues are increasingly mainstreamed into wide range of policy making and development institutions at local and global levels. Gregson et al. (1997: 53) defined gender as a social construction through which human biological sex – either male or female, is attached with a particular identity that determines how people function within a society. In developing countries' context, Buckingham-Hatfield (2000) argue that women's roles are mostly domestic in nature and they usually comprise of water and firewood collection, food processing and cooking, as well as subsistence agriculture.

For many decades, the environment and development literatures have been paying significant attention to these gendered perspectives. One of most widely reported aspects is about how institutions for local water governance function at community level. For example, Cleaver & Hamada (2010) reported that local and international NGOs working on village water supply in Tanzania are working closely with women in order to increase their participation and representation in decision making. Nonetheless, these village women are often dominated by men and so they find it hard to influence any decision-making process particularly as it relates to the distribution of money and other incentives. Cleaver & Hamada opined that this systematic exclusion of women can be attributed to existing social norms and marriage conventions that regulate their ability to participate or speak up at community meetings. In the same vein, Mandara et al. (2017) also examined how formal and informal institutional structures for women participation in domestic water management in some selected villages in Tanzania. Similar to the findings of Cleaver & Hamada (2010), their results show unequal gendered power relations and tokenistic representation of women that limit their access to formal decision-making spaces. They discovered that such situation originates from cultural stereotypes and patriarchal perceptions of women leadership roles in most traditional African societies. Such stereotypes often limit the ability of married women to contribute to public debates which may result into different forms of social punishments. In some Indian communities, Singh (2006) reported that participation in water governance is determined by membership of stratified caste system that treat the decisions of those in the lower strata as inferior to

others. The author also discovered that some of the women in these communities do not attend meetings because they are represented by their husbands or male children who take decisions on their behalf.

In recent years, there is also growing literatures on the gendered dimensions of climate governance. For example, Makina & Mayo (2016) applied a feminist perspective to emphasize the need for effective participation of women in climate change intervention projects in different countries in sub-Saharan Africa. They argued that the marginalisation of women in climate change decision making in Africa cannot be addressed without tackling the underlying social and political circumstances that gave rise to such situation in the first place. The authors suggested that climate change institutions should be gender sensitive and that policy makers must pay closer attention to institutional arrangements that will ensure balanced environmental benefits and risks to both men and women. In terms of climate change mitigation mechanisms such as REDD+, gender advocates are equally calling for more inclusion of women because they are considered to be both managers of forest resources and more vulnerable group to environmental change (Gurung & Quesada, 2009; Westholm & Arora-Jonsson, 2015). This is because empirical research has demonstrated a widespread marginalisation of women in REDD+ policy making particularly at community levels. For example, similar to the findings of Agarwal (2001) and Mwangi et al. (2011), Brown (2011) reported a low level of engagement of women in forest management and REDD+ policy processes in Central African countries. In this region, the author observed that gender considerations are not even included in the countries' REDD+ readiness proposals. A more recent assessment of early REDD+ implementation initiatives by Center for International Forestry Research (CIFOR) indicate that women are less involved in REDD+ activities than men across all the 20 villages under study (Larson et al., 2015). This study shows that with the exception of 2 sites where low women turnout was observed in Indonesia, women are generally not represented at REDD+ meetings in most of the countries. These findings suggest that gendered dynamics need to be understood and incorporated into formal and informal institutional arrangements for climate change governance in order to address persistent gendered injustices.

#### **2.2.4 Governance and Policy Networks**

Policy making is characterised by diverse interests of multiple actors and the resulting negotiations that take place within policy networks. Hence, policy networks constitute spaces in which state and non-state actors thrive to influence policy processes and outcomes for rational or self-seeking purposes (Brockhaus et al., 2014). In recent years, policy network analysis is increasingly used within environmental governance literature as a structural process for exploring interests, patterns of interactions and power relations between actors across different scales (Nunan, 1998, Mikkelsen, 2006, Brockhaus et al., 2014a).

Within the REDD+ domain, scholars have utilised policy network analysis to examine information exchange, collaborations, disagreements, and exercise of power and agency among policy actors in developing countries. For example, Brockhaus et al., (2014) analysed REDD+ policy networks across Asia and Central Africa countries in order to determine how the projects are designed and governed. Their results identified both weak and powerful actors, and such powerful actors are mainly government agencies that are benefitting from existing governance arrangement. The weak coalitions of actors challenging these powerful actors are voiceless and have not been able to influence any domestic change in the political and economic conditions that drive deforestation and forest degradation in these countries.

In Indonesia, analysis of information networks and power relations also revealed that REDD+ policy processes are shaped by a top-down consultation and information exchange by the project officials (Moeliono et al., 2014). The authors identified 3 clusters of most influential organisations that tend to seek information from one another while maintaining weak connections with actors that have no institutional authority in the REDD+ process. This suggests poor collaborations, unequal power relation and weak information exchange between the REDD+ policy actors in Indonesia.

In Brazil, Gebara et al. (2014) examined how REDD+ policy actors negotiate conflicts, benefits sharing, property rights as well as free, prior and informed consent arrangements. Their results show divergent interests on these issues among the policy

actors and a lopsided information dissemination and effective collaboration among them which may jeopardize a successful REDD+ implementation in the country.

Policy network analysis in Vietnam also revealed similar results. For example, Pham et al. (2014) examined how political structures and different interests of actors determine their level of participation in the REDD+ process in Vietnam. It was discovered that policy outcomes are mostly influenced by the powerful state actors at the expense of non-state actors. Similar situation was also reported in Tanzania (Rantala & Di Gregorio 2014) and Nepal (Bushley, 2014), where a coalition between international NGOs, donor agencies and key government agencies have been exercising more power in the REDD+ policy processes than the civil society and local forest owners. These examples indicate that despite the promise of transparency, accountability and effective participation of all relevant stakeholders in REDD+ readiness proposals, majority of the REDD+ countries have failed to deliver these expected outcomes.

## **PART TWO**

### **2.3 Local Knowledge, Values and Motivations**

In order to embrace complexity, experts and local knowledge about the environment need to be co-produced since all knowledge is partial and incomplete and subject to debates and reinterpretations (Harris, 2007, Berkes, 2009, Jasanoff, 2011). Local knowledge is defined as 'collection of facts and relates to the entire system of concepts, beliefs and perceptions that hold about the work around them. This includes the way people observe and measure their surroundings, how they solve problems and validate new information. It includes the process whereby knowledge is generated, stored, applied and transmitted to others' (Warburton and Martin, 1999, p. 13). Ajzen (1991), Stern et al. (1999) and Howell (2013) argue that pro-environmental behaviour is motivated by values, cultural norms, beliefs and knowledge of environmental processes. In the following section discussions on local knowledge, values and motivation are presented in order to show how REDD+ discourses ignore these critical issues of governance. These issues are found to be context-specific and form some gaps which this study trying to address.

### **2.3.1 Local Knowledge**

Some scholars have argued that the politics of climate change knowledge production have direct relationships with how people choose to perceive environmental changes (Hamilton and Stampone, 2013). Such perceptions could potentially change support for environmental policies and desire to act pro-environmentally in order to minimise impact among local populations (Niles and Mueller, 2016). The literature on climate change perceptions among local peoples in different geographical contexts have produced mixed results. For example, Lewis (2016) observed an irreconcilable difference between local perceptions of climate extremes and scientific causes of such extremes among Australian populations. He argued that while the commonly held perception among them is that climate change extremes exist as natural variability, climatic models attribute causes on anthropogenic global warming. In Ethiopia, Megersa et al. (2014) reported divergent viewpoints among local herders where half of them believed that the frequency of flooding is increasing due to unpredictable weather pattern, and the other half perceived a decrease due to decline in annual precipitation. However, all of them perceived climate change as the main cause of declining livestock populations which is consistent with empirical evidence. Furthermore, perception as a cognitive process of learning, observation and experiences shaping adaptive responses to climate change and associated vulnerabilities also vary among communities (Granderson, 2014). In India for example, local farmers in Uttar Pradesh perceive variabilities in climatic elements of temperature and precipitation as dangerous phenomena but they did not make any deliberate attempt to take adaptive measures. The main reason for this is attributable to their limited knowledge about climate change, educational backgrounds and access to information about coping strategies (Tripathi and Mishra, 2016). In some environments, local knowledge has been effectively applied in both climate change mitigation and adaptation. Nyong et al. (2007) argued that some communities in the African Sahel have been applying local knowledge in reducing greenhouse gas emission and enhancing carbon sequestration through the use of energy efficient sources, afforestation programmes and sustainable agriculture. In Nigeria these findings support earlier works of Adesina et al. (1999) and Osunade (1989) who reported that

communities in southwest region are aware of climate change that is why they engaged in adaptation and mitigation strategies.

### **2.3.2 Environmental Values**

Environmental values are defined by Schultz et al. (2004, p.32) as 'those values that are specifically related to nature or that which have been found to correlate with specific environmental attitude or concern'. The conceptualisation of the term 'value' varies across academic disciplines. For example, in the social sciences values are understood as psychological constructs that occur within individuals which reflect the person's practices, explanations and rational actions. While in physical and natural sciences it refers to qualities or properties of a species or landscape features (Reser and Bentrupperbäumer, 2005). In environmental psychology literature there are different typologies of values. Messick and McClintock (1968) identified 4 categories of values namely: individualistic, competitive, altruistic, and cooperative values. Individualistic value orientation aims to maximize personal benefits without any concern for others. Competitive value orientation describes a preference to one's own benefit relative to that of others. Maximizing the benefits of others instead of self is described as altruistic value orientation. Lastly, cooperative value orientation explains a preference to maximize both outcomes, i.e. benefit of self and that of others.

Williams (1979) and Rohan (2000) stated that values underpin human preferences, moral obligations, needs, desirability and interests in relation to the society which are often found to vary from one cultural group to another. Social and cultural values are also found to be associated with perception of climate change risk and adaptation and mitigation strategies. Adger et al. (2009) draw relationships between governance, communities' values and adaptation to climate change. These authors argued that adaptation measures by individuals, communities and other social groups are a reflection of their deeply held cultural values which in turn determine collective action. It is further argued that such values are so significant that they shape resilience and outcomes of policy interventions. Thus, subjectivities in values pose a limit to human perceptions and responses to climate change by prioritising some practices over others (O'Brien, 2009).

Values subjectivities rooted in local environmental knowledge and perceptions are also significant in ecosystem services governance discourses. The Millennium Ecosystem Assessment report (MEA, 2005) categorised ecosystem services into: provisioning, regulating, supporting and cultural ecosystem system services which contribute to human well-being. These ecosystem services are valued by communities and individuals based on their aesthetic, economic, historic, recreation contributions to human well-being (Raymond et al., 2009) either as separate ecosystem units or as multiple sets on a given landscape (Raudsepp-Hearne et al., 2010). In recent years, mapping and modelling techniques using Geographic Information Systems were developed and applied extensively to measure such variations. Results have shown that these ecosystem services are distributed over large geographical areas and their values vary across time and space (Crossman et al., 2013, Schägner et al., 2013). Hence, a strong case has been made for ecosystem services variability and values subjectivities to be included in conservation policy and decision making (Daily et al., 2009, De Groot et al., 2010).

However, the literature on global environmental governance has paid little attention to subjectivities and plurality of human values (Robinson, 2011). Robinson (2011) argues that governance can be understood as an organizational process by which collective decisions are made in the context of shared societal values. Following this argument, it can be stated that few researchers attempt to examine values and governance simultaneously and how that links to motivation for collective action.

### **2.3.3. Motivation Crowding in Environmental Conservation**

The idea of motivation crowding began with Titmuss (1970) who observed that paying for blood donations have actually reduced supply because the introduction of payment have significantly reduced the number of donors. In psychology, Lepper and Greene (1978) undertook an experiment from which they observed that incentives or external rewards are inversely proportional to intrinsic motivation. These two separate findings were brought together to form the theory of motivation crowding-out effect in economics indicating that monetary incentives reduce rather than increase supply. This was an anomaly to the fundamental economic principle of changing demand and supply in relation to price. Thus, motivation crowding theory was proposed and used to

explain this anomaly by examining the interplay between intrinsic and extrinsic motivation in response to monetary incentives or punishments (Frey and Oberholzer-Gee, 1997, Frey and Jegen, 1999). Using hypothetical examples, these authors argue that money and regulations do not always work in determining human behaviour because outside interventions could lead to desirable and undesirable effects on intrinsic motivation. Crowding-in processes improve intrinsic motivation in response to desirable interventions while crowding-out decreases intrinsic motivation in response to undesirable interventions. (Frey and Oberholzer-Gee, 1997, Frey and Jegen, 1999). Motivation crowding effects take place under some specific conditions that determine crowding-out or crowding-in processes (Frey, 1997). These conditions include: (a) personal relationships, i.e. friendships, family ties, outsiders (b) type of activity, i.e. interesting or not (c) participation, i.e. mutually agreed or imposed (d) uniformity, i.e. fair or discriminatory (e) types of intervention, i.e. punishment or reward (f) condition of rewards, i.e. reward is unconditional or subject to performance (g) nature of regulation, i.e. hard or soft regulation/enforceable or non-enforceable (h) perception of external intervention, i.e. positive or negative.

The theory of motivation crowding is now applied in PES literature to analyse how incentive payments stimulate behaviour towards collective action. More recently, another dimension of motivation crowding effects on environmental conservation was proposed by Neuteleers and Engelen (2015). Neuteleers and Engelen (2015) proposed a set of empirically falsifiable hypotheses that help in understanding how market based ecosystem valuation through talking money (commodification in discourse) could promote or undermine environmental protection. Drawing on insights from value pluralism, environmental ethics and crowding-out theories, these authors argued that mere talking about carbon commodification and valuation could potentially change peoples' attitude toward conservation through different pathways. These authors called for researchers from different academic disciplines to carry out empirical studies to test the following hypothesis:

- (1) Hypothesis 1: 'More commodification in discourse (hypothetical markets, talking money, monetary valuation) leads to more real commodification (real markets, exchanging money, market-based instruments).

- (2) Hypothesis 2: 'Monetary valuation can have framing and crowding effects on those who come in contact with it'.
- (3) Intrinsic motivation is more robust than extrinsic motivation and leads less to free riding'.
- (4) Monetary valuation framing and crowding effects can decrease the demand and support for environmental protection'.

According to d'Adda (2011) intrinsic motivation in relation to biodiversity and ecosystem conservation can be broadly classified into 2, namely: (1) pro-nature (2) pro-social. In each category, there are specific sub-categories of intrinsic motivations that determine peoples' behaviour.

**(1) Pro-nature motivations:** These intrinsic motivations refer to human values that have developed from direct relationships with the natural environment. They relate to instrumental and non-instrumental values of nature as perceived by individuals. For example, benefits from ecosystem services are found to be a strong motivations for conserving nature. García-Amado et al. (2011) and García-Amado et al. (2013) reported that prior to the introduction of a PES scheme in Mexico the people living around the Biosphere reserves practised community-based conservation because their livelihoods depend on the forest ecosystems and river water supply. Fisher (2012) also observed that appreciation of environmental aesthetics and beautiful landscapes were responsible for community participation in community forestry projects in Uganda. In a developed countries context, Chawla (2007) observed that visual appeal is responsible for pro-environmental behaviour because certain landscapes remind people of their childhood experiences. Non-instrumental values also influence motivation. For example, the existence value of nature brings happiness to people and as a result they allegedly become more interested in making sure it's not destroyed (Kolstad et al., 2000, Van Hecken and Bastiaensen, 2010, Fisher, 2012).

**(2) Pro-social motivations:** These are indirect relationships between human and nature because motivation is linked to social interactions among people within a community or place. One of the important pro-social intrinsic motivation is place attachment. Place as a geographic concept is ubiquitous in definition but the most basic one refers to any locations which people have made meaningful as a result of their

day to day activities (Cresswell, 2014). Place attachment therefore means special affective and emotive bonds or linkage between people and specific places and their desire to maintain closeness to them (Low and Altman, 1992, Hidalgo and Hernandez, 2001). However, as a result of conceptual and empirical diversities and overlaps within the literature, closeness to place could be referred to as: community attachment (Kasarda and Janowitz, 1974); sense of community (Sarason, 1974); place attachment (Gerson et al., 1977); place identity (Proshansky, 1978); place dependence (Stokols and Shumaker, 1981); as well as sense of place (Hummon, 1992). Place attachment is a 3-dimensional construct of person, place, and social aspects that can be separate or overlapping (Scannell and Gifford, 2010). The social aspect of place involves friendships, family relationships and other formal and informal interactions which people can get attached within a community (Kasarda and Janowitz, 1974). This is otherwise termed 'sense of community' – a term describing the feeling of affiliation or belonging to a geographically defined area with distinct culture, values and identity (Pretty et al., 2003). Therefore, place attachment and connectedness to nature are found to have direct bearing on motivation for pro-environmental behaviour (Vaske and Kobrin, 2001, Gosling and Williams, 2010). Another pro-social intrinsic motivation is altruism. Here, altruistic concerns involving deliberate actions for the collective welfare of other is an important motivation for pro-environmental behaviour. These are moral values and obligations that are found to transcend immediate personal interests to include a sense of environmental stewardship or environmental citizenship motivations for the greater good of people (Dobson, 2007, Steg and Vlek, 2009, Bramston et al., 2011). It is also argued that posterity matters to some people and so concerns for future generations of humans to equally benefit from nature shape their conservation behaviours or roles in environmental policy making (De-Shalit, 1995). These arguments are supported by the collective action experiments of Narloch et al. (2012) where it was observed that in spite of the introduction of conservation rewards, altruistic intrinsic motivations for nature conservation among the Andean farming communities in Bolivia still shape their compliance behaviours.

Drawing on the classifications of Rode et al. (2015), motivation crowding effects in conservation literature are also expressed through: (1) crowding-in and (2) crowding-out processes. Each of these processes have different sets of mechanisms

**(1) Crowding-in:** Mechanisms under this process are:

- (a) Enhanced internal satisfaction: Enhanced internal satisfaction causes motivation crowding-in because people perceive incentive payments or conservation rewards as an acknowledgement of their pro-environmental behaviour. For example, Van Hecken and Bastiaensen (2010) suggests that farmers' participation in a PES scheme in Nicaragua is a mixture of economic and non-economic considerations. To some of them payments are perceived as recognition of their traditional conservation activities they have been practicing for several years.
- (b) Re-enforced positive attitudes: Reinforced positive attitudes relate to strengthening existing culture as something that is morally and environmental good. Sometimes this psychological process increases trust between communities and regulating institutions. For example, PES payment was found to legitimize the intervention project among the Menabe forest communities in Madagascar which helped in promoting trust between them, the government and implementing NGOs (Sommerville et al., 2010).
- (c) Re-enforcement achieved: reinforcement achieved where non-intrinsically motivated individuals are compelled to comply by incentive payments.
- (d) Prescriptive effects: prescriptive effects where positive or negative incentives introduce externally driven desirable practices that changes local perceptions, norms and values.

**(2) Crowding-out:** Mechanism under this process are:

- (a) Control aversion: Through this mechanism crowding out of intrinsic motivation occurs because individuals enjoy having freedom of choice and therefore don't like being controlled. This is found to be associated with incentive payments or punishment of offenders. Within the context of biodiversity conservation, it was reported that intrinsic motivation was eroded because of the perceptions of external infringement on self-determination among Andean rainforest communities in Bolivia.
- (b) Frustration: crowding-out takes place when individuals feel that incentive payments, regulations or punishments are implemented in an unfair

manner. For example, negative perceptions about previous economic failures crowded-out the intrinsic motivations for participating in ICDP project among communities living around the Le Sepultura Biosphere Reserve in Mexico. In Uganda, Fisher (2012) argued that a “no pay no care” conservation ethic might be practiced by participating communities in the future when payments are not sustained indefinitely, thereby resulting in crowding-out intrinsic motivations. Frustrating feelings of mistrust against officials was also found to be responsible for motivation crowding-out pro-social behaviour among resources communities in rural Mexico (Kerr et al., 2012).

- (c) Reduced internal satisfaction: This happens where individuals no longer feel morally obliged to carry on with conservation in spite of incentive payments or punishments. Frame shifting involves crowding-out due to short term focus on economic benefits in response to incentives as reported by Cardenas et al., (2000).
- (d) Change in values and mind-set: this is a long term crowding-out mechanism as a result of complete change of motivation towards monetary benefits in response to or expectation of incentives as observed in Mexico (García-Amado et al., 2013) and Uganda (Fisher, 2012).

## **PART THREE**

### **2.4 Place: Concept and Approach**

In this section, the concept of place and its research approaches are discussed. It also reviews the literature on the role of place in shaping environmental behaviour as studied by human geographers, and social and environmental psychologists.

The concepts of ‘space’ and ‘place’ are quite distinct and central to geographic inquiries. From a humanistic perspective, the study of space is centred on peoples’ spatial feelings, ideas and experiences through which they sense and know the world around them (Gendlin, 1962, Gendlin, 1997). Lukermann (1964) argued that although it connotes different meanings to different people, place as a geographic location constitutes one of the many units of space with special characteristics of history, experiences and meanings that makes it unique. Thus, place constitutes location,

spatial characteristics and complex entanglements of human social and cultural attributes that merit deeper evaluations (Tuan, 1979). The works of humanistic geographers in the early 1970s brought about a conceptual and philosophical understanding of place as a subjective unit of space with significant meanings beyond just geometrical relationships (Seamon and Sowers, 2008, Hubbard and Kitchin, 2010). Tuan's (2007) dual concepts of *topophilia* (desires) and *topophobia* (fears) related to places developed in his earlier writings were instrumental in shaping such new philosophical understanding. According to Tuan (1979) place has 3 broad meanings, namely: spirit, personality and sense of place. Spirit takes the literal meaning of sacredness attributed to place by people who believe that spirits live there. Personality of place relates to the attributes of astonishment and affection. Sense of place is about how people perceive place meanings of spirit or personality by applying their sense of morality, aesthetics and visualisation to specific places. These attributes collectively or in part contribute to the diverse approaches to the study of place across different disciplines.

In geographic research, the study of place is mostly approached from a phenomenological perspective. This is because phenomenology emphasises more on human intentions, experiences and attributions than on previously assumed scientific knowledge about phenomena (Tuan, 1971). Phenomenology is defined by Von Eckartsberg (1998) as interpretive study of human experiences as they occur in everyday life. The foundations of phenomenology can be traced to the works of German philosopher Edmund Husserl who tried to draw relationships between human experience and consciousness (Farber, 1943). Seamon (2000) posits that the version of Husserl's phenomenology was later known as 'transcendental' because it recognised experience as a spontaneous biological response grounded on speculative assumptions. Later writers such as Merleau-Ponty (1964) and Heidegger (2010) developed another version called 'existential' phenomenology which considered experience as real, perceptible and can be explored using qualitative methods. Thus, the core assumptions of phenomenology is that humans and the world in which they live are closely connected together, experiences are intentionally pursued and should be researched through non-positivist empirical approaches (Seamon, 2000). In this

study, place is approached from Tuan's (1975) 'experiential' perspective of phenomenology to understand environmental perception, attitudes and values. This is relevant because it approaches place as nature, as well as social relations combined in thoughtful and emotional meaning making process (Tuan, 1979, Sack, 1986, Cresswell, 2014).

#### **2.4.1 Place and Emotions**

Recent 'emotional turn' in geography (Anderson and Smith, 2001), has significantly influenced how geographers examine environment-self relationships. This call paved way for a renewed focus on the understanding of people in places and their emotional attachments. Emotional geography is about the relationality and embodiment of emotional experiences at different scales and contexts such as exclusion and oppression, psycho-social bonds, affect, and social identities (Pile, 2010, Davidson et al., 2012). Davidson and co-authors further argue that emotions have also become ways of engaging with the ethical geographies of place through interpretation or reinterpretation of the non-human world. Therefore, place-based emotions are directly related with environmental behaviour. However, the extensive literature on environment-self relations and how they shape environmental behaviour is mixed with various conceptual, methodological and theoretical, and epistemological differences along which diverse approaches are pursued (Devine-Wright and Clayton, 2010). For example, social psychologists, environmental psychologists and human geographers have focus on different dimensions such as place identity, place attachment, sense of place and connectedness to nature in exploring place experiences and pro-environmental behaviour.

Place attachment is considered to be a generic term comprising of several place-people bonding such as place identity, sense of place, and place dependence concepts because emotional feeling are central to each of them (Low and Altman, 1992, Williams and Vaske, 2003). As a result, place attachment has several definitions. For example, Riley (1992, p.5) defined it as 'an affective relationship between people and landscape that goes beyond cognition, preference, or judgement'. Others such as Hidalgo and Hernandez (2001, p.274) defined it as 'affective bond between person and a place, more specifically, a strong tendency of that person to maintain closeness to such a

place'. Raymond et al. (2011) conducted a behaviour experiment to understand the influence of place attachment and moral concerns on nature conservation among rural populations in Australia. They discovered that place attachment and nature bonding have direct relationships with awareness of consequences of action, personal norms and biospheric concerns which collectively influence positive environmental behaviour. They conclude that environment policies such as recreation and restorative projects that emphasise on spending more time with the natural environment will strengthen pro-environmental behaviour among poor rural farmers. Similarly, Devine-Wright (2011) applied place attachment and place related symbolic meanings to understand public acceptance of a renewable energy project in the UK. Results indicate that although there is a general emotional response in support of the project in the two villages, place attachment meanings were quite different. In one of the villages, the most significant place-based meaning relates to economic development while environmental concerns were more prominent among the other villagers. In contrast, Cass and Walker (2009) maintained that the practice of Not In My Back Yard (NIMBYism) in opposition to siting wind farms for renewable energy production in the UK is often emotionally driven. In this case, the authors reported mixed feeling of anger, selfishness, and fear by various stakeholders as the ways in which they express their opposition to wind farm projects across the UK.

Another important dimension of place attachment that shapes pro-environmental behaviour is place dependence. Place dependence describes a sense of place in relation to the characteristics of place and the quality of life it provides compared to other places (Stokols and Shumaker, 1981). In an experiment with rural communities in Australia, Pretty et al. (2003) reported that there was a strong sense of place dependence by some adolescent and adult respondents who were determined to stay in rural towns because of their place identities or negative perceptions of urban life. Other studies have shown that extensive and closer interactions with a place will result in place dependence which will eventually improve sense of place identity (Moore and Graefe, 1994, Halpenny, 2010).

Place identity is also relevant in environmental research because our sense of responsibilities determines the way we perceive or personalise global issues or other

issues closer to our immediate localities (Clayton, 2003). Clayton (2003) argued that from climate change concerns to managing common resources, human relationship with the natural environment is not just rational but emotional and our actions reflect how we feel about them. Scholars have written about different forms of environmentally related identities such as 'ecological identity' referring to 'the ways people construe themselves in relationship to the earth' (Thomashow, 1996, p.3). Weigert (1997, p. 159) termed it 'environmental identity' which can be defined as 'experienced social understandings of who we are in relation to, and how we interact with, the natural environment as other'. Place identity defined as 'a component of personal identity, a process by which, through interaction with places, people describe themselves in terms of belonging to a specific place' (Hernández et al., 2007). The main difference between environmental and place identities is the geographical scale of analysis that which describes non-territorial and more specific and localised experiences respectively (Devine-Wright and Clayton, 2010). Peoples' emotional bonds and experiences in the natural environment are found to be directly associated with their sense of place identity (Proshansky, 1978, Manzo, 2003). For example, Hinds and Sparks (2008) conducted experiments with some participants' to elicit their behavioural intentions towards the natural environment using a Likert scale questionnaire. Their results show that participants who came from rural areas have more emotional connection to the natural environment and show more positive attitudes than those from urban areas. This is because measures of childhood location and environmental identity are stronger among those who grew up in rural areas. Van der Werff et al. (2013) argued that strengthening environmental self-identity will help promote environmental protection because people will be willing to participate even without any incentives. This is because environmental identity reflects on peoples' moral obligations and other forms of intrinsic motivations for pro-environmental behaviour. In terms of engaging in climate change adaptation and mitigation, Feitelson (1991) and Devine-Wright (2013) argued that place attachment consideration is necessary. They both argued that emphasis on emotional bond with the global and local environment will motivate human care and sense of responsibility towards its protection. Agyeman et al. (2009) also opined that climate change research will benefit greatly if people's emotional attachment to places are considered alongside other

ecological, technical and financial justifications. Similarly, Adger et al. (2011) stressed that climate change policy and decision making often ignore 'non-instrumental' and 'non-market' aspects of place and environmental identities. These calls have received little attention in the REDD+ literature thus far.

## **PART FOUR**

### **2.5 Theoretical Background**

This section discusses the theoretical approach for this study. It starts with the discussion of mainstream institutionalism and how it has influenced natural resources management policies. It also identifies its weaknesses in achieving desired policy objectives. Critical institutionalism is discussed as an alternative lens through which governance institutions can be examined and how relevant it is for this study.

#### **2.5.1 Mainstream Institutionalism**

The literature on institutions for natural resources governance is influenced by two main theoretical paradigms. First, the mainstream institutionalism which is underpinned by rational choice assumptions about human behaviour in a common pool resource dilemma situation. Common pool resources such as grazing land, fishing waters, irrigation systems and forests are shared or may be shared among different users but over consumption of the resources by some will make it difficult for others to achieve maximum utility (Holcombe, 1997). The classical foundations of this thought, which was highly criticised by later writers, can be traced to the works of Olson and Hardin. In the mid-1960s, Olson (1965) published his work on the logic of collective action in which he expanded the free rider hypothesis put forward by John Stuart Mill about two centuries ago. His argument was that rational and self-interested individuals within a group will not probably act together in pursuit of a collective interest unless there is a large amount of common pool resources to cater for relatively small population or they are compelled to do so. The logic was that in this situation greater number of people who cannot be excluded from the resources will be willing to benefit without contributing to its management. Hardin (1968) popularised this argument in a slightly different way in his famous metaphoric article titled: 'Tragedy of the Commons', in which he proposed how common pool resources should be effectively

governed. He argued that common pool resources are susceptible to degradation by multiple users because they will normally act rationally by exploiting the resources for maximum personal benefits. He also claimed that this process will continue until regulations are externally imposed through transfer of resource ownership and control to the government or private investors. Hardin's school of thought implies that common pool resources can only be governed in a top-down autocratic fashion by powerful social structures. Such assumption became the central tenet for justifying policy centralisation and privatisation of the commons (Leathers, 2008).

Elinor Ostrom's classic book titled 'Governing the Commons' (Elinor, 1990) became an important turning point in the commons literature. In this book, Ostrom proffered an institutional approach to governing the commons in an attempt to understand how individuals behave in a common pool resources situation beyond the theoretical predictions of Olson and Hardin. She argued that the main challenge remains the ability of policy scientists to develop theories that could explain different aspects of human organization. Those theories, she argued, must entail policy processes and prescriptions that will capture a situation where individuals voluntarily organise themselves based on agreed rules that will guide collective action. In this way, opportunistic behaviours can be monitored, checked, sanctioned and eventually discouraged by sets of institutional arrangements. Since institutions are rules governing the behaviour of a society which usually develop in response to incentives, policy choices and strategies (North, 1990), Ostrom argued that institutions can be deliberately crafted and manipulated to achieve the desired outcome in a common pool dilemma setting (Ostrom, 1990, Ostrom, 2009). As a result, she proposed a set of 8 rules called the 'design principles' to guide the crafting of long lasting CPR institutions. These principles were mainly derived from observations and documentations of long enduring irrigation systems and the multi-layered institutions within which they function. However, she maintained that these are theoretical speculations that when carefully crafted and applied in practice could create the necessary conditions for robust institutions to thrive. In fact, they are diagnostic tools that could serve as the basis for understanding why institutions for managing natural

resources – especially in the irrigation sector – have failed to work sustainably and how they can be reformed (Ostrom, 1992).

Following this pioneering work and its theoretical assumptions, much empirical work has been done over the last decades to test its applicability in other real-world situations. For example, Morrow and Hull (1996) applied the design principles in understanding donor-initiated institutions for forest management in Peru. The authors found that only a few of the 8 design principles were directly relevant in explaining the institutional arrangement of the Yanasha Forestry Cooperative. The authors uphold the idea that external efforts are needed to help local people fashion out enduring resources governance institutions rather than introducing externally crafted systems. Using an example of forest user groups in Nepal, Varughese and Ostrom (2001) argued that such heterogeneity can be overcome by a good institutional design that will create better rules and provide incentives that will shape collective action.

Nonetheless, some mainstream institutionalists began to question the effectiveness of design principles in accounting for complex social-ecological systems. For example, Acheson (2006) opined that such principles often fail because context-specific variables are not usually considered by both centralised and decentralised governance institutions. Similarly, Chhotray (2007) argued that the community participatory programme that was designed to conserve natural resources and foster community livelihoods in India has failed to deliver the expected outcomes because it ignored local political processes that exist among vested interests and other stakeholders which is causing conflicts. In a systematic review of design principles for CBNRM across different resource types, Cox et al. (2010) also observed that Ostrom's design principles are incomplete, because they assume a fairly localised system of homogeneous groups, and the existence of actors who make rational decisions, failed to consider historical circumstances, and have an overly prescriptive approach to rule making. In an extensive analysis of the successes of forest governance arrangements in India, Agrawal and Chhatre (2006) identified context-specific variations in the variable considered for the study. They concluded that a universal theory for governing the commons is impossible as a result of such contextual variations. In Malawi, external developers designed a one-size-fits-all institutions for water management in the central region of Kusungu. It was

argued that these institutions have failed because they did not capture existing conflicts among the local communities and other important biophysical variables of water management (Skjølsvold, 2010). More recently, Saunders (2014) suggested that the CPR design principles also assume an overly simplified picture of embedded local norms and how they relate with other processes across multiple scales in an attempt to tie human rational behaviour to incentives or lack of them. However, in spite of the inherent problems of mainstream institutionalism and the calls for reviewing its approach, its basic assumptions about institutional crafting and top-down implementation remains the same (Clever, 2012).

In the forestry sector, Ostrom's work has helped in introducing the idea that the state, communities or markets if rightly instituted can effectively guide governance and behaviour of stakeholders (Art and Visseren-Hamdkers, 2012). The shift from government to governance means that the role of state in managing natural resources is expected to be shared. In this new arrangement, governance is mostly carried out by networks of actors and new institutions including partnerships between private and public actors at local and global levels (Visseren-Hamakers and Glasbergen, 2007). Forest governance in many countries takes the forms of decentralization, participatory and the use of market-based incentive mechanisms due to several social, economic and political driving forces (Agrawal et al., 2008). It is argued that decentralization involves changing administrative functions on resources management away from central governments to local communities without necessarily devolving control or power to these communities (Fisher, 2000). Following global pressure and the activities of social movement groups, participatory forest management initiatives were introduced aimed at granting temporary or permanent forest ownerships to local communities in a co-management arrangement. Therefore decentralized institutions are created in developing countries and shaped by global forest discourses and norms in attempts to enhance effectiveness and legitimacy (Arts et al., 2012). It is evident that mainstream institutionalism foregrounded in Ostrom's foundational work has significantly informed global and local institutions for natural resources governance in the last decades.

### 2.5.2 Critical Institutionalism

Scholarly criticisms surrounding the mainstream approaches led to the emergence of a relatively new school of thought that is broadly referred to as 'post-institutionalism' (Mehta et al., 2001) or more commonly referred to as 'critical Institutionalism' (Clever, 2012). This body of thought questions the rational choice assumptions about individuals' decision-making by emphasizing the complex entanglements of social, economic and historical processes that take place across multiple scales within formal and informal institutional arrangements that often lead to uncertain outcomes. In terms of characteristics, bureaucratic institutions are formal institutions or organisational structures that are introduced by external agents such as representatives of governments, NGOs or development agencies. These include government policies, legislations, development plans and newly forms rules for mediating resource abstraction, access and distribution. On the other hand, socially embedded institutions are defined as those that are mostly informal and are founded on cultural norms and traditional practices that form routine everyday lives of communities such as kinship, gender and power relations (Clever, 2002, Nunan et al., 2015). Furthermore, Clever (2012) argued that there are no clear cut boundaries between rules and other social structures that is why resource management outcomes are unpredictable because they are often shaped by issues such as power relations between actors and other deeply embedded social processes. This approach therefore rejects the notion of a linear relationship between crafted rules and governance outcomes by emphasising complexity of institutions. Thus, critical institutionalists consider institutions as multipurpose, socially embedded, historically contingent which are all pieced together through bricolage practices (De Koning and Benneker, 2012). Such bricolage practices shape the way resource benefits are allocated and access are negotiated or contested among multiple actors (Nunan et al., 2015). Bricolage opposes a Universalist approach to designed institutions by looking at underlying processes of practice and how agency is exercised and challenged by bricoleurs (local actors).

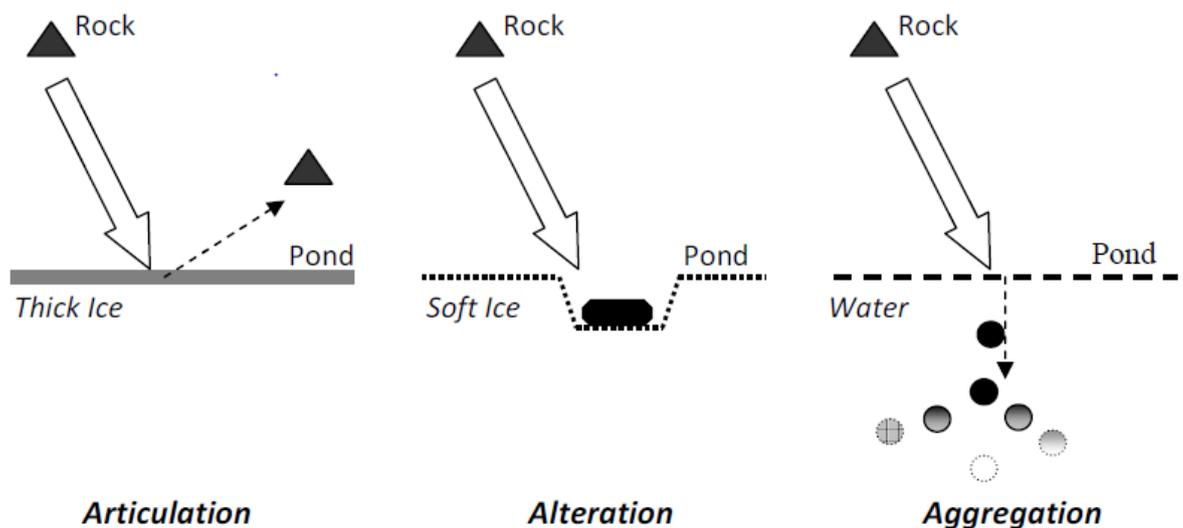
Institutional bricolage was coined from Levis Strauss' original concept of 'intellectual bricolage' developed by Douglas (1987) as a way of understanding how institutions think. This concept was later introduced into the natural resources governance

literature by Frances Cleaver in her seminal work with resource communities in Usangu, Tanzania, (see Cleaver, 2001). Bricolage is a French word which describes how actors can make creative use of materials and situations at their disposal to piece together existing relationships, meanings, rules, and norms into new arrangements that could be entirely different from old ones. It is an adaptive way of consciously or unconsciously re-negotiating, relabelling, and reconfiguring old institutions to serve new functions (De Koning and Cleaver, 2012, Hall et al., 2014, Cleaver and De Koning, 2015). According to De Koning and Cleaver (2012), bricolage is composed of 4 main elements:

- (1) Innovation and improvisation of everyday practice through adaptation of old practices into new ones.
- (2) Formation of multipurpose institutions to serve several functions through leakage of meaning and reinvention of old traditions to exercise agency.
- (3) Emotional and moral rationalities by piecing together conscious and unconscious social practices.
- (4) Power relationships between local and state actors in challenging bureaucratic institutions or negotiating ownership and access.

De Koning (2011) developed the 'rock and pond' metaphor as a way of explaining how bricolage practices work in shaping institutions at the community level. As illustrated in figure 2.1 De Koning (2011) argued that when a rock – representing a bureaucratic institution, is thrown in a pond – representing existing socially embedded institutions, 3 possible scenarios would likely occur. First, the rock will enter the pond and get completely dissolved. This process is called 'aggregation'. Aggregation means that there is a correlation between bureaucratic and socially embedded institutions that allows traditions, social norms, and expectancies to be recombined into new meanings and purposes. Second, the rock will hit the pond which is now behaving like ice and make an indentation on it. The rock stays on the ice surface and remains like a partially melted oil-like film. This process is called 'alteration'. Alteration processes are translated as adaptation to new circumstances, reinventing traditions or improvising new ways of social relationships without entirely changing the old ones. In this way, daily practices continued under certain agreed conditions. Third, the rock will bounce

off as if it come in contact with ice and move in a different direction without penetrating the water. This process is called 'articulation', meaning that communities are resisting bureaucratic institutions because they are conflicting with old traditions and perceived right ways of doing things. Articulation can sometimes lead to peaceful resistance or violent conflicts between local communities and resource managers coming from the outside.



Source: De Koning (2011)

Figure 2.1 Rock and Pond Metaphor for Institutional Bricolage Practices

The concept of institutional bricolage has been applied empirically to examine the behaviour of resource dependent communities in response to introduced institutions. These analyses are centred on power relations between actors, plurality of institutions as well as emotional and moral rationalities in different geographic contexts and resource types. For example, (Cleaver, 2001) reported that various elements of bricolage were drawn upon by local resources users in the Usangu Basin in Tanzania in resolving water governance conflicts rather than through formal institutions designed to perform such functions. Upton (2009) also documented how herders twisted and tinkered traditions, customary and property rights through reinterpretation of old rules and existing norms to fit changing circumstance in Mongolia. Using examples of community forestry from Bolivia and Ecuador, De Koning and Cleaver (2012) show how communities responded through bricolage practices of aggregation, alteration, and

articulation rather than the expected compliance with formal institutional arrangements. In some of the case studies leakage of meanings attached to social processes occur through the bricolage practices. More recently, Nunan et al. (2015) draw insights from institutional bricolage to analyse power and gendered dimensions of fisheries co-management institutions in East Africa. They observed how bricolage practices used in piecing together socially embedded and bureaucratic institutions have significantly influenced governance outcomes through negotiating access and decision-making powers between local fisherfolk and state authorities. The authors argued that through these practices, wives of boat owners and other powerful stakeholders were granted preferential access to fishing waters in the region.

Moral considerations and emotional underpinnings also determine peoples' social relationships and compliance with, or rejection of, institutions (Cleaver and De Koning, 2015). This is because emotions and moral rationalities also shape how resource management institutions work and how they are shaped by existing social norms and customary rules. In Zimbabwe's Nkayi District, for example, Cleaver (2000) observed that abstraction of river water is determined by moral rules that regulate water access to the users according to seasonality, participation in management and traditional claims to the resource in a stratified manner. In this case, ownership is also determined by recognised contribution in water management, a rule that mainly favoured those users who are living closer to the water source. In terms of emotions, Page (2005) also reported that local women in Cameroun expressed their anger and frustrations at the government's decision to commodify tap water supply through naked demonstrations.

## **2.6 Conclusion**

While the literature has extensively dealt with conceptual and theoretical approaches to environmental governance and policy making, several gaps have been identified. There are many other environmental and climate governance issues that remain relatively unexplored with respect to the implementation of REDD+ projects. These include the evolution of REDD+ governance architecture and how various actors are shaping the process of implementation at local and national levels (Corbera and Schroeder, 2011). Other gaps identified by Bluffstone et al. (2013) include how REDD+ implementation in community-controlled or managed forests or low income countries

could destabilise already existing governance systems at the local level. There is little understanding about how REDD+ can be designed to enable effective transfer of benefits to the local people who have controlled forests for centuries without harming their successful community forestry arrangements and other socially embedded systems. There is also dearth of empirical research about the conditions, preferences, and processes of contract negotiations with local communities at the preparatory stages of REDD+ projects (Agrawal et al., 2011, Bluffstone et al., 2013). There is also the issue of governing Free, Prior and Informed Consent (FPIC) as a way of promoting social equity among indigenous resource people. With the exception of a few relatively recent works, (Mahanty and McDermott, 2013, Lawlor et al., 2013, Edwards et al., 2012, Howell, 2015, Pham et al., 2015), the principle of FPIC as a meaningful process of community participation in the context of REDD+ has received limited attention by researchers, and no work has yet paid explicit attention to FPIC governance in a West African context. As previously stated, focus on West Africa is particularly relevant because of its patchworks of governance arrangements that are rooted in the region's colonial and post-colonial histories as well as socially embedded norms and values.

In addition, current institutional practice of environmental governance is critiqued as top-down universalist approach where uniform policy prescriptions are applied in different contexts (Acheson, 2006, Behagel and van der Arend, 2012). Thus, global policy articulations involving expert-dominated ideas are increasingly difficult to translate into positive outcomes on the ground (Cleaver, 2012, De Koning and Cleaver, 2012). This is partly because of the skewed way in which the politics of environmental knowledge is being pursued in international fora that tend to create unbalanced power relations among actors (Campbell et al., 2014). Instead of serving as spaces where global and local knowledges can be co-produced and transformed into workable policy, environmental governance conventions such as United Nations Conventions on Biological Diversity have transformed into opportunities for advancing new ways of appropriating resources by transnational actors (Corson and MacDonald, 2012). As a result, some scholars have argued that projects such as REDD+ and PES schemes were created for the purpose of grabbing lands under the guise of environmental protection (Fairhead et al., 2012, Büscher et al., 2014). There are also fears about the possibility of

state governments in forest rich countries to recentralising forest governance under the REDD+ regime (Phelps et al., 2010b). This is because most of the tropical forest nations where projects are implemented are located in regions with insecure and contested tenure rights (Naughton-Treves and Wendland, 2014). Such power dynamics are also transferred to local levels where projects are being implemented with an increasing dominance of states and transnational actors at the detriment of local forest communities. Thus, REDD+ policy is pursued through a Universalist perspective where the one-size-fits-all mechanism is expected to work in different contexts. Global conferences and conventions serve as spaces where science and technology knowledge is being politically translated by Western interest groups to legitimise policy making and resources appropriation without consideration to local contexts. That is why critical issues of participation, FPIC, property rights, benefits sharing and community preferences remain persistent and unresolved in almost all the REDD+ countries thus far. Local knowledge about forest practices, subjective environmental values and embedded social norms are hardly incorporated into policy making.

Furthermore, within the context of REDD+ governance, the dynamics of motivations for environmental protection in response to monetary incentives and existing intrinsic motivation among forest communities remain poorly understood. The role of place attachment in shaping climate change mitigation and adaptation as well as compliance with nature conservation policies remain scanty within the literature. Therefore, power relationships, place-based values and motivations are assumed to be static, or at best, considered as variables that can be manipulated to achieve the desired objectives.

This thesis has approach these issues from a critical institutional perspective. Critical institutional approach will be useful to examine complexities in natural resources management arrangements and how institutional crafting inherent in REDD+ result in unexpected outcomes. Understanding how forest communities' responses to REDD+ introduction and implementation are shaped through bricolage practices will reveal deeper insights into how and why introduced forest governance institutions do not always work on the ground as expected. It will illuminate how attention to bricolage practices will enable local people to exercise their agency in the REDD+ policy processes. This thesis aims to fill these gaps using the Nigerian REDD+ project being

implemented in community managed forests in Cross River State, Nigeria. Figure 2.2 below shows the framework for the study.

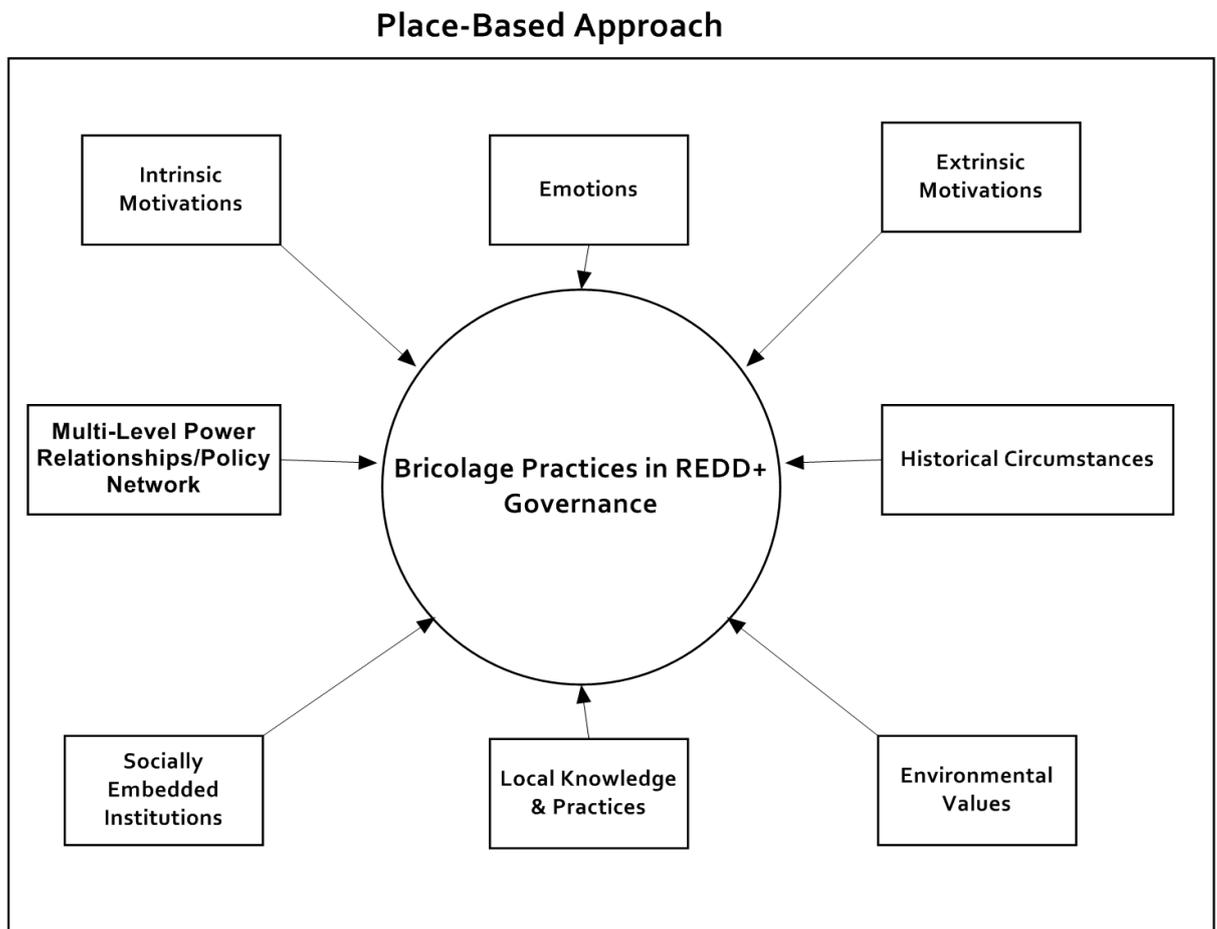


Figure 2.2 Framework for the study

## Chapter Three – Research Methodology

### 3.1 Introduction

This chapter provides details of the research paradigm and mixed methodological approach adopted for this study. As explained in this chapter, the application of mixed methods here involves the use of both qualitative and quantitative methods for data collection and analysis pertaining to forest governance, REDD+ implementation and motivations for nature conservation among indigenous forest communities in Cross River State, Nigeria. As shown in figure 3.1, the methods are divided into 2 main groups namely: (a) qualitative and (b) quantitative. Section 3.3 explains the different aspects of qualitative data, specifically how these data sets were obtained and analysed. Section 3.4 discusses the details of quantitative social network analysis as used in the analysis of policy networks within the context of REDD+ governance in Nigeria. Section 3.5 presents general overview of Q methodology as a discourse analytic method for studying human perceptions and subjectivity. In this section, a detailed description and explanation of Q-methodology, its processes, and analytic techniques are provided. Section 3.6 presents reflexivity and positionality issues while summary and conclusions are presented in Section 3.7.

### 3.2 Research Design

This study adopts a mixed method approach involving both quantitative and qualitative methodologies. Research inquiries using mixed methods are designed to gain deeper insights into particular problems that would otherwise provide an incomplete understanding if a single method was used (Creswell, 2013). Qualitative methods are often preferred in framing research projects that require deep insights into discursive constructions and explanations about the phenomenon under study (Flowerdew and Martin, 2005). On the other hand, quantitative methods involving mathematical and statistical techniques are used when researchers are more interested in exploring causal relations through formulation and testing of hypothesis. Mixing quantitative and qualitative approaches is considered as a distinctive methodology and a third paradigm for conducting social science research (Denscombe, 2008, Greene, 2008). This approach is grounded within the pragmatic research epistemology – the philosophical understanding upon which this study was designed. Drawing on the works of Joas

(1993), Morgan (2007), and Teddlie and Tashakkori (2009), a pragmatic approach becomes significant for this study because it narrows the boundaries between objective and subjective knowledges by employing the process of abductive reasoning which allows for theories and observations to be cross-analysed. Creswell (2013) summarised the philosophical basis for a pragmatic research approach in a mixed method research as follows:

1. The choice of both qualitative and quantitative methods rather than committing to a single philosophical system.
2. Ability of a researcher to freely adopt methods that best fit the purpose of the study.
3. Separating empirical discoveries from preconceived ideas of the researcher by drawing from many different sources.
4. Fitting a particular research problem within its social, political, and historical contexts and the need to find a suitable set of methods that could capture this plurality.

It is important to note that applying a mixed method approach doesn't imply triangulation, and triangulation shouldn't be confused with pragmatism (Fielding, 2009). The difference between these terms means that while pragmatism employs plurality of paradigms, triangulation involves the application of multiple methodologies within a single paradigm in order to gain richer information and to expose distinct but related aspects of a phenomenon under investigation (Fielding, 2009, Denzin and Lincoln, 2011). Therefore, the aim of mixed methods in this study is not to improve reliability and validity of the datasets since these measures are mostly related to a positivist paradigm. In essence, this design was structured to collect a range of different types of evidence that could be used to achieve the research aims and specific objectives. However, it is useful to note that applying mixed methods has its own disadvantages. This include reinforcing unnecessary dichotomy between qualitative and quantitative methodologies, that could generate unintended bias towards positivist research approaches (Gorard, 2007, Symonds & Gorard, 2008). Symonds & Gorard (2008, p: 15) further maintained that as a third research paradigm 'mixed method is dead' because researchers often claim to use several methods without actually mixing them, and that the weaknesses inherent in each approach are

only concealed not overcome. In this study, the researcher is aware of these criticisms and have not considered mixed method as a separate research paradigm but rather as a way of strengthening the analytical rigour in order to achieve better results. Figure 3.1 shows the methodological framework used for the study.

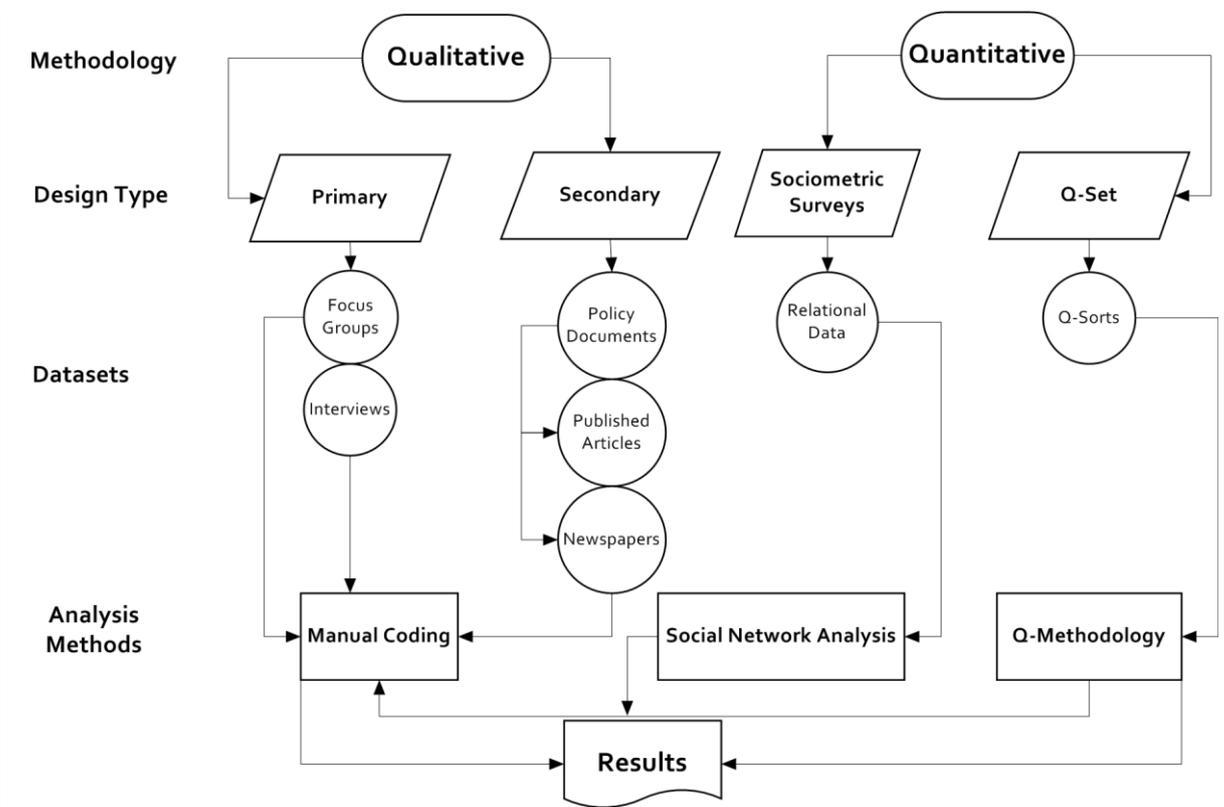


Figure 3.1 Methodological framework for data collection and analysis

As shown in Figure 3.1, the qualitative methodology draws from both primary and secondary sources. The primary data were collected through focus group discussions with local communities within the study areas, personal interviews with some key actors in the REDD+ process in Nigeria as well as direct observations at community meetings and workshops in Calabar and Abuja. Secondary data for the study were collected from published literature, policy documents on REDD+ and forestry in Nigeria, as well as online newspaper articles in order to keep track of recent developments. These datasets were analysed using manual coding procedures. Quantitative data were collected using sociometric questionnaires to obtain relational information about actors' relationships within the policy network. This information was analysed using a social network analysis tool called *NodeXL (Pro version)*. Q methodology analysis constitutes another quantitative aspect of this study because

Principal Component Analysis with varimax rotation was used to statistically analyse the Q-sorts using *PQMethod* software. Q methodology is appropriate for this study because it is a hybrid method that consists of both qualitative and quantitative ways of studying human perception and subjective opinions about any subject matter. Collectively, these datasets produced the results or themes upon which the analytic chapters are structured and written. Each of these methodological processes will be discussed in detail in subsequent sections. Table 3.1 below operationalises the aims and objectives in relation to the specific methods used in the study in order to justify the suitability of a mixed method approach.

Table 3.1 Relationships between research aims and methods used

Research Aims	Analytic Methods
Aim one: To examine how place-based motivations for forest conservation, emotions and values affect forest governance. This involves identifying the subjective discourses about forest values, mechanisms of intrinsic motivation and motivation crowding effects in the REDD+ process.	Qualitative and quantitative e.g. manual coding of transcripts, Q methodology
Aim two: To explore the politics of design and implementation of REDD+ in Nigeria. This will be achieved by examining historical circumstances, power relations and stakeholder participation in the REDD+ process.	Qualitative and quantitative e.g. manual coding of transcripts, social network analysis
Aim three: To identify and examine the social and institutional structures interacting with bureaucratic institutions and how they are shaping forest governance in the REDD+ communities.	Qualitative e.g. manual coding

Designing a research project involves the delineation of study area(s) in which the problems under study can be adequately examined. Given (2008) described a study site as a location where research is undertaken which may include institutions, places, or communities of varying spatial characteristics. This study was conducted mainly in Cross River State, Nigeria where the REDD+ readiness project is being implemented. The state became a REDD+ readiness site because it contains more than 50 per cent of the remaining tropical high forests in Nigeria (details of the study area are discussed in chapter 4) in addition to favourable political circumstances. During the course of this study, three phases of field work were carried out in Cross River State as follows:

(a) In November 2013, a 3-week pilot study was carried out in Calabar, Cross River State and one of the Mangrove communities in order to determine the actual status of REDD+ implementation in Nigeria and to test some of the proposed methodologies.

(b) A 6-month field work from February to July 2014 was then carried out in 2014 to collect relevant data for the study. During this period interviews, surveys, and focus group discussions were done with different stakeholder groups in Calabar and some selected forest communities. Even though the REDD+ project is being implemented in three forest clusters namely: Afi/Mbe, Ekuri, and the Mangrove communities, visiting all the sites for data collection was not possible. This is because at the preparatory stages of this extensive field work the Foreign and Commonwealth Office (FCO) issued travel guidelines which restricted all travels to the riverine areas of Cross River State. So, all the data collection for this study was done within Afi/Mbe and Ekuri forest communities since these areas are located in the hinterland. Within the Ekuri cluster, Old and New Ekuri, Okokori, and Iko-Esai communities were selected while Buanchor and Kanyang II were sampled from the Afi/Mbe cluster. A purposive sampling technique was used to select these communities based on the size of forests under their control, history of community forestry activities, knowledge of REDD+, and engagement with conservation NGOs.

(c) A final field work was also conducted for a period of four weeks (14<sup>th</sup> November to 13<sup>th</sup> December, 2014) to collect data on perceptions of forest values and motivations for engaging in forest conservation among REDD+ pilot communities for the Q methodology analysis.

Figure 3.2 is a map of Cross River State showing the local government areas where the forest communities are located.

**Map of Nigeria showing Cross River State.**

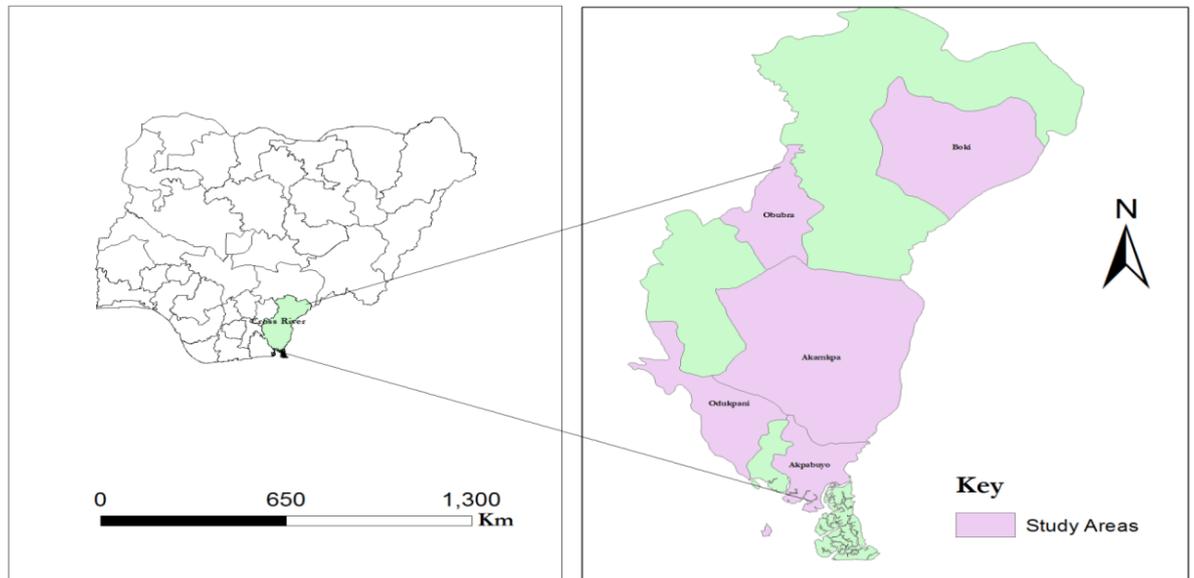


Figure 3.2 Cross River State showing study area

### **3.3 Qualitative Analysis**

Within human geography, conducting research requires an in-depth exploration of people's experiences and perceptions about phenomena within a particular geographical context. This therefore requires the use of intensive ways of data collection which allow for power relations, geographical patterns, socially embedded meanings and processes to be examined in great detail. Several qualitative methods such as semi-structured interviews, participant observation, visual methodologies, and focus groups were used by the researcher to collect intensive data from usually a small number of participants (Clifford et al., 2010). In this study, focus groups and semi-structured interviews, and participant observation were used to collect primary data from selected respondents. As a result of the cultural stereotypes within the communities that perpetuate loop-sided gendered relations in Nigeria, this study was not designed to collect separate data on women involvement in forest governance. In

order to overcome this, the researcher decided to demand for women representation in all the interviews, focus groups and Q sort exercises. Most often than not, the researcher has made several attempts to encourage women to speak up during the processes of data collection. The following sub-sections describe these processes.

### **3.3.1 Focus Groups**

Focus groups discussion is a process of conducting interviews with several respondents at the same time in order to obtain information or data about a certain issue. This data collection method is used because of its ability to provide a wide range of responses, reduce researcher bias, and help to tease out responses that could easily be overlooked during personal interviews (Dawson, 2002). DeLyser et al. (2009) argued that focus groups are useful for reconstructing knowledges and reworking the relationships between theory, data and analytical methods. In geographic research, focus groups are very efficient method for gathering data about politically sensitive issues and discourses pertaining to everyday social practices (Cameron, 2005), which fit the description of this study.

A total of eight intensive focus groups were carried out with four different forest communities that were earmarked for REDD+ in Cross River State. Within the Ekuri cluster, Okokori, and New Ekuri were purposefully sampled, while Kanyang II and Buanchor were selected in the Afi/Mbe forest cluster using the same sampling procedure. These communities were identified based on their historic conservation practices, experiences with NGOs, as well as the size of their forest cover. Participants were recruited through the local chiefs and various representatives of the communities' social groups were assembled by their chiefs at the chiefs' residences or community gathering points. In some communities like New Ekuri the villagers came in unusually large number (see plate 3.1). This large turnout in New Ekuri is a reflection of their degree of social cohesion and the interest in REDD+ and other forest related activities among community members. In spite of the large number of participants, their responses were coordinated systematically based on their social hierarchy i.e. the chiefs spoke first, followed by the elders, and other community members. In Okokori, the researcher had no difficulty in moderation because fewer than 10 participants

participated in the focus group and there was a fairly balanced representation of women, youths and the elders.

The focus group processes explored views and concerns of the participants about their history, local forest management institutions and governance, and land tenure systems. Questions about their livelihoods, expected benefits, and the perceived impacts of REDD+ on communities' ways of life were also asked. Community motivation for forest conservation and the potential dynamics that could occur as a result of introducing REDD+ was also discussed (see table 3.2). The language of communication was English and all the participants were able contribute to the discussions. All the responses were audio recorded using an mp3 recorder obtained from the Department of Geography University of Leicester.



Plate 3.1 Focus group discussions in New Ekuri showing the large attendance. The Village chief is wearing his traditional red cap.

The social groups that participated comprised of youths, women, hunters, community leaders, religious, and traditional representatives. In Ekuri for example, the women contribute little to the discussions in spite of their presence at the meetings. In the end, all the women said that they are happy with other people's responses and so they do not have anything to add. In Okokori a similar absence of gender representation was observed (see plate 3.2). In contrast, however, communities in Kanyang II and Buanchor were more gender balanced. For example, in Kanyang II, the wife of a local pastor represented the community women and she contributed immensely in the deliberations as agreed by the chiefs. Discussions with Buanchor and Kanyang II participants were longer and more emotional than in previous communities because during the focus groups they discussed their disturbing experiences with the Forestry Commission, the management of Pandrillus NGO, and the Anti-Deforestation Task Force. In Kanyang II the discussions could not be done in one sitting because the process started very late, and so the remaining discussions were completed early in the morning before the participants went to their farms.



Plate 3.2 Focus group discussion in Okokori community.

Table 3.2 Example of themes and questions used for interviews and focus groups

Themes	Example of Questions
1. Forest Policies and Laws	<p>Q1. Does Nigeria have a national forest policy or laws?</p> <p>Q2. How do you think these polices/laws have addressed the main drivers of deforestation in Cross River State?</p>
2. Land Tenure and Rights	<p>Q1. Who owns forests in Nigeria/Cross River State and how is such tenure determined?</p> <p>Q2. Is there any conflict between formal and informal forest rights?</p>
3. Financial Incentives and Benefits Sharing	<p>Q1. How are benefits from forests distributed prior to REDD+?</p> <p>Q2. To what extent could such sharing arrangement be sustained or changed under REDD+?</p>
4. Stakeholder Participation	<p>Q1. Who are the key stakeholders in REDD+ and what are their degrees of engagement?</p> <p>Q2. Was Free, Prior, and Informed Consent sought from communities at any stage of the REDD+ process?</p>
5. Law Enforcement and Compliance	<p>Q1. How are forests protected by the government and what is the level of stakeholders' compliance?</p> <p>Q2. In what ways do forest management conflicts are resolved?</p>
6. REDD+ Impacts on Community Livelihoods	<p>Q1. In what ways will REDD+ affect community dependence on forests for livelihoods?</p> <p>Q2. What are the ways to ameliorate such impacts?</p>
7. Motivations for Forest Conservation	<p>Q1. Why do you think the forests should be protected?</p> <p>Q2. To what extent can you make sacrifices to protect the natural environment?</p>

Strong social cohesion was observed throughout the focus except in Buanchor. In Buanchor, the elders have very little influence on the youths, particularly those youths who also have some kind of chieftaincy titles. The younger chiefs are more aggressive and relate more with the youth groups than the elders and on many occasions, they had disagreements over certain issues. At the early stages of the focus groups, the youth leader refused to allow the meeting to take place unless monetary payments were made in exchange for their participation. It was later discovered that the problem is attributed to an alleged greed by the community elders in terms of sharing of conservation benefits which created mistrust between the youths and the elders. This lack of cooperation was later resolved by my field assistant who is also a chief in Ekuri community by explaining to them that I was only a research student. In this community, the discussions were rowdy and the researcher had some difficulties with moderation and concentration. The group met twice each time taking more than one hour to complete. Having to deal with both fractured and cohesive community groups did not affect the overall research findings. However, more time was taken dealing with fractured groups before getting them to speak about their experiences and viewpoints.

### **3.3.2 Interviews**

Eyles and Smith (1988) described an interview as a purposeful conversation organised by a researcher. It is usually an unstructured or semi-structured conversation that explores the interests and experiences of the interviewees in their own words in ways that cannot be possible using a questionnaire (Flowerdew and Martin, 2005). Gillham (2005) also added that interviews could be structured whenever a researcher decides to ask open ended questions and to listen to responses in the form of verbal observations. However, semi-structured interviews constitute a mix of close and open-ended questions according to the importance of the themes and nature of the respondents. In this study, a total of twenty respondents were interviewed during the first and second phases of data collection. These respondents were sampled in a stratified manner to represent some of the key stakeholder groups in the Nigerian REDD+ program (see table 3.3).

Table 3.3 Category of stakeholders and sampled respondents interviewed

<b>Stakeholder Category</b>	<b>Sampled Respondents</b>
1. REDD+ Officials	Stakeholder Engagement Officer for the UN-REDD+ program
2. Anti-Deforestation Task Force (ATF)	(a) ATF Chairman & Founder of Pandrillus NGO (b) ATF Operations Manager
3. NGOs	(a) Director at Wildlife Conservation Society (WCS) Calabar (b) Friends of the Earth Nigeria staff (c) Director at CERCOPAN, Calabar (d) Zonal Coordinator at National Conservation Foundation, Calabar
4. International Donors and Technical Partners	(a) UNDP official and UN-REDD Regional Advisor (b) FAO representative and MRV Specialist
5. Federal Government of Nigeria	National REDD+ Coordinator and Director Federal Department of Forestry, Abuja
6. Cross River State	(a) State Coordinator for REDD+ and Chairman Cross River State Forestry Commission, Calabar (b) Board Member, Cross River State Forestry Commission, Calabar
7. Academia	Lecturer at Department of Forestry and Wildlife Management, University of Calabar
8. Community-based Organisations	(a) Coordinator Ekuri Initiative (b) Former Coordinator Ekuri Initiative (c) Former Accountant Ekuri Initiative

Source: Fieldwork, 2014

The location of the interviews varied according to the respondents. For example, the local community representatives were interviewed at the community gathering places or at the

local chief's residences that often serve as their palaces. The REDD+ officials and head of NGOs were interviewed at their respective offices in Calabar and Abuja. Similar to the focus groups, interview questions at the community level also covered the thematic issues about forest governance, participation and representation, community livelihoods, benefits expectation and sharing arrangements, land tenure, and motivations for forest conservation (see table 3.2). However, the interview questions for the officials and the NGOs specifically covered forestry policies, legal and institutional frameworks for REDD+, stakeholder engagement, and enforcement of forestry laws. The interview process usually began by providing a brief introduction by the researcher, the aims and objectives of the study and seeking informed consent (participants' consent is discussed in section 3.6). The questions were organised in a structured manner according to the themes described above. Sometimes the interviews became unstructured especially if the respondents were willing to talk more about their experiences that relate to the issues concerned. This could be explained by the fact that REDD+ is a contemporary forest governance topic in Cross River State and most of the respondents were willing to discuss it. In those situations, the researcher allowed the discussion to extend beyond the initially agreed time which was normally between 20 to 60 minutes per respondent. All the interviews were conducted in English language and were audio recorded.

### **3.3.3 Secondary Data Sources**

Secondary data constitute another important source of information for geographic research. These data are already collected by someone else and perhaps for a different purpose other than which the researcher is planning to use them. It is argued that secondary data are useful because they are relatively cheap and easy to obtain, some of which are of good quality because they are already published or processed, and provide contextual materials for the study. On the other hand, they can be problematic by being inflexible, could be from questionable sources or of questionable quality, and might not fit the researcher's primary objectives (Flowerdew and Martin, 2005).

Variety of secondary data were collected for this study and the researcher was fully aware of their reliability and potential bias. For example, state and federal government publications about REDD+ policy in Nigeria, forestry policies and laws, as well as other technical reports published by international agencies such as the UNDP and UNREDD+ program were used as

sources of data. Some of this information is freely available on the internet while other data were provided by the authorities involved upon personal request during the field work. As a result of potential bias in those documents, the researcher had to critically analyse their content in relation to the empirical data obtained from primary sources as a way of validation.

Information from academic literature was also used as secondary data for this study and is considered reliable since they passed through a peer review process. This type of secondary data was mostly used in generating some of the statements for Q methodology analysis, and such will be discussed in detail under section 3.5.

### **3.3.4 Data Analysis**

The recorded interviews and focus groups were transferred to a personal computer by the researcher as mp3 files. These files were loaded in specialised software called *Express Scribe* for transcription. *Express Scribe* is a free source software that enables a researcher to load audio recordings, play them according to a suitable speed, and transcribe the information into a word document. This is an iterative process of playing, pausing, and stopping the audio recordings until all responses were fully understood and written word by word. In this study, the focus groups and interviews transcripts as well as secondary data were analysed using qualitative manual coding. A code as defined by Saldaña (2015) is a succinct semantic description given to a segment of qualitative data sets by a researcher during the analysis stages. Coding is a systematic process through which data sets are organised and categorised based on shared or related meanings for the purpose of identifying hidden patterns.

Drawing on the suggestions of Saldaña (2015) the researcher manually coded the qualitative data through two main coding cycles by using coloured pens and highlighters. The first cycle involves descriptive coding where words are assigned to a sentence in order to summarize and describe its content. Attribute coding of mostly interview and focus group transcripts was also done by the researcher to assign demographic characteristics, date, time, gender composition and other contextual information to the data. These codes come from the researcher's field notes and personal observations during the field work, and they are invaluable for further analysis and interpretation. This process is very useful in qualitative analysis because it helps in attaching unique attributes to the different data sets which could

be used for exploring inter-relationships and categorisation (Lofland and Lofland, 2006). For example, the researcher assigned alphabets to the respondents as a form of attribute codes according to the order in which their responses were transcribed. Pseudo-names were used to refer to individuals whose names were directly mentioned in a controversy in conformity with research ethics. In addition, in vivo coding was used by the researcher to label a segment of the transcripts or secondary materials with words or phrases that were directly used by the participant in their own language. Usually, the researcher writes these in vivo codes in quotation marks to differentiate them with the researcher-generated codes as suggested by Miles et al. (2013). In vivo codes were very useful in identifying and generating themes during the second cycle stage.

Second cycle coding was done as an advanced analytic process for re-organizing and categorizing the data into concepts and themes. This was done by grouping similar or related codes together thereby condensing the number of codes that were initially generated in the first cycle. These themes constitute the skeleton upon which the analysis chapters were written and interpreted. Throughout these analysis chapters, direct quotations from the respondents were used quite extensively to provide empirical evidence in support of the researcher's arguments and claims.

### **3.4 Social Network Analysis**

Pham et al. (2014) suggested that a combination of social network analysis and other qualitative data sets are usually used to perform policy network analysis. In this study social networks analysis as broadly applied within natural resources management was adopted because it follows a social relational approach which treats actors and their interactions as collective social structures rather than isolated individuals or organic wholes (Bodin and Prell, 2011). This approach becomes convenient for the study because it can easily be integrated with other theoretical frameworks which often makes it more robust and valuable for the study of natural resources governance (Bodin and Prell, 2011). The social relational approach used for this study considers social networks as structurally explicit ways of quantifying and interpreting the structural characteristics of actors' relationships and how they determine resource governance outcomes.

### 3.4.1 Data Collection

Social networks involve actors or institutions and the social relations linking them together, and such information could be obtained at ego-centric or complete-network levels. Ego-level data is collected from an individual actor and his/her personal associations with other actors. In other words, an ego<sup>4</sup> network is focused primarily on a single actor and the direct relationships with associated alters<sup>5</sup> (Bodin and Prell, 2011). On the other hand, complete-network data capture the relationships among several actors within a bounded social group which comprises of ego-centric information for each of the actors.

One of the first steps in collecting data for a complete-network is to define the target population as well as to determine the appropriate sampling frame through a process called *boundary specification* (Carolan, 2013). Drawing on Carolan's strategies for boundary specification classification, the researcher used the positional approach to complete-network data collection for this study. This approach is suitable because it allows for data collection from a population or groups that share some common attributes. For this study, these attributes include interests, and a direct and/or indirect role, and influence in the Nigerian REDD+ readiness project. In addition, a positional approach enables the collection of relational information from all actors including those with little or no direct connectivity. The researcher found this to be an advantage since social network analysis is rendered as a tool for examining power relations among REDD+ actors, and so density, strength, absence or presence of connectivity between them might reveal something very interesting for this study. Hence, the boundary within which the actors were sampled for this study was delineated by the above-mentioned attributes with regards to the Nigerian REDD+ program.

The initial samples were drawn through archival secondary sources such as the UN-REDD programme country report for Nigeria and from other technical documents published by the federal government of Nigeria and Cross River State as suggested by Valente, (2010). However, additional actors were subsequently added based on their nomination by other actors who indicated the existence of active or potential relationships between them. The researcher is aware that different statistical sampling procedures such as simple random sampling, snowballing, and probabilistic sampling could also be used in social network

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<sup>4</sup> Ego is a focal or central actor within a network

<sup>5</sup> Alter is an actor whom the ego or central actor is connected within a network

analysis. However, none of these fit the design of this study because the population is not too large, and all the actors were easily accessible. Through this process 36 actors were sampled across seven different institutional groups (see table 6.1 in chapter 6).

Sociometric questionnaires were used for collecting relational and attribute data from the selected samples. These are data collection instruments that require each actor to indicate their relationship with a set of possible alters listed. Providing a list of possible alters in the questionnaire is useful because it helps the respondents to identify their relationships with each of them instead of relying on their recall abilities (Marsden, 2011). Doing this therefore helps to minimize errors and uncertainties in the data. As shown in appendix 1 these relational responses were recorded as:

- (a) Binary measurement of relationship e.g. yes/no or direct/indirect etc.
- (b) Description of the nature of relationship e.g. regulatory, supervisory, financial, supportive, advisory, or collaborative.
- (c) Frequency of relationship or contact e.g. high, moderate or low.
- (d) Nomination of key individuals/institutions involved.
- (e) Specific roles of these individuals/institutions.

The questionnaire also collected some attribute information about the respondents such as:

- (a) Name of organisation.
- (b) Length of time in the organisation.
- (c) Position/status.
- (d) Specific duties/ responsibilities/ mandates.

Since the respondents were relatively few and the researcher has assisted with filling the questionnaires, there was no missing data reported in this study.

### **3.4.2 Data Analysis**

As noted previously, the social network data was analysed using an open source software called *NodeXL*. This software was created by Social Media Research Foundation as a social network analysis template that is compatible with Microsoft Excel program. Unlike the

*NodeXL Basic* version which is totally free and has limited capabilities, the *NodeXL Pro* cost a token amount of money for the student license but allows for more complex and advance data entry, calculations of graph metric parameters such as degree, betweenness centrality, closeness centrality, eigenvector centrality, and graph density. The researcher is aware that other software such as *UCINET*, *Payek*, and *Gephi* are the most commonly used tools for analysing social networks and visualization within the published literature. However, these were not used because they are either too complex (e.g., *Payek* and *Gephi*) or expensive to purchase (e.g. *UCINET*). Therefore, a fairly easy to use and cheap *NodeXL Pro* was purchased and used by the researcher for this study. The analysis began by loading the data sets into the software as a simple matrix of rows and columns representing the respondents and their corresponding alters. The data sets were structured into an edge-list<sup>6</sup> rather than a node-list<sup>7</sup> format as a data management procedure that will enable the software to read and analyse the data. Different colours were used to denote strengths in relationship and the size of a node represents the calculated degree or betweenness centrality values of an actor. These data are analysed in chapter five. Figure 3.3 shows the diagrammatic illustration of the social analysis network analysis process for the study.

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<sup>6</sup> Edge-list data management format shows both tie/connection as well as other attribute information such as strength and duration of relationships.

<sup>7</sup> Node-list data management format shows only a binary relationship between the respondents and their alters arranged as rows and columns. It indicates the presence or absence of a tie or connection between actors within the network.

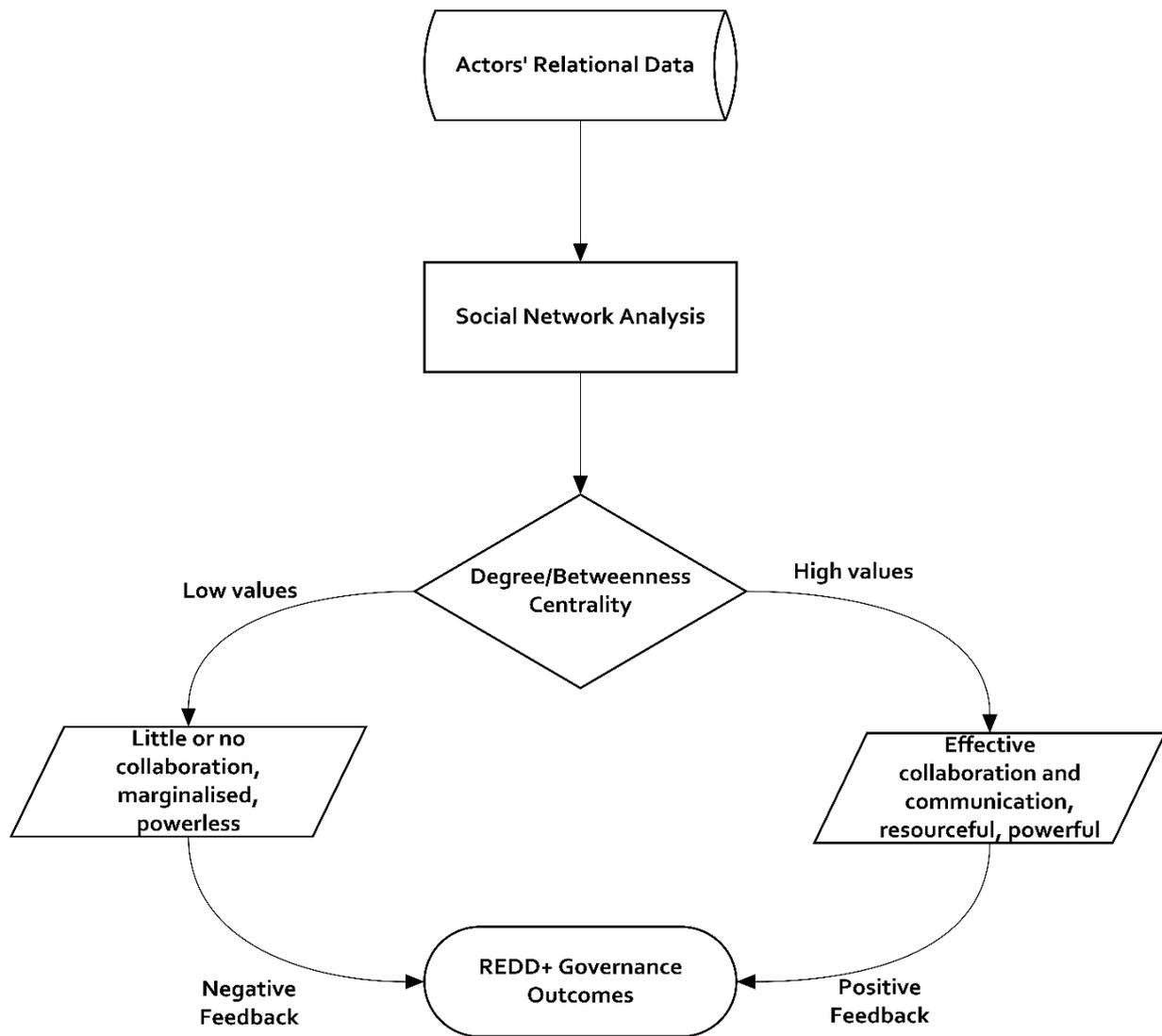


Figure 3.3 Flowchart for the Social Network Analysis Processes

Degree centrality and betweenness centrality are often the most useful parameters for examining power relationships between actors in the REDD+ policy network. High degree centrality of actors could be used to explain governance outcomes because it is an indicator of their influence in the decision-making processes. Therefore, the data was analysed based on these two key social network parameters. Bodin and Prell (2011) defined degree centrality as the number of an actor's immediate connections within the network and it's measured without any consideration for the directions of the connection i.e. whether it is directed towards the actor (in-degree) or away from it (out-degree). Capturing fine details of in-degree or out-degree centralities is reported in some policy networks analysis within the context of REDD+ by some researchers. However, in this study the sociometric questionnaire was designed to capture connections between the actors without having to consider the

directions of the connectivity. This is because for this study the directions of connectivity are less important than the existence of relationships, nature of such relationships, as well as frequency of contact between actors which will suffice to examine power relations within the REDD+ policy network. Hence, an undirected network was considered by assuming reciprocal relationships whenever an actor indicated ties with other actors as suggested by Gebara et al. (2014). It is important to note that the information obtained through the questionnaires was complemented with other qualitative data sources in the analysis and that provided more details about the nature of the relationships. Doing so is consistent with the performative approach of Marshall and Staeheli (2015) that network analysis in human geography is not an end in itself – conceptually and methodologically, but as a process that produces a space for research if used in combination with other qualitative approaches.

Accordingly, the analysis of policy networks in environmental governance without differentiating between in-degree and out-degree was also reported by several other researchers such as Bodin and Prell (2011) and Pham et al. (2014b). Therefore, the choice remains at the discretion of the researcher and it's mostly determined by the aims and objective of the study.

Similarly, betweenness centrality is another parameter used in this study. It is important because it calculates the number of times an actor is situated within the shortest path between any two actors. This therefore, measures the extent to which the actors could actively or potentially control the flow of information and resources within the network (Burt, 2004, Knoke and Yang, 2008).

Results of the analysis are displayed in both tabular and graphical formats. The table appears in the vertex spreadsheet and it contains all the graph metric information such as clustering coefficient, eigenvector centrality, closeness, degree, and betweenness centrality values. Data visualization is enabled in the *NodeXL Pro's* graph layout window which allows for the manipulation of the network layout. Several options for the data layout is provided in *NodeXL Pro* using a series of clustering algorithms. So, the researcher selected the *Fruchterman-Reingold* as the most suitable layout to visualise the data better because it doesn't allow for tight clustering of the nodes (actors). These results were used exclusively in chapter 6 to examine power relations among the REDD+ policy actors in Nigeria.

### **3.5 Q-Methodology**

This section describes the relevance of Q methodology in environmental research and why it is adopted for this study bearing in mind its strengths and weaknesses. It shows the step by step analytical procedures undertaken from the design stage, data collection and statistical procedures used. This section also shows how I adapted Q methodology to suit the context within which it is applied by the researcher.

#### **3.5.2 Relevance of Q Methodology**

In addition to other numerous multi-disciplinary applications, Q methodology is increasingly becoming invaluable in environmental social science research because it helps in identifying different and shared social perspectives among selected participants about an issue. Apart from revealing social perspectives, Webler et al. (2009) argued that Q methodology can broadly be termed as a *discourse* analytical technique that can be utilised to explore and map patterns of subjectivity that are often embedded within environmental discourses and preferences which cannot be easily achieved using simple qualitative methods. Hence, Q methodology practitioners often regard the approach as a scientific study of subjectivity as embodied by the International Society for the Scientific Study of Subjectivity (ISSSS). In his classical book, Steven Brown – one of the founders of ISSSS and a prominent expert in Q methodology whose PhD work was supervised by William Stephenson - also made a similar claim that Q methodology is mostly concerned with the structure and forms of subjective opinions that can be studied in an empirical manner (Brown, 1980). Since discourses are basically subjective ways of seeing or talking about the real world, they could be entirely or partly shared, debated, contested, or conflicting, and Q methodology is an important tool that can effectively illuminate such understandings (Barry and Proops, 1999).

Q methodology is equally gaining prominence among geographers, albeit very slowly, as an important research method in human geography. This can be attributed to the paradigm shift in geography following the cultural turn towards the use of qualitative rather than quantitative approaches in the 1980s. However, early attempts can be traced back to the work of Robbins and Krueger (2000) who laid the foundations by examining the suitability of applying Q methodology in human geographic research. They argued that despite the seemingly naïve epistemological claim about its total elimination of researcher bias by the proponents of Q methodology, it is an effective technique that is appropriate for human

geographic research because it significantly reduces the power relations between the researcher and research subjects by incorporating a more democratic research approach. For this study, the researcher is therefore aware of the critical arguments raised by Robbins and Krueger (2000) and even more controversial standpoints of Kampen and Tamás (2014) critiquing the applicability of Q methodology as an unbiased research technique as shown in Table 3.4.

Following this foundational work, Eden et al. (2005) offered a more empirically grounded critical and reflexive application of Q methodology in human geography. Eden and co-authors argued that Q methodology as a hybrid of qualitative and quantitative approaches should be rendered as a supplementary method to other existing methods, and the researcher should apply it creatively with full cognizance of its limitations. In this light, some geographers have already started using the methodology in their research. For example, Dasgupta and Vira (2005) applied Q methodology to map stakeholders perceptions in the participatory forest management in India. Others used it to examine plurality of environmental values and perceptions of markets among conservation professionals (Sandbrook et al., 2011, Sandbrook et al., 2013). In this study, Q methodology was carefully and creatively applied to examine the perceptions of forest values and motivations for nature conservation (see chapter 5) not only for the purpose of triangulation but also as a novel way of understanding the complex motivation crowding effects among participants in a highly systematic way. Being aware of the limitations of Q methodology, the researcher did not attempt to generalise its findings to the rest of the study population but rather rendered such findings as the participants' own perceptions that could have broad implications for REDD+ governance and institutional bricolage practices (see chapters 6 and 7 respectively).

Table 3.4 Strengths and weaknesses of Q-methodology

<b>Strengths</b>	<b>Weaknesses (Critiques)</b>
Popularly used in the scientific study of human subjectivity.	Bias is impossible to eliminate because of the theoretical assumptions embedded in the research process through data collection, sorting and interpretation of results.
It eliminates researcher's bias; i.e. reduces interference by the researcher.	It doesn't increase the critical reflexivity of the researcher by placing more emphasis on the participants.
Contributes to a more democratic research design and implementation.	The method is intensive and time consuming.
It allows for an empirical-contextual research into interpretive study of subjective values, meanings and opinions (otherwise non-measurable).	Results cannot be easily generalised because information is place specific.

Table 3.4 continued

Empirically verifiable and repeatable.	No clear procedure for generating a complete concourse.
Ontologically the method assumes that subjectivity is observable through human behaviour.	Procedure for generating sample size from a given population is unspecific and subjective.
It integrates both qualitative and quantitative approaches.	Analysis software is designed to artificially create clustering of views and it handles only a limited number of samples.
Research outcomes are shared with the respondents which might help resolve conflicts or solve a particular problem (increase validity).	No clear procedure of integrating interviews during the Q sort process into analysis and interpretation.
Relatively small sample size is required to generate statistically valid results.	Theoretical validity claims of the Q method are over rated due to the inherent problems in both qualitative and quantitative methods.
It is particularly suitable for contested and conflicting debates around environmental issues.	Ways in which subjective representation of views emerge are not clearly stated.

Source: Author, 2016

Lastly, the growing interest of geographers towards the application of Q methodology cannot be over emphasised. For example, during the 2016 American Association of Geographers (AAG) Annual Meeting in San Francisco, a session was dedicated to the

application of Q methodology in geography. This session brought together geographers and other related disciplines who are interested in applying the methodology to discuss its benefits and limitations in contemporary geographical research. This study is clearly a step in that direction.

Having introduced the origins and justification for the application of Q methodology in the study, the following sections will describe the various stages through which the method was applied. These followed 5 main stages as shown in figure 3.4: (1) establishing the concourse (2) development of Q sample (3) selection of study participants (4) the Q-sort process, and (5) statistical analysis and interpretation of results.

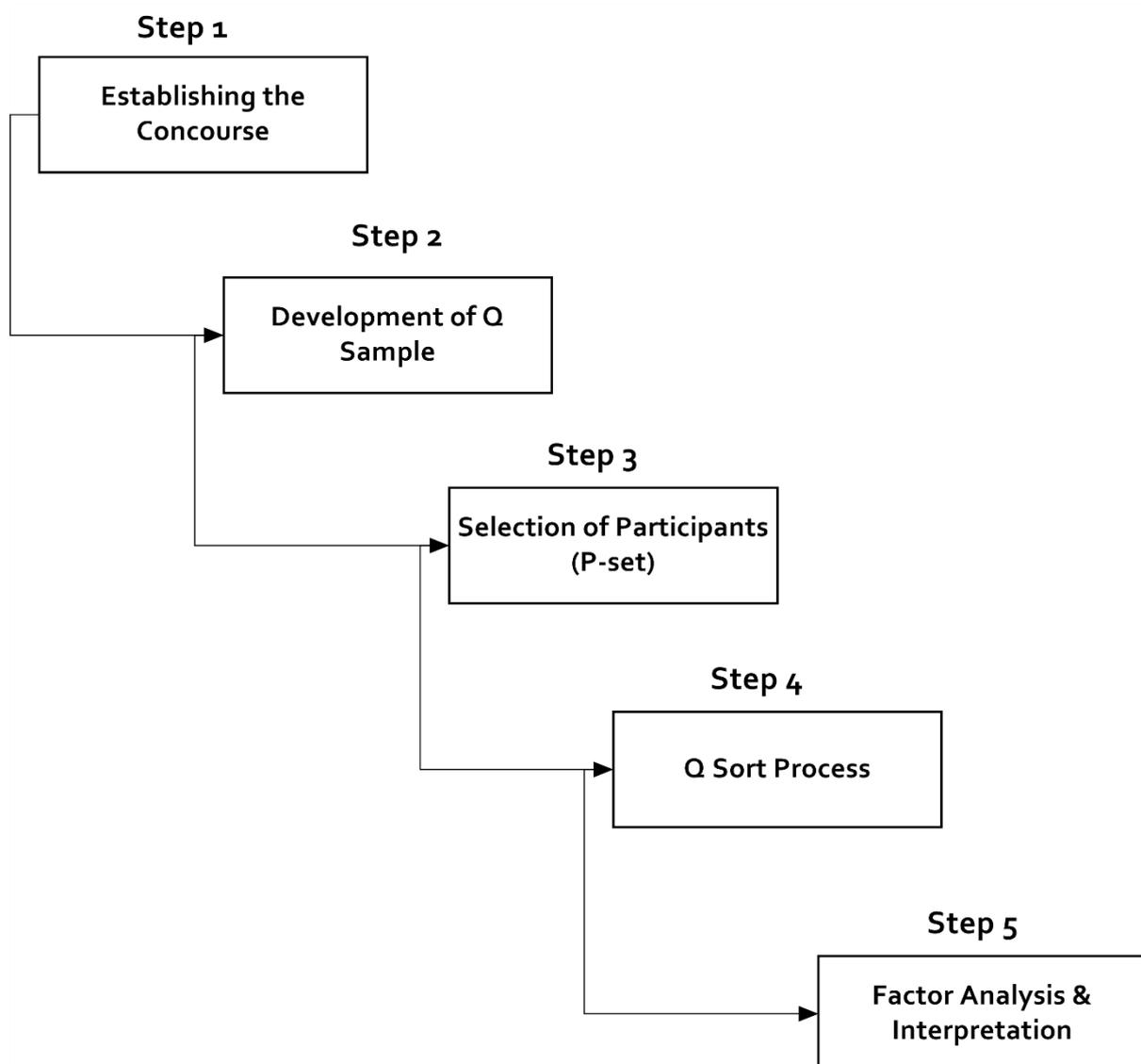


Figure 3.4 Steps in conducting Q methodology research

### 3.5.3 Establishing the Concourse

As mentioned in the previous sections, Q methodology is designed to cover a range of subjective perceptions or shared discourses about particular topic(s) of interest to the researcher. For this study, the topics broadly covered include: forest values, motivations for forest conservation, REDD+ governance, relationships between local communities and state forestry officials, incentives, impacts of conservation on community livelihoods, place attachment and identity, human-nature relationships, and community participation in REDD+ and other conservation activities. Statements from these topics constitute the concourse for the Q study. Concourse is a technical term in Q studies which refers to conversations, comments and discourses of everyday lives of people around any topic (Brown, 1993). According to Brown's (1993) concourse theory, the word *concourse* was derived from a Latin word *concursum*, meaning things running together, which in this case relate to how different opinions and ideas run together on people's minds. A concourse serves as the population from which a sample of statements or items can be drawn for the administration of a Q-sort. It is important to mention that a concourse may not only consist of statements but also objects, pictures or even images which can be obtained from various sources such as interviews, published literature, newspapers, magazines, direct observations, social media or any other literary sources (Van Exel and De Graaf, 2005, Watts and Stenner, 2012). For this study, the researcher obtained these statements (concourse) from a series of interviews and focus group discussions carried out to collect perceptions and opinions about these topics from various community groups in the study areas as shown in table 3.5 below. The interviews and FGDs were transcribed, coded and the statements for each theme were identified. The concourse also consists of statements derived from standardized scales commonly used in environmental and conservation psychology literature to elicit pro-environmental attitudes and behaviour, values and value orientations. Some of the items in these standardized Likert scales were modified to suit the purpose of the study while some were found to be irrelevant and so were not used.

Table 3.5 Themes used for the Concourse Development

1. Forest values and value orientations
2. Incentives and benefits/motivations
3. REDD+ governance and participation
4. Place identity and attachment
5. Connectedness to nature
6. Impacts of conservation on community livelihoods
7. Environmental attitudes/behaviour

Source: Author, 2016

### 3.5.4 Development of Q-set (sampling)

Through the concourse development process almost 100 statements related to the different discourses shown in table 3.6 were identified which were found to be too large for any efficient sorting exercise (McKeown and Thomas, 1988). A Q-set is required to be drawn from the concourse as representative samples and which often consist of 40-50 statements on average (Van Exel and De Graaf, 2005). However, it is important to note that there is no single correct way of generating a Q-sample/set as long as balance and representativeness requirements are fulfilled (Watts and Stenner, 2012). The process could be driven by emergent themes, experimental designs or theoretically driven objectives the researcher has already set up (Stephenson, 1952). Various Q methodologists argued that this sample must not contain a fixed number but rather could be higher or lower than the recommended average of 40-50 as long as the researcher thinks it is sufficient to provide the representativeness that is required.

The researcher identified 54 statements that are structured into 5 different themes as shown in Table 3.6. Each of these themes contain roughly 10 statements derived from both interview transcripts and Likert scale items in order to maintain balance representativeness in the Q-set. As suggested by Watts and Stenner (2012) these statements were selected based on the researcher's initial ideas, and personal experiences during the field visits. Also, the wordings are kept simple, clear and positively written to enable easy understanding by the participants.

Table 3.6 Thematic categorization of the Q-set statements (Q sample)

Statements	Themes/categories	Sources <sup>8</sup>
I often feel joy looking at the forest	Connectedness to Nature	Adapted from Perkins (2010)
I often feel close to the forest and its species	Connectedness to Nature	Adapted from Gosling and Williams (2010)
My own welfare is linked to the survival of the forests and its species	Connectedness to Nature	Adapted from Mayer and Frantz (2004)
Humans are above all other living things, so they are created to serve us	Connectedness to Nature	Adapted from Dunlap et al. (2000)
I feel spiritually bonded to the forest, its species and surrounding landscape	Connectedness to Nature	Adapted from Perkins (2010)
My right to exist on earth is more important than that of trees and animals in the forest	Connectedness to Nature	Adapted from Mayer and Frantz (2004)
Spending time in the forest takes my worries away and that makes me feel happy	Connectedness to Nature	Adapted from Perkins (2010)
I need to have as much forest around me as possible	Connectedness to Nature	Adapted from Perkins (2010)
I feel deep love for the forest its surroundings	Connectedness to Nature	Adapted from Perkins (2010)

<sup>8</sup> Most of the adapted items represent slightly modified versions of the original items as they appear in the literatures for easy comprehension purposes and to fit the context within which they are used for this study.

Table 3.6 continued.

I have deep understanding of how my activities affect the forests and other living things living there	Connectedness to Nature	Adapted from Mayer and Frantz (2004)
I feel like the forest and its biodiversity have become a part of me	Place Identity/Attachment	Adapted from Williams and Roggenbuck (1989)
Doing my activities in this community is more important to me than doing them in any other place	Place Identity/Attachment	Adapted from Williams and Roggenbuck (1989)
I cannot substitute this community with any other place on earth	Place Identity/Attachment	Adapted from Williams and Roggenbuck (1989)
I live in this community because my family is here	Place Identity/Attachment	Adapted from Raymond et al. (2010)
My relationship with the extended family in this community is very special to me	Place Identity/Attachment	Adapted from Raymond et al. (2010)
Without my close relationship with family in this community I would probably move somewhere else	Place Identity/Attachment	Adapted from Raymond et al. (2010)

Table 3.6 continued

Belonging to volunteer groups for conservation in this community is very important to me	Place Identity/Attachment	Adapted from Raymond et al. (2010)
The friendships I developed by doing various community activities strongly connect me to this place	Place Identity/Attachment	Adapted from Raymond et al. (2010)
Living around the forest says a lot about who I am	Place Identity/Attachment	Adapted from Raymond et al. (2010)
The community forest, the reserves and its surroundings are very special to me	Place Identity/Attachment	Interview transcripts
Even if I am tired of living here I don't have any place to go	Place Identity/Attachment	Interview transcripts
I have contributed money or time to an environmental or wildlife conservation group	Environmental Behaviour	Adapted from Dutcher et al. (2007)
I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment	Environmental Behaviour	Adapted from Dutcher et al. (2007)
I have contacted a government agency to get information or complain about forest degradation/ destruction	Environmental Behaviour/Activism	Adapted from Dutcher et al. (2007)

Table 3.6 continued

I have attended a public hearing or meeting about forest management	Environmental Behaviour/Participation	Adapted from Dutcher et al. (2007)/ Interview transcripts
I have stopped buying wood from loggers or animals killed illegally from the forest	Environmental Behaviour	Interview transcripts
I was engaged in tree planting exercise to improve the quality of the forest	Environmental Behaviour/Participation	Interview transcripts
It bothers me that people are running out of wood resources for construction just because of conservation	Environmental Behaviour/Egocentric	Interview transcripts
If I get extra income I would donate some money to an environmental organisation	Environmental Behaviour/Activism	Interview transcripts
I would like to join and actively participate in an environmentalist group	Environmental Behaviour/Activism	Interview transcripts
I often encourage others that environmental conservation is important	Environmental Behaviour/Activism	Interview transcripts
I don't think the problem of deforestation is as bad as many people make it to be	Environmental Behaviour/Apathy	Adapted from Dutcher et al. (2007)/ Interview transcripts
I am sometimes sceptical about the wilderness preservation and conservation programs	Environmental Behaviour/Apathy	Interview transcripts

Table 3.6 continued

I think too much emphasis have been placed on conservation by the government and NGOs	Environmental Behaviour/Apathy	Interview transcripts
I am willing to conserve the forest to help the climate and reduce the loss of plants and animals	Motivation	Interview transcripts
No matter how valuable the forest is to me I will only conserve it for a longer time if adequate incentives are given to me	Motivation	Interview transcripts
The better the incentives given to me the more effort I will put towards conservation	Motivation	Interview transcripts
I will conserve the forest even if I don't receive any incentives from government or conservation agencies	Motivation	Interview transcripts
If incentives stop coming I will go back to logging and hunting of animals to survive	Motivation	Interview transcripts
People are afraid of arrests that is why they stop logging and hunting of animals	Motivation	Interview transcripts

Table 3.6 continued

I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world	Motivation	Interview transcripts
We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale	Motivation	Interview transcripts
I will support a long-term REDD+ contract in this forest	Motivation	Interview transcripts
Because of our previous experiences, I think the incentives must be given to us first before we agree with any conservation initiative in our forests	Motivation	Interview transcripts
I value forests mainly for their own sake and not for any benefits they provide for humans	Intrinsic value orientation	Adapted from Ford et al. (2012)
I value forests for themselves but the welfare of people has to come first	Use value orientation	Adapted from Ford et al. (2012)

Table 3.6 continued

Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today	Non-use value	Adapted from Ford et al. (2012)
I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them	Aesthetic value	Adapted from Ford et al. (2012)
I value the forest and its resources because it provides food, water and timber for the use of humans	Economic value	Interview transcripts
I value the forest because it reminds me of my childhood days, and that makes me happy	Cultural value	Interview transcripts
I value forests because they serve as places of natural and human history	Historical value	Interview transcripts
I value forests because it provides special places of worship and other religious activities	Spiritual value	Interview transcripts
I value forests because it is a place for tourism and recreational activities	Recreational value	Interview transcripts
I value forests because they serve as habitat for variety of plants and animals species	Ecological/existence value	Adapted from Ford et al. (2012)/ Interview transcripts

Source: Author, 2014

### **3.5.5 Selection of P-set (participants)**

Data collection in Q methodological studies could be designed for a single or multiple participant. For this study, a multiple participant design was adopted because it involves a wide range of topics that concern different community stakeholder groups. In Q methodology terms these participants are called the *P-set*. As discussed in sub-section 3.5.1, the statements and not the participants constitute the study sample while the participants are the variables in Q studies. This implies that a relatively small group of respondents can provide some statistically significant results. However, there is need for a careful selection of the participants in a strategic way in order to recruit those with relevant viewpoints or perceptions about the subject matter (Watts and Stenner, 2012). Therefore, random or opportunity sampling is not recommended (Brown, 1980). In this study, the researcher purposively selected the participants from 5 REDD+ communities based on:

1. Knowledge and experience in forest conservation
2. Awareness of REDD+ policy objectives and activities
3. Gender representation
4. Membership of REDD+ pilot communities
5. Community social groups

According to these criteria the researcher selected 30 participants in total with 6 sampled from each of the 5 selected REDD+ communities in Cross River State (Buanchor, Old Ekuri, New Ekuri, Okokori, and Kanyang II). The community social groups consist of (a) hunters (b) chiefs (c) youths and (d) elders. Although there is no maximum or minimum number of P-sets in Q methodological studies, some researchers argued that the number should ideally be smaller than the Q-sets (Barry and Proops, 1999, Van Exel and De Graaf, 2005, Watts and Stenner, 2012). Therefore, since the study consists of 54 statements, the researcher decided to recruit only 30 participants.

### **3.5.6 The Q-sort Process**

Having selected the Q-set (statements) and the P-set (participants), the next stage is to conduct the Q-sort process. The Q-sort is typically a data collection method where respondents will be asked to rank the statements according to certain predefined rules called *conditions of instructions*. This process can be done manually, by post, or through the use of modern technology with the aid of some specialised software that can facilitate online Q-

sorting. Given the nature of the study participants the researcher chose to follow the manual process. First, the statements were individually written on small sized index cards and were numbered 1-54 according to the alphabetical order in which they were written. This means that each of the 54 cards contains a single statement and an order number. As suggested by Watts and Stenner (2012), the researcher used cards of the same size and colour in order to avoid participants choosing the cards based on their colour preferences and not how they feel or think about the statements.

In each of the communities the researcher asked to participants to read through all the statements carefully and divide them into 3 piles based on the condition of instruction, i.e. agree, disagree, or undecided/ neutral. Next, each of the participant was presented a grid and asked to rank order the cards according to their level of agreement (+5 = most strongly agree) or disagree (-5 = most strongly disagree), (see figure 3.5).

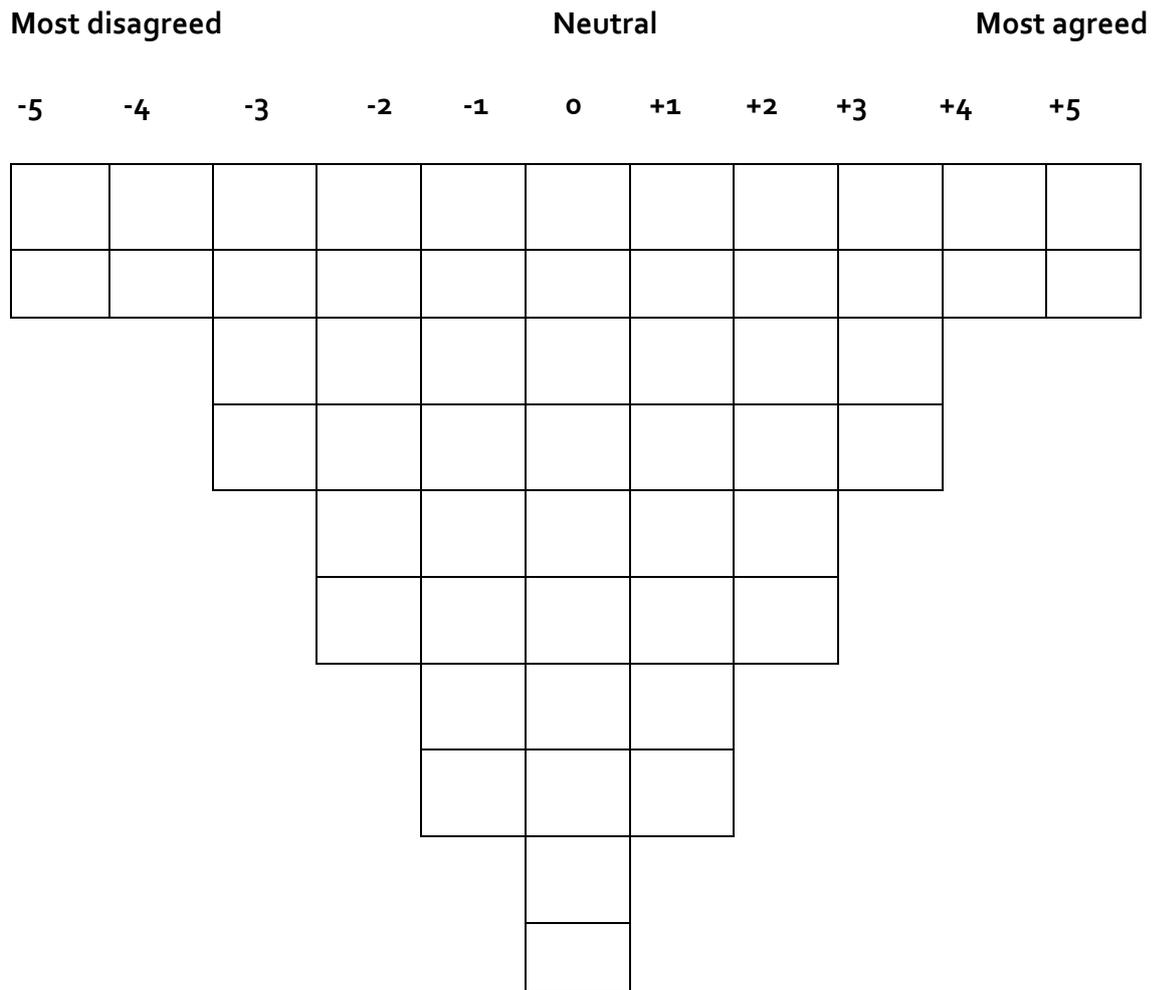


Figure 3.5 Forced-choice distribution grid used for the study

The Q-sort grid follows a forced-choice<sup>9</sup> normal distribution which is the standard practice in Q-methodology. However, in some studies where the participants would probably feel restricted by the forced-choice distribution grid, a free-choice is recommended. This is because the choice of a distribution does not affect how viewpoints are expressed by the participants, and so the choice remains statistically insignificant to the factors that may emerge from the study (Brown, 1980, Barry and Proops, 1999, Watts and Stenner, 2012). In this study, a near-normal and symmetrical distribution was used and the forced-choice grid was numbered from a negative through zero to a positive range (-5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5). This choice was based on the suggestion of Brown (1980) that an 11-point distribution i.e. (-5 to +5) is the best for Q-sets containing 40-60 items.

<sup>9</sup> A forced-choice distribution grid follows the shape of a normal distribution symmetry i.e. pyramidal.

In order to maintain a left-centre-right relationship in the Q-sort process as suggested by Dasgupta and Vira, (2005), the participants were asked to start with the most strongly disagreed cards before moving to the strongly agreed cards. The same iterative process was maintained moving from the negative to positive ends until all cards are finally ranked in the zero or neutral position. Before the statements were finally written on the recording sheets participants were given the chance to review their Q-sorts and to re-arrange them again in case they change their minds about the position of some cards on the grid. In some of the communities the grid was set up on a table if available and in the absence of a table bare grounds or mats were used (see plates 3.3 and 3.4). The researcher facilitated the process throughout in order to make sure that the respondents were following the instructions and sorting procedures. However, this was done without interfering with the participants' opinions by the researcher.

In the final stages of the Q-sort process post-sorting information was collected from each of the 30 participants in the form of interviews. Brown (1980) warned that the post-sorting interviews are very important components of Q methodology data collection but are often ignored by some researchers. During the interviews the participants were asked to comment on the most disagreed and most agreed statements in order to tap into their thought process and to provide justification on how they rank the statements. Gallagher and Porock (2010) argued that the use of interviews in Q methodology will enhance the quality of the data and will help with the interpretation and analysis of the factors that will emerge. These interviews were also recorded by an *mp3 player* and transcribed using *Express scribe* software as mentioned in the previous sections. As shown in chapter 5, these interviews were used as quotes to support the participants' perceptions of forest values and motivations for conservation.



Plate 3.3 Q-sorting exercise on a table by a participant in Okokori community



Plate 3.4 Q-sorting exercise on a mat in Buanchor community

### 3.5.7 Statistical Analysis and Interpretation

The analysis of Q-sorts is considered to be a technical process involving quantitative procedures. Ideally, Q methodology data are analysed using specialised software for performing a series of statistical techniques in order to reveal the patterns of subjective perspectives embedded within the Q-sorts. Using the procedures outlined in Webler et al. (2009) and Watts and Stenner (2012), the researcher analysed the data through the following steps:

1. Data Entry: The recorded Q-sorts now become the datasets to be entered into the analysis software. It is important to mention that there are different versions of software packages that support Q-methodological analysis e.g. *PQMethod* developed by Peter Schmolck, *PCQ for windows* and more recently *qmethod-package in R* statistical software developed by Zabala (2014). Each of these packages have their advantages and disadvantages. However, the researcher chose to use *PQMethod* because it is easy to use, free access, and generates very useful statistical information. This software was designed to run on Disk Operating

System (DOS) package but the windows version is also available. The researcher accessed and downloaded the windows version 2.35 of the software from Peter Schmolck's website accessed on 23<sup>rd</sup> of February 2015 at <http://www.rz.unibwmuende/~p41bsmk/qmethod/>. The researcher named the project as *QPHD2015* in order to give it a unique identification code as required by the software. All the 54 statements or Q-sets were then entered into the program. Long sentences are cut short by the character limits allowable by the software that is why some of the statements appear incomplete in the output files (see appendix 2). Next, each of the 30 Q-sorts was entered according to the normal shaped distribution in which they were recorded. Each of the Q-sorts was given a code name representing the name of the participant's community, age, and gender e.g. *K2F42* means that Q-sort belongs to a participant from Kanyang II community, is a female and was 42 years old etc.

2. Factor Extraction: The analysis involves inter-correlations between all the Q-sorts and the production of correlation matrix. The matrix represents the degree of agreements and disagreements between the individual Q-sorts. This is then followed by the production of factor loadings that should be extracted and used. The decision about the number of factors to extract remains a subjective one. However, there are different sets of objective criteria that could help the researcher to arrive at an informed decision. Watts and Stenner (2012) proposed the use of:

- (a) Eigenvalue<sup>10</sup> (Kaiser-Guttman criterion) through which all factors with eigenvalues of greater than or equals to 1.0 are automatically extracted.
- (b) Magic number 7: Where the maximum of 7 factors are extracted as suitable benchmark for the inexperienced researcher as suggested by (Brown, 1980).
- (c) Two or more significant loading and Humprey's rule: Where two or more significantly loaded Q-sorts are extracted following a recommended statistical equation.

The researcher realised that by using the eigenvalue and magic 7 criteria, 8 and 7 factors will be extracted respectively which was considered as too many and overlapping. Therefore,

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<sup>10</sup> Eigenvalue is a characteristic value that means the sum of squared factor loadings in a given factor. It can be calculated by multiplying the study variance by the number of participants in the study divided by 100. Mathematically,  $EV (\text{eigenvalue}) = V (\text{variance}) * n (\text{number of participants}) / 100$ .

the researcher decided to use the two or more significant loading criteria and Humprey's rule by calculating the significance level by hand using the equation suggested by (Brown, 1980) as follows:

$$\begin{aligned}
 & 2.58 \times (1 \div \sqrt{\text{number of items in } Q - \text{set}} \\
 & = 2.58 \times (1 \div \sqrt{54}) \\
 & = 2.58 (0.1360) = 0.35
 \end{aligned}$$

Therefore, all the factors containing two or more Q-sorts that are 0.35 or greater were considered significant. Five factors were successfully extracted because they satisfied this criterion. It also satisfied the Humprey's rule because the cross products of the two highest significant loadings have exceeded twice the standard error as suggested by Brown (1980) (see Table 5.3 in chapter 5 for details of the significant loadings). The standard error was calculated as:

$$1 \div (\sqrt{54})$$

Where 54= the number of statements or Q-set

$$= 1 \div 7.3484$$

$$= 0.14 \times 2 = 0.272$$

These factors were extracted using the Principal Component Analysis (PCA) algorithm instead of the most commonly used *Centroid*. Despite the academic debate that the PCA is not a factor analysis and *components* are not *factors*, the researcher chose to use it simply because it reduced the infinite sets of solutions into a mathematically best solution (Watts and Stenner, 2012). In most Q-packages PCA as an extraction method is not provided because its application is strongly discouraged. This is because most Q-methodologists prefer the centroid method which allows for the factors to be rotated by hand thereby leading to a more theoretically informed decision (e.g. hypothesis testing) rather than relying on the computer algorithm. Nevertheless, as a first-time user the researcher found the PCA more helpful because it produced the most satisfying results and therefore decided to stick with it. Moreover, in their previous publication Watts and Stenner (2005a) concluded

that PCA produces an equally satisfying results as centroid. The researcher observed that several Q-methodology practitioners continue to use PCA in their research , for example see Anderson et al. (2013).

3. Factor rotation: Factor rotation one of the complex statistical manipulations in Q methodology and it is basically a process of physically changing the position of Q-sorts to align with a particular factor within the *factor space* in order to group them together to make more interpretive sense. This process can either be done manually (by-hand), which is mostly driven by previous experiences or theoretical postulations, or automatically using the *varimax*<sup>11</sup> function. In the PQMethod the researcher used the *PQROT* function to perform an automatic factor rotation using varimax. Varimax was chosen because it also helps in arriving at a mathematically best solution similar to what the PCA did in factor extraction. Besides, varimax is considered the most suitable for inexperienced Q users (Webler et al., 2009), and neither of the two methods is considered superior to the other (Van Exel and De Graaf, 2005). All the 5 factors were selected for rotation. Manual flagging<sup>12</sup> was performed to select those Q-sorts with loadings of 0.35 and above in each factor. Automatic pre-flagging was avoided because the researcher observed that some significant loadings were omitted. However, as a standard practice in Q methodology, confounded<sup>13</sup> Q-sorts are not flagged because their viewpoints are not distinctively related to any single factor and therefore excluded from interpretation (Watts and Stenner, 2005a), (see table 5.3 in chapter 5).

Having completed the rotation and the researcher is satisfied, the results are saved in the *lis output file* which contains detailed information for interpretation (see appendix 2).

4. Factor interpretation: As mentioned previously the output file in PQMethod contains a lot of information that are arranged in tables. However, the most important tables for interpretation are:

- (a) Factor matrix indicating a defining sort (X)
- (b) Correlation between factor scores
- (c) Factor arrays for each statement
- (d) Distinguishing statements for each factor

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<sup>11</sup> Varimax is an algorithm that allocate individual Q-sorts to at least one factor during the rotation process.

<sup>12</sup> Flagging is the process that places an X next to any significant Q-sort.

<sup>13</sup> A confounded Q-sort is that which has more than one significant loadings on different factors. They are usually excluded from the analysis and interpretation.

#### (4) Consensus statements

All the 5 factors that have emerged from the analysis were analysed using the *crib sheet* system developed by Watts and Stenner (2012). This is a systematic process of factor interpretation in a consistent and holistic fashion whereby all the necessary details are incorporated (see appendix 2 for the crib sheet used). First, using the factor array table the researcher produced the following details for each factor:

- (a) *Items ranked at +5*: These consist of all the items that were ranked at +5 portions of the distribution grid by the participants.
- (b) *Items ranked higher in a factor than in any other factor*: This brings out the items that a particular factor ranked higher than all the remaining factors. For example, factor 1 could rank item (statement) 17 at +2 while factors 2, 3, 4, and 5 ranked the same item at -1, -2, -3, and -4 respectively.
- (c) *Items ranked lower in a factor than in any other factor*: This also group together the items that a particular factor ranked lower than all the remaining factors. For example, factor 1 could rank item 25 at -5 while factors 2, 3, 4, and 5 ranked it at -4, -3, -2, and +3 respectively.
- (d) *Items ranked at -5*: These consist of all the items that were ranked at -5.

The distinguishing statement table also helps in clearly identifying distinct viewpoints or characteristics of each of the factors for the purpose of naming and interpreting them. The consensus statements also help in identifying what are those viewpoints that are shared across all the factors. Factor correlation table indicates the correlations between factors which are measures of the extent of distinctiveness or overlaps between the viewpoints represented (see Table 5.2 in chapter 5).

Finally, by applying the logic of abduction the researcher started to make sense of the numbers by having a complete picture of what is important or less important to the participants in each factor. Further interpretation was done by considering some demographic information of the participants and interview transcripts of the exemplars<sup>14</sup> as well as other participants with significant loadings in each factor. The results were uniquely written based on the usual Q methodology narrative style. This involved naming the factors,

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<sup>14</sup> Exemplars are those participants with the highest loadings on a factor and whose viewpoint appears to be the most representative of that factor. Most of the quotes used in chapter 5 are from these exemplars.

reporting the percentages of eigenvalues, number of participants associated with each factor, their demographic information, as well as the number of significant and confounded sorts (if any). Usually this style involves including the statements, their numbers and the ranking order number to support the researcher's arguments or theoretical explanation within the narrative.

### **3.6 Critical Reflections**

This section presents critical reflections on some of the conceptual and methodological challenges experienced by the researcher during the research design, data collection and analysis process. It also provides detailed discussions about research ethics, positionality and reflexivity issues throughout the research process.

#### **3.6.1 Challenges and Constraints**

The researcher was faced with some challenges and constraints during the conduct of this study which either shaped the research design or limited the availability of data for this study as follows:

##### **(a) Conceptual challenges:**

During the initial stages of designing this research the researcher made certain assumptions about the level of REDD+ implementation in Cross River State based on policy documents published online. This study was initially conceptualised to examine the socio-economic and cultural impacts of REDD+ on community livelihoods through an environmental justice framing. The Niger Delta, where Cross River State is geographically located has a long history of environmental justice struggles by local and international NGOs who are concerned about the level of oil pollution in the region. Therefore, bringing another dimension of environmental justice in the forestry and climate change policy will produce interesting results. However, during the pilot study in late 2013 the researcher discovered that the REDD+ project was just at the take-off stage, and assessing socio-economic and cultural impacts wasn't feasible. To overcome this challenge, the researcher decided to examine how the REDD+ process is being governed in terms of stakeholder participation, expectations, power relations and institutional bricolage practices instead. The researcher was also curious to understand the basis for communities' intrinsic motivation for their historic conservation practices and how that might be affected in the REDD+ regime. These now constitute the

directions in which this study was pursued, and the publication of Bluffstone et al. (2013) titled "REDD+ and community-controlled forests in low-income countries: Any hope for a linkage?" greatly inspired this new focus.

(b) Methodological challenges:

First, in the previous research design the researcher proposed to assess and map social values of cultural ecosystem services within the forest landscapes as perceived by the local communities using a spatially explicit ecosystem-based management tool called Social valuation of ecosystem service (SolVES). SolVES is an extension of ArcGIS software developed by the United States Geological Survey that is capable of mapping and valuation of non-monetary ecosystem services very effectively. However, during the pilot study the researcher was constrained by lack of a proper base map which is a necessary requirement for the mapping exercise. In addition, the researcher also discovered that there aren't many cultural or spiritual locations within the forest because the community people are now practicing Christianity and have abandoned their shrines and other areas of cultural significance. Therefore, this method was abandoned.

Second, problems were also encountered during the administering the Q-sorts. The researcher had difficulties in recruiting the research participants based on the pre-defined criteria discussed previously. In addition, it was discovered that participants have to be highly literate to be able to sort the cards correctly. The problem was that most of the women didn't attain this literacy level and so the researcher had to replace them with a male participant in some of the communities. The critiques that Q methodology is intensive and time consuming was also observed in this study because the sorting process was too slow and the average time of completing a single sort was 45 minutes. There were also environmental problems encountered during the sorting process. The researcher recorded incidences were strong winds blew the cards away before the Q-sorts were recorded. In some cases, where the sorting was done on bare ground, domestic animals have disrupted the Q-sorts.

Third, the use of *Nvivo* software was considered as time consuming and very technical by the researcher even after attending series of trainings. After several failed attempts, the researcher decided to analyse the interviews and FGD transcripts using the manual coding procedures.

(c) Travel and accessibility challenges:

The Nigerian REDD+ readiness project is being piloted in 3 forest clusters namely: Afi/Mbe, Ekuri, and Mangrove (see chapter 1). Ideally, the data from this study should be collected from communities that are sampled from these 3 clusters. As mentioned in the previous section, the researcher could not collect data from Mangrove pilot site due to the travel restriction to all riverine areas of Niger Delta by the UK Foreign and Commonwealth Office (FCO). Therefore, all the fieldwork was done in Ekuri and Afi/Mbe communities. Also, the researcher was faced with problem of accessing the communities because of their remote locations within the forests. The roads were bad and could only be accessed using a motorcycle. In some situations, the researcher and the field assistant had to trek long distances on foot to visit some of the study areas. Hiring a 4x4 Land Rover was way out of the researcher's pocket.

### **3.6.2 Positionality**

Doing a PhD study on the Nigerian REDD+ requires the researcher to clarify his own positionality within the wider socio-economic and political contexts in Nigeria. As a Nigerian student doing research in a UK University there was very high expectations from me by the communities and field assistants I was working with. While some of them offered to help willingly, some saw it as an opportunity for making money. A more balanced power relation began to evolve between the researchers and the research participants when it was clear to them the research will be conducted in a participatory manner, and the findings could be useful to understanding other salient issues that could emerge. These findings could be valuable in addressing how REDD+ as a global environment and development policy instrument can be fine-tuned to fit local specificities. Again, being a northerner and a Muslim, the researcher was faced with initial lack of cooperation from the community people by trying to understand the reason why I chose to work with them. This prejudice between the Christian south and Muslim north has been a source of inter-religious conflicts in Nigeria for many years. The researcher had to win their confidence by letting them know about his liberal religious views and that he was there for a purely academic exercise. Chief Edwin – the researcher's field assistant - holds a traditional title in his Ekuri community and was very helpful in creating confidence among the participants. This understanding means that the traditional requirement of bringing bottles of alcohol to the community Chiefs as a way of

seeking for permission and appreciation for their participation was monetised. Therefore, 5000.00 Naira (20 USD) was given to each of the communities that were visited in place of the alcohol before having access to the participants. All the participants voluntarily participated and have given their voluntary consents by understanding the aims and objectives of the study before filling the informed consent forms. There is also the issue of gendered power relations between the researcher and women in the communities. As a male researcher, my relationship with women was mostly through their parents, husband or family members who are responsible for organising meetings and determining their presence. During the field exercise, the researcher made several attempts to demand for women representation by complying to these patriarchal social norms. In communities where women participation was merely tokenistic, the researcher tried to encourage them to speak up especially on issues that border on forest resources access, resources extraction and benefits sharing. As mentioned previously, these efforts did not yield the desired results as the voices of women in these communities remain relatively subdued.

Within the literature, the argument of Dwyer and Buckle, (2009) about insider versus outsider positionality is relevant for my own research experience. I grew up in northern Nigeria where there are no forests and so I had no idea what forests mean to the communities participating in my study. When I began to engage with them I understood how it feels to get connected to the natural environment, and what REDD+ could mean to them. This new experience helped me in establishing good relationship and the people became willing to share their ideas with me. My identity soon transformed from being an outsider to that of insider who could help in bringing their concerns to the policy makers through my research findings.

Finally, this study was funded by the Petroleum Technology Development Fund (PTDF) Nigeria. PTDF is an agency under the Federal Ministry of Petroleum Resources that runs an Overseas Scholarship Programme (OSS) by providing scholarships to Nigerians who are enrolled in oil and gas or environmental related studies abroad. The main aim is to develop human capacity in the oil and gas sector through indigenous manpower training and skills acquisition programmes. Therefore, all PTDF beneficiaries are not obliged to promote or protect the interests of the organisation, thereby allowing scholars to hold free and independent views.

### 3.7 Conclusion

This chapter has presented the research methodology used to examine REDD+ governance and communities' motivations for forest conservation in Cross River State, Nigeria. The chapter started by discussing the mixed method research paradigm adopted in this study and the rationale behind it. The main aim was to show how both qualitative and quantitative research methods were carefully pieced together to achieve the overall objective of the study. Details of each method and the scholarly justifications for using it was also provided. Throughout this chapter, the researcher has demonstrated his understanding of the strengths and weaknesses of some of the different methods used and how they were cautiously applied in this study to achieve the desired result.

Critical reflections on the challenges and constraints encountered during the design and implementation of the research ideas were also presented. The researcher identified some conceptual, methodological and other miscellaneous challenges and dynamics that were encountered and showed how they were overcome throughout the research process.

Finally, the chapter discussed the researcher's positionality as a Nigerian student studying overseas, as well as a Muslim northerner who was conducting a study in a predominantly Christian region of the Niger Delta. It shows how these attributes constituted some obstacles at the beginning before it was eventually resolved through personal efforts and the help of the field assistant. The chapter also posits that despite the fact that the researcher was under a Nigerian government sponsorship, he was not under any obligation to defend the government's position or to promote anybody's personal agenda pertaining to the Nigerian REDD+ readiness project implementation. The following chapter discusses the geographic location where the research was conducted.

## **Chapter Four – The Study Area**

### **4.1 Introduction**

In this chapter, the general description of the area used for this study is presented. It shows that this study was carried out in Cross River State Nigeria as the site where the Nigerian REDD+ readiness project is being implemented. This state was chosen for REDD+ because it represents the last remaining tropical rainforest in the country which is under different forest management systems. The forest cover is viable enough to attract international carbon funding project under multilateral arrangements involving the Cross River State government, federal government of Nigeria, UNREDD programme and World Bank's Forest Carbon Partnership Facility.

The chapter is divided into 8 sections. The next Section 4.2 describes the main physical characteristics of the study area which include geographical location, political boundaries, relief and vegetation, as well as climate. In Section 4.3 the governance structure is discussed. It shows that the state is governed by a hierarchical arrangement involving the state government, local government areas, and traditional institutions. Section 4.4 discusses the socio-economic background of the study area which include demographic characteristics, gendered relations, agriculture, tourism and oil revenue sources. It shows that the state's dwindling economy is driving economic diversification which includes the need for attracting and implementing REDD+ projects in the state. Section 4.5 discusses deforestation and its drivers in Nigeria and how it affects the forests in Cross Rivers State. Different forest management practices are discussed in Section 4.6, while Section 4.7 describes briefly the emergence of forest clusters and their designations as pilot sites for REDD+. Summary and conclusions are presented in Section 4.8.

### **4.2 Physical Setting**

In this section, the physical setting of the study area which include: location, relief and vegetation, climate, governance, socio-economic characteristics, deforestation and its drivers, forest management types, and description of the REDD+ pilot sites are presented.

#### **4.2.1 Location**

Nigeria is operating a federal political structure comprising of the 36 states and the federal capital territory (FCT) Abuja. This study was mainly carried out in Cross River State – one of

the 6 states that are located around the coast of Niger Delta in the southern part of the country. Geographically, Cross River State is located between latitude 4° 28' and 6° 55' north of the equator and, longitude 7° 50' and 9° 28' east of the Greenwich Meridian. It shares the same boundaries with Benue State in the north, Atlantic Ocean in the south, Abia and Ebonyi states in the west, and an extensive border with the Republic of Cameroon in the east. Extending across approximately 20,156 km square, the state is considered to be the largest in the Niger Delta area and the 19<sup>th</sup> largest in the country. Figure 4.1 shows the political boundaries of Cross River State. Figure 4.1 shows the geographical location of Cross River State.

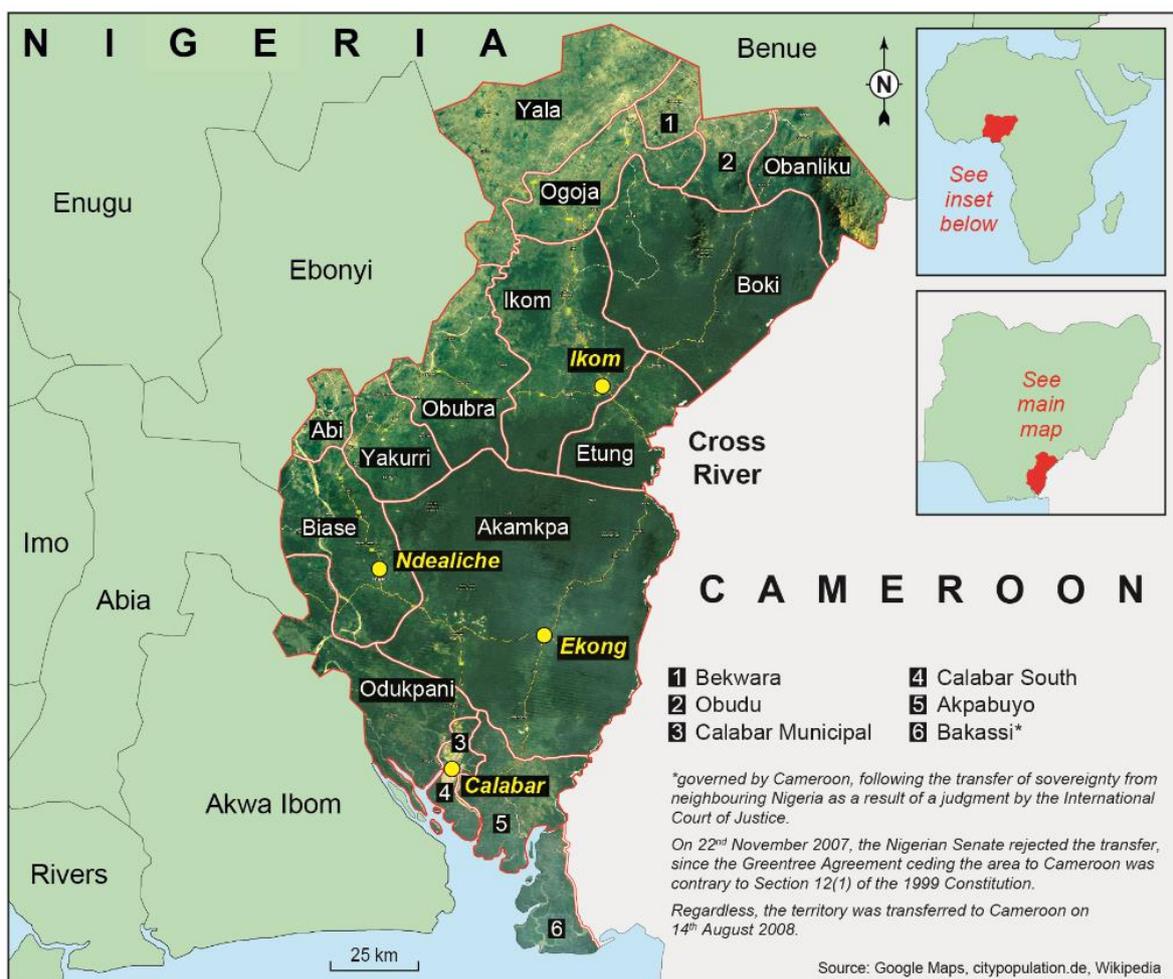


Figure 4.1 showing map of Cross River State and its political boundaries

#### 4.2.2 Relief and Vegetation

Nigeria is divided into different topographic units consisting of several highlands and lowlands. Buchanan et al. (1955) classified these units into: (1) Coastal creeks and lagoon (2)

Niger Delta (3) Dissected margins (4) Western plains and ranges (5) South-east down lands and Cross River basin (6) Lower Niger valley (7) Niger trough (8) Benue trough (9) High plains of Hausa land (10) Jos plateau (11) Hills and plains of Kerri-Kerri and Gombe (12) Biu plateau and plains (13) Cameroun Mountain (14) Cameroun-Bamenda-Adamawa Highlands (15) Mandara Mountains (16) Sokoto plains, and (17) Chad basin. The relief of Cross River State consists of the coastal creeks towards the southern border with Atlantic Ocean, Cameroun Mountains and part of Bamenda highland in the east, as well as the Cross River basin in the west. Altitude ranges from sea level, gently undulating basin to volcanic hills of Oban and Ogoja that extend up to 6,000 feet.

Nigeria has 7 main vegetation zones across the country from the Gulf of Guinea in the north to the arid Sahel in the north. The vegetation distribution progresses from coastal mangrove swamp, and tropical rainforest in the south to Guinea, Sudan and Sahel savannah in the north. There are also patches of montane vegetation around Jos, Mambila, and Obudu plateaus. Figure 4.2 below shows vegetation of Nigeria. Cross River State has 4 main types of vegetation that reflect the main ecological zones within the state (Oyebo et al., 2010). These are: (1) freshwater swamps and mangroves (2) evergreen wet forests (3) southern guinea savanna, and (4) montane forests and grasslands.

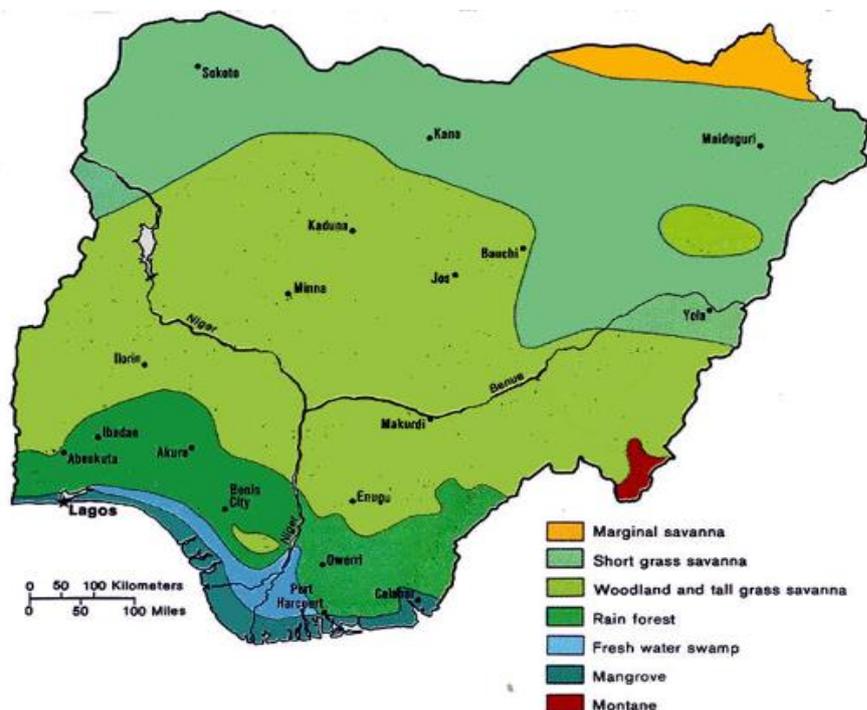


Figure 4.2 Map of Nigeria showing Vegetation Zones

These vegetation zonations are greatly influenced by the topography of the area. The mangrove belt covers about 10-15km along the coast where the ocean mixes with fresh waters. Predominantly, the mangrove trees are shrubby with heights of about 40m, consisting of a both local and exotic species of palm trees and *rhizophora*. Freshwater swamp has a wider coverage of about 10-25km extending towards the north of the mangrove belt. The height of freshwater swamp forest canopy is about 30m and consists of mostly woody and non-woody species arranged in different layers. The largest portion of forests in the state is the evergreen lowland rainforest which extends southwest into Cameroun. This zone is considered the remaining pristine rainforest vegetation in the whole of Nigeria and has been managed by Cross River National Park, Forest reserves, and indigenous forest communities. Collectively, these areas constitute about 900,000 hectares of forest land. It was also reported that about 40 per cent of Nigerian vegetation is covered by the northern and southern guinea savannah (Adegbola and Onayinka, 1976). This zone consists of open savannah woodland, remnants of high forest species, palm trees, shrubs, climbers, and grasses. In Cross River State, savannah-like vegetation is found around the northern and central portions consisting of various species of trees grasses. Montane vegetation is also seen around north-eastern portion on the border with Cameroun. These areas include the Obudu Plateau, Sankwala Mountains and Ikwete hills with elevations of about 1800m above sea level. This place is of high species richness and diversity including both vascular and non-vascular plants that reflect the local microclimatic conditions.

#### **4.2.3 Climate**

Nigeria has a tropical climate throughout the country but with significant variations between the north and south regions. These variations exist in almost all the weather elements such as temperature, humidity, and rainfall which relate to the movement of major air masses affecting the whole West African sub-region (Nelson, 1972). The 3 major air masses are:

- (1) Dry, hot and dusty wind originating from the Sahara Desert called *harmattan* or *tropical continental* that usually blows through the north-east Nigeria.
- (2) Cool, moisture laden and rain bearing *tropical maritime* winds from the Gulf of Guinea.
- (3) Cool *equatorial easterlies* that mostly affect the higher altitudes such as mountain peaks and hills.

There is an annual alternation of distinct wet and dry seasons mostly determined by the movement of inter tropical convergence zone (ITCZ). Normally annual rainfall starts in April and ends October with a peak usually in August in most parts of the country. However, the southern regions experience 4 distinct seasons comprising of: (1) long rainy season from February to July, (2) period of decline known as *August break*, (3) short period of heavy rainfall from September to November (4) dry season from mid-November to February. The amount of rainfall decreases northwards from the coastal regions with an annual range of 1854mm-508mm respectively. In some remote corners of the north east especially near the border with Chad, annual rainfall can be as low as 1inch for 5-7 months. There is also temperature variability throughout the country. Annual mean maximum temperatures could be up to 36 degrees centigrade in the northern savannah regions, while annual mean minimum temperature of 23-degree Fahrenheit are usually recorded in the southern regions. The mean annual temperature in Cross River State ranges from 22.4 degree centigrade to 30.1 degree centigrade. Also mean annual rainfall also varies significantly locally from 2018mm to 3063mm (Edet et al., 1998).

### **4.3 Governance**

In 1967 following the civil war, the Nigerian Military Government under General Gowon created states out of the old regional governments. Cross River was one of the first 12 states created by the Gowon government as an attempt to ameliorate the fears of political domination by the northern region (Suberu, 1991). States creation and their corresponding local governments was also another attempt to decentralize power across the 3 tiers in order to foster national integration. These tiers are the federal, state and local governments. Subsequently, decentralization also became a vehicle through which resources could be efficiently allocated across all the tiers of government by way of achieving fiscal federalism (Akindele et al., 2002). Constitutionally, each of the states is governed by an Executive Governor who has the power – alongside the state legislature – to create laws, control finances and determine policy directions of the state. Cross River State comprises of 18 Local Government Areas, each of which is administered by a Chairman who is either appointed by the state governor on temporary basis or elected by the people to perform local administrative functions. It is important to point out that in spite of clear provisions for local government autonomy in the 1999 constitution, revenue allocation for all the 774 local

governments in Nigeria come through the states and their distributions remain at the discretion of the governors (Oviasuyi et al., 2010), thus, making local government administration less effective in fulfilling their constitutional mandates. In Cross River State there is limited decentralization of power, state interference persists and accountability in decision making is nearly absent at the local government level (Ikeji, 2013).

In addition to the formal governance systems there are also the traditional rulers in the state. Chieftaincy as a form of traditional rule has always been the dominant institution that directed the affairs of indigenous people throughout pre-colonial and post-colonial Nigeria. Local chiefs are seen as symbolic custodians of indigenous values and are selected to represent various tribal clans. Although traditional rulers have no constitutional mandates, state and local government officials usually engage with these traditional chiefs in running the affairs of the states in order to derive legitimacy (Vaughan, 1995). They are also involved in peace negotiations and conflict prevention owing to their closeness to the grassroots populations (Blench et al., 2006). This function is very significant for Cross River State because of its annual Calabar Carnival which attracts many tourists to the state. For example, in July 2014 the governor held a meeting with all the traditional rulers and asked them to help the government in maintaining peaceful coexistence across the state throughout the festive season. These traditional institutions are in turn funded through local government and state allocations on a monthly basis in accordance to state legislations. At the same time the Nigerian constitution has empowered each state governor to remove any traditional ruler who is perceived to be engaged in any act of criminality (Blench et al., 2006). However, such provision is usually abused by successive governments in punishing traditional rulers who are perceived as political opponents. For example, in 2012 the *Vanguard Newspaper* online published that a paramount traditional ruler of Efuts in Calabar South Local Government Area was removed from office and replaced by one Professor Itam. The newspaper reported that on 18<sup>th</sup> September 2012, the Cross River State governor issued an official letter stating: "please be informed that His Excellency, the Governor of Cross River State, Senator Liyel Imoke, has given approval for the filling of the vacant stool of Muri Munene of the Efuts in Calabar South Local Government Area". This act created conflicts between the supporters of the embattled chief and the state government which led to violent protests.

In summary, similar to all the Nigerian states, Cross River is governed by the state government, local government and traditional institutions. Since its creation, the state government has become so powerful and in some cases, usurp the powers of the local and traditional institutions.

#### **4.4 Socio-Economic Characteristics**

According to the National Population Commission of Nigeria report 2006 the population of Cross River State was estimated at 2.9 million. However, current projections at 3 per cent annual increase means that the population is now estimated at 3.8 million. Table 4.1 indicates that in 2010 the population composition by gender shows more males than females in the state. In addition, all the demographic data on youth and adult literacy, absolute poverty and primary school enrolment are higher in male than female population. At the current growth rate the population would likely double the 2006 census figures by the year 2025, and this has implications for socio-economic development of the state (Ottong et al., 2010).

Culturally, the people are diverse and speak about 39 different local languages and dialects (Ingwe, 2009), which are distributed unevenly across all the 18 Local Government Areas (LGAs). Ugot and Ogar (2014) reported that there are 3 classes of languages in Cross River state, namely: indigenous, English, and Nigerian pidgin language. Efik is the most popular among the indigenous languages and is spoken by both majority and minority groups. For many centuries Efik language has been the common language for religious preaching, trading and other commercial activities. English language remains the official language of communication and administration, and is widely spoken among the educated elites. However, the Nigerian Pidgin English is growing in popularity among different people and is often used in religious places (Ugot and Offiong, 2013), advertisements and political campaigns (Ugot and Ogar, 2014).

Christianity is the dominant religious practices in recent years, but there exist a wide variety of traditional religious belief systems in most of the communities. Eneji et al. (2012) reported that some communities still maintain sacred places like the evil forests, evil streams, sacred ponds, and forbidden forests that bear symbolic representations of their ancestral gods and practices. For example, the evil forests found around Boki LGA serve as burial grounds of the royal families while others are used to punish perceived witches and wizards who are causing

problem to the people. In some sacred streams and ponds such as *Ejagham Lake* in Etung LGA, fishing of certain species of fish is usually prohibited at some periods of the year. This implies that such traditional practices have contributed for the long decades of conservation of natural resources in most African communities.

Table 4.1 Demographic statistics of Cross River State

Demographic Information	Year	Males	Females
Sex ratio	2010	52.3%	47.7%
Youth literacy	2010	92.8%	90.6%
Adult literacy	2010	76.7%	63.4%
Absolute poverty	2010	46%	42%
Primary school enrolment	2010	134,985	129,818

*Source: Adapted from National Bureau of Statistics Report, 2012.*

Economically, all the Nigerian states have been largely dependent on oil revenues. These revenues are distributed to all the 3 levels of government based on agreed sharing formula from the Federation Account by the Revenue Mobilization Allocation and Fiscal Commission (RMAFC). The 9 oil producing states – which used to include Cross River – obtain an additional 13 per cent oil derivation funds from the federal government in compensation for pollution, land degradation and other health hazards affecting their people and environment. These states are characterised by high recurrent expenditures and personnel costs that are funded by unstable international oil prices that usually result into financial uncertainties, poverty and unemployment (Ajakaiye, 2008, Ekpo, 2008). In order to create a buffer against economic collapse, Collier and Venables (2011) reported that the Cross River State government established by law a Reserve Fund that will set aside more than half a billion Naira annually in an interest generating account. However, following the cessation of the Bakassi Peninsula to Cameroon 2008, after a ruling of the International Court of Justice (ICJ), the Supreme Court issued a ruling in 2011 declaring that Cross River is no longer a littoral state, therefore allocating part of the revenues from the neighbouring Akwa Ibom State – which remains a littoral state after the ruling – became illegal. Hence, the RMAFC was instructed to allocate the derivation funds only to the remaining 8 oil producing states. For example, according to the Revenue Distribution from Federation Account report in May

2016, Cross River State received Gross Statutory allocation of 1.361 billion Naira (4.4 million USD), while the neighbouring Akwa Ibom State received a total of 6.90 billion Naira (20 million USD) (National Bureau of Statistics 2016). These shortfalls have had devastating effects on the state's economy, and the government started to look for alternative income sources. As pointed out in chapter 6, REDD+ became one of those promising options for the forest rich state.

While working out the institutional arrangements for REDD+ financing, the state also decided to take advantage of its eco-tourism and agricultural potentials. Through the state Tourism Bureau the government pursued massive investment in tourism infrastructure development in strategic mountainous, forests, and cultural sites throughout the state (Akpan and Obang, 2012). For example, Ajake and Amalu (2012) reported that numerous tourists' sites such as the Mary Slessor's Residence in Creek town, CERCOPAN, Canopy Walkway in Buanchor, Cross River National Park and Agbokim Waterfalls were renovated and funded. One of the key tourism sites is the Obudu Mountain Resort which also received a major boost and higher patronage, community capacity building and infrastructural facilities were also reported (Amalu and Ajake, 2012a). Another popular tourism site that received huge government investment is the Tinapa Business and Leisure Resort, Calabar. Tinapa is the country's biggest tourism resort that offers hotel services, film studios, and free trade zone where millions of buyers and sellers of goods and services can meet to perform duty free transactions. Additionally, there are also 4 famous annual cultural festivals in the state that usually take place between August and December and are attended by many people from across the world. The New Yam Festival is one of the most celebrated cultural heritage that contributes to socio-economic development of the state metropolitan city, Calabar. On this occasion various communities express their appreciation to god for bountiful harvest session and showcase their traditional ties with the natural environment (Edim et al., 2014). Similarly, the annual Calabar Carnival – known as the 'Africa's Biggest Street Party' – is another popular tourism activity in the state which is also contributing to the economic development (Amalu and Ajake, 2012b).

Agriculture also contributes to economic development of Cross River State. Historically, the Nigerian economy used to be dependent on export of cash crops such as cocoa prior to the discovery of oil. The cocoa belt in Cross River – mostly located within Ikom and Etung local

government areas – is one of the largest producers in the country and there is ongoing government effort towards boosting production and export (Nkang et al., 2009). Traditionally, the people of Cross River State maintain bush fallow practices involving clearance of primary forest for planting banana, plantain, cassava and yams using the mixed cropping method. Ite (1997) observed that the length of the fallow period ranges from 5-10 years for most households which also depends on the crops being cultivated. Shifting cultivation is also practiced by majority of peasant farmers especially in areas with low population density where the soil is fast losing its fertility (Okadi and Osinem, 2013). The state is also one of the main producers of oil palm both for local consumption and export. According to the *CrossRiverWatch* online newspaper published on 4<sup>th</sup> August 2015, Etim (2015) reported that the oil palm production in the state is a success story because the partnership with the world's largest oil palm plantation developers Wilmer. Wilmer and another investment partner called Paterson Zochonis (PZ) have promised to invest over 500 million USD in the project. Operating a 50,000 hectares plantation the joint venture is expected to inject a whopping 25 billion Naira (80,000 USD) into the state economy. In addition to farming, fishing is another important agricultural practice in the state. In a survey of fisheries activities in some selected communities, Holzlohner and Nwosu (2014) reported that some of the village dwellers could earn up to 30,000 Naira (100 USD) monthly from fishing while women fish traders could earn up to 500 Naira (2 USD) on a daily basis. Fishing is mostly done using traditional methods of gillnetting, trapping and cast netting in coastal waters and estuaries. All these personal incomes are used by the local people to feed their families, and pay school fees for their children.

Like the rest of the country, family institutions in Cross River State communities are highly gendered, so specific duties are culturally differentiated and shared between men and women. For example, Eneji et al. (2015) maintained that married women living in communities around protected areas in Cross River State are expected to remain at home to perform domestic chores and rearing of children while men are attending forest management meetings. Since these meetings are usually done at night, the authors argued that women find it very difficult to participate in spite of their vast forest management experiences. They further argued that although some women are willing to participate, they lack the necessary education and language skills to communicate in English.

It was generally observed across northern and southern Nigeria that the spatial organisation of societies is patriarchal in structure such that women are mostly dominated by their men counterparts (Makama, 2013). In Nigerian societies gender roles and appropriate behaviours are defined and imposed on children since childhoods, therefore, they are trained to grow up to conform to these cultural norms (Abara, 2012). In an earlier study, Omadjohwoefe (2011) also opined that boys are always preferred over girls among families, so a girlchild is usually given less privileged roles in the society right from her adolescent ages; and any inappropriate behaviours are sanctioned. These gender differences have origins from pre-colonial Nigeria where women were treated as unequal to men in almost all aspects of social, economic and political life (Salaam, 2003). For example, in the area of agriculture, Achebe & Teboh (2007) and Ajani (2008) reported a persistent gendered variation in farming specialisation among Yoruba and Igbo tribes in southern Nigeria which allows women to cultivate only the crops that are culturally considered feminine in nature. They discovered that certain crops such as yam has significant cultural recognition among these tribes and it is mostly suitable for men's cultivation. Even where women are allowed to participate in agriculture, Amber Peterman (2010) discovered that the productivity level of women cultivated farmlands in Nigeria is significantly lower than that of men as a result of marginalised access to agricultural inputs and farm implements. In terms of inheritance, the patriarchal customary laws in southern Nigeria is playing a significant role in preventing women from land inheritance. So, lands belonging to their deceased husbands are almost exclusively reserved for the male children (Aluko & Amidu, 2006).

#### **4.5 Deforestation and its Drivers**

Forests in many parts of the world are threatened by degradation and deforestation as a result of population growth and global economic expansion. Nigeria's forest cover has shrunk to less than 5% of its original size of 600,000 sq. km in the 20<sup>th</sup> century to about 38,000 sq.km in recent years (Mujuri, 2007). More recent studies have shown that the Niger Delta region which has the largest forest cover in Nigeria is undergoing massive deforestation at an alarming rate of 0.95% compared to other tropical forest countries (Onojeghuo and Blackburn, 2011). The study shows a significant variation in the deforestation rates among the states with Cross River State representing one of the major deforestation hotspots in the region. Oyebo et al. (2010) reported that between years 2000-2008, Cross River State has

lost about 17.64% of its total forest cover at the annual rate of 2.2%. Under a business as usual deforestation scenario the FAO (2005) report predicted that the whole forest will disappear by the year 2020. This prompted the enactment of the Anti-Deforestation Task Force in the state in preparation for REDD+ by the governor (see chapter 6 for details). At the country level, the situation is even worse today. For example, the Global Forest Resources Assessment Report 2015 reported that Nigeria’s annual net forest loss is growing at 5%. This is the highest rate among the top 10 countries with the greatest forest loss annually between 2010 and 2015 (see table 4.2).

Table 4.2 Countries with the Highest Annual Forest Cover Loss

Country	Annual Forest Net Loss (Area in thousand hectare)	Rate (%)
Nigeria	410	5.0
Zimbabwe	312	2.1
Paraguay	325	2.0
Myanmar	546	1.8
Argentina	297	1.1
Tanzania	372	0.8
Indonesia	684	0.7
Bolivia	289	0.5
Brazil	984	0.2
DR Congo	311	0.2

Source: Adapted from Global Forest Resources Assessment 2015, FAO Report

Drawing on the conceptual framework of Geist and Lambin (2001) the drivers of tropical deforestation can be categorised into 3, namely: (a) proximate/ direct causes (b) underlying causes/indirect (c) related factors. In Nigeria, all these factors are observable. Proximate causes are directly related to land use and land cover changes that are driven by social activities of human on the landscape such as agriculture, logging and infrastructural development. In Nigeria, agricultural practices like slash and burn and shifting cultivation are causing massive destruction of forest lands (Oyebo et al., 2010). This is coupled with indirect causes such as rapid urbanization and small scale industrial growth and the attendant

building and construction of critical infrastructure. FAO report in 2003 recorded that the absence of a national energy policy means that domestic energy needs must be met through fuelwood extraction. The high costs of kerosene and cooking gas is putting tremendous pressure on the forests. Similarly, telephone lines and electricity cables are transmitted using wood-based poles in most part of the country which is also causing deforestation. These factors are discovered to be the most significant drivers of deforestation in Cross River State because of the increasing dependence of people on natural resources for survival. Other factors driving deforestation include weak and obsolete forest laws and enforcement as well as an absence of national forest legislation as mentioned in chapter 6. With the exception of Kebbi and Cross River States, most of the extant state forestry laws have remained unchanged since independence. Unfortunately, most of these laws were designed to exploit forest resources for revenue generation. Hence, large scale lumbering has been a major source of revenues for Cross River State prior to the introduction of a logging moratorium in the state and subsequent enactment of the Cross River State Forestry Commission Law in 2010. As discussed in chapter 6 Nigeria has no national forestry law and so the Federal Ministry of Environment can only set national policies but lacks the power of implementation due to the high degree of state control over forests under their territories.

#### **4.6 Forest Management in Nigeria**

Since independence several national and sub-national forest management and conservation policies and programmes have been pursued involving the states, federal government and international agencies across the country. These are implemented through the creation of National Parks, Game and Wildlife Sanctuaries, Strict Nature Reserves, Forest Reserves, and Community-managed forests.

##### **4.6.1 National Parks**

Massive deforestation, species extinction, and habitat destruction in Nigeria called for the intervention of federal government in forest conservation. Protected areas in the form of National parks were created and maintained by the federal government in order to preserve them for ecological sustainability, cultural and tourism purposes (Usman and Adefalu, 2010, Imasuen et al., 2013). The process of establishing national parks started almost 4 decades ago by the military administration of General Olusegun Obasanjo. However, the enactment of National Park Service Act, 2006 (as amended) gave birth to the Nigeria National Park with

a mandate for coordinating the existing network of 7 main protected areas under the national park designation. The Service has the mandate to establish new parks, manage existing ones and enforce restrictions under the supervision of the Conservator-General and the Governing Board. Spanning across approximately 22,000 sq.km, these parks are the 8<sup>th</sup> largest in Africa and are located within different ecological zones of Nigeria. The Cross River National Park is the 3<sup>rd</sup> largest in the country after Gashaka-Gumti and Kainji Lake parks (see table 4.3). Established in 1991, the Cross River National Park consist of the Oban and Okwangwo divisions covering 3000 sq.km and 1000 sq.km respectively. It is home to rare and endemic species of monkeys, fishes, butterflies and other plant biodiversity.

Table 4.3 Nigerian National Parks with Locations and Sizes

<b>Name</b>	<b>Location</b>	<b>Area Coverage (sq.km)</b>
Gashaka-Gumti	Adamawa/Taraba	6,731
Kainji Lake	Kwara/Niger	5,382
Cross River	Cross River	4,000
Old Oyo	Oyo	2,512
Chad Basin	Borno/Yobe	2,258
Kamuku	Kaduna	1,121
Okomu	Edo	202.24
<b>Total</b>		<b>22,206.24</b>

*Source: Adapted from Nigeria National Park (2016)*

#### **4.6.2 Strict Nature Reserve**

Strict Nature Reserves (SNR) are relatively small areas within forest reserves where mostly primary vegetation is protected under the management of Forestry Research Institute of Nigeria. According to the IUCN classification Strict Nature Reserves are protected areas where any human activities that could change the land surface or vegetation characteristics are strictly prohibited. These areas are specifically preserved for scientific research and other educational purposes. There is no specific legislation guiding their protection but they are mostly run by collaboration between the state, federal government and international conservation agencies. Presently, there are 8 strict nature reserves in Nigeria but are mostly degraded or fragmented due to human encroachment (Oyebo et al., 2010). However, the Omo SNR in Oluwa Forest Reserve of Ondo State is managed by the UNESCO's Man and Biosphere Programme and so remains relatively undisturbed with high species richness and diversity status (Ola-Adams, 2014).

### 4.6.3 Forest Reserves

The creation of forest reserves in today's Nigeria started in early 20<sup>th</sup> century following the promulgation of the Forestry Ordinance by the colonial administration (Imasuen et al., 2013). This Ordinance was meant to protect the forests from illegal logging and to maximize trade in timber resources. Since the establishment of the Olokemeji reserve near Ibadan in 1900, the practice of reserves creation was proliferated to other parts of present day Nigeria. In the northern part, the colonial administration also created game reserves within the savannah zone for wildlife protection. Thus, the Yankari Game Reserve was established shortly before independence (Usman and Adefalu, 2010). It is important to note that in post-independent Nigeria Yankari Game Reserve became a national park but later converted into its original status under the control of Bauchi State Government. Today, almost every state has a forest reserve and their management is vested in the State Governments while the Federal Department of Forestry only has advisory and monitoring functions over them. Their total land coverage was estimated as 10,752,702 hectares which represents about 11% of the total land cover of Nigeria (Oyebo et al., 2010). In Cross River State, large portions of tropical high forests are managed under the National Park, Forest Reserve, and Community Forest Estate designations (see table 4.4).

Table 4.4 Forest Management Types in Cross River State

Forest Management Types	Area Coverage (Km <sup>2</sup> )	Proportion of Forest Cover (%)
Cross River National Park	2,955.1	40
Forest Reserves	2,773.85	38
Community Forests	1,632.75	22
<b>Total</b>	<b>7,361.7</b>	<b>100</b>

Source: Adapted from Oyebo et al. (2010)

The National Parks are managed by the Nigerian National Park while the state Forest Reserves are under the control of state government's Forestry Commission. Community Forest Estates are managed under a devolution arrangement by the state government because of the customary ownership of their forests. However, the community forests are better managed and less degraded so they are earmarked as pilot sites for REDD+ readiness in Cross River State.

#### 4.7 REDD+ Pilot Sites

Following successive scoping missions by the UNREDD and World Bank's Forest Carbon Partnership Facility officials in Cross River State, a preliminary assessment of REDD+ was documented by the State Government in 2010. Through this process 3 main clusters for REDD+ pilot project were identified. These clusters compose of contiguous tropical high forests under community management as well as adjoining forest reserves and national parks. These are: (a) Ekuri forest cluster (b) Afi/Mbe forest cluster (c) Mangrove forest cluster.

The Ekuri cluster comprises of Ekuri, Iko-sai, Okokori, Etara, Eyeyeng, Owai, Ukpon River community forests and reserves including other small neighbouring communities. According to the Project Idea Notes (PIN), (see Oyebo et al., 2010), this cluster covers about 19,000 hectares of forests and under the existing baseline scenario it is capable of capturing approximately 22.3 million tonnes of carbon dioxide over the next 20 years. If properly managed under REDD+ this cluster could generate about 12 million tonnes of carbon dioxide over the same period. Thus, these areas are put together into a single cluster because that is the only way the project can be viable and can attract global carbon financing under the REDD+ programme. Among these communities, Old and New Ekuri villages control the largest portion of forests which represent one of the largest remaining tropical forests under community management in West Africa (Bisong and Animashaun, 2007). There are existing community-based conservation efforts in collaboration with international agencies in some of these communities. These include the Ekuri Initiative NGO and UK-based CERCOPAN.

The Afi River and Mbe Mountain Wildlife Sanctuary, and surrounding community forests and reserves constitute another cluster for the REDD+ pilot. Located in Boki Local Government Area of Cross River State, this cluster is controlled by 18 communities and occupy approximately 50,000 hectares of forest land. The PIN also projected that this cluster is capable of releasing about 12.3 million tonnes of carbon dioxide over the same period of 20 years under the same deforestation baseline scenario. Kanyang I and II, and Buanchor communities control the largest forest in this cluster. There are 9 communities living around the Mbe Mountains and their conservation activities are carried out by the Conservation Association of Mbe Mountain (CAMM) CBO.

The Mangrove cluster is identified but Nigeria is yet to carry out any comprehensive assessment of development of PIN for this cluster. However, the preliminary assessment document 2010 mentioned that mangrove reserves in the state cover the total area of 58,000 hectares (5% of the state's total land area) and is very rich in forest biodiversity. Even though mangroves are not officially listed as forests under REDD+, Nigeria is planning to lobby for their inclusion in the country project at future UNFCCC COP meetings. There are over 30 communities living on the mangrove swamps and are currently involved in the REDD+ process in Cross River State.

#### **4.8 Conclusion**

This chapter shows that Cross River is one of the 36 states of the federal republic of Nigeria located in the south-eastern part of the country. Although it has a southern boundary with the Atlantic Ocean, the state is now considered as landlocked following the cessation of Bakassi peninsula to Cameroun in 2008 on the order of International Court of Justice. It is one of the oldest and largest states in Nigeria that was created in the 1960s by the military government. Its topography is characterised by coastal creeks, mountains and volcanic hills on the eastern borders with Cameroun. Its vegetation is rich in plant biodiversity and follows the topographic pattern consisting of mangrove swamps, evergreen forests, guinea savanna and montane forests and grasslands. Annually, the state receives significantly high amount of rainfall that sustains the growth of its forest vegetation cover.

It has a relatively high population density and growth rate compared to other sections of the country. The people are predominantly *Efik* speakers coupled with other indigenous languages. However, Pidgin English is gaining more popularity among those who do not attend formal western education. Similar to other states in the country, the economy of Cross River State is dependent on oil revenues which has drastically reduced over the last decade. Tourism development is pursued in order to supplement government income by successive administrations. Subsistence agriculture characterised by cocoa plantations, fisheries, timber harvesting, and other cash crops production constitute another major income sources to the government and local populations. However, due to high deforestation rates and preparations for REDD+, timber economy has reduced drastically and later declared illegal.

There are different forests under various management designations in Cross River State. The federal government manage the Cross River National Park while the state controls the forest reserves. Although the state government has statutory control over all the lands in the state, the communities also are allowed to manage their own forest under a devolution arrangement. Today, the forests under community management are better preserved and constitute the most viable forest covers earmarked for REDD+ in Cross River State.

Since 2010 the REDD+ programme has become a central policy framework for the state in order to boost its local economy and to contribute to global climate change mitigation. Preliminary investigations were carried out by experts and 3 main clusters were identified. As discussed in chapter 3 this study was carried out in some selected communities in only 2 of the 3 forest clusters. The reason for this choice was also discussed in chapter 3. In the following chapter, analysis and discussions about communities' perceptions of forest values and motivations for engaging in community forestry initiatives are presented.

## **Chapter Five – Forest Values and Motivations for Conservation in REDD+ Communities**

### **5.1 Introduction**

This chapter presents results and discussions in relation to the first aim of this study. It examines how place-based motivations for forest governance, values and emotions are shaping communities' attitudes and behaviour towards forest conservation and engagement with REDD+ in Cross River State. It contributes to the wider debates about the role in incentives in stimulating motivations for collective action and institutional crafting for managing natural resources. Motivation remains a central topic in PES and REDD+ discussions, yet limited attention has been given to how globally articulated governance mechanisms generate context-specific disparities and unexpected outcomes in terms of motivation for participation in REDD+ projects. Applying the conceptual lens of place attachment this chapter seeks to identify and examine the drivers of intrinsic motivations and pro-environmental behaviour in the REDD+ pilot sites. It also examines the mechanisms through which intrinsic motivations are expressed and how they are affected by introduced forest governance institutions. The aim is to provide empirical evidence about the extent to which economic discourses about carbon credits under the REDD+ regime can promote or undermine successful community forest conservation initiatives in Nigeria. Q methodology was used throughout this chapter to explore these subjectivities in addition to data from interviews and focus groups. The chapter is structured into 6 sections. Section 5.2 presents the summary of Q methodology analysis and results, showing five factors extracted using PCA with varimax rotation, correlation between factors, factor matrix and arrays. Section 5.3 presents the factor interpretation using the crib sheet approach which is supported by interview data about participants' ranking preferences and patterns. Section 5.4 presents analysis of emerging discourses and themes in relation to the wider literature. Section 5.5 analyses the perceived motivation crowding effects among the participants, while Section 5.6 provides conclusion and implication of findings for REDD+ implementation in Nigeria.

### **5.2 Summary of Q Analysis and Results**

PQ Method software was used to analyse the Q sorts, and factors were extracted using Principal Component Analysis (PCA) followed by varimax rotation (See Chapter 3). As a

result, five factors representing distinct but interrelated discourses were extracted (F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, and F<sub>5</sub>). A summary of the rotated factors and associated Q sorts is shown in table 5.1 below (see appendix 2 for more details). The table also shows that a total of twenty-one Q sorts load significantly on only one of the five factors and nine confounded sorts loaded on more than one factor.

Table 5.1 Summary of Rotated Factors

<b>Factors</b>	<b>Respondents (Q Sorts)</b>
F <sub>1</sub> (Forest for survival)	5, 7, 9, 10, 11, 25, 30
F <sub>2</sub> (Forest is beautiful)	16, 19, 20, 21
F <sub>3</sub> (No pay, no care)	1, 6, 22
F <sub>4</sub> (Conservation volunteers)	4, 24, 26
F <sub>5</sub> (We care but pay)	13, 14, 17, 29
Confounded	2, 3, 8, 12, 15, 18, 23, 27, 28
Non-significant	None
Significance level	0.35

Table 5.1 shows the Q-sorts that load on each of the 5 factors extracted, e.g. respondents 5, 7, 9, 10, 11, 25, and 30 are significantly loaded on F<sub>1</sub> and so their subjective viewpoints are characterised by that factor. It means that each of those Q-sorts has values of greater than or equal to the calculated statistical significance level of 0.35 in relation to that factor. Confounded sorts are those loaded on two or more factors, e.g. Q-sorts 2, 3, 8, 12, 15, 18, 23, 27, and 28 loaded on more than one factor at the calculated significance level (see Table 5.3 below). This implies that they are excluded from the factors average weights (Watts and Stenner, 2005b). Non-significance denotes factors that do not contain at least one Q-sort loading of 0.35 or higher. Table 5.1 shows that none of the factors are found to be insignificant (see also Table 5.3). It is important to note that excluding confounded Q sorts doesn't affect the overall findings. It is just one of Q methodology rules that could easily be supplemented by qualitative data obtained from that participant during follow up interviews. I have used all the 30 post Q sort interviews throughout the analysis in this chapter.

These factors accounted for 55 per cent of the total variation in the Q sorts. This percentage is said to be statistically significant because within Q methodology any factor solution that is greater than or equals to 35-40 percent represents a sound solution (Watts and Stenner, 2012). Although they are statistically different from each other, some of the factors are not fully unique because the high correlations between them have exceeded the ideal threshold of 0.30 suggested by Brown (1980) as shown in Table 5.2.

Table 5.2 Factors Correlations

Factors	F1	F2	F3	F4	F5
F1	1.00	0.29	0.13	0.43	0.34
F2	0.29	1.00	0.21	0.30	0.24
F3	0.13	0.21	1.00	0.27	0.31
F4	0.43	0.30	0.27	1.00	0.30
F5	0.34	0.24	0.31	0.30	1.00

The table shows that F1 and F4 are the most correlated factors ( $R=0.43$ ), then followed by F1 and F5 with the correlation values of 0.34 which suggest some degree of overlap or similarities between the discourses they represent. On the other hand, F1 and F3 have the lowest value of 0.13 which is an indication of independence of viewpoints in relation to all other factors. These overlaps and distinctiveness will be discussed in detail during factors interpretation and discussion sections

### 5.2.1 Defining Sorts

Significant factor loadings for the study were calculated at 0.01 significance level using equations described in Brown (1980: 222-3). Given as:

$$\begin{aligned}
 & 2.58 \times (1 \div \sqrt{\text{total number of items in Q set}} \\
 & = 2.58 \times (1 \div \sqrt{54}) \\
 & = 2.58 \times (1 \div 7.34846) \\
 & = 2.58 \times 0.1360 \\
 & = 0.351, \text{ approx. } 0.35
 \end{aligned}$$

Therefore, statistically significant correlations for this study are those above 0.35 and they are marked by (X) as shown in Table 5.3.

Table 5.3 Factor matrix with (x) indicating a defining (statistically significant) Q sort

Q Sorts <sup>15</sup>	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1. K2F42	0.0226	0.0298	<b>0.6972X</b>	-0.1557	0.1525
2. K2M27	0.1484	0.3927	-0.1072	0.1799	0.3706
3. K2M36	0.4353	0.0113	0.2799	0.4160	0.0112
4. K2M52	0.3248	0.1795	0.2845	<b>0.5170X</b>	0.0407
5. K2M60	<b>0.4961X</b>	0.2937	0.3403	0.0117	0.1610
6. BCM32	0.0862	-0.0169	<b>0.7268X</b>	0.2088	0.1564
7. BCM40	<b>0.6614X</b>	0.0945	-0.0969	-0.0049	0.2228
8. BCM29	0.3689	-0.0430	0.3584	-0.2106	0.6559
9. BCM50	<b>0.6387X</b>	0.0559	0.1276	0.3068	0.0276
10. BCM35	<b>0.6545X</b>	0.1651	-0.0107	0.2046	0.1958
11. BCF23	<b>0.5920X</b>	0.3449	-0.2882	0.2332	0.0876
12. OKM50	0.3716	0.0774	0.1853	0.5210	0.1375
13. OKM40	0.0025	0.0810	0.1696	0.2905	<b>0.4800X</b>
14. OKM54	0.0859	0.1224	0.0943	-0.0122	<b>0.8235X</b>
15. OKM38	0.0422	0.0889	-0.3883	0.5360	0.1219
16. OKM57	0.2526	<b>0.5602X</b>	0.0648	0.2141	-0.1233
17. OKF30	0.1862	0.0247	0.2792	0.3063	<b>0.5530X</b>
18. OEM52	-0.0433	0.5637	0.3780	0.2914	0.0213
19. OEM53	0.1273	<b>0.7228X</b>	0.0268	-0.1202	0.0558

<sup>15</sup> The participants' Q sorts are ranked serially and coded according to the name of their communities, gender and age in the analysis software. For example, participant number one is coded as K2F42, meaning Kanyang II community, female, and she was 42 years old. The remaining codes are: BC = Buanchor, OK = Okokori, OE = Old Ekuri, NE = New Ekuri communities.

Table 5.3 continued.

20. OEM69	0.2684	<b>0.7254X</b>	0.0882	-0.0331	0.1213
21. OEM39	-0.0995	<b>0.7201X</b>	-0.0965	0.1613	0.1680
22. OEM56	-0.0837	0.2470	<b>0.6143X</b>	0.3086	0.2233
23. OEF40	-0.1324	0.4935	0.3103	0.5776	-0.0471
24. NEM42	0.2232	0.0551	-0.0328	<b>0.5885X</b>	0.1668
25. NEM29	<b>0.6422X</b>	0.1403	-0.1511	0.1465	0.2212
26. NEM29	0.1784	0.1162	0.0679	<b>0.6491X</b>	0.0234
27. NEM45	0.5657	0.0281	0.2124	0.4687	0.3391
28. NEM57	0.4241	-0.1054	-0.1538	0.6183	0.3812
29. NEM27	0.2821	0.1216	0.0219	0.4516	<b>0.5767X</b>
30. NEM56	<b>0.7674X</b>	-0.0939	0.1460	0.1614	-0.1086
Percentage of variance Explained	<b>15</b>	10	9	12	9

Table 5.3 shows the factor loadings for all the 30 Q sorts. It is noticeable that the confounded Q sorts represent participants with two or more significant loadings of 0.35 and above and so were not marked with an (x). These participants are 2, 3, 8, 12, 15, 18, 23, 27, and 28. The table also shows the percentage of variance explained by each factor. For example, factor 1 represents 15 per cent and factor 5 represents 9 per cent. These values are useful to understand more popular and less popular viewpoints or perceptions. From table 5.3 it can be seen that each of the five factors extracted satisfy the Humphrey's rule which suggests that a factor can only be extracted if it has two or more significant loadings. In the following Table 5.4, all the 54 statements used for the study are shown with respect to how they are ranked in all the 5 factors.

Table 5.4 Factor Q-sort values for each statement

No.	Statement	F1	F2	F3	F4	F5
1	Because of our previous experiences, I think the incentives must be given to us first before we agree with any conservation initiative in our forest (Motivation for environmental behaviour)	-2	0	0	-5	4
2	Belonging to a volunteer group for conservation in this forest community is very special to me (Place identity/attachment)	1	-1	0	5	-1
3	Doing my activities in this community is more important to me than doing them in any other place (Place identity/attachment)	-3	1	0	-1	4
4	Even if I am tired of living here I don't have any place to go (Place identity/attachment)	-3	5	1	-2	-4
5	Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today (Future value orientation)	2	2	1	5	5
6	Humans are above all other living things, so they are created to serve us (Connectedness to nature)	0	2	2	0	-1
7	I am sometimes doubtful about the wilderness preservation and conservation programs (Environmental behaviour/apathy)	-2	-1	-3	-2	-1
8	I am willing to accept REDD+ to conserve the forest for climate change and biodiversity (Motivation for environmental behaviour)	3	0	3	-1	2
9	I cannot substitute this community with any other place on earth (Place identity/attachment)	-2	-1	0	3	-1
10	I think the problem of deforestation is a bad as many people make it to be (Motivation for environmental behaviour)	-1	-3	-2	-1	-2
11	I feel deep love for the forest its surroundings (Connectedness to nature)	1	4	1	3	0
12	I feel spiritually bonded to the forest, its species and surrounding landscape (Connectedness to nature)	-3	-2	-5	-2	-4
13	I feel like the forest and its biodiversity have become a part of me (Place identity/attachment)	2	-3	-1	1	2
14	I have attended a public hearing or meeting about forest management(Behaviour/attitude)	0	0	3	2	3
15	I have contacted a government agency to get information or complain about forest degradation (Behaviour/attitude)	1	3	-1	1	-2
16	I have contributed money or time to an environmental or wildlife conservation group (Behaviour/attitude)	0	-5	1	0	-2
17	I have deep understanding of how my activities affect the forests and other living things living here (Connectedness to nature)	2	1	-1	0	-1
18	I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment (Behaviour/attitude)	3	1	3	1	-1
19	I have stopped buying wood from loggers or animals killed illegally from the forest (Behaviour/attitude)	0	3	-2	1	-1
20	I live in this community because my family is here (Place identity/attachment)	-3	-1	2	-2	1
21	I need to have as much forest around me as possible (Connectedness to nature)	-1	0	-2	4	2
22	I often encourage others that environmental conservation is important (Environmental behaviour/activism)	2	3	2	2	1
23	I often feel close to the forest and its species (Connectedness to nature)	0	3	-3	0	0
24	I often feel joy looking at the forest (Connectedness to nature)	1	4	0	0	1
25	I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world (Motivation for environmental behaviour)	5	-2	0	2	3
26	I think too much emphasis have been placed on conservation by the government and NGOs (Environmental behaviour/apathy)	-5	-2	-1	1	0
27	I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them (Aesthetic value orientation)	2	2	-1	0	0
28	I value forests because they provide special places of worship and other religious activities (Spiritual value orientation)	-5	-4	-3	-2	-5

Table 5.4 continued.

29	I value forests because they serve as habitat for variety of plant and animals species (Ecological value orientation)	4	0	0	0	2
30	I value forests because they serve as places of natural and human history (Historical value orientation)	3	1	-1	3	5
31	I value forests because it is a place for tourism and recreational activities (Recreation value orientation)	3	5	1	2	0
32	I value forests for themselves but the welfare of people has to come first (Instrumental value orientation)	-2	2	1	1	-1
33	I value forests mainly for their own sake and not for any benefits they provide for humans (Non-use value orientation/intrinsic)	-1	1	-2	-5	-2
34	I value the forest and its resources because it provides food, water and timber for the use of humans (Use-value orientation)	5	0	1	0	1
35	I value the forest because it reminds me of my childhood days, and that makes me happy (Cultural value orientation)	4	1	-2	0	1
36	I was engaged in tree planting exercise to improve the quality of the forest (Environmental behaviour/attitude)	1	-4	0	-1	-5
37	I will conserve the forest even if I don't receive any incentives from government or conservation agencies (Motivation for environmental behaviour)	1	-1	0	2	-3
38	I will support a long-term REDD+ contract in this forest (Motivation/participation)	1	0	-2	-3	0
39	I would like to join and actively participate in an environmentalist group (Environmental behaviour/activism)	1	-2	2	1	3
40	If I get extra income I would donate some to an environmental conservation agency (Environmental behaviour/activism)	-1	-2	-4	4	-2
41	If incentives stop coming I will support logging and hunting of animals to for people to survive (Motivation for environmental behaviour)	-4	-3	2	-4	0
42	It bothers me that people are running out of wood resources for construction just because of conservation (Environmental behaviour/attitude)	-2	-3	0	-1	-3
43	Living around the forest says a lot about who I am (Place identity/attachment)	0	2	-1	-1	1
44	My own welfare is linked to the survival of the forests and its species (Connectedness to nature)	0	0	4	2	2
45	My relationship with the extended family in this community is very special to me (Place identity/attachment)	-1	-1	4	0	0
46	My right to exist on earth is not more important than that of trees and animals in the forest (Connectedness to nature)	0	-5	-4	-3	-3
47	No matter how valuable the forest is to me, I will only conserve it for a longer time if adequate incentives are given to me (Motivation for environmental behaviour)	-4	-1	5	-2	3
48	People are afraid of arrests that is why they stop logging and hunting of animals (Motivation for environmental behaviour/punishment)	-1	1	2	-3	-3
49	Spending time in the forest takes my worries away and that makes me feel happy (Connectedness to nature)	-1	0	-5	-3	0
50	The better the incentives given to me the more effort I will put towards conservation (Motivation for environmental behaviour)	-1	1	1	-1	2
51	The community forest, the reserves and their surroundings are very special to me (Place identity/attachment)	2	2	3	3	1
52	The friendships I developed by doing various community activities strongly connect me to this place (Place identity/attachment)	0	0	-1	-1	-2
53	We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale (Motivation for environmental behaviour)	0	-2	5	1	1
54	Without my close relationship with other families in this community I would probably move to another place (Place identity/attachment)	-2	-1	-3	-4	0

Table 5.4 presents the factor arrays for the 54 statements with scores on each of the five discourses. In addition, the notations in brackets represent the theme from which the statement emerged through the process of discourse development. The table enables the comparison of the items rankings across all the five factors, with the ranking indicative of the viewpoints from the respondents from most disagreed (-5) through to the most agreed (+5) statements.

### **5.3 Factors Interpretation**

This section provides the detailed description and analysis of the factors identified by factor analysis. The crib sheet method suggested by Watts and Stenner (2012) was used to describe and interpret the factors by looking at the entire factor arrays as a whole instead of focusing on the distinguishing statements alone (see appendix 2). Numerical values were used to show statement numbers and their relative ranking by the participants in each factor. Post Q-sort interviews with the participants were transcribed and used to support participants' viewpoints throughout the section.

#### **5.3.1 Factor 1: 'Forests for survival'**

This factor explains 15 per cent of the study variance and has an eigenvalue<sup>16</sup> of 8.04 (see appendix 2). It has the largest number of participants' Q sorts loading comprising of seven significant and five confounded as shown in Table 5.3 which means it is the most widely shared discourse among the respondents. Four of the significant sorts are from Buanchor, two from New Ekuri and one from Kanyang II communities. Statements that distinguish this factor with others are shown in the table 5.5. As mentioned earlier, the distinguishing statements and the overall factor arrays in the crib sheet contributes towards a holistic interpretation of this factor.

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<sup>16</sup> Eigenvalue is a value obtained from the summation of all the square loadings on each factor as shown in Table 5.3.

Table 5.5: Distinguishing statements for Factor 1

Most agreed statements	Most disagreed statements
*34 I value the forest and its resources because it provides food, water and timber for the use of humans (+5)	*26 I think too much emphasis have been placed on conservation by the government and NGOs (-5)
*35 I value the forest because it reminds me of my childhood days, and that makes me happy (+4)	*47 No matter how valuable the forest is to me, I will only conserve it for a longer time if adequate incentives are given to me (-4)
17 I have deep understanding of how my activities affect the forests and other living things living there (+2)	*3 Doing my activities in this community is more important to me than doing them in any other place (-3)
38 I will support a long-term REDD+ contract in this forest (+1)	32 I value forests for themselves but the welfare of people has to come first (-2)
36 I was engaged in tree planting exercise to improve the quality of the forest (+1)	48 People are afraid of arrests that is why they stop logging and hunting of animals (-1)
*46 My right to exist on earth is not more important than that of trees and animals in the forest (0)	

*Numbers in parenthesis indicate the statement score within the factor.*

*Significance at  $P < 0.05$ ; (\*) indicates significance at  $P < 0.01$*

Factor one discourse holders are motivated to engage in conservation activities because of the variety of ecosystem services benefits they derive from the forests. These participants have a strong perception about the economic value of the forests that is linked to the provision of food, water and timber resources for the use of humans (S<sub>34</sub>: +5)<sup>17</sup>. One of the participants commented specifically about the instrumental value of the forests:

<sup>17</sup> This is a standard format of presenting Q methodology results. The code S<sub>34</sub>: +5 referred to statement number 34 in Table 5.5 and it was ranked at +5 in this factor as the most agreed statement. Throughout this section these codes are used in constructing the discourses. Interview quotes are also used to support the discourses being presented. These quotes mostly come from those participants whose viewpoints are statistically significant for the respective factors being analysed.

I value the forests because water, food, and timber are very crucial to the existence of humans, and for us in Ekuri these 3 things are quite critical. That is why we are keeping the forest so that we can continue to provide these goods and services for our survival (Participant 30, Conservationist, New Ekuri).

In addition to direct use values of forests, these respondents also derive some immaterial benefits. For example, they enjoy the sounds of animals and trees, the smell and beautiful landscapes around the forests (S27: +2), experiences that remind them of their childhood days which make them happy (S35: +4). One female participant said:

I can remember as a child my grandfather used to take to the forest to show many some caves, whenever I see animals running around the caves I feel so happy. Even if I am sad I will be happy (Participant 11, Student, Buanchor).

This discourse can also be interpreted as having an ecological value orientation since they consider forests to be valuable because they serve as habitats for variety of plants and animal species (S29: +4)<sup>18</sup>. These respondents are interested in the benefits from forests, but they have an indifferent perception about the relationship between their welfare and the survival of the forests (S44:0), so they feel that the welfare of people is not a priority over forests existence (S32: -2). However, these respondents do not attach any form of spiritual value to the forest as special places of worship or other religious activities (S28: -5).

The animals are very helpful to humans they help to spread wild seeds in the forest which helps in forest regeneration. E.g., the bush mango, the elephant can eat it and take it far away, excrete it and it will germinate there. That is why it is important we keep the forest so sustain that function. Secondly, animals provide protein for us; if the animals are gone then god's creation is not complete anymore. The forest is their home; once it is destroyed the animals won't have a place to live in and will eventually go extinct (Participant 30, Conservationist, New Ekuri).

I am bounded to god and not the forest, I am not a ritualistic, and I don't go to the forest for spiritual healings. Even when I am sick I pray to god, sometimes I take drugs but I don't go to the forest, I am not a native doctor (Participant 5, Reverend, Kanyang II).

In addition to personal benefits, this discourse underscores the need to practice conservation because forests and biodiversity are beneficial to the survival of other people around the world (S25: +5). Therefore, these discourse holders have shown a strong pro-environmental

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<sup>18</sup> As noted in chapter three, the Q methodology analysis used for this study adapted Watt and Stenner's (2012) crib sheet system, and so some of the statements that do not appear in the distinguishing statements tables are also used in constructing the discourses. (S29: +4) is an example of such statements.

behaviour by regulating or changing their activities or agricultural practices because of the concern for the environment (S18: +3).

The forest is essential to the survival of other people around the world in terms of oxygen and carbon, even water because the streams that have their source from Ekuri are beneficial to the downstream communities to the Ocean. So, it is crucial that the forest should be conserved to continue provide these benefits. It is also related to the climate change thing because the forests help to absorb the carbon that was emitted either in Europe, America, China or Canada. So, the forests here store the carbon thereby supporting climate change mitigation (Participant 30, Conservationist New Ekuri).

I used to be a logger up to 1994 before I was coopted into the Ekuri Initiative NGO, and since then realized what I was doing was wrong, it was against what god stands for. God provided these resources that we should use in a sustainable manner. But previously I was being wasteful and going at that rate the resources will not be there. Right from that time my perception about the forests and the trees changed and I stopped the logging business. Even my chain saws, I showed you some, they are all there rusted. I don't want to give them out or sell them because they might be used for logging again. That will aggravate climate and affect all humanity (Participant 30, Conservationist New Ekuri).

Consequently, some of the participants are willing to support a long-term REDD+ contract in their forests to mitigate against climate change and biodiversity loss (S8: +3) since the government and NGOs are not doing enough towards forest conservation (S26: -5).

I am willing to accept REDD+ because it is important for human survival. If we don't do that we are in danger, so I accept REDD+ very strongly (Participant 9, Tourist Guide, Buanchor).

Their interest in participation in the REDD+ program is not in any way related monetary payments or any form of incentives (S41: -4; S47: -4; S50: -1).

The purpose for conserving this forest is not only for the incentives alone. Before we had this knowledge of conservation there was still no incentives, and we developed the interest. We have the knowledge; know the importance of the forest that is why we are not after the incentives before going into conservation (Participant 25, Farmer, New Ekuri).

I don't like logging and illegal hunting, so I am not after the incentives; I will never support logging even without the incentives (Participant 9, Tourist Guide, Buanchor).

Added to changing their environmental behaviour, participants in this factor are also involved in tree planting exercise to improve the quality of the forests (S36: +1), which makes them reject the idea that the problem of deforestation is as bad as many people make it to be (S10: -1). However, their environmental behaviour does not likely involve attending

meetings or public hearing about forest management issues (S14:0). Because these respondents have a deep understanding of how their activities affect the forest (S17: +2), and they often feel a very strong attachment with the forest (S13: +2). This attachment, however, is not related to their place identities (S9: -2), family relationships (S20: -3; S45: -1) or social activities with other community members (S3: -3; S52:0), rather, it is as a result of their dependence on forests for livelihoods.

I am an indigene of this area, so I am not here because of any conservation activities. I was born and trained here. I love conservation not because of any friendship (Participant 7, Farmer, Buanchor).

It's not all about my family that make me stay here, sometimes it's because of the forest, the natural vegetation, the beauty of the forest and the conducive nature of the environment attract me to stay here. If not because of this forest I think I could have moved somewhere (Participant 25, Farmer, New Ekuri).

In summary, this factor emphasized the utilitarian values of forests in supporting livelihoods in the communities. These values are perceived as both tangible and intangible by these participants. The participants have also expressed their willingness to support the implementation of REDD+ in their forest mainly because of these values and not monetary incentives.

### **5.3.2 Factor 2: 'Forest is beautiful'**

Factor two has an eigenvalue of 2.67 and explains 10 per cent of the study variance. Four participants are significantly associated with this factor while three are confounded loadings. All the participants are males, three from Old Ekuri and one from Okokori communities.

Table 5.6 Distinguishing statements for factor 2.

Most agreed statements	Most disagreed statements
*31 I value forests because it is a place for tourism and recreational activities (+5)	*16 I have contributed money or time to an environmental or wildlife conservation group (-5)
*4 Even if I am tired of living here I don't have any place to go (+5)	13 I feel the forest and its biodiversity have become a part of me (-3)
*24 I often feel joy looking at the forest (+4)	25 I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world (-2)
*23 I often feel close to the forest and its species (+3)	39 I would like to join and actively participate in an environmentalist group (-2)
15 I have contacted a government agency to get information or complain about forest degradation/ destruction (+3)	
19 I have stopped buying wood from loggers or animals killed illegally from the forest (+3)	

*Numbers in parenthesis indicate the statement score within the factor.*

*Significance at  $P < 0.05$ ; (\*) indicates significance at  $P < 0.01$*

From the statements that distinguish this factor from others, it is evident that participants have emotional attachment towards the forest communities in which they live. This is highlighted in S<sub>4</sub>: +5, 'Even if I am tired of living here I don't have any place to go'. 'Living around this forest says a lot about who I am'. (S<sub>43</sub>: +2) emphasises that participants in this factor are not only attached to the places where they live but also ascribe meanings in relation to their identities.

Living around here says a lot about who I am because I can tell you many stories about the forest, about me and my family and where we came from and why we are here (Participant 21, Farmer, Old Ekuri).

Place attachment and identity among them could probably be due to the friendships they developed while doing community activities together (S52: 0) rather than feeling like being a part of the forest and its biodiversity (S13: -3). Similarly, the attachment is not as a result of participation in volunteer conservation groups (S2: -1), or even relationships with their extended family members (S45: -1).

This is my place even if I don't have anybody, even if my parents are dead this is my place and I cannot leave it to another place. If I naturalize in another place I will not have full rights like my own place. Even if I don't have extended family here I have friends that we know each other for long, so they make me to feel comfortable to live here than in any other place (Participant 18, Farmer, Old Ekuri).

In contrast to factor one, these respondents indicate a strong connectedness to nature by feeling a deep love for the forest and its surroundings (S11: +4), or a feeling of joy while looking at the forest (S24: +4). In spite of this deep sense of connection with nature, these participants do not feel spiritually bonded to the forest, its species or surrounding landscape (S12: -2) or feel the forests have more rights of survival than humans (S46: -5).

...we normally enter the forest to see different types of animals, different species of plants, and the atmosphere, the air touching your skin inside the forest is very different. That is why I love going inside there. The forests also breathe in carbon and give out oxygen that is why we love to go inside the forest (Participant 16, Farmer, Okokori).

Humans are the most important things that god has created so other things are secondary that is why they are here to keep us happy (Participant 19, Community leader, Old Ekuri).

In addition, their happiness is derived from the appreciation of the aesthetic beauty of the forest landscape for the sounds, smell and the visual appeal they experience (S27: +2), and perhaps not because of the existence of variety of plants and animal's species (S29:0) or provision of food, water and timber for the use of humans (S34:0).

Whenever I see the topography of the environment here I feel happy throughout the day. That is why everyone that comes around is happy to see our forest too, so we the owners must be happier (Participant 20, Farmer, Old Ekuri).

Their strong agreement with the statement 'I value forests because they are places for tourism and recreational activities' (S31: +5) further supports their viewpoint about the beauty of the forest and its species. But they are indifferent about the ability of the forests to take their worries away no matter how long they stay there (S49:0).

Forests do not always take my worries away because if you enter the forest especially during the forest during the rainy season you won't have any place to stay, no shelter (Participant 16, Farmer, Okokori).

In addition to the aesthetic values, forests also have intrinsic values that motivate participants in this factor to engage in conservation behaviours (S33: +1). Some of these behaviours include: 'encouraging others that environmental conservation is important' (S22: +3), 'stopped buying wood from loggers or animals killed illegally from the forest' (S19: +3), and 'contacting a government agency to get information or complain about forest degradation' (S15: +3).

I have contacted government and agencies such as Forestry Commission and NGOs to complain about forest destruction or to obtain information because they are helping us to conserve the forest (Participant 20, Farmer, Old Ekuri).

This explains the reason why they are not bothered about wood shortages for construction purposes due to conservation policies (S42: -3). They also think the problem of deforestation is exaggerated (S10: -3) since they have confidence in wilderness preservation and conservation programs (S7: -1), and could probably 'have attended a public hearing or meeting about forest management' (S14:0).

I don't think the problem of deforestation is as bad as people make it to be because the forest here has not been tampered with since it was created by god. It's not so bad because ours is conserved (Participant 20, Farmer, Old Ekuri).

I have not attended any such meeting. I will attend when given the opportunity (Participant 16, Farmer, Okokori).

However, these respondents are not interested in contributing money or time to any conservation body (S16: -5), joining or participating in any environmentalist group (S39: -2), or practice conservation for the benefits of other people around the world (S25: -2). Finally, this discourse emphasises that monetary incentives or conservation benefits do not determine their motivation, and so they are not worried about the unfulfilled promises made by government and NGOs (S53: -2).

How can I contribute money when I am fighting to get money from them? I cannot do it, never! (Participant 20, Farmer, Old Ekuri).

This forest is something created by god and it is a law among us that no tree should be cut; it has been our agreement in this community, even if money is not given to us the conservation will continue (Participant 20, Farmer, Old Ekuri).

In summary, the discourses that have emerged from this factor is mostly centred on the aesthetic values of the forest as perceived by the participants. These values have influenced their motivation for forest conservation.

### 5.3.3 Factor 3: 'No pay, no care'

Discourse three explains 9 per cent of the study variance and has an eigenvalue of 2.33. It has 3 significant and 3 confounded loadings. The significant sorts comprise of one female from Kanyang II, and two males from Buanchor and Old Ekuri communities with ages from 32-56 years.

Table 5.7 Distinguishing statements for factor 3

Most agreed statements	Most disagreed statements
*53 We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale (+5)	49 Spending time in the forest takes my worries away and that makes me feel happy (-5)
*45 My relationship with the extended family in this community is very special to me (+4)	*23 I often feel close to the forest and its species – (3)
*41 If incentives stop coming I will support logging and hunting of animals for people to survive (+2)	13 I feel the forest and its biodiversity have become a part of me (-1)
*4 Even if I am tired of living here I don't have any place to go (+1)	30 I value forests because they serve as places of natural and human history (-1)
5 Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today (+1)	
25 I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world (0)	

*Numbers in parenthesis indicate the statement score within the factor.*

*Significance at  $P < 0.05$ ; (\*) indicates significance at  $P < 0.01$*

As shown in Table 5.6, the statements distinguishing these discourse holders with others is about external incentives and the role they play in motivating their conservation behaviour. These participants agree strongly that 'if incentives stop coming I will support logging and hunting of animals to for people to survive (S41: +5). They are tired of waiting for the incentives promise to them by the government and NGOs which is affecting their conservation morale (S53: +5). In spite of such frustration, they see REDD+ as project that can compensate for their long-term conservation behaviour as well as to help address climate change and biodiversity loss, that is why they are willing to participate (S8: +3).

I will support logging and hunting if they don't give the community any money. We will go back to the forest, because it's our forest - no payment no work (Participant 1, Farmer, Kanyang II).

Poverty, too much poverty, we continue to conserve the forest, I am not allowed to tap anything from there, too much waiting will continue to make me poorer (Participant 22, Farmer, Old Ekuri).

If the incentives don't come we will clear the forest because I don't see anything beneficial (Participant 6, Farmer, Buanchor).

In expectation of payments participants in this factor have continue to regulate or change their agricultural practices (S18: +3), attend public hearing or meeting about forest management wildlife conservation groups (S14: +3; S16: +1). Despite these positive attitudes, they find it difficult to stop buying wood from loggers or animals killed illegally from the forest (S19: -2). They are strongly unwilling to donate their extra income to environmental conservation agencies (S40: -4), even though they have confidence in the effectiveness of their activities (S7: -3).

I am seeking for people to help me therefore I can't donate. Where would the extra income from? Even if you give me extra money I will use it to maintain my family, I can't give it out, I rather use it to train my children (Participant 22, Farmer, Old Ekuri).

Owing to their incentives-related motivations, these participants do not care about the aesthetic (S27: -1), cultural (S35: -2), historic (S30: -1) values of the forest. They are also indifferent about their ecological values (S29:0). However, they believe they could reduce their living standard for the benefits of future generations (S5: +1).

In addition, they don't show any sign of concern of connectedness to the natural environment. For example, they don't derive happiness from being in the forests, looking at

it (S49: -5; 24:0; 21: -2), or any spiritual bond with the forest landscape and its species (S12: -5; 23: -3).

How can spending time in the forest takes my worries away, is suffering a thing of joy? How can I be in the forest tilling the ground and cutting down trees and then takes worries away? It rather increases my worries and pain (Participant 1, Farmer, Kanyang II).

As humans, we don't need to live close to the forest; trees can fall into your house (Participant 6, Farmer, Buanchor).

Their only concern is for the forests to survive in order to continue the supply of economic benefits for their own welfare (S44: +4). This viewpoint is strongly related to their belief about the superiority of humans over nature, and that nature is created only to serve humans (S6: +2). Consequently, they don't have deep understanding of how their activities are affecting the forests and other living things (S17: -1). The statement 'people are afraid of arrest that's why they stop logging and hunting of animals' (S48: +2) further buttress this point because they somewhat blame the conservationists for the insufficient wood for construction (S42:0).

God created everything and ask man to have control over them that is why humans are above them all (Participant 22, Farmer, Old Ekuri).

Our people here are farmers and we don't have money, and since they have come into this community because of the forest conservation, nothing has been paid to the people, hunters and farmers. So, people are afraid of going to prison that's why they don't go there. And there is a law in the community that said once you are caught there you will go to prison, they will collect your gun and do other things... (Participant 1, Farmer, Kanyang II).

Lastly, this viewpoint does not support the idea that forests have anything thing to do with their identity (S43: -1) apart from their special consideration for the community forests and the reserves (S51: +3). This is attributed to their social relationships with their immediate and extended families who live there rather than their attachment to the natural environment (S45: +4; 20: +2).

This is where I was born and where my children are supposed to live. I am an indigene of the community; I cannot be born here and be known somewhere else. So, where I belong is where I belong.... (Participant 6, Farmer, Buanchor).

In summary, the 'no pay, no care' discourse in this factor shows that these participants are motivated to engage in forest conservation and REDD+ because of expectations of

incentives. These participants care more about their personal welfare, monetary incentives and maximum benefits at the expense of the forests survival.

#### 5.3.4 Factor 4: 'Conservation volunteers'

This discourse explains 12 per cent of the study variance and has an eigenvalue of 1.88. It has 3 significant and 7 confounded loadings. One of the significant loading is a respondent from Kanyang II community while the other two are from New Ekuri community. Participants are all males with ages between 29 to 52 years. Table 5.8 below shows the distinguishing statements for this factor.

Table 5.8 Distinguishing statements for factor 4.

Most agreed statements	Most disagreed statements
*2 Belonging to a volunteer group for conservation in this forest community is very special to me (+5)	*33 I value forests mainly for their own sake and not for any benefits they provide for humans (-5)
*40 If I get extra income I would donate some to an environmental conservation agency (+4)	*1 Because of our previous experiences, I think the incentives must be given to us first before we agree with any conservation initiative in our forest (-5)
9 I cannot substitute this community with any other place on earth (+3)	38 I will support a long-term REDD contract in this forest (-3)
26 I think too much emphasis have been placed on conservation by the government and NGOs (+1)	49 Spending time in the forest takes my worries away and that makes me feel happy (-3)
19 I have stopped buying wood from loggers or animals killed illegally from the forest (+1)	4 Even if I am tired of living here I don't have any place to go (-2)

*Numbers in parenthesis indicate the statement score within the factor.*

*Significance at  $P < 0.05$ ; (\*) indicates significance at  $P < 0.01$*

For this discourse, the main motivation for conserving the forest is strongly associated with social interactions they experience while working with other conservation volunteers in their communities ( $S_2$ : +5).

Belonging to volunteer groups is very important to me because we should not wait for any benefit to come before we start working, one have to volunteer even if not very well equipped to go around telling people the importance of conservation, that is why I volunteer to do it and it very important to me (Participant 24, Farmer, New Ekuri).

Table 5.8 indicates that these discourse holders have a strong place attachment because they consider the forests and their surrounding as something very special (S51: +3) so much so that they cannot substitute their communities with any other place on earth (S9: +3).

The forest is actually on the precious resources I am blessed with by god, so there is no other place on earth that can serve as an exchange to these resources (Participant 26, Student, New Ekuri).

They live in these communities because of their strong connectedness to the forest environment (21: +4) and not as a result of their family ties (S54: -4) or spiritual bonds (S12: -2). However, this attachment does not describe anything related to their identities as forest people (S43: -1).

Yes, where do I have to go? I remain here, whether there is family relationship or not, I still remain. This is the place god has made me to live, so I can't leave. At present, there is no any other place I think I can go, this is where I stay until I die (Participant 4, Pastor, Kanyang II).

...even though the forest is my identity but it's not written on my face, when I go somewhere nobody will know I am a forest man (Participant 27, Farmer, New Ekuri).

Their passion for joining volunteering groups for conservation work is borne out of their concern for the future generation, and they are willing to sacrifice the benefits they derive from the forests for posterity sake (S5: +5; 33: -5). In addition, the variety of plants and animals in the forests could be valuable to them but definitely not for any religious or other spiritual purposes (S29:0; 28: -2). As a result of their volunteering works, these respondents are happy to donate their extra income to conservation agencies (S40: +4).

.... I value the forest not because it increases my standard of living only but also for the future generation. If my father had decided to satisfy all his need the forest wouldn't have survived to this moment for me to see, so the same reason I want to conserve the forest (Participant 25, Farmer, New Ekuri).

They also disagree that the problem of deforestation is as bad as many people make it to because they believe adequate emphasis should be placed on conservation by the government and the NGOs (S10: -1; 26: +1).

...there is no too much emphasis, I must say that the government has not even place adequate emphasis on conservation because for them to do that they have to practically enforce the ban on logging or emphasize the sustainable management of the forest. But now there is so much illegality... (Participant 30, Conservationist, New Ekuri).

However, these respondents are neither 'willing to accept REDD+ to help them conserve the forests for climate change and biodiversity' nor 'supporting a long-term REDD+ contract in their forest' (S8: -1; 38: -3). Unlike participants in factor three, these people do not care about incentives because they will continue to conserve the forests even if they don't receive any incentives from government of agencies (S50: -1; 37: +2).

...no, the way I see REDD+ is that they will restrict us access to a certain portion of the forest. What we are trying to do is to conserve this forest for our future generations, so if we go into REDD+ arrangement, we are cheating ourselves (Participant, 24, Farmer, New Ekuri).

We have been conserving the forest all along without any incentives, we started on our own initiative, and it's an age long practice here. Even if nothing is given conservation is our culture we will continue with it (Participant 26, Student, New Ekuri).

They will not support logging or hunting of animals for their survival even if incentives are not paid to them (S41: -4). Since incentives don't really matter, they are not worried about their previous disappointments they experience about payments and promises made by government or NGOs (S1: -5).

...so, if the government does not give me anything to support me that doesn't make me begin to abuse the forest. I know if I do that it will affect my life presently and the future generations. I don't care if government gives me incentives or not (Participant 4, Pastor, Kanyang II).

Therefore, they see conservation as an appropriate way of living in harmony with the natural environment and not because they are afraid of arrests (48: -3).

...since we embark on conservation we do it willingly not because of any arrest (Participant 24, New Ekuri).

In summary, from the above discussions it is evident that participants in this factor are traditional conservationists and are motivated to continue even if compensations are not provided.

### 5.3.5 Factor 5: 'We care, but pay'

Factor five has an eigenvalue of 1.58 and explains 9 per cent of the study variance. It consists of 4 significant loading and 3 confounded sorts. Three of the significant sorts are from the Okokori and one from New Ekuri communities.

Table 5.9 Distinguishing statements for factor 5

Most agreed statements	Most disagreed statements
*1 Because of our previous experiences, I think the incentives must be given to us first before we agree with any conservation initiative in our forest (+4)	32 I value forests for themselves but the welfare of people has to come first (-1)
*3 Doing my activities in this community is more important to me than doing them in any other place (+4)	16 I have contributed money or time to an environmental or wildlife conservation group (-2)
51 The community forest, the reserves and their surroundings are very special to me (+1)	52 The friendships I developed by doing various community activities strongly connect me to this place (-2)
*41 If incentives stop coming I will support logging and hunting of animals to for people to survive (0)	37 I will conserve the forest even if I don't receive any incentives from government or conservation agencies (-3)

*Numbers in parenthesis indicate the statement score within the factor.*

*Significance at  $P < 0.05$ ; (\*) indicates significance at  $P < 0.01$*

As shown in table 5.9, the factor presents a mixture of different perceptions held by other factors due to its emphasis on the roles of incentives, place identity and satisfying the needs of future generations. Similar to factor 3 these respondents will not continue with conservation if they don't receive any incentives from government or agencies (S37: -3), so the better the incentives the more efforts they are willing to put towards conservation (S50: +2).

Sometimes we get involved in forest destruction because of poverty, if given some incentives there are other things that we could do even without involving the forest. Incentives will make us get engaged in other things such as snail farming, animal rearing etc. We enter this forest do reduce our poverty, to make sure we send our children to school, get our daily income. Like the issue of banana, I said if we don't

deforest this land how can we live and send our children to school? If we have other means of solving our problems we will definitely leave the forest alone (Participant 12, Community Elder, Okokori).

This perception may not be unconnected with their previous experiences about unfulfilled promises that is why they are demanding for incentives first before they agree with any conservation initiative [REDD+] in their forests (S1: +4).

Previously the government has been coming to tell us how good they would be to us if we continue with forest conservation. They promised us electricity and roads which have not been provided up till now. The agencies in Calabar collect money and sent people to come and log in the reserves without any benefits to the community. That is why I say before we continue all the incentives must be given to us first, that will encourage us to continue maintaining the forest (Participant 14, Community Leader, Okokori).

Part of the conservation behaviour they currently practice include attending public hearing or meeting about forest management (S14: +3), active participation in environmentalists' groups to encourage others that conservation is important (S39: +3; 22: +1). Even though they have refused to change their lifestyles or agricultural practices or contact any government agency to complain about forest destruction (S18: -1; 15: -2), these respondents have confidence in their conservation practices and are not bothered about scarcity of wood for construction purposes as a result of strict conservation laws (S7: -1; 42: -3).

This conservation practice was not forced on us; we have been doing it since the days of our forefathers. Even prior to the establishment of these conservation reserves in the 30s we have been managing our forest, whether people get wood or not the forest is still there (Participant 14, Community Leader, Okokori).

Similar to factors 2 and 3, place identity and attachment is another basis for conservation among these participants. Some participants feel so attached to the forests to the extent that they have become a part of them (S13: +2).

Anytime I see there is joy in me showing the beauty of god's creation, and god decided that man is not supposed to destroy anything created by him but because man is so stubborn we have gone contrary to god's will. So, I see the forest as part of me that was equally created by the same god (Participant 12, Community Elder, Okokori).

Again, doing their activities in the communities is more important than doing them in any other place is an indication that the place is very special to them (S3: +4; 13: +2).

Doing my activities here gives me and my future generation more lifespan than me doing them in other communities, even abroad or any other place (Participant 14, Community Leader, Okokori).

Living around the forest says about who I am because the forest gives me my identity (Participant 17, Farmer, Okokori).

This attachment and identity, however, didn't mean that they don't have any other place to go (S4: -4), or linked to family ties, friendships, or participation in volunteer groups (S54:0; 52: -2; 2: -1). Although these respondents have strong place identities, they show weak connectedness to nature. They are not sure if they have a deep love for the forests and surroundings, and whether the forests have any recreational value that could take their worries away (S11:0; 31:0; 49:0).

I disagree that I don't have anywhere to go if I am tired of living here because someday someone can marry me and take me out of this place (Participant 17, Farmer, Okokori).

Despite having friends, I don't feel attracted to continue living here, I may visit them from time to time (Participant 28, Community Leader, New Ekuri).

...I don't like the sound or smell of the forest and I don't find the forest beautiful (Participant 17, Farmer, Okokori).

Finally, these respondents do not demonstrate a deep understanding of how their activities is affecting the forests, but they have a remarkable sense of equity between humans and nature (S17: -1; 6: -1). These participants also value forests as places of natural and human history and therefore must be kept for the sake of posterity (S30: +5; 5: +5).

...we used to go into the forest with a live cock, eggs, spill some blood put it there and do some kind of worship. That kind of history is very important to us. Some people who don't believe in god are still doing it up till now. That history reminds me of what happened during the times of our forefathers (Participant 13, Farmer, Okokori).

The forest gives us life; in the water, we drink there are lots of medicinal herbs from variety of plants. The trees in the forest do take carbon while we receive oxygen from them. That is why it is important for us to keep this forest for the future generation and the rest of the world (Participant 14, Community Leader, Okokori).

In summary, this factor shows that the participants are willing to conserve the forest because of place attachment and identities but are also interested in monetary incentives as another means of motivation.

### 5.3.6 Common Features Across All Factors

Whilst the factor interpretations presented in the sections above have attempted to show the distinctiveness of each factor, there exist some shared subjectivities among them. In the Q methodology nomenclature, these are called 'consensus statements' because they are found not to be statistically distinguishable between any pair of factors as shown in Table 5.10.

Table 5.10 Consensus statements for all the factors

Statement	F1	F2	F3	F4	F5
7 I am sometimes doubtful about the forest preservation and conservation programs	-2	-1	-3	-2	-1
10 I think the problem of conservation is as bad as many people make it to be	-1	-3	-2	-1	-2
51 The community forest, the reserves and their surroundings are very special to me	2	2	3	3	1

*All the listed statements are non-significant at  $P > 0.01$  and  $0.05$*

Table 5.10 above shows a general disagreement between the factors about people's negative perception that forests conservation is badly practiced by the communities in the study areas (S10: -2, -1, -3, -2, -1). This perception is probably linked to their strong identities and attachment with the forest communities in which they live because they are so special to them (51: +2, +2, +3, +3, +1). However, the participants as traditional conservationists have confidence in conservation programmes but have also expressed some degree of doubts as to how they will be effectively implemented. Except for participants in factor 3 (no pay no care) discourse holders, these doubts are relatively less significant compared to their determination to continue keeping the forests (S7: -2, -1, -3, -2, -1).

### 5.4 Intrinsic Motivation for Conservation

The discourses presented above highlight the perceptual distinctiveness and overlaps that exist among respondents in terms of their motivation to conserve the community forests as well as their willingness to engage in the REDD+ process. In this section, the emerging themes will be discussed in relation to the issues identified in the wider literature. The

discussion will adopt d'Adda (2011) categorization of intrinsic motivation into pro-natural and pro-social.

#### **5.4.1 Pro-natural Intrinsic Motivation**

##### **(a) Instrumental values of Ecosystem Services**

Perceptions about the instrumental values of ecosystem services as a basis for pro-environmental behavior is underscored by the F1 discourse. Participants hold this viewpoint because of their dependence on forests for food, fibre as well as timber resources for income generation. This value is quite significant because almost all the forest dwelling communities in the study areas are subsistence farmers who grow staple foods like bananas, plantain and cocoa for daily consumption and monetary exchange. Income from these products is also used by local people for the payment of children school fees, hospital bills and for the purchase of consumer goods. Forests wildlife also provides them with a major source of animal protein (bush meat) for domestic consumption. Animals are also valued for their role in fruit and seed dispersion that is why some of the participants in F1 are worried about losing such essential services when the animals are hunted into extinction. Timber extraction constitutes another major source of livelihoods to forest communities in these study areas. Prior to the ban on timber exports in preparation for REDD+ by the Cross River State Government, some communities practiced sustainable forest management under the supervision of the Forestry Commission. In Ekuri Communities for example, there has been an established land use plan in which a significant portion of the forest was kept for total protection while some are used for farming and selective logging for building and construction purposes. Periodically, some timber logs are harvested and sold to fund community projects such as class rooms and healthcare centres and the local conservation NGO (Ekuri Initiative). This result is consistent with the findings of García-Amado et al. (2011) who reported that provisioning services of ecosystems is highly valued, and it is perceived to be one of the reasons why the Mexican Sierra Morena communities are conserving the Biosphere reserve. It also confirms the findings of Garcia-Amado et al. (2013) that the communities are willing to continue conserving the La Sepultura Biosphere Reserve because of its utilitarian value of water supply.

Pro-natural intrinsic motivation also exists in the form of beauty of the environment (Rode et al., 2015). This perception is more common among F2 participants who value the forests

because they serve tourism and recreational purposes. This perception highlights the significance of Cross River State as an important biodiversity hotspot in Africa. The state has the largest portion of the remaining tropical rainforest and provides habitat for more than half of Nigeria's endangered species. For many years, the state has been making significant income from tourists who come to enjoy its unique ecotourism experience. As such these participants also appreciate the visual aesthetic quality of the landscape so much that they feel joy whenever they look at the forests. In F1 this aesthetic quality is appreciated by respondents who said that it reminds them of their childhood memories of playing in the forest. Therefore, they feel motivated to engage in environmental conservation. Similar results were reported by Chawla (2007) and Fisher (2012) who argued that beauty of the environment and childhood experiences with the forest landscapes could influence people's commitment to environmental concerns.

#### (b) Non-instrumental values of Ecosystem Services

Non-instrumental values of nature constitute another form of pro-natural intrinsic motivation that emerged from the factor interpretation. Existence value is distinguished as a type of non-use value based on the utility derived from knowing that something exist (Kolstad, 2000). From the distinguishing statements shown in Table 5.5, the seemingly neutral agreement with the statement: *'My right to exist is not more important than that of trees and animals in the forest'* (S46:0) in F1 is very interesting because it was ranked higher than in any other factor. This suggests that participants in F1 recognised the existence value of forests (Rode et al., 2015), and so they believe that human welfare is not prioritised over the need to conserve the forests (S32:-2). This corroborates the finding of (Van Hecken and Bastiaensen, 2010) who argued that individuals derive enjoyment and satisfaction from the existence of natural resources. Similarly, motivation for involvement in conservation programmes among some communities in Uganda is found to be correlated by the existence values of trees (Fisher, 2012).

#### **5.4.2 Pro-social Intrinsic Motivation**

These types of motivations refer to the relationships that are formed during social interactions among people in communities or meanings ascribed to places. The relationship to nature is indirect because such motivations are determined by people's place attachment,

social relations or concern for the welfare of others as guiding principles that regulate their use of natural resources.

(a) Place attachment

Place attachment, an emotional bond between persons and place has been used to study pro-environmental behavior in environmental psychology, human geography and variety of social science disciplines. According to Scannell and Gifford (2010) place attachment is a three-dimensional construct that consist of separate but overlapping elements of person, place, and psychological process. The psychological process of attachment that has emerged from these perceptions relates to proximity-maintaining behaviors, where individuals develop a positive affective bond with places through maintaining close contact (Hidalgo and Hernandez, 2001). The strong feeling of connectedness to the forest environment by participants in F2 is an evidence of this type of place attachment because they believe that they don't have anywhere to go even if they are tired of living there. This process also explains the reason why the participants agreed that doing their activities in their respective communities is more important than doing them in any other place (S3: +4). In some other factors, however, attachment is influenced by the social dimension of place where people feel connected to the social relationships rather than the physical aspect. Sometimes these social ties are derived from relationships with close and extended family members as stated by F3 participants or as a result of meetings with other social groups during conservation volunteering activities as perceived by F4 participants.

These findings suggest that the social dimension of place attachment can be similar to what Pretty et al. (2003) termed as 'sense of community' because place provides a space for formal and informal socio-cultural associations rooted in friendship, family life and kinship networks (Kasarda and Janowitz, 1974). This also agrees with Low and Altman (1992) that places provide contexts for social relationships to which individuals can get attached.

Place identity is another dimension of place attachment emerging from the discourses. Although all the factors share the same perception that the community forests, the reserves and their surroundings are something they consider very special, place-identity-related perceptions are more emphasized in F2 and F4. These discourse holders agreed that the forest communities reflect their identities as forest peoples that is why they cannot

substitute them with any other place on earth. This analysis supports previous assertions that place attachment is demonstrated to be a positive determinant of environmentally responsible behavior (Vaske and Kobrin, 2001, Gosling and Williams, 2010).

(b) Altruism

From the narratives presented in this chapter it can be argued that altruistic concern is another reason why some of the community members are engaging in environmentally significant behaviors. Some of the participants have demonstrated good knowledge of the function of forests in climate regulation at local and global scales. For example, F1 and F5 participants underscored the need to conserve forests because of their capacity for carbon uptake and supply of oxygen necessary for the survival of all human beings. They also conserve their forest to mitigate against global warming phenomenon which they believe is exacerbated by greenhouse gas emissions from industrialized nations. Because forests function as watersheds for streams and rivers, these participants are concerned about the lack of water supply to communities living downstream if the forests are cleared. Thus, conservation is an absolute necessity among these discourse holders and that is why they are willing to participate in the REDD+ projects in order to help avert such global environmental crises.

Such attitude can be described as 'environmental citizenship' (Dobson, 2007) – a contested term that broadly defines individual's conscious efforts towards behavioral change to protect the natural environment as a commitment to a common good. In the same vein, some of the participants have raised altruistic concerns about the need to protect the forests for posterity sake. In F3 for example, in spite of the participants demand for REDD+ incentives as a prerequisite for continuous forests protection, they are also interested in participating because the project will help to conserve the forests for the future generations.

Similarly, some F4 discourse holders join volunteering groups for conservation for the purpose of saving the forests for their unborn generations even if it means they have to sacrifice present welfare needs. Evidently, information obtained from focus group discussion with the Kanyang II community support this perception because the community members pointed out strong resilience and sacrifice in pursuit of their voluntary conservation initiatives. They said during the months of June and September every year communities

located at the lower side of the Mbe Mountain suffer a lot of destruction from elephants that come to graze on their farmlands. These elephants uproot and consume the banana trees and other important cash and food crops upon which they depend for sustenance. Furthermore, they stated how other surrounding communities are also affected by the destructive activities of chimpanzees and monkeys that feed on plantain and banana fruits thereby reducing the amount of crop harvest. One of the respondents lamented: "To me I look at it that nature needs to be protected for us and the future generations. For example, the chimpanzees we have been hunting for a long time, if not for conservation we could have killed them all and our children wouldn't know what they are all about. So, nature is supposed to be preserved. Protecting this forest has caused us a lot of damage because most of us cannot sponsor our children in school since hunting has stopped. In spite of the hardship we will keep managing and conserving the forest for posterity sake. It will enable the future generation to know what a virgin forest looks like, and most of the animals that they see in pictures can be seen physically". This motivation follows De-Shalit (1995) who argued that posterity matters in contemporary environmental making because we all have obligations to supply the future generation with essential goods and services to enable them cope with challenges of life. The results also support Narloch et al. (2012) who posit that the behaviour of individuals towards collective action is often influenced by altruistic motivations of fairness and risk aversion.

### **5.5 Motivation Crowding Effects**

In the preceding sections, this chapter has identified the different typologies of intrinsic motivations that shape community's perceptions and commitments towards forest protection prior to the introduction of REDD+ in the study areas. This section will explore how talking money (commodification in discourse) about carbon credits as tradable ecosystem goods and the creation of a new carbon economy which is aimed at incentivizing communities' voluntary conservation efforts under the REDD+ regime could promote or undermine existing intrinsic motivations for forest conservation. This is achieved by analyzing the five factors in order to understand the perceived mechanisms and conditions through which motivation crowding effects of crowding-in and/or crowding-out were expressed by the participants.

### 5.5.1 Motivation Crowding-in

According to Frey (1997) external intervention could lead to crowding-in (a phenomenon describing the increase in behavioral efforts or determination) of intrinsic motivation among individuals especially if that intervention is perceived to be supportive or encouraging. Following the classifications presented in Rode et al. (2015), the main mechanisms of motivation crowding-in that have emerged from the discourses analyzed in this chapter are (a) enhanced internal satisfaction, (b) re-enforced positive attitudes. In terms of enhanced internal satisfaction, the participants feel positive about participating in REDD+ because they perceive the policy as a way of rewarding their long term voluntary conservation behavior through incentive payments. Evidence of this was revealed in the 'we care, but pay' discourse in F5 where the participants show their disenchantment with the Forestry Commission and conservation NGOs for failing to provide them with money and development projects in recognition of their conservation efforts as promised. Consequently, in one of the communities earmarked for REDD+, a community leader is demanding for the payment of incentives first before they allow the implementation of REDD+ in the community-controlled forests. In anticipation of incentive payments these participants have shown commitment towards participation in public hearings and meetings with Forestry Commission and the REDD+ officials. They also continue to participate in the local environmentalist groups as a way of encouraging others to support conservation practices. This finding is similar to Van Hecken and Bastiaensen (2010) who observed that incentive payments to farmers involved in the Nicaraguan PES scheme was seen as way of recognizing their traditional practices of silvo-pastoral agriculture. However, the main difference with their finding is that incentives in this case are discursively implied instead of actual monetary payments reported in on-going PES schemes.

Another example of motivation crowding-in observed in this study is re-enforced positive attitudes where the introduction of REDD+ program is strengthening existing intrinsic basis for forest conservation. For example, the willingness to accept long term REDD+ contract by F1 participants is not in any way motivated by expectation of carbon money but because it supports their altruistic concerns about saving the world against climate change disaster. It also implies that the new carbon commodity is perceived to be a supplementary component of multiple ecosystem goods and services upon which the communities' livelihoods depend.

Similarly, incentives are perceived to be supporting both instrumental and moral basis for forest conservation among F1 and F2 discourses. Generally, REDD+ can best be described as a conservation bonus among these discourse holders because they are committed to forest protection whether they receive monetary incentives or not. This attitude was reported by Sommerville et al. (2010) where payments had little or no impact in determining the Menabe communities' motivation to cooperate with the PES scheme in Madagascar. However, there is a significant difference between the two results in the sense that behavioral or attitudinal change in the Madagascar case study is not driven by monetary payments but by the fear of implementing NGOs and local forest association which is not highlighted in the F1 and F2 discourses. Evidence of perceived motivation crowding-in among the participants present an empirical support for Neuteleers and Engelen (2015) third hypothesis which stated that "intrinsic motivation is more robust than extrinsic motivation and leads to less free riding". The implication of this evidence to this study is that intrinsically motivated individuals in the study areas indicated willingness to continue protecting the natural environment regardless of the consequences they might experience. With notable exceptions of F3 and some F5 discourse holders, less evidence of free-riding intentions was observed among the participants.

### **5.5.2 Motivation Crowding-out**

Talking about REDD+ and expectation of money from the new carbon commodity suggests the existence of significant crowding-out effect on positive attitudes towards environmental protection among the study participants. A typical example of motivation crowding-out perception is represented by the 'no pay, no care' and 'we care, but pay' discourses where participants' moral and altruistic basis for forest protection is being replaced by the desire for incentives. This drastic change in motivation is driven by frustrations and distrust for conservation NGOs and Forestry Commission for failing to fulfil previous promises. To them lack of incentives is reducing their conservation morale to an extent that some of the participants are threatening to chop down the forest and hunt down the animals to survive. Such frustration seems to be changing the participants' values and mindsets by focusing more on short term economic benefits rather than maintaining their traditional conservation culture. Therefore, their active participation in environmentalist groups and public hearing

about REDD+ is mostly driven by discussions about carbon credits and monetary expectations.

On the other hand, negative incentives associated with the commodification in discourse (REDD+) is also causing some of the participants to abandon their voluntary conservation behaviors. For example, the 'no pay, no care' discourse holders agree that logging and hunting activities have reduced because people are afraid of arrests. They are worried about shortage of wood for construction purposes as a result of the ban on forest logging by the Cross River State government in preparation for REDD+. However, some of the community members are complying with conservation laws because they are afraid of going to prison, payment of fines, or confiscation of their expensive chain saws and other logging equipment by the Anti-Deforestation Task Force officials. In the context of biodiversity conservation literature, similar motivation crowding-out was observed by Fisher (2012), Kerr et al. (2012) and Garcia-Amado et al. (2013) where positive or negative incentives have undermined cultural basis for conservation in a PES setting. As pointed out earlier, this highlights that the motivation crowding effect is as a result of 'talking money' without offering real monetary incentives in physical terms. These findings therefore provide empirical evidence in support of Neuteleers and Engelen's (2015, p.7) fourth hypothesis that "monetary valuation framing and crowding effects can decrease support for environmental protection" This result shows that mere talking about market-based valuation and commodification of forest carbon into tradable carbon credits as a new conservation policy in Cross River State is undermining intrinsic motivation among some participants in the REDD+ pilot communities.

## **5.6 Conclusion**

In this chapter, Q methodology was used to investigate perceptions about forest values and motivations for conservation among REDD+ pilot communities in Cross River State, Nigeria. Results show the existence of diverse instrumental and non-instrumental values of forest ecosystem services which serve as the main drivers of intrinsic motivation for conservation behaviour and attitudes among the participants. Findings from this chapter challenge the rational actor paradigm which assumes that individuals are selfish and their behaviours are shaped by the desire to optimise personal benefits. Therefore, the design of market-based institutions such as REDD+ and other ecosystem services on the assumption that incentives could serve as the silver bullet to guarantee policy compliance could potentially interfere

with forest management institutions built on intrinsic motivations. Such policies could significantly undermine voluntary conservation initiatives by shifting motivations towards monetary incentives thereby making it hard for them to return to cultural basis for conservation. The emergence of 'no pay, no care' and 'we care, but pay' discourses in this chapter provide evidence of this motivational change.

On the other hand, it is discovered that incentivizing conservation through REDD+ can strengthen voluntary initiatives by supporting emotional concerns about place attachment or altruistic consideration for the well-being of others. Thus, incentives are either seen as a way of enhancing internal satisfaction with conservation practices or re-enforcing positive attitudes which for many decades have been part of their everyday social lives. However, the analysis of motivation crowding effects within the context of forest resource management presented in this chapter is methodologically different from previous studies. While other scholars used framed field experiments to elicit motivation crowding effects (Cardenas et al., 2000, Cardenas, 2004, Narloch et al., 2012), natural experiment and survey data (Sommerville et al., 2010, García-Amado et al., 2011), this study used Q methodology to identify perceived motivation crowding effects. Conceptually, while previous studies used on-going PES schemes involving actual monetary incentives to analyse motivation crowding, this study follows 'commodification in discourse' (Neuteleers and Engelen, 2015) where mere discourses about using fictitious carbon credits to incentivize conservation and to ensure compliance with REDD+ was used to analyse how voluntary conservation efforts could be promoted or undermined. Although perceptions about motivation crowding-in and crowding-out were discovered among the participants, it can be argued however, that the introduction of REDD+ as a form of PES and discourses about carbon commodification could only crowd-out intrinsic motivation in the short term but perhaps not significantly undermine communities' long-term commitment towards forest protection in the study areas.

Thus, it is argued that the communities' historic basis for forest protection is a complex mixture of pro-natural and pro-social intrinsic motivations that are rooted in utilitarian, altruistic as well as emotional considerations to their natural environments. It also suggests that the introduction of REDD+ policy and its attendant discourses about payment for conservation efforts has both crowding-in and crowding-out effects on intrinsic motivations among the participants. Therefore, care must be taken when mixing externally crafted

policies such as REDD+ with existing institutional arrangements for managing natural resources in order to avoid crowding-out effects especially in situations where intrinsic motivations for environmental protection still exist. Next is chapter six in which discussions about forest governance and power relations among REDD+ actors are presented.

## Chapter Six – Forest Governance, Actors and Power Relations in REDD+

### 6.1 Introduction

Approaching the analysis of REDD+ from a governance perspective requires the understanding of power relations between institutions, and the role of actors in decision making at different spatial scales (Corbera and Schroeder, 2011, Thompson et al., 2011, Larson and Petkova, 2011). Embedded in the REDD+ architecture is a complex and multi-scalar web of actors and institutional arrangements for forest governance under the emerging neoliberal climate change mitigation agenda. This therefore requires a transparent decision-making process that is adaptable to dynamic circumstances and place-specific peculiarities which will enable effective participation of all relevant stakeholders. Moving away from the normative argument for stakeholder participation as a democratic right under the 1998 Aarhus Convention, it is also regarded as a process that will enhance the quality and durability of environmental decision making (Reed, 2008). Existing scholarship within geography and international development have explored local environmental politics of power and justices as they relate to the implementation of REDD+ in various forest countries (McAfee and Shapiro, 2010, Beymer-Farris and Bassett, 2012, Leggett and Lovell, 2012, Martin et al., 2014). Some of the crucial issues that continue to emerge from these literatures include the isolation or a rather tokenistic participation of key stakeholder groups particularly the resource-dependent indigenous communities and the problem of contested tenure rights. The main aim of this chapter is to build on these debates by examining power relations and politics within the Nigerian REDD+ readiness process and especially how actors and institutions are shaping the governance process. This is because the success or failure of forest governance in the context of REDD+ depends to a greater extent, on the dynamics of power and influence among multiple actors (Newell et al., 2012).

Section 6.2 analyses the historical context of forest governance in Nigeria through the pre-colonial, colonial and post-colonial phases prior to the idea of REDD+. It is argued that existing forestry policies in Nigeria are a reflection of colonial arrangement which placed forests under the control of state governments, and that the absence of a national forestry law has weakened the Federal Government in terms of enforcement of national forest

policies at the state levels. This means that national and international forest policies have to be negotiated and implemented together with state governments and decisions are mostly predicated on the discretion of the state governors and their respective local agendas. Section 6.3 presents the evolution of the REDD+ process in Cross River State, the emergence of a two-track governance approach, as well as the necessary legal and institutional reforms being introduced in order to allow REDD+ to function in Nigeria. Section 6.4 applies social network tool to visualise and analyse the agency of actors in the REDD+ policy network. It is observed that there are lopsided power relations among the actors and that the flow of information, ideas, resources, and stakeholder participation are determined by Cross River State and Federal government agencies in collaboration with a few international donor agencies and non-governmental organisations. Local stakeholder groups representing communities and timber dealers are not adequately consulted and represented in the REDD+ process. Analysis of land and carbon tenure issues and implications for forest communities' participation in the process is also presented. It is argued that the project is being implemented without the provision of a legally binding tenure regime which is raising equity and legitimacy concerns among the affected communities. In Section 6.5 the enactment of free, prior and informed consent (FPIC) is presented and it shows how each of the FPIC elements is operationalised in practice. Summary, conclusion and the link to subsequent chapter are presented in Section 6.6.

## **6.2 Development of Forest Policies in Nigeria**

Nigerian forest policy regimes have been through pre-colonial, colonial and post-colonial evolutionary phases (Meek, 1957, Egboh, 1979, Fuwape et al., 2006). In pre-colonial Nigeria, forests provided the main life support system for most agrarian societies through the exploitation of timber and non-timber forest products. They also served as ancestral homes, sources of agricultural lands, water, and places of worship and other spiritual traditional activities. During this period, local governance structures were set up and maintained by various communities and tribal groups that regulated and controlled access, exploitation, and ownership of forest resources. Imposing such regulations was necessary in order to ensure the survival of the population and to protect the forests from perceived threats of degradation and trespass by adjacent communities (Ibrahim, 1997). In south-western Nigeria for example, Johnson and Johnson (1957) reported that the predominantly Yoruba ethnic

communities administered the forests through indigenous institutions which comprised of the *Obas* (Kings) and chiefs who together constituted the highest decision making bodies. During this period forest laws and regulations were formulated by consensus, administered based on public accountability, and enforced through willing community compliance and sanctions (Shittu, 2006). These local governance institutions were very effective in managing Nigeria's forests, and in spite of the changing governance arrangements these practices are still embedded in contemporary forest communities.

The colonial occupation of territories in the mid-1850s which constitute today's Nigeria marked the beginning of formal and institutionalised forest management. Prior to this decision, the colonial administration recognised the rights of indigenous communities as forest owners and so European merchants at some point negotiated timber concessions directly with the local authorities. However, the colonial administration realised that the success of the timber trade could not be sustained under this arrangement due to rising opposition from some indigenous people and accusations of connivance and corruption against the local chiefs (Grove and Falola, 1996, Njoku, 2001). Consequently, the colonial administration introduced a new forest management policy through the promulgation of ordinances to facilitate continuous supply of forest resources to the European markets. Hence, strict protectionism was adopted by the colonial powers and forest reserves were created within community owned forest estates. In the year 1901, the first forest ordinance was enforced by the Governor of Lagos Protectorate, William McGregor, who instructed his officials to force communities to surrender about 33 percent of their forests as reserves. This fixed percentage was later reduced to 25 per cent by Governor Lugard following stiff opposition and non-compliance by some community authorities. However, this reduced percentage varies according to population densities of communities and size of forest cover. Similarly, the Forest Ordinance of 1908 was also used to prohibit communities from felling certain economically viable timber species that are located outside the reserves and to punish offenders.

Another important development in Nigeria's forest policy is the enactment of the Forestry Act of 1937 which replaced all previous forest ordinances. This new law empowered the Governor to declare any forest growth as a reserve at any given time by simply communicating his plans to the target communities. This process was then followed by

publishing such plans in a state gazette and communicating the content in local vernacular to the community members through local customary courts. This law was justified by the environmental narrative written in Major Oliphant's report which maintained that the forest resources in Nigeria were threatened with depletion by the activities of local communities. But in reality, the Forestry Act was introduced by the Empire Committee's decision to expand its colonial control over the Nigeria's forests.

Despite the colonial structure of previous policies, it is interesting to note that forestry laws in Nigeria remained substantially unchanged long after the country's independence. Although the federal administrative structure was adopted in 1954, decision making powers over forests remained vested in the central government. For example, the Law for the Preservation and Control of Forests (1956) transferred all the powers conferred on the colonial era Governor-General by the Forestry Act (1937) to the Prime Minister who could also declare any forest growth as a forest reserve. The Prime Minister also had the right to override any customary claims on forests lands by issuing monetary compensations, make boundary amendments or land swaps as appropriate. Therefore, the old regional governments of Eastern, Western, and Northern Nigeria assumed firm control of the forests under their territories. Following the dissolution of regional governments in the late 1960s and subsequent creation of states as federating units, the power of control over forests was again transferred to the state governments thereby decentralizing the forestry laws (Egboh, 1979). Today Nigeria has 36 states and the Federal Capital Territory and each state governor has now assumed the control of forests which is usually delegated to their respective Commissioners of Agriculture and/ or Forestry who issue timber concession licences and logging permits. Furthermore, Governors in collaboration with forestry administrative officers also have rights to modify the laws, enforce monitoring and inspection of timber transport, seize illegally acquired timber and non-timber forest products, and can arrest and prosecute Forestry laws violations (Ibrahim, 1997).

The policy was set to achieve ten key objectives which included the expansion of forest estates and game reserves, creation of national parks, and launching of state-managed reforestation programmes. Due to the existing institutional arrangements, the policy remained largely influenced by respective state governors because they were directed by the then Head of State to decide its implementation in accordance with local peculiarities (FAO,

1996). Since independence, Nigeria's postcolonial forest policies maintain relics of colonial arrangements and have been misapplied by successive military administrators and state governors of timber rich states to appropriate forest lands for narrow self-interests or for expanding state revenue targets (FAO, 1996). In recent years, the FDF's role has become largely ineffective due to the promulgation of the Land Use Act (1978), creation of several institutions outside the forestry sector such as the Federal Environmental Protection Agency (FEPA), Energy Commission, and Federal Department of Agricultural Land Resources that have conflicting or overlapping functions. As a result of these conflicting mandates, the FDF seized the opportunity of the 1994 National Constitutional Conference to submit a proposal seeking for institutional reforms in the forestry sector. The proposed reforms include streamlining mandates of government ministries and departments responsible for forestry, reviewing the Land Tenure Act (1978), establishing National Forestry Commission, National Forestry Trust Fund, and enactment of National Forestry Law (FAO, 1996).

Following that submission, the Federal Government set up a committee for the enactment of the National Forestry Act in 1995. However, that attempt was stalled by an ongoing review of the National Forest Policy in order to allow for its newly included provisions to be incorporated into the proposed bill. Even though the National Forestry Bill was later approved by the National Council on Environment, it is yet to be passed into law by the National Assembly since 2003. In order to meet its international obligations, the Federal Government ensured a speedy approval of the National Forest Policy of 2006, which remains the current national policy document for the country. Part of it includes contemporary policy objectives such as accessing international market for carbon credits through the Clean Development Mechanism (CDM) of the Kyoto Protocol, decentralisation of forest management, enhancing community participation, and promotion of public-private partnerships. In preparation for REDD+ the Federal Government has recently inaugurated a National Technical Committee under the auspices of the Special Climate Change Unit (changed to the Department of Climate Change in 2011) of the Ministry of Environment, and National Advisory Council on REDD+ to serve as institutional fulcrums that seek to ensure policy compliance by forest-rich states (Federal Ministry of Environment, 2006).

At the state level, the Cross River State government is leading in terms of legal and institutional forestry reforms for the REDD+ readiness project. In 2010, the Cross River State

Forestry Commission Law was reviewed and new laws are created that empower the Commission to implement sustainable forest management, watershed protection, allocation of carbon and ecotourism concessions to private investors. This is an unprecedented attempt to update certain aspects of the old laws which did not provide for community-based forestry. However, as a REDD+ pilot state, the new law needs further revision to encompass the complexities of REDD+ such as land and carbon tenure, monitoring reporting and verification (MRV), benefit sharing arrangement and ban on timber exploitation (Oyebo et al., 2010). In spite of this review, the Cross River State Forestry Commission Law 2010 recognises community forestry but maintained the statutory rights that can supersede customary forest rights as discussed in subsequent sections.

This historical background is useful for understanding how the existing REDD+ governance architecture in Nigeria has emerged, and what institutional and legal policy reforms are needed for its successful implementation. The following section explains the evolution of REDD+ process in Nigeria within the context of forestry-climate change mitigation policy nexus in order to align with the country's federal administrative structure.

### **6.3 Negotiating the REDD+ Process**

The Bali Roadmap adopted at the 2007 Conference of the Parties (COP13) was the beginning of a negotiating process for achieving a post-Kyoto climate change agreement through technology transfer and reducing emissions from deforestation and degradation. This event ushered a formal institutionalisation of REDD+ in the global policy arena (den Besten et al., 2014). Despite the stalemate in successive COP meetings about how REDD+ should proceed at the international level, most developing countries interested in REDD+ were at various stages of readiness preparation by the year 2011. These projects are supervised and implemented with the assistance of certain bilateral and multilateral financial and capacity building arrangements under the UNFCCC, World Bank's Forest Carbon Partnership fund and Norwegian government (Reinecke et al., 2014).

In Nigeria, the events that led to the introduction of REDD+ began in 2006 following a joint agreement between the former Cross River State (CRS) Governor, Donald Duke and the United States Forestry Service (USFS) for conducting a preliminary scoping mission to Cross River State. The mission was aimed at assessing the status of forest and wildlife resources in

the state and identifying areas in need of technical and financial assistance for tourism development. Some of the key recommendations of the mission involved re-gazetting the boundaries of protected areas where necessary and improved investment in tourism infrastructure (USFS, 2007; USDAFS, 2010). In addition to eco-tourism, the subsequent government of Cross River State under the Governor Liyel Imoke demonstrated an unprecedented political will to chart a new economic agenda for the state through carbon forestry. State revenues from forest exploitation are considered by the state and federal governments as environmentally unfriendly and unsustainable due to massive deforestation and degradation. This narrative is contained in the REDD+ Readiness Preparation Proposal which mentioned that 'the Cross River State government has shown a determined political commitment for green development as well as being home to more than 50 per cent of the tropical high forest remaining in the country' (R-PP, 2013, p.10). The proposal also stressed that 'the National Council on Environment...called on all states in Nigeria to participate in REDD+ as a means of saving the remaining forest estates, achieve forest conservation, and promote sustainable livelihoods' (R-PP, 2013, p.16). For Cross River State to participate in REDD+ it needed to introduce reforms in the forestry sector. In 2008 the government organised a Stakeholders Summit on the Environment during which the decision to introduce a two-year logging moratorium and the establishment of an Anti-Deforestation Task Force (ATF) were undertaken. The ATF, which later became controversial, was created as a quasi-independent unit of the Cross River State Forestry Commission (CRSFC) under the supervision of the Office of the Governor in order to enforce a ban on logging and illegal timber trade, while the governor was seeking international support to fund payment for ecosystem services (PES) projects.

Accordingly, the CRSFC, acting under the instruction of the governor, invited the Nature Conservation Research Centre in 2009 to undertake a scoping mission to Cross River State to assess its PES potential. The mission succeeded in identifying key REDD+ project sites and making preliminary consultations with various stakeholder groups. At that moment, REDD+ was high on the international climate change mitigation agenda and the Cross River State officials were willing to take full advantage of its prospects. At the Katoomba Group Conference in Ghana in 2008, the World Bank Carbon Partnership Facility (FCPPF) and the UN-REDD programme saw the potential of REDD+ in Cross River State and requested the

state officials to apply for membership and funding for REDD+. Following these events, the CRS governor submitted a formal request to Nigeria's Environment Minister to make REDD+ a national climate change strategy and also to offer institutional collaboration. This became necessary because international REDD+ negotiations are articulated through nations and so CRS cannot participate and access funding without involving the Federal Government. The decision was further supported by the Cross River State's lack of financial, institutional and technical capacity to deal with the complexities of REDD+. Therefore, the involvement of Federal Government changed a hitherto CRS REDD+ into a national programme under a hybrid arrangement that later became a two-track approach consisting of national and sub-national governance structure. The idea was to start REDD+ demonstration activities in CRS before these were replicated in other highly forested states in line with Nigeria's forest policies.

Nigeria's submission to the UN-REDD programme policy board meeting changed its status from an observer country to a full UN-REDD member country in 2012. According to the published independent reviews by the UN-REDD Programme, the submission was applauded as well-designed, unique and ambitious and thus far has complied with the UN-REDD Program Rules of Procedure and Operational Guidelines. One of the UN-REDD's independent technical reviewers Joh Mason said 'Nigeria's National Program is generally clear and well-designed while also certainly ambitious' (UNREDD ITR Nigeria, p. 3). This effort was instrumental in making Nigeria a key player at the UNFCCC convention and subsequently a co-chair of the UN-REDD policy board in 2013. One of the United Nations Development Programme (UNDP) officers supporting REDD+ in Nigeria said 'Nigeria was able to position themselves so well that they became co-chairs of the UN-REDD policy board. This big honour reflects the political engagement of Nigeria as a major political power and were able to position themselves as candidates for chairs and they became elected'. Occupying this strategic position has enabled Nigeria to attract a take-off funding of US\$4 million and also to craft a new internationally funded community-based REDD+ called the CBR+. This is also in recognition of its strong community focus that situates the REDD+ project in existing community-managed forests in Cross River State. Also, the promises and documented plans of action for stakeholders' participation and representation in the

Nigeria's REDD+ Readiness Preparation Proposal (R-PP) submitted to the World Bank's Forest Carbon Partnership Fund in 2013 was also clear and laudable.

Before moving ahead with REDD+ implementation, national and subnational approaches are required to introduce broad policy reforms to ensure efficiency and effectiveness (Angelsen, 2008). Nigeria's two-track approach therefore is required to initiate institutional reforms at the state and federal levels. As mentioned in the previous section, part of the policy changes in CRS included the review of its obsolete forestry laws in preparation for REDD+ in 2010. Prior to that period the Forestry Commission (CRSFC) had a new leadership which helped in reforming its previous functions from issuing logging permits to individuals and private companies to sustainable community-based forest management. The state also created a REDD+ Unit under the Commission to administer all REDD+ related activities in the state. A CRS Technical REDD+ Committee comprising of senior members of government Departments and Ministries, the NGOs, CBOs, Academia, and legislature was also formed to coordinate decision making and advise the government accordingly. In addition, the CRS Stakeholder Forum on REDD+ was formed to ensure that all relevant stakeholders are carried along in the REDD+ process. All these institutions were established to provide an enabling environment for piloting REDD+ readiness in CRS and to foster a functional relationship with the national REDD+ structures (see Fig. 5.1).

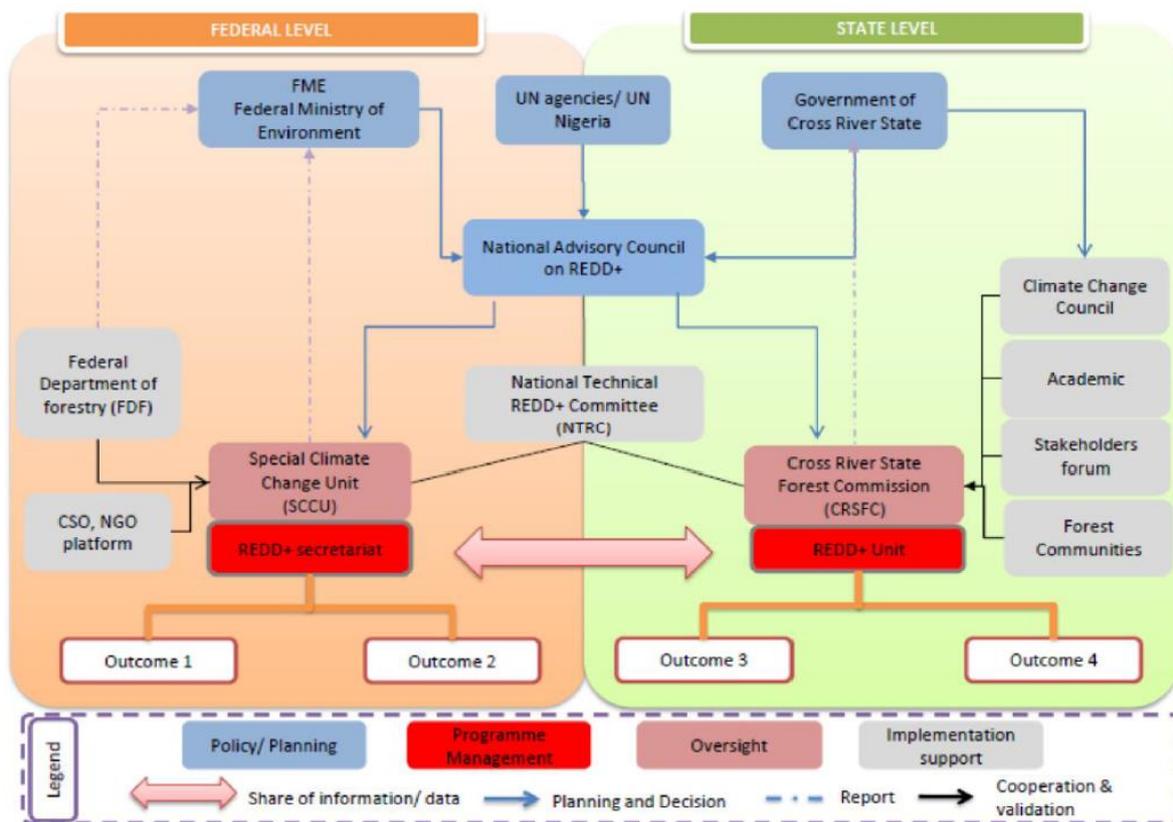


Figure 6.1. Institutional and Implementation Arrangement for REDD+ in Nigeria. *Source: R-PP, 2013.*

Similarly, the federal government (FGN) also introduced its own institutions at the national level. For example, in 2013 the National Advisory Council on REDD+ which is the highest decision-making body for REDD+ process in Nigeria was inaugurated. This institution consists of CRS, FGN and UN representatives whose main responsibilities include monitoring and evaluation, funding access and management, as well as design and implementation of national REDD+ programmes. The National Sub-committee on REDD+ and National Climate Change Committee was also established to handle technical aspects of REDD+ such as Monitoring Reporting and Verification (MRV), Safeguards Information Systems and benefit distribution systems. In tandem with the CRS REDD+ Unit, the FGN also established a National REDD+ Secretariat under the Federal Department of Forestry to liaise with federal and state institutions and coordinate activities at the REDD+ pilot sites. To replicate the CRS model at the national level, the FGN established the National Stakeholder Platform for REDD+ which will ensure that all relevant stakeholders are represented in the REDD+ process and are allowed equal opportunities to participate (R-PP, 2013).

However, the documented plans for stakeholder participation in the UN-REDD+ policy and Readiness Preparation proposal (R-PP) are not being properly implemented thus far. The following section will critically examine how these diverse stakeholders and institutions are engaging in the REDD+ process, what is the degree of participation, and the extent to which their interests are represented in the current governance arrangement.

#### **6.4 REDD+ Institutions and Power Dynamics**

Decision making in REDD+ is discovered to be dominated by a variety of actors and institutions with often divergent interests and alliances (Thompson et al., 2011, Fairhead et al., 2012). Policy network analysis has been widely applied in evaluating the interactions between state and non-state actors and their interests within public and environmental policy processes (Nunan, 1999, Brockhaus et al., 2014a). This section presents a critical evaluation of the REDD+ policy networks in Nigeria using social network analysis. It provides a methodological contribution to the utility of social networks analysis in human geography literature. As argued by Marshall and Staeheli (2015) social networks serve as useful visualisation tools for understanding and representing relationships among actors especially if used in combination with other methodological approaches. Therefore, by employing social network analysis, interviews, focus group discussions and documentary data sources, this section attempts to analyse the relationship among actors, influence, information exchange and collaborations in the REDD+ policy making process.

Results from social network analysis indicate the existence of 36 actors that are involved in the REDD+ policy domain in Nigeria. As shown in Table 6.1, these actors are grouped into seven institutional categories namely: Federal government of Nigeria agencies (13), Cross River State government agencies (2), Non-Governmental Organisations (NGOs)/civil society groups (13), Community-based Organisations (CBOs) (2), International Donors/technical partners (3), Educational institutions (2), and Timber Dealers (1).

Table 6.1 Actors in the REDD+ Policy Network

Institutional Groups	Actors/stakeholders
<b>1. Federal Government of Nigeria</b>	<ul style="list-style-type: none"> <li>(a) Federal Department of Forestry (FDF)</li> <li>(b) Federal Ministry of Agriculture and Water Resources (FMAWR)</li> <li>(c) Federal Ministry of Environment (FME)</li> <li>(d) Federal Ministry of Finance (FMF)</li> <li>(e) Forestry Research Institute (FRI)</li> <li>(f) House Committee on Climate Change (HCCC)</li> <li>(g) National Environmental Standards and Regulations Enforcement Agency (NESREA)</li> <li>(h) National Oil Spills Detection and Response Agency (NOSDRA)</li> <li>(i) National Park Service (NPS)</li> <li>(j) National Planning Commission (NPC)</li> <li>(k) Senate Committee on Environment (SCE)</li> <li>(l) Special Climate Change Department (SCCD)</li> <li>(m) Cross River National Park (CRNP)</li> </ul>
<b>2. Cross River State Government</b>	<ul style="list-style-type: none"> <li>(a) Anti-Deforestation Task Force (ATF)</li> <li>(b) Cross River State Forestry Commission (CRSFC)</li> </ul>
<b>3. Non-Governmental Organizations</b>	<ul style="list-style-type: none"> <li>(a) Center for Education Research and Conservation of Primates and Nature (CERCOPAN)</li> <li>(b) Development in Nigeria (DIN)</li> <li>(c) Fauna and Flora International (FFI)</li> <li>(d) International Center for Energy Environment and Development (ICEED)</li> <li>(e) Nature Conservation Research Center (NCRC)</li> <li>(f) NGO Coalition for Environment (NGOCE)</li> <li>(g) Nigerian Conservation Foundation (NCF)</li> <li>(h) One Sky Nigeria (OSN)</li> <li>(i) Pandrillus (PAND)</li> <li>(j) Pro-Natura International (PNI)</li> <li>(k) Tropical Forest Group (TFG)</li> <li>(l) Wildlife Conservation Society (WCS)</li> <li>(m) Friends of the Earth Nigeria (FOEN)</li> </ul>
<b>4. Community-Based Non-Government Organizations</b>	<ul style="list-style-type: none"> <li>(a) Conservation Association of the Mbe Mountains (CAMM)</li> <li>(b) Ekuri Initiative (EI)</li> </ul>
<b>5. Technical Partners</b>	<ul style="list-style-type: none"> <li>(a) United Nations Development Program (UNDP)</li> <li>(b) United Nations Environment Program (UNEP)</li> <li>(c) Food and Agricultural Organization (FAO)</li> </ul>
<b>6. Educational Institutions</b>	<ul style="list-style-type: none"> <li>(a) University of Calabar Department of Geography (UCDG)</li> <li>(b) University of Calabar Department of Wildlife Resources Management (UCDWM)</li> </ul>
<b>7. Timber Marketers</b>	<ul style="list-style-type: none"> <li>(a) Timber Dealers Association (TDA)</li> </ul>

Source: Fieldwork, 2014

#### **6.4.1 Powerful Actors**

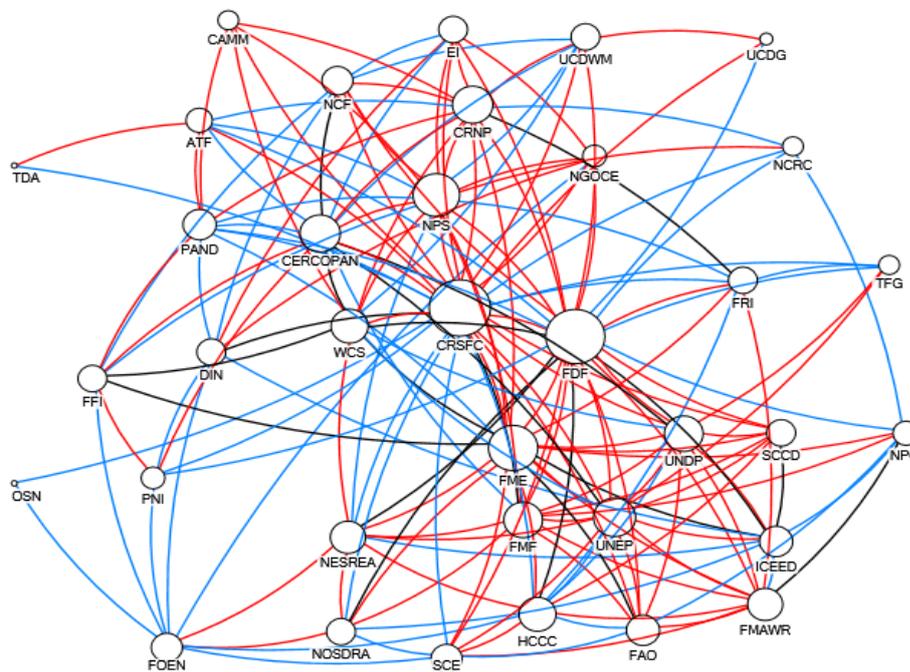
In social network analysis literature degree centrality is defined as the number of immediate contacts of an actor in a network, while betweenness centrality is the number of times an actor is located along the shortest route between any two or more actors. Thus, an actor's position and influence within a network is usually measured by degree and betweenness centrality values (Bodin et al., 2006, Bodin and Crona, 2009, Prell et al., 2009, Bodin and Prell, 2011). The calculated degree centrality and betweenness centrality values indicate that the REDD+ policy making process in Nigeria is dominated by a strong alliance between the federal and state governments, conservation NGOs, and international donor agencies (see table 6.2 below). As shown in Table 6.2 the Forestry Commission (CRSFC) has the highest degree and betweenness values among the Cross River state government institutions which implies that it holds greater institutional power to control information dissemination, access to resources, directives, collaboration and decision making in the REDD+ process. Its influence can be explained by the strategic position of Cross River State as a major implementing partner of the UN-REDD programme in Nigeria. The CRSFC coordinates and administers REDD+ through the CRS REDD+ Unit which is directly under the Office of the Commission chairman. The operations of the Unit are also run by a team of recently recruited staff to handle stakeholder engagement, Monitoring Reporting and Verification (MRV), Participatory Governance Assessment (PGA), general administration and finance. The Commission is also a member of the CRS Technical REDD+ Committee in partnership with other relevant government agencies that are directly or indirectly involved in forestry.

Table 6.2 Centrality Scores for REDD+ Actors Network

Actors/stakeholders	Degree Centrality	Betweenness Centrality
Cross River State Forestry Commission (CRSFC)	30	158.702
Federal Department of Forestry (FDF)	28	101.768
Federal Ministry of Environment (FME)	20	31.423
National Park Service (NPS)	18	24.935
Center for Education Research and Conservation of Primates and Nature (CERCOPAN)	15	10.293
Friends of the Earth Nigeria/Environmental Rights Action (FOEN)	14	13.258
United Nations Environment Program (UNEP)	14	9.851
Cross River National Park (CRNP)	13	8.329
House Committee on Climate Change (HCCC)	13	7.141
Federal Ministry of Finance (FMF)	12	9.038
Wildlife Conservation Society (WCS)	12	7.825
Development in Nigeria (DIN)	11	6.815
International Center for Energy Environment and Development (ICEED)	11	3.551
United Nations Development Program (UNDP)	10	7.196
National Environmental Standards and Regulations Enforcement Agency (NESREA)	10	5.818
Pandrillus (PAND)	10	2.307
Fauna and Flora International (FFI)	9	12.264
Senate Committee on Environment (SCE)	9	4.056
Federal Ministry of Agriculture and Water Resources (FMAWR)	9	3.365
National Oil Spills Detection and Response Agency (NOSDRA)	8	7.259
Nigerian Conservation Foundation (NCF)	8	5.296
Anti-Deforestation Task Force (ATF)	8	3.418
Pro-Natura International (PNI)	8	2.967
Forestry Research Institute (FRI)	8	2.288
NGO Coalition for Environment (NGOCE)	8	1.714
Food and Agricultural Organization (FAO)	8	0.74
University of Calabar Department of Wildlife Resources Management (UCDWRM)	7	3.255
National Planning Commission (NPC)	7	2.061
Ekuri Initiative (EI)	6	3.055
Nature Conservation Research Center (NCRC)	6	2.595
Special Climate Change Department (SCCD)	5	1.338
One Sky Nigeria (OSN)	5	0.333
Tropical Forest Group (TFG)	5	0.125
Conservation Association of the Mbe Mountains (CAMM)	3	0
University of Calabar Department of Geography (UCDG)	2	0.621
Timber Dealers Association (TDA)	2	0

Source: Author, 2016

Figure 6.2 shows the graphical representation of degree centrality network in the Nigerian REDD+ policy process.



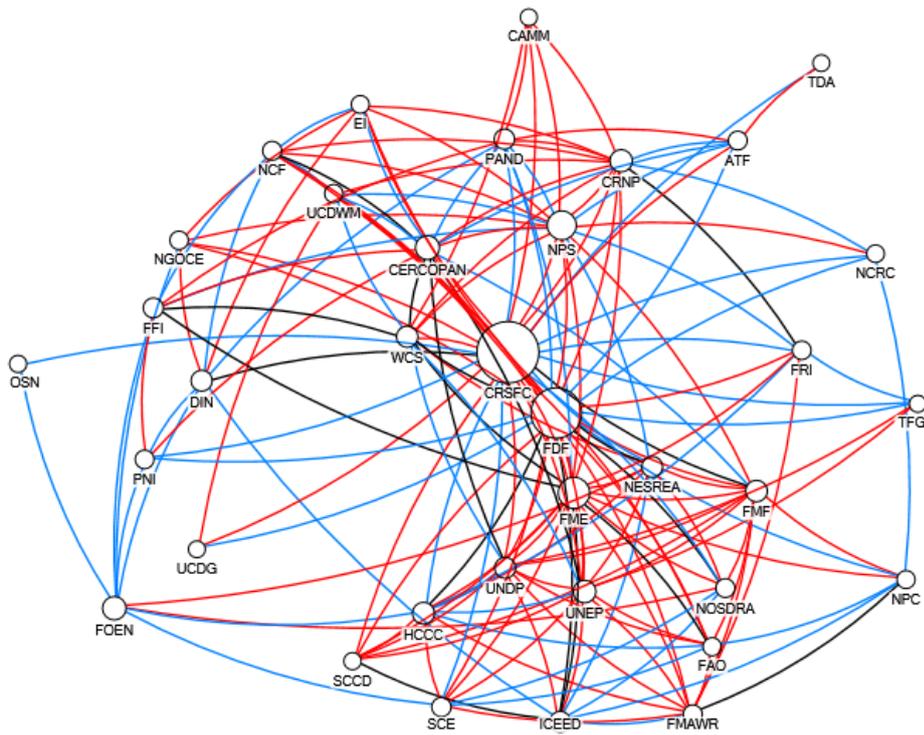
**Key**

	Strong relationship
	Moderate relationship
	Weak relationship
	High degree centrality
	Moderate degree centrality
	Low degree centrality

Figure 6.2 Degree Centrality Network Graph

The chairman of the Commission also co-ordinates the state’s Climate Change Council – an inter-ministerial institution that function as the highest REDD+ decision making body. In terms of information dissemination to other actors, the Commission also plays a dominant role. For example, in 2010, during the early stages of REDD+ readiness preparation, the CRSCF created the Cross River State Stakeholder Forum on REDD+. Under this platform all relevant stakeholders in the state were invited to participate in the UN-REDD+ mission, to contribute in the drafting of planned activities as well as to develop conflict resolution mechanisms. On the 18<sup>th</sup> of February 2011, the CRSCF facilitated the first stakeholder’s

forum in Calabar CRS where over 100 members were invited to discuss the design and submission of Nigeria’s REDD+ readiness application to the UN-REDD Programme Policy Board. In 2012 the University of Calabar was commissioned to host an international stakeholder dialogue with various interest groups to enable technical and policy discussions about REDD+. The event was organised by the CRSFC in collaboration with federal government agencies and the UN-REDD.



**Key**

	Strong relationship
	Moderate relationship
	Weak relationship
	High betweenness centrality
	Moderate betweenness centrality
	Low betweenness centrality

Figure 6.3 Betweenness Centrality Network Graph

Furthermore, prior to the development of REDD+ in CRS the CRSFC has always been a very powerful institution. Since its establishment, the CRSFC had a broad mandate to manage and regulate forest resources to maximize revenues for the state. It is responsible for issuing

logging permits to individuals and companies, protecting the forest reserves and liaising with local and international NGOs and CBOs to implement forest management practices across the state. As highlighted in section 6.2 the state's forestry laws were reviewed in 2010 and the CRSFC mandate was expanded to include sustainable management of forests and wildlife resources, protection and preservation of ecosystems and other related matters. In addition, this law therefore empowers the Commission to formulate policies and strategies in the forestry sector, make, alter, or revoke rules and regulation pertaining to tariffs, timber exploitation and ownership of forests. These legal and institutional roles of the CRSFC could explain the reason why it occupies a central position in the REDD+ policy network (see Figures 6.2 and 6.3).

As shown in figures 6.2 and 6.3, the Anti-Deforestation Task Force (ATF) has a very low degree and betweenness centrality value in the network but its activities are widespread. Initially the ATF was created in 2008 by the state government to enforce the two-year logging moratorium in preparation for REDD+. A new chairman was recruited - an American-Nigerian with more than 20 years of wildlife conservation in Cross River State. Unexpectedly however, the two-year period was extended indefinitely by the former governor who believes that the ATF is the only reliable institution that is capable of addressing the problems of deforestation in the state. This decision was taken regardless the widespread allegations of its unethical operational procedures and corruption. A respondent from an international conservation NGO stated:

I heard from people in CRSFC that rate of logging has actually increased since the ATF started. One of the criticisms of the ATF is that no data is produced whether there are revenues on logs saved or sold or auctioned, it's quite secretive. The governor shouldn't have allowed it to run indefinitely and they are certainly not going to produce a report. The ATF has an extremely negative image within the state; one of the criticisms is that they are above the law (Respondent 8, Wildlife Conservation Society (WCS), 2014).

Since 2011 the ATF administration has refused to enter into any technical or strategic partnership with other state institutions in the REDD+ process. Instead, it continues to blame the CRSFC for failure to secure the forests against massive logging. Therefore, the relationship between the ATF and the staff and management of CRSFC over the management and protection of the forests in the state continues to deteriorate. The ATF

which is well armed and better funded than the CRSFC claimed that its few operational staff are doing more to effect forest protection than the 400+ staff of the CRSFC.

The CRSFC operates as a totally separate entity. Even though we share the same compound and we operate on our own, we just go out and enforce the law. But that was because there is no clear-cut definition of roles. The foresters and the CRSFC see us as imposters, those who come to take away their roles but we really meant to complement their work (Respondent 12, ATF, 2014).

The ATF is far away from being a complementary institution because its leadership remains one of the strongest critics of the REDD+ project and the role of CRSF as an implementation partner. One of them lamented:

...there are issues, you see REDD+ is dead! I don't understand the whole concept of REDD+ if it's about conservation of forest resources, and the CRSFC go about issuing permits to people to cut down trees. I think the whole concept of REDD+ is a way people think they can collect money from UN agencies, you know they are not being practical. I can show you they are giving approval to people to start farms, you should go into Oban areas and see what is happening. The same thing happens in Obubura, Ochun, Kanyang II, and Afi. Kanyang II has one of the biggest remaining rainforest but it's being destroyed because there are many people farming there but the CRSFC is not policing the forests. In that case how can you make REDD+ work when people are farming in the forest... so we are minding our business because we have not been brought into the REDD+ program. This is because they know we don't believe in it, I see the amount of devastation every day (Respondent 12, ATF, 2014).

In the same vein, the ATF chairman also decried the level of incompetence demonstrated by the CRSFC in failing to secure the forests. He said:

To give you an idea of what the destruction entails, the number of chainsaws we have seized last month alone is more than all the chainsaws that have been seized by the CRSFC in its entire history (Respondent 15, ATF, 2014).

On the other hand, the CRSFC officials are also pointing accusing fingers at the ATF and its leadership for the failure of cooperation and coordination. One of the staff refuted the claims by the ATF that they are conniving with loggers to destroy the forests.

The ATF is meant to work with the CRSFC if you see the way they were set up. I am a member of the ATF but I stopped working with them because I don't like the way they are operating and I don't want to be dragged into some issues at this age. It's now a parallel agency to the CRSFC. I think it's about the attitude of the Chairman; this is the third task force chairmanship so he is not the first. The rest have always worked with the CRSFC but James doesn't want to work with us. According to him everybody in the Commission is corrupt and he doesn't want his image to be tarnished by the Commission. It has its own implications for operations delivery and success. They

harass our staff in the field; they make them look like criminals because they have soldiers and guns. They use that cover to harass, intimidate and punish our staff members. There are issues that need to be sorted at a very high level of government, we raised them several times but nobody wants to attend to them (Respondent 13, Forestry Commission Board Member, 2014).

The respondent also refuted the claims by the ATF that they are conniving with loggers to destroy the forests. He stated:

If the community people want to do anything in their forest they have the right. Assuming you have been given some hectares of land by the communities to do development, you now come to the Forestry Commission and show us the certificate and demand permission to remove the trees. We will issue the permission to do so, and then people will say we are giving concession. Is that concession? Their view is that no tree should be cut at all under any circumstance and that is not practical. There is no alternative to wood in CRS; there is demand for wood that is why we do salvage to at least supply some wood to the market. Unfortunately, the ATF is selling wood too and they spend the money (Respondent 13, Board Member Forestry Commission, 2014).

This suspicion about the role of ATF in logging is evident in their strong ties with the Timber Dealers Association within the network. In spite of the ATF 's claim about halting deforestation it has become one of the major supplier of woods to timber marketers in CRS. There is a widespread suspicion among other stakeholders that the ATF's 7 million Naira (equivalent to 35,000 USD) monthly operational costs are covered by income accrued from sales of confiscated wood from illegal loggers that's why deforestation is on the increase.

One respondent opined:

The 7 million Naira issue is a fact, and people are saying that there is more wood going out than before. I have not done any studies so you shouldn't have it on record that I said this but it seems to me that's the case. They are arresting the loggers but not the marketers. People are afraid now because they don't have the connection with the ATF to do certain things so it's restricted to a cabal (Respondent 9, Ekuri Initiative, 2014).

The ATF has very few staff and they use that avenue to compensate the boys that are supporting them, they appoint them into the task force and so they connive with the loggers while pretending to be doing a good job (Respondent 10, Ekuri Community, 2014).

At federal level, several institutions are directly or indirectly involved in the REDD+ process and they provide regulatory, collaborative, supervisory, and legislative functions. The Federal Department of Forestry (FDF), a semi-autonomous agency under the Ministry of Environment is the most powerful among all the federal institutions. This is supported by its

high degree centrality position within the policy network (see figure 5.1). As noted earlier the Nigerian REDD+ readiness project follows a two-track approach and so the CRS government requires another implementing partner at the federal level. As an institution that is responsible for coordinating forestry policies the FDF provides such strategic partnership and was very instrumental in accessing the USD 4 million REDD+ readiness take-off grant from UN-REDD. High degree and betweenness centrality values of the FDF explain its roles in information dissemination, managing funds, liaising with other technical partners such as UNDP, UNEP and FAO. The FDF director is also the National REDD+ Coordinator whose functions include international negotiations at UNFCCC level, membership of the National Advisory Council on REDD+, and the National REDD+ Sub-committee. In partnership with UN technical partners, the FDF is also responsible for addressing risks of domestic leakages by developing strategies that will enable REDD+ to be replicated in other state with significantly high forest cover across the country.

#### **6.4.2 Marginalised Actors**

The most marginalised groups in the Nigerian REDD+ policy network include the CBOs, some civil society NGOs and timber marketers. Though highly influential at the local level, these actors have little or no collaboration in the REDD+ process despite their apparent strong ties with the CRSFC, FDF, ATF and other powerful NGOs in the network. Within the CBOs, EI is the most influential and has a track record of managing about 33,000 hectares of forest land under the community-based forest resources management arrangement. In 2004 EI won the UNDP Equator Initiative Award as the largest and most successful community managed forest in West Africa (UNDP, 2012). However, they are perceived to be a threat to REDD+ implementation in CRS and so remain poorly represented. A board member of the CRSFC laments:

Sometimes there are mischievous people who have overwhelming influence on the communities and they tend to influence them in the wrong direction and that affect the fortunes of that community. Let me take Ekuri for instance, assuming we did everything right, build their capacity, engage with them in a transparent and accountable way the people can still say its land grab. It's not possible! REDD+ is community-based and not state-based. Is anybody going to steal Ekuri forest from Ekuri? (Respondent 13, Forestry Commission Board Member, 2014).

During interviews and focus group discussions in 2014 community members within the Ekuri cluster continue to complain about marginalisation by the CRSFC and REDD+ officials. They

complained that the CRSF has refused to engage with the communities within the cluster on individual basis and so decided to select the Chairman of EI to represent all of them. Even so, this representative does not inform them about any decisions taken on their behalf whenever he attends meetings or workshops. This quote justifies this assertion:

Right now, we don't have anybody representing the Ekuri community in Calabar in terms of REDD+. The chairman of the Ekuri Initiative governing board is now participating in their activities and meetings. He is from here and supposed to be representing us. I quarrelled with him the other day because whenever he attends those meetings he doesn't come to report to us in the community. He has been using his mandate in the Ekuri Initiative to attend those meetings since last year (New Ekuri Community Focus Group Discussion, 2014).

This representation violates the already established governance structure of the Ekuri people comprising of Old and New Ekuri community members who used to live together as a single community. Historically, membership of the EI is drawn from both communities through a three-tier hierarchical arrangement which include the General Assembly, EI Board of Trustees, and other ordinary members. In this arrangement, the Board of Trustees operate directly under the General Assembly because it has the power to veto or approve all policies and decisions. Consequently, community members are dissatisfied with the representation and the manner in which the EI Chairman is relating with Forestry Commission. This is further exacerbated by his refusal to conduct elections into the office of the Coordinator of the EI because he is acting in dual capacity. His position enables him to control all the key roles of the EI in the REDD+ process.

Furthermore, the community accused CRSFC of employing a divide and rule tactic in order to create disharmony among them and to keep the Ekuri perpetually marginalised. For example, during one of the community sensitization and engagement workshops in Calabar the CRSFC requested for the attendance of 10 representatives from Old and New Ekuri villages, instead they decided to pick all the attendees from Old Ekuri only. The new Ekuri people felt marginalised and vowed to frustrate any decision taken without their collective participation. They claimed that part of the strategy for dividing the Ekuri people by the Forestry Commission include holding separate meetings and changing dates of meetings without proper communication in order to deliberately side-line certain community representatives who are very critical of the project. One respondent posits:

They announced that meeting will hold on Monday and the arrival day was Sunday. Unfortunately, they deliberately arrived on Saturday, had a preliminary meeting with the villagers and hold the actual meeting on Sunday and left. It is a ploy not to involve those who are experienced in order to manipulate the villagers to accept what they feel is good for the program and not in community's best interest (Respondent 10, New Ekuri Community, 2014).

Within the same Ekuri cluster, Okokori community members are almost totally excluded from the REDD+ negotiations. Unlike Ekuri, the Okokori community has not been formally consulted by the REDD+ officials or Forestry Commission. They got their information from rumours going around that carbon credit [REDD+] is good and that the government has chosen them to participate in the project.

The truth of the matter is that the community don't know the real activities of REDD+ because we were not consulted (Okokori Community Focus Group Discussion, 2014).

Similarly, Iko-Esai community is also not directly involved in the REDD+ process despite having the second largest community-managed forest in the Ekuri cluster. One of the chiefs complained that he was only invited to a meeting in Calabar at the initial stages of REDD+ consultations. Their repeated attempts to persuade the Forestry Commission to involve them in subsequent meetings were unsuccessful. In most cases the usual response from the Forestry Commission is that REDD+ is a country level project that doesn't require the participation of communities at this stage. This has generated suspicion and mistrusts between the Iko-Esai community members and the Forestry Commission. In response to the Forestry Commission's excuse the Chief said:

How can I be satisfied with response from the Forestry Commission, am I a goat? Only a goat will follow its owner to the market and allow itself to be sold without any resistance (Respondent 6, Iko-Esai Community Leader, 2014).

Also, the Conservation Association of the Mbe Mountain (CAMM) CBO that represents all the communities within that forest cluster is also marginalised in the REDD+ consultations. There is no regular information flow between the CRSFC, REDD+ officials and CAMM officials. For example, Kanyang II community has not been consulted despite the claims that they own the largest forest cover within the cluster. This is exemplified by the absence of direct ties between CAMM and other major REDD+ actors in the network. Over the past decade, the relationship between CAMM and Wildlife Conservation Society (WCS), National Park Service (NPS), and Cross River National Park (CRNP) has been mainly supportive and

collaborative. Through CAMM the communities have established and maintained the Afi/Mbe Wildlife Sanctuary while the WCS have been providing funding and capacity building assistance. However, the communities maintained that their efforts are neither appreciated nor rewarded by the Forestry Commission. They stated:

They [REDD+ Officials] came in 2010 and the Kanyang people were not informed. They organized a workshop in Calabar without our knowledge so we wrote a protest letter to the FC and there was nothing done. The other time we only heard that another workshop was conducted at Ikom and a certain woman from Buanchor was taken to the US. As a result, we decided to write a protest letter to the state government, up till now no reply was given to us. If they decide to keep us away from REDD+ then they are looking for confusion because we will react adversely. We are still expecting the state government to give us feedback on our letter. Even on the Afi side Kanyang has the largest portion of land so why should we be excluded? (Kanyang II Focus Group Discussion, 2014).

Since the logging moratorium in preparation for REDD+ began, and the subsequent appointment of one of the founders of Pandrillus NGO as chairman of ATF, there has been a growing tension between the ATF and CAMM. The Kanyang II community complained that the ATF officials have been arresting and harassing their community members by seizing their farm products and wood for building purposes. They also claimed that the ATF chairman was using his influence to help his Pandrillus NGO by supplying seized food produce to feed animals at the nearby Drill Ranch.

The task force has been parading up and down arresting people because once they see you with a stick they seize it. These days nobody can build a house because there is no wood available, not even the non-timber forest products. Once they see you with a bag they search and seize it. It's so bad that if a farmer harvests banana or cassava or cocoa, they seize it and take it to the sanctuary to feed the animals. James Jenkins forcefully collect our food and give it to his drills at the ranch (Kanyang II Focus Group Discussion, 2014).

As a result of the activities of ATF in the Afi/Mbe cluster communities find it difficult to obtain building materials from the forests. To address this problem the ATF established a very cumbersome process where individuals were asked to submit an application for permission before they are allowed to cut wood for building purposes. Even so, they experience long delays before the applications are processed and often turned out to be rejected. This tension would possibly escalate into a serious conflict between CAMM communities and the ATF.

When I was at Oban village I met a forester and we got talking and I asked him, he said if any of my people want to build a house he should get a photographer to take some photos of the building under construction, write an application with the attached picture, give it to the village for approval. He will keep the application until the task force comes and it will be given to them for final approval. Now the issue is James won't even come to the chiefs because of his arrogance. He sometimes fire gun shots to threaten people when he wants to seize your farm produce. .... The government has given James too much power; they should know that he is a foreigner. A foreigner cannot be terrorizing the indigenes. By the time the youth will rise up the government should not blame them. If he mistakenly kills anybody here and if we decide to kill him too it will affect the Nigerian-American relationship (Kanyang II Focus Group Discussion, 2014).

More recently, the situation in Cross River State has changed since a new government was inaugurated on May 29<sup>th</sup> 2015 following the expiry of Governor Imoke's 8-year regime. It was reported in *Vanguard* newspaper published online on 10<sup>th</sup> June 2015, that the new governor has announced the dissolution of the Task Force and directed the state judiciary to prosecute its former officials. They were accused of highhandedness, corruption and abuse of public trust which led to the decline in forest cover in the state. The Secretary to the State Government issued a statement saying that the governor was angry and he wanted the state's Forestry Commission and the Task Force 'to explain to the people of the state how the forest left in their care was so rapidly depleted'. Shortly after the ATF was dissolved some of the timber dealers began to voice out their ordeals. For example, the president of the Timber Dealers Association narrated how much damage was done to some of his members and showed his appreciation to the new governor for rescuing the situation: 'We have been suffocated and exploited in many ways by the Task Force, take a look at the market, it is almost empty because a lot of us have been forced out of business by ATF'. According to *Cross River Watch* online newspaper, the Timber Dealers also planned a state-wide protest and vowed to resist the reconstitution of a new ATF by all means possible. The Union members threatened to destroy the ATF's operational vehicles and engage the officials in a violent conflict if necessary. The newspaper also reported that: 'One of the members even vowed that even if it will cost us our blood, we are going to make sure we resist the new ATF. Some of our members are still in prison, courtesy of the last task force and the governor dare to create another? We shall distort their operations, we shall burn their vehicles, we shall confront them...'

The analysis presented in this section provides empirical evidence that powerful actors within the policy network tend to influence processes and outcomes (Arts, 2003), and such power and agency are exercised through different interactions among the diverse policy actors (McClurg and Lazer, 2014). Similar to the situation in Nepal (Bushley, 2014), the practice of REDD+ policy making in Nigeria is mostly driven by a government dominated process in partnership with a few international donor agencies and NGOs such as UNDP, UNEP and FAO. These findings are also similar to that of Pham et al. (2014b) who reported that REDD+ implementation in Vietnam does not include some important actors who are directly related to deforestation and degradation in the country. In this case, the interests of EI and CAMM and the communities they are representing are not carried along in the REDD+ process in Nigeria. The process also lacks a valuable input from the timber dealers and private sector such as domestic companies that can invest in carbon offsets and help drive the market-based mechanism when REDD+ eventually move to the investment phase. The absence of private sector participation in REDD+ was also reported in Cameroon (Dkamela et al., 2014), and Nepal (Bushley, 2014) case studies. Again, the failure to incorporate indigenous knowledge by limited collaboration and information sharing with the local communities and CBOs will be a potential obstacle to the transformational change that the REDD+ process is aiming to achieve (Moeliono et al., 2014). In this case study, such transformational change could be compromised because the dominant actors are controlling information flows across the policy network and information mostly trickles down to the communities through rumours and other informal pathways. This phenomenon will deepen the suspicion between the weaker and dominant actors thereby making coordination very difficult.

#### **6.4.3 Land Tenure**

Land tenure issues constitute another important domain in which power relations and dynamics in the Nigerian REDD+ process can be evaluated. Addressing tenure security - which is defined as recognition and protection of an individual's right to land by others even in challenging situations (FAO, 2002), is very significant in the governance and implementation of REDD+ at national and local levels (Naughton-Treves and Wendland, 2014). Analogous to the forest policies discussed in section 6.2, land tenure system in Nigeria is also rooted in the country's colonial history. In contrast to the old forestry law that was

dominated by colonial administration and the state, land tenure laws recognise a regionally differentiated statutory ownership. Nigerian statutory land tenure system was derived from the colonial Law of England and Local Legislations which gave individuals and government the power to acquire land (Aina, 1992). In southern Nigeria, the Native Land Acquisition Proclamation was established which stated that only Nigerian citizens had the rights to acquire land. In the northern part of Nigeria separate laws existed under the Land and Native Rights Proclamation of 1908 which transferred ownership of land to the government. At the same time different forms of customary land tenure arrangements were practiced in all regions where individuals and groups such as communities can lay claim to traditional lands (Bruce, 1998). Following independence, perceived inadequacies of the prevalent customary tenure and the difficulties it created for authorities to acquire land for development purposes (Okpala, 1982), led the Federal Military Government to promulgate the Land Use Act (1978) (Braithwaite and Onishi, 2007). Under this new legislation land ownership is guaranteed to all Nigerians but it empowers the federal and state governments to acquire lands for public use. At the state levels, statutory land allocation was vested in the realm of the governors who have the power to issue certificate of occupancy to individual land owners for a maximum lease period of 99 years. Also at the local government level customary certificates of occupancy of mostly rural lands were issued by the local councils. This tenure dualism has created conflicts due to land speculation, tenure revocation and increased government control of land.

The present tenure arrangement has implications for REDD+ in Cross River State because the Forestry Commission Law of 2010 recognises that customary tenure can exist but the Commission has the power to convert any forest land into a reserve to serve public interests. The implication is that customary forest tenure by the communities in Cross River State and especially in areas identified as REDD+ demonstration sites is insecure and uncertain. For example, even before the introduction of REDD+ part of the Afi/Mbe forests was gazetted into a Wildlife Sanctuary without consultation of the adjacent communities. During the focus group discussion one of the community leaders lamented:

One other thing is we have a wildlife Sanctuary and it was gazetted by the government without the consent of the communities. We have been conserving the reserves since 1993 in collaboration with the government but we were not consulted. It [gazette] was done in May 2000. The forest in this sanctuary is about 120 sq. miles

so it's larger than the community lowland forest (Buanchor Community Focus Group Discussion, 2014).

The manifestation of tenure insecurity in this community became more visible as a result of the tension between Pandrillus NGO and the Buanchor community regarding the violation of Drill Ranch contract agreement. The community members claimed that the Pandrillus management is restricting them access to the forests and have refused to fulfil their terms of agreement and so they decided to terminate the contract. However, the then governor Donald Duke intervened by placing the disputed forest directly under his authority and instructed the community to allow the project to continue.

Our agreement is with James but when things didn't work Governor Donald Duke decided to step in and placed the forest land under the government control. We gave him the consent to solve the problem and he promised us many development projects. ...Now that he [James] is working closely with them we cannot reverse it, we can only renegotiate but he is not cooperating with us (Buanchor Community Focus Group Discussion, 2014).

This situation suggests that customary claim to land by indigenous communities is not fully protected by the Cross River State laws despite their long-term commitment to forest conservation.

With the introduction of REDD+ the problem of land tenure insecurity in Cross River State became even worse. For example, the Old and New Ekuri communities suspected that the Forestry Commission was using REDD+ to grab their forest land since the government has refused to issue them any legal documentation to prove their forests ownership. As a result, the communities have no powers to negotiate their demands directly with project officials.

There is the community owned forest and government reserves. The government controls the reserves while we also have rights on our forest. We have a lot of documents to prove our ownership to the land and the forest but the government has not given us any certificate of ownership, it's just an unwritten arrangement (New Ekuri Community Focus Group Discussion, 2014).

Meanwhile, the project officials in Calabar maintained that the community forestry and land tenure is protected under REDD+, and that the people can decide on how much of their forest they are willing to commit for the project. The Forestry Commission Chairman also argues that the forest belongs to the communities and they can decide to withdraw their consent at any time. However, the communities continue to feel alienated from REDD+ decision making which they feel is directly related to their unclear tenure rights.

As a person, this whole thing has been keeping me thinking because of one question I have been raising in several meetings with them: who owns the forest, who has authority over the forest, what does the constitution says about the power and ownership of the forest? Now the constitution says forests belong to the government that is it. But we know as communities that where we are, is our forest (Respondent 10, Ekuri Community member, 2014).

Contested tenure claims and power relations between the Forestry Commission and communities is adding to the tenure complexity under the REDD+ regime. At the initial stages of REDD+ preparation Afi/Mbe, Ekuri, and the Mangrove were identified as the three main forest clusters comprising of several communities living around these densely-forested areas of Cross River State. Forest clustering appears to be a convenient approach to REDD+ governance but it also illuminated historical intercommunity boundary conflicts among them. For example, there is a growing tension between the two largest communities in the Ekuri cluster – Ekuri and Iko-Esai, over their forest boundaries. The tension emanated from Ekuri's alleged boundary encroachment and illegal logging of its forests by the adjacent Iko-Esai. Ekuri community members claimed that Iko-Esai has granted a logging concession permit to timber dealers since 1987 and their operations are now carried out in their own forest land. Recently the tension was fuelled by a document published by the Centre for Education, Research and Conservation of Primates and Nature (CERCOPAN), an international NGO that is managing the Iko-Esai forest in trust for the community members. The report was titled CERCOPAN Conservation Report: Towards Sustainable Landscape Management in Iko-Agoi Landscape Part 1: Land cover change was published in January 2013. This report used remote sensing method to show what the Ekuri community considered as adjusted boundaries with widespread conversion of primary forest areas into farmlands and other land uses.

All of a sudden CERCOPAN came around to tell Iko-Esai that they want to assist them to create a land use plan, and then they decided to map some Ekuri portion across the river into the Iko-Esai area close to our farms. That generated a serious conflict and we later came to realize that it was orchestrated by the Forestry Commission. Because the Forestry Commission endorsed the content of the report, and Obinna the chairman of the Forestry Commission is aware of the boundary and with all the available evidence they refused to do anything about it (Respondent 10, Ekuri Community member, 2014).

The Ekuri community suspect that there is a plan between the Forestry Commission and neighbouring communities to reduce its forest cover and render them less powerful in the

REDD+ negotiations. In a letter dated 4<sup>th</sup> July 2014 (see appendix 3). Ekuri community wrote to the CERCOPAN Executive Director expressing their disagreement with the content of the document, violation of their territorial rights, and the attempt to tarnish their local and international reputation in community-based conservation. In response to the letter CERCOPAN wrote to Ekuri community to apologise for the negative reaction to their publication and distancing itself from any boundary related problem between the communities (see appendix 3). In an interview with the CERCOPAN Director he claimed that the information contained in the document was correct and that deforestation cannot be taking place within the Iko-Esai forest territories because of their effective conservation activities and forest protection since the last 20 years.

The conflict is happening because we have successfully protected a large area of forest within Iko-Esai land. The other communities have largely chopped down their forest, they do not have the natural resources and so they wanted to use those within our protected area. Yes, we know there is a border dispute, rights of access dispute which is very hard for us to comment outside this. We know hunting is a problem within our protected area which massively degrades the forest and we know a lot of that is done by people not from Iko-Esai. The information in that document is the reality and we don't see someone presenting any other material (Respondent 11, CERCOPAN Official, 2014).

This tension remains largely unresolved despite repeated meetings between the leadership of the two communities as a result of the continuous frustration and suspicion among them.

These findings corroborate the work of Sunderlin et al. (2014) who observed that poorly defined and contested forest boundaries and unclear land and carbon rights are some of the major challenges facing REDD+ pilot countries. It also agrees with (Murdiyarsa et al., 2012) that tenure security is prerequisite to REDD+ for effective implementation and conflict prevention. The analyses also follow (Phelps et al., 2010b, Sikor et al., 2010, Marino and Ribot, 2012) to argue that implementing REDD+ projects in poorly defined tenure arrangement could risk recentralisation of forest rights from the communities to the state. Moving ahead with REDD+ implementation in Cross River State without recourse to defined tenure arrangements provides evidence to these assertions.

#### **6.4.4 Carbon Tenure**

The absence of a clear tenure arrangement also has direct implication for legal ownership of carbon in the Nigerian REDD+ readiness project because carbon tenure is directly linked to

land tenure. Commodification and marketization of ecosystem services brought about the creation of carbon credits as a form of property in REDD+. Although Peskett and Brodnig (2011) consider the concept of carbon rights as “poorly defined”, the issue has been a subject of debate in REDD+ discussions because some countries such as Australia and New Zealand have already established legal status for carbon (Karsenty et al., 2014). The Nigerian situation sharply contrasts to that of Australia and New Zealand because there is an absence of a proper legal framework for carbon ownership. In Nigeria carbon ownership means having rights to the largest portion of the payments from carbon credits, and in essence determines legitimate claim to the forests land. Although the REDD+ officials maintained that the government doesn’t own the community forests and so cannot possess any carbon rights, the communities continue to suspect such position. During a workshop organised in Calabar one of the community representatives raised the carbon tenure issue which generated a heated discussion among them. This is because the project officials think that it’s too early for that issue to be discussed at this stage of the project.

During a meeting at the University of Calabar I raised the issue of who owns the carbon? And I was almost lynched that why should I ask such a question? Since then I lost favour with Blair. They said the question will answer itself at the appropriate time. The attack was so much that I could not come the following day for the meeting (Respondent 10, Ekuri Community Member, 2014).

The suspicion is that if the government grants ownership of carbon to the communities it will jeopardise its initial agenda of expanding the state’s revenue base through the new carbon economy. One of the officials of the Forestry Commission highlighted:

Maybe the emphasis is slightly changing now but we used to have timber concessions, timber forestry through which we give permits to companies and individuals who need to exploit the forest for economic benefits in fact the Forestry Commission used to be the highest income earner for the state. About 50% of the remaining tropical rainforest in Nigeria is located here in Cross River State, so the state has been running a forest economy for a very long time. But the need to mitigate against climate change and the emerging programs like the REDD+ has shifted our focus from timber exploitation or timber forestry to carbon forestry (Respondent 13, Forestry Commission Board Member, 2014).

The situation in Nigeria conforms with the findings of Karsenty et al. (2014) that linking carbon rights to land tenure might discourage governments from transferring property rights to the local people which could result to recentralisation of forest management. Separating carbon rights from tenure also has its own implications. Project proponents in

Calabar can take advantage of this to complicate the tenure arrangement by refusing to implement the necessary forest tenure reforms that can guarantee livelihoods, equity and justice as contained in the Nigerian REDD+ Readiness Preparation Proposal (R-PP) document.

### **6.5 Free Prior and Informed Consent (FPIC)**

The rights of indigenous peoples to participate in decision making and project development that have a direct bearing on their livelihoods is recognised by international law, and so the need to conduct a Free, Prior and Informed Consent is enshrined in the 2007 United Nations Declaration on the Rights of Indigenous Peoples (Hanna and Vanclay, 2013). The UN-REDD programme as an implementation partner in the Nigerian REDD+ considers FPIC as a “normative obligation” which serves as a precondition for safeguarding the territories, rights and resources of indigenous peoples before the implementation of any development project. Hence, part of the UN-REDD Program requirements for country participation include a documented plan for FPIC which will ensure that the proposed project is consistent with international human rights law as well as the Cancun Agreement of the UNFCCC. Accordingly, Nigeria’s National Program Document submitted to the UN Policy Board and the REDD+ Readiness Preparation Proposal (R-PP) submitted to the World Bank’s Forest Carbon Partnership Fund for supplementary funding include plans of action for seeking FPIC from target communities. To further understand how REDD+ is governed and power relations among the actors in the Nigerian REDD+ governance there is the need to examine how the FPIC process is being operationalised by the project proponents. The main aim of this section is to understand whether or not the consent of the local communities is sought by the REDD+ project proponents through a systematic FPIC process as required by the UN-REDD programme and Forest Carbon Partnership Fund guidelines. It also discusses the implications for successful implementation of the project in Cross River State.

#### **6.5.1 Free**

According to the UN-REDD guidelines the ‘free’ element of the FPIC process refers to a “consent given voluntarily and absent of coercion, intimidation or manipulation” (UNREDD, 2013 p. 18). Stakeholders are expected to have a significant input in the decision making where they determine the timeline of the project; information is communicated in languages they understand; and all members are allowed to participate without any form of

discrimination. The Nigerian REDD+ project does not meet this requirement. As discussed in the previous section, the decision to ban forest exploitation and eventual imposition of the 2-year logging moratorium in preparation for REDD+ was adopted at the Environment Summit without adequate representation of all the affected forest communities. Instead of allowing for a free community consultation the CRS government followed a military approach which involved cracking down on illegal timber exploitation and seizure of timber logs and saw machines. Interview accounts show that the state was using the ATF apparatus to intimidate forest communities into complying with the moratorium and accepting REDD+ through violent operational procedures. Some communities also complained that they did not participate in the process that led to the formation of the task force and so they are unaware of its mandates. For example, the Kanyang II community members said that the ATF was formed in Calabar and that information was only communicated to them at a meeting organised by the Chairman in 2011. The communities complained that during the meeting only clan representatives who are not educated enough to understand the deliberations were allowed to ask questions about the ATF's formation and operational procedures:

The task force came to tell us that we should not use the forest for farming again. I was there in that meeting, and they said nobody should ask any questions except the clan heads, not even the village heads. All the discussions were in English and the clan heads are mostly old people who did not go to school. We told them this is not a meeting because it seems like you came here to impose your authority on us because in any sensible meeting there must be interaction and exchange of ideas (Kanyang II Focus Group Discussion, 2014).

This shows that information about the REDD+ readiness process is not freely communicated to the affected communities as claimed by the project proponents.

### **6.5.2 Prior**

The project is also being implemented without a prior consent from affected communities because they are not consulted at the initial stages of its formation. Effectively, the 'prior' element of FPIC as described in the UNREDD FPIC guidelines refers to sufficient time that will allow rights-holders to analyse information and to make informed decisions before the implementation of development proposals. The Forestry Commission and REDD+ officials assume that a prior consent was given by simply communicating with certain non-elected communities' representatives about the expected benefits of REDD+ at organised

workshops in Calabar. This absence of prior knowledge among the communities is causing problems for the project implementation. For example, the project officials conducted a community forest monitoring and carbon measurement exercise as part of the drivers of deforestation studies without any prior knowledge and approval from the affected communities. One of the community elders said:

I remember just some few months ago, they decide to go and do MRV exercise, to measure carbon in Ekuri. I raised my voice against it and questioned how you can start measuring carbon when we have not even given you FPIC. We have not been consulted to know the implication of the program on our lives and the benefits. Where are you starting from? Which area have we set aside for the REDD project? It's not going to be the entire forest land of Ekuri. When I heard about it I called Martin to tell him that decision is not good and they had to change; they need to do FPIC first before anything happens in our forests (Respondent 10, Ekuri Community Member, 2014).

In addition, the Participatory Governance Assessment (PGA) pilot was carried out without any prior consent from the communities. The preliminary PGA was carried out in Esuk-Mbah, Iko-Esai and Buanchor communities which were selected to represent each of the 3 pilot sites of the Mangrove, Ekuri, and Afi/Mbe respectively. The exercise was to assess the mechanisms of meaningful participation of forest dependent communities to ensure fairness and transparency in the distribution of benefits. However, contrary to the claims of the REDD+ officials about conducting a sensitization meeting with the communities and their leaders prior to the fieldwork, the communities were not aware of the exercise. For example, during a focus group discussion in April 2014, the Buanchor community members said that they were not aware of any of such activity and that the Forestry Commission officials only came last week for the first time to raise awareness about REDD+. One of them said:

Carbon credit (REDD+) is a new issue to us. It was just last week that we had a meeting with the forestry commission and the REDD+ representatives. We don't have much awareness of what REDD+ is all about (Buanchor Community Focus Group Discussion, 2014).

This finding is similar to Awono et al. (2014) who discovered that the local people in Cameroun were not engaged in the REDD+ process from the outset despite the project proponent's claims about prior engagement.

### 6.5.3 Informed

The 'informed' element of FPIC process refers to the nature of indigenous people's engagement and the type of information presented to them before commencement of the project. The UN-REDD standard procedures include the provision of transparent and unambiguous information in a language that is understandable to the local people in a consistent manner throughout the project duration. However, the Nigerian REDD+ project is being implemented without sufficient information flow to relevant stakeholder at the community level. Most of the communities obtain information about REDD+ through informal channels such as researchers and NGOs and so they lack clear understanding of what it actually means and how they can benefit. As noted earlier, most of the pilot communities know REDD+ as "carbon credit" because they lack the knowledge and requisite capacity to know the different stages of REDD+ and how it will be implemented in the forests under their control. Even though the project proponents claim to have engaged the cluster representatives in all the REDD+ activities, and that information is expected to be freely available to the communities, the people are still not adequately informed. In some communities, information about REDD+ is conflicting and confusing because of the activities of some environmental activists such as the Friends of the Earth Nigeria/Environmental Rights Action who are strongly campaigning against REDD+ in Cross River State.

A meeting was held in Ikom in 2013. The people came here and sat with the community and discussed, they asked the communities to let them know about any problem and they are willing to assist. They told us so many things concerning conservation programs here, that we should not be used, that they have the right to protect us from people trying to force us to accept things that are not right. They said we should think very well before accepting to give our forest for the carbon credit. They are advising us not accept the REDD+ project (Respondent 4, Businessman, Buanchor Community, 2014).

Because the communities are not adequately informed, they are beginning to believe that REDD+ is nothing but a form of land grab in disguise. As noted previously, the communities are afraid of losing their forests as a result of the unclear tenure rights despite the Forestry Commissions claim that the communities' have rights to their forests. This suspicion is heightened by the anti-REDD+ campaign and the continuous marginalisation of communities that control the largest forests in Cross River State. Some of the respondents said:

There are many stories and we had a workshop with the anti-REDD+ people. They said they are aware that some people are trying to take our forest by tricks.... They said that we should avoid REDD+ because it will not help the society and the people have accepted their story (Okokori Community Focus Group Discussion, 2014).

.... the problem is that we see REDD+ as a form of politics being played on us, as a ploy to grab our forest (New Ekuri Community Focus Group Discussion, 2014).

Another area in which the communities lack adequate information is about the issue of benefit sharing. For example, in August 2012, the Cross River State Forestry Commission secretly produced a document that contains a review of forestry regulations and tariffs. In that document, the benefit sharing formula between the state and forest communities was changed from 70 percent to 10 percent for forest carbon stock obtained from forest plantations, reserve forest, protected forest or private forests under the community control in Cross River State. However, the project officials have denied the existence of such document despite the communities' claim that some of the new rules are beginning to be implemented. A respondent lamented:

The REDD+ officials came here and introduced the carbon issue to us, and we were told that before anything happens the community must agree. To our greatest surprise, the forestry commission went and negotiated with the REDD+ people about benefit sharing formula. We heard that only 10 percent will come to us and the Federal Government and State will take 90%. It's not a rumour I have a copy of the document (Respondent 10, New Ekuri Community Member, 2014).

#### **6.5.4 Consent**

According to the UN-REDD FPIC guideline document consent refers to "the collective decision made by the rights-holders and reached through the customary decision-making processes of the affected peoples or communities. Consent must be sought and granted or withheld according to a unique formal or informal political-administrative dynamic of each community" (UNREDD, 2013 p.20). As discussed previously, the Nigerian REDD+ is progressing without any formal or informal consent from the affected communities. For example, the Ekuri communities have been running successful community forestry for many decades and have a documented land use plan. According to them their forest is partitioned into 3 parts, one set aside for farming, the other for sustainable forest management, while the largest part will be allowed for REDD+ activities. However, the forestry commission and the REDD+ officials assumed that consent for using the entire forests was given to them by the communities and such information is contained in the REDD+ policy documents. This

assumed consent has the potential for exacerbating tension and conflict between the communities and forestry commission thereby affecting the success of the project. One of the community leaders lamented:

Out of the 33,600 hectares we have we have set aside about 5000 hectares that will allow us to farm for the next 40 years, another part will be set aside for sustainable forest management activities, and the other one could be used for REDD. But the Forestry Commission is not interested in this plan and they want the whole forest including our farmlands, so how can we survive? (Respondent 10, New Ekuri Community Member, 2014).

In summary, the Nigerian REDD+ readiness project in Cross River State is being implemented without any formal free, prior and informed consent of pilot communities who have been engaging in voluntary forest conservation for many decades. This assumed FPIC is threatening the successful implementation of REDD+ in these communities by isolating key community groups from effective participation in the decision-making process. Some of the communities are threatening to withdraw from the project if they remain isolated or the process continues to lack equity and transparency. This narrative confirms the arguments that REDD+ is characterised by uneven public participation in most countries (Lawlor et al., 2013); and that the REDD+ processes have failed to address rights and equity issues by isolating local communities from important negotiations (Griffiths and Martone, 2009). It also provide more empirical evidence in support of a huge gap between country-level outcomes and internationally agreed climate change policy articulations (Leggett and Lovell, 2012, Martin et al., 2014). Consequently, the argument that REDD+ could recentralise forest governance in developing countries (Phelps et al., 2010b) is gradually taking shape in Cross River State. It can be argued that the situation also describes the emerging “green grabbing” phenomenon (Fairhead et al., 2012) where the control of public or privately owned land – in this case forests – is being transferred to the state and other powerful actors under the pretext of environmental conservation.

## **6.6 Conclusion**

For Nigeria to implement REDD+ in line with the UN-REDD and World Bank’s FCPF participating country requirements, there must be credible and transparent institutional, economic, legal and governance arrangements. This chapter examined the governance and implementation of the REDD+ readiness project in Cross River State. Even though the

project is still at its early stages, results from social network analysis showed the existence of unequal power relation among the major actors involved in the policy process. The analysis indicates that government agencies at the state and federal level are the most influential actors and they own and implement the project in partnership with few international donor agencies and non-governmental organisations. These actors appear to be actually and potentially influential in the short, medium and long-term duration of the REDD+ process because they control valuable resources, technical know-how and knowledge dissemination among other actors involved in the REDD+ readiness project in Nigeria. Therefore, it is argued that the project is threatening to re-centralise forest governance by failing to engage with the indigenous people who have been traditional conservationists and custodians of the forests for many decades. This governance arrangement can be explained by the historical development of forest policies in Nigeria as well as the extant forestry laws and tenure rights which remained significantly unchanged since the colonial period. As a result, the project is being implemented without secured land and carbon tenure rights and a formal FPIC from the target communities thereby marginalising them from participation in the key decision-making processes. The community members have very little knowledge about the project's objectives, how they can participate, or process through which their representatives were selected. The project proponents assumed that consent was sought and given by simply communicating to the affected communities about REDD+ and the potential benefits they stand to gain. By implication, the current governance arrangement of REDD+ in Nigeria will jeopardise the successful implementation of the readiness phase as well as the subsequent community-based REDD+ (CBR+) programme to be piloted under the partnership of UN-REDD programme and UNDP-GEF Small Grants Programme in the near future. In the following chapter, institutional bricolage lens is used to examine communities' responses to introduced forestry institutions such as REDD+ and the superhighway project by the Cross River State government.

# Chapter Seven – Bricolage Practices in Community Forestry Institutions

## 7.1 Introduction

Over the last 15 years, critical scholarship has started to question the mainstream institutionalists' notion of applying pre-conceived design principles in the management of common pool resources. This approach often produces unexpected outcomes because it assumes an overly simplistic relationship between institutional crafting and human behaviour. This chapter draws on the theory of institutional bricolage to examine how communities are responding to forest conservation and development project interventions using Ekuri and Iko-Esai as case study areas. It is argued that the seemingly convenient process of creating forest clusters has masked the socio-economic and historical complexities that are embedded within these communities. Each community is responding to REDD+ differently, and at the same time collaborating together to resist the proposed superhighway project in their forests. The implication is that applying uniform governance prescriptions for all communities is not feasible because people's motivation for collective action is a blend of economic, emotional, and moral rationalities that are embedded in their distinct histories and everyday social lives. The bricolage practices presented in this chapter reflect issues of values, and motivations crowding effects and power relationships discussed in chapters 5 and 6. Section 7.2 discusses the existing local forest governance institutions in both Ekuri and Iko-Esai. Section 7.3 discusses how local institutions are shaped by or shaping development policy interventions such as REDD+ and more recently the proposed superhighway project in CRS through bricolage practices. In Section 7.4 a conceptual framework is drawn from figure 2.2 in chapter 2 and used to examine the factors that determine communities' responses to these bureaucratic institutions in relation to the wider literature. Section 7.5 contains a summary and conclusion.

## 7.2 Local Forest Governance Institutions

In this section, the historical emergence of these institutions is examined using two case studies of Ekuri and Iko-Esai communities. This historical context is useful to understand how REDD+ could fit into these existing arrangements and why institutional bricolage practices take the shape they do in these communities. These case studies were selected because they

represent globally recognised models of successful community-based forest resources management in Africa in partnership with international non-governmental organisations. In addition, these communities manage the largest portions of community forests in CRS.

### **7.2.1 Ekuri Community:**

**(a) Sustainable forest management:** As discussed in previous chapters, the Old and New Ekuri villages have always claimed to be historic conservationists. However, formal institutionalisation of community-based forestry started with the establishment of the Ekuri Initiative NGO in 1992. The Ekuri Initiative represented collective action toward safeguarding the forest against commercial logging, fostering sustainable forest management practices, attracting community development projects, and safeguarding the forest for the use of future generations. This initiative which was started by some the community elders, was regarded as the first of its kind in Nigeria, and became widely accepted by the community members because of their history of strong cultural cooperation and respect for local institutions (UNDP, 2012). Forest conservation was legitimised as a responsibility to future generations and to improve the economic and environmental well-being of the community. One of the community members from New Ekuri said: 'the forest is very vital for our survival, so it needs to be conserved for the future generations too. It's good that our own parents preserved the forest for us and we also need to do the same for our children and our children's children'. The New Ekuri community chief opined:

We came together to share ideas on how best to conserve our forest, then we came out with the idea of forming the Ekuri Initiative. We have been hearing all sorts of stories about forest destruction in other communities and we know it will gradually come to us, so we started thinking about keeping ours intact.

Hence, conservation behaviour had become an established social norm in Ekuri. The activities of Ekuri Initiative were regulated through well-structured local governance institutions. At the beginning of each year community representatives gathered together to decide their development needs and to account for all previous incomes and expenditures generated from individual contributions and external donations. There is also the Ekuri Initiative Board which consist of ten members who are nominated equally from each of the two villages. Among these nominees, the positions of chairman and coordinator are usually selected and rotated between the two villages on periodic basis, while other members constitute the Board of Trustees. The criteria for nomination into the Board include gender

representation, knowledge and interest in forest conservation, sociability, and trustworthiness. The remaining Ekuri community members constitute the General Assembly and each person is allowed to participate in meetings where important decisions about forest governance and community development are discussed. However, the General Assembly is considered to be the highest decision-making body in Ekuri community and so any policy that is formulated at the Board level must be endorsed by it.

For many years, the Ekuri Initiative has continued to implement community-based sustainable forest management in collaboration with the Cross River State Forestry Department (CRSFD) (now Cross River State Forestry Commission), Cross River National Park (CRNP), and other international donor agencies. In 1992, during its formative stages, the community members had reached out to the CRNP for formal recognition and technical support. Their request was approved and a Community Forest Officer who was hired by the World Wildlife Fund (WWF) named Christopher<sup>19</sup> was sent to Ekuri to provide the necessary assistance (Morakinyo, 1993; UNDP, 2012). With the help of this forester, the NGO also established a collaborative relationship with the CRSFD and other international organisations in terms of forest resource assessment and timber extraction. During this period, the CRS was running an extractive forestry economy and the CRSFD was responsible for issuing timber concession licensing to interested individuals and companies in order to maximize its internal revenues. One of the board members of CRSFC said:

The state has been running a forest economy for a very long time... we used to have timber concessions through which we give permits to companies and individuals who need to exploit the forest for economic benefits. In fact, the Forestry Commission used to be the highest income earner for the state.

Accordingly, experts within the CRSFD suggested the use of a Ghanaian inventory system in Ekuri for the identification, measurement and mapping of trees with certain minimum felling diameter into plots for timber harvesting. It was agreed that a 40-year felling cycling would be used for harvesting in accordance with the adopted Ghanaian system and only trees of about 90cm dbh (diameter at breast height) will be extracted. This was designed to enable the extraction of approximately 100 large trees per harvest cycle thereby leaving over 100

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<sup>19</sup> Christopher was a staff of WWF, and a pioneer conservationist and community development officer who lived in Ekuri community for two years while helping them to establish the Ekuri Initiative. He has been a partner in a London-based Environmental Resources Management since 2001, nevertheless, he has continued to show interest in the forest management and REDD+ activities in Cross River State

more trees for another round of sustainable harvesting. The villagers were also trained on how to conduct accurate forest demarcation and enumeration, equipment maintenance, and agro-forestry (Carter, 1996). During the focus group discussions, the community members mentioned that they were able to demarcate their forest boundaries through the assistance of Ford Foundation and Department for International Development (DFID) in 1999. These agencies also facilitated the creation of a preliminary land use plan for the 33,000 hectares of Ekuri community forest into eight designated zones, namely: (1) farm fallow (2) reserved farms (3) cash crop cultivation (4) agro-forestry buffer (5) timber extraction (6) non-timber extraction (7) protection and conservation (8) ecotourism and wildlife corridors. Various social groups within the community have voluntarily complied with the new land use plan and defaulters are sanctioned by the appropriate traditional authority. Such compliance means that the community members are willing to provide voluntary services such as periodic boundary cleaning, forest monitoring, conservation education and awareness creation among village households.

We have those who take care of the forest. The 2 communities select people to move along the boundary lines with other communities. Those people go around periodically to listen to the sound of sawing machines. If loggers are found in our forest we arrest them immediately, hand them over to our disciplinary committee and charge them some money for trespasses (New Ekuri Community Focus Group Discussion, 2014).

The community set up a 5-year business plan on how to acquire basic tools and equipment for sustainable timber harvesting, transportation of timber logs to the market, and profit maximization strategies were also established. Social cohesion was strengthened by the activities of Ekuri Initiative through poverty reduction strategies and protection against environmental risks. Income from sustainable timber forestry, levies from buyers of non-timber forest products, and international donations were used to improve accessibility and funding of other development projects. The commitment shown by Ekuri community attracted commendations and continuous support from various international donor agencies such as the Ford Foundation, International Union for Conservation of Nature (IUCN), the Global Environmental Facility Small Grant Programme (GEF-SGP), EU Micro Projects Programme, Global Green Grants Fund, as well as the UK's Department for International Development (DFID). In 2004, the Ekuri Initiative received a prestigious United Nations Development Programme (UNDP) Equator Award in recognition of its innovative

sustainable community forestry activities that work for human and nature. Following the award, Ekuri community has received a major boost in terms of its international recognition as the most successful example of community-based forestry in West African sub-region. This has attracted further support for the replication of this approach in other neighbouring communities of Okokori, Etara, Eyeyeng, Owai, and Mfaminyin. Additional funding was also provided by the United States International Development (USAID) Sustainable Practices in Agriculture for Critical Environment (SPACE) programme to scale up the Ekuri model in other parts of Cross River State.

**(b) Benefit sharing arrangement:** Since the establishment of sustainable forestry in Ekuri the community and CRSFD have agreed on a revenue sharing arrangement called *royalty payments*. In this arrangement, 70 per cent of all the timber sales obtained from community forests go to the community members while 30 per cent was given to the Cross River State government through the Forestry Department. The CRSFD also agreed to pay communities 30 per cent of all timber sales accrued from the government reserves located adjacent to the communities. Encouraged by the Ekuri Initiative approach, the CRSFD reviewed its forestry laws in 1994 to include a 50 per cent tariff waiver to any village or individual harvesting timber from communally owned forests (Carter, 1996). This is aimed at encouraging loggers to collaborate with the Forestry Department and to seek for assistance to manage sustainable forestry initiatives across the state. At the community level, the Ekuri people have an established system of benefit sharing among its members. However, contrary to the reported cases of elite capture among community forest management initiatives in some Asian countries (Mahanty et al., 2009), benefit sharing in Ekuri is fairly equitable. The benefits are classified into three namely: (1) community benefits (2) individual benefits, and (3) family benefits. As mentioned earlier, the community-level benefit sharing includes using the income to meet the development challenges of the two villages. A significant amount of the income is usually spent on constructing and maintaining the 40-kilometre road and bridges in order to facilitate the movement of timber and other vital supplies to and from the markets. A local health centre was built and equipped with basic facilities, new class rooms were built while the old ones were refurbished to good standards (see plates 7.1, 7.2, and 7.3). In addition, a local civic centre was constructed in each of the two villages, and a community truck was obtained to ease evacuation of forest and farm products to the market.

The individual benefits include skill acquisition through participation in forest inventory, mapping, timber stock survey, and chainsaw trainings conducted by the state Forestry Department officials and community foresters. The community members who participated have gained invaluable knowledge of modern forestry techniques which has helped some of them to gain employment in logging companies while others are stimulated to follow higher education in forestry. A limited number of scholarships are also awarded to academically excellent members to study at polytechnics and universities in addition to a micro-credit scheme to help farmers to purchase expensive farm tools and pesticides.



Plate 7.1. The Refurbished Ekuri community class room project. Source: Fieldwork, 2014.



Plate 7.2 Ekuri community new health centre project. Source: Fieldwork, 2014



Plate 7.3 A Constructed Bridge linking Old and New Ekuri villages. Source: Fieldwork, 2014

Monetary benefits to families are usually shared according to eleven maternal lineages called *Etuoh* – a maternal lineage that exist within the villages. Each *Etuoh* makes its internal selection and forward the names of beneficiaries to the chiefs who will distribute the benefits equally to promote social cohesion among community members. One of the respondents said:

Benefit sharing is not new to us we had monies from other originations before and we know that we need to look at the basic infrastructures, education, livelihoods generally and we can address those challenges. We have about 11 families in each community. We deposit some monies with them that can help them solve some problems. All these things could be done depending on the volume of money that comes (Respondent 9, Ekuri Initiative Member, 2014).

In summary, the Ekuri community was able to successfully co-manage, negotiate, and fashion out an equitable governance arrangement with other stakeholders that guaranteed entitlements and collective responsibilities in the management of their forest resources (Borrini, 2000, Pagdee et al., 2006b). However, unlike the findings of Cinner et al. (2012) and Nunan et al. (2015), co-management of forests in this case was not initiated and dominated by the government but rather by the Ekuri community members themselves. The donor agencies only provided funding and technical assistance without any power or control over the forests as reported in some East African countries.

### 7.2.2 Iko-Esai Community

**(a) Sustainable Forest Management:** Historically, the Iko-Esai community also has a record of community forest management which they claimed to have started since pre-colonial periods. One of the chiefs said: 'This forest is more than 1000 years and our forefathers conserved it by prohibiting certain unsustainable practice like cutting down mango or pear tree or kola. Even the whites came and met us with our reserve forests from which they stole the idea of conservation'. Iko-Esai's claim of being one of the architects of modern day forest conservation implies that they have ancient conservation culture and practices. Similar to Ekuri community, Iko-Esai also had an established land-use plan that regulated the use of forest resources among the community members for many decades. Prior to the arrival of CERCOPAN, the forest is governed through an informal association known as Community Conservation Development Committee (CCDC). Membership of CCDC is usually selected by consensus from the different social groups within the communities to perform various roles. For example, the vigilante group function as forest guards and used to carry out routine

forest survey and monitoring to ensure that the community demands are met without compromising the land use plan. The executive committee members used to hold meetings periodically to discuss matters of urgent attention and decisions are mostly communicated through other members at general meetings. Iko-Esai also has a diversified livelihood system which is based on shifting cultivation of mostly cassava, yam, cocoa, oil palm, and plantain. They also extract bush meat, bush salad, bush mango, and cane ropes as non-timber forest products. Towards the end of each year a certain part of the primary forest is cleared to create new farms called *etanpuna* for cultivation of food and cash crops while fallow lands are usually burnt in April and May in preparation for the next growing cycle. In 2013, the community imposed a ban on this slash and burn practices to reduce deforestation and to further strengthen their sustainable forest management. Prior to the ban on timber harvesting in Cross River State the Iko-Esai community used to give out logging concessions to timber dealers in order to generate money for community development projects.

**(b) Forest Governance Arrangement:** Similar to the Ekuri case study, forest resources management in Iko-Esai follows a sustainable approach, but in this in partnership with an international conservation agency called Centre for Education, Research and Conservation of Primates and Nature (CERCOPAN). Since the arrival of CERCOPAN, the CCDC became less active in Iko-Esai community. The need to protect global biodiversity from extinction attracted CERCOPAN to Cross River State. As an international NGO, CERCOPAN chose to work in Iko-Esai because it is located in Rhoko forest which is one of the most important biodiversity hotspots in the state. CERCOPAN claim that the large expanse of contiguous forest cover of Rhoko is a home to over 800 species of butterfly which makes it to be considered as a place with highest butterfly diversity in Africa. CERCOPAN's main mission is to protect and rehabilitate the Nigerian primates and their natural habitat. This NGO maintains an administrative and primate rehabilitation headquarters in Calabar, and also an international research and education centre located in the Rhoko forest in Iko-Esai. The state Director said:

We have two sites. In Calabar we have a primate sanctuary where the animals are kept away from bush hunting, we rehabilitate them, put them back into social groups in order to be able to be reintroduced into the forest. We also have an educational program for visitors here and we receive about 30,000 visitors a year. It's the largest tourist attraction in Calabar and in CRS. We also have a school outreach program, and we have our forest research station based in the community forest of Iko Esai.

In the year 2000, Iko-Esai community signed a long-term agreement with CERCOPAN for establishing a community-based forest conservation project in their forest. This arrangement was successful because the community members were willing to change their historical culture of sustainable timber harvesting to align with the mission and vision of CERCOPAN. It is argued that in resources governance bricoleurs tend to create new institutional arrangements through innovation and improvisation depending on their circumstances (De Koning and Cleaver, 2012). In this case Iko-Esai community members saw the partnership with CERCOPAN as an advantage that they desperately needed. It was presented to them as a win-win arrangement where CERCOPAN will largely take control of their 20,000 hectares of tropical rainforest for its conservation activities while the community will be provided with human and infrastructural development projects. Ever since, the Iko-Esai community as well as other smaller neighbouring villages has significantly complied with the new arrangement because logging and hunting of primates have stopped. This success can be attributed to several factors, First, CERCOPAN completed the construction of the Rhoko main camp in 2001 and by the end of 2002 it had deployed a forest patrol officer who was responsible for guarding the forest with the help of local hunters. Second, CERCOPAN has a robust education programme that carries out periodic community awareness campaigns about the dangers of species extinction. Third, the provision of water supply systems, health facilities, new sustainable farming practices that serves as alternative livelihoods options to the community members, and employment opportunities. Forest management under the Iko-Esai-CERCOPAN partnership has been successful and the community members are happy with the working arrangement so far. One of the community chiefs said:

Our contract with CERCOPAN will remain as long as we are both happy with the working agreements. But if they decide to derail and not keep to the rules we will ask them to go. The contract is that CERCOPAN will assist the communities in road maintenance, give scholarships, and other development projects which they have been complying with no problems at all.

Similarly, in 2009 CERCOPAN saw the need for the communities to re-establish their local forest management institution in order to facilitate the distribution of benefits accrued from ecotourism and for other forest management decision making. CERCOPAN officials suggested that the new CCDC members could be selected through a democratic process

rather than the traditional system of nomination by the elders' council. Initially the idea of holding elections was dismissed because it was perceived to be against their traditional norm for selection of representatives. Despite the fear among the elders that certain influential people within the community and wealthy timber dealers could destabilise the electoral process, for the first time in their history a free and fair election was conducted in Iko-Esai under the supervision of the Rhoko station manager. This is an unprecedented event in the history of Iko-Esai and a symbol of harmonious relationship and understanding with CERCOPAN.

One of the reasons for selecting these two case studies is to illuminate the contrast between the two sites based on their existing modes of governance. Ekuri has been largely governed by its own local institution while Iko-Esai have been engaged in multi-level governance through CERCOPAN. The example of forest governance in Iko-Esai presented in this section highlights the interconnectedness of global networks with local communities in terms of forest governance and conservation (Mwangi and Wardell, 2012). It shows that the Iko-Esai community members understood that their forests have multiple beneficiaries across different spatial levels and are willing to accommodate introduced conservation practices and institutions as long as conservation and community development needs will be met.

### **7.3 Policy Interventions and Bricolage Practices**

The newly constituted government in Cross River State which came into power on 29<sup>th</sup> May 2015 under the leadership of Governor Ben Ayade has less interest in the REDD+ project. In late 2015 the new governor announced a new policy direction towards massive infrastructural development in the state which will cut through the communities earmarked for REDD+. This section shows how Ekuri and Iko-Esai communities controlling the largest portions of forests are responding to both REDD+ and superhighway projects. It also shows that the interactions between socially embedded institutions for collective actions and introduced bureaucratic institutions of forest governance like logging concessions, REDD+ and infrastructural development projects are pieced together through the process of bricolage. The section shows the socio-cultural and historical backgrounds that are shaping their responses and bricolage practices in the two case studies presented. Tables 7.1 and 7.2 describe the socially embedded and bureaucratic forest governance institutions in Ekuri and Iko-Esai communities respectively. As discussed in the literature review chapter (chapter 2),

the analysis of bricolage draws on the three processes of alteration, aggregation, and articulation put forward by (Koning, 2011, De Koning and Cleaver, 2012, Cleaver, 2012).

Table 7.1 Institutional arrangements affecting forest governance in Ekuri community

<b>Bureaucratic institutions</b>	<b>Socially embedded institutions</b>
Imposed logging concession plan by the Cross River State government: forest logging in exchange for road project	Forest conservation as a social norm, self-sustaining community development
REDD+ readiness project: carbon forestry, rules on land use, ban on timber harvesting, top-down governance, new benefit sharing formula etc.	Ekuri Initiative: sustainable timber harvesting, self-sustaining community development, norms on appropriate land use, bottom-up governance, etc.
Superhighway construction plan: new rules on forest tenure and access forest land revocation, eviction and resettlement	Communal land use and tenure, beliefs in ancestral powers, place identity, and gendered power relations

Source: Author

Table 7.2 Institutional arrangements affecting forest governance in Iko-Esai community

<b>Bureaucratic institutions</b>	<b>Socially embedded institutions</b>
CERCOPAN: primate conservation and rehabilitation research project, tourism	Conservation as a social norm, self-sustaining community development
REDD+: carbon forestry, rules on land use, ban on timber logging, top-down forest governance	CCDC: forest guard, land-use enforcement and traditional rules, sustainable timber harvesting, bottom-up forest governance
Super highway project: 260KM road project, land revocation, eviction and resettlement	Customary land tenure, beliefs in ancestral deities, place identity and attachment, and gendered power relations

Source: Author

**(a) Alteration:** Socially embedded institutions related to the bricolage process of alteration in Iko-Esai include community development social norm based on sustainable timber

harvesting, community forest protection and conservation as a historically contingent social norm. In response to bureaucratic institutions such as REDD+, the Iko-Esai community has adapted its own forest management to the requirements of REDD+ similar to the way they made necessary livelihoods adjustments to accommodate CERCOPAN's ecotourism initiative. As a multi-level governance policy instrument (Skutsch and Van Laake, 2008), REDD+ requires changes in the community's forestry tradition similar to the requirements of CERCOPAN. Therefore, the community felt that REDD+ is coming to strengthen their new ecotourism conservation culture. In this case, Iko-Esai had no difficulty in altering their forest practices to accommodate REDD+, and so they complied with the logging moratorium and welcomed the ATF. As a result of these changes, Iko-Esai allowed CERCOPAN to facilitate the introduction of REDD+ to the community coupled with the help of a visiting researcher from Oxford University. At the early stages of REDD+ preparation and the establishment of the ATF, Iko-Esai community mandated CERCOPAN to represent them at the meetings and also to sign any agreement on their behalf – a position that later became contested and controversial. It is important to note that despite the community's representation by CERCOPAN, they feel it's still appropriate for them to be consulted directly by the Forestry Commission and the REDD+ officials as mentioned in chapter 6. However, other socially embedded institutions like community forest ownership, place attachment and identity as well as gendered power relations remain unaltered.

In terms of the bricolage process of alteration, the situation in Ekuri is markedly different from Iko-Esai. Some socially embedded institutions such as forest governance through the local NGO, Ekuri Initiative, community-driven development interventions, and gendered power relations remain relatively intact. Ekuri Initiative remains central to REDD+ negotiations, seeking of local and international funds for development projects for the Ekuri community.

**(b) Aggregation:** In Cross River State, the Forestry Commission in partnership with international NGOs were responsible for implementing the readiness project. As mentioned in chapter 6, preparations for REDD+ began in 2010 and the state was able to secure take-off funding, identify the pilot communities, and introduced new institutional arrangements to make it work. REDD+ was presented by its proponents as a global instrument of forest governance that will offer a win-win solution to global climate change, conservation and

community development (Angelsen, 2008, Busch et al., 2011). Initially, the communities accepted the project with great enthusiasm because they saw it as a way of compensating for their conservation practices or as an alternative source of accessing funding for their development needs. In both Ekuri and Iko-Esai this initial euphoria was driven largely by the fact that REDD+ fits into their original basis for forest conservation. In addition, their socially embedded conservation culture of protecting their forests for livelihoods dependence and for future generations is gaining global recognition and REDD+ is a promising way for receiving compensations.

The bricolage practice of aggregation as described by De Koning and Cleaver (2012) began to take shape in these communities. The communities are willing to combine some of their existing socially embedded institutions such as sustainable timber harvesting, and concern for future generations with bureaucratic institutions such as REDD+ in order to achieve a multi-purpose goals of achieving forest management, conservation benefits, and climate change mitigation. As discussed in chapter 5, some of these communities initially claim that they will participate in REDD+ because of altruistic concerns of global climate change mitigation. This is because both communities had prior knowledge of REDD+ several years before it was officially introduced in Cross River State and had started preparing for it. During the focus group discussion, some of the community members demonstrated a good knowledge about how forests function as global carbon sinks without which the planet will be inhabitable. Some of them also understand that forests provide fresh air for them and other people around the world and so destroying them will affect the whole world. A respondent from Ekuri said:

A researcher came here in 2004 from Oxford University and he was the first person who mentioned the carbon credit [REDD+] thing to us. Ever since, we decide to prepare ourselves for the project. The forest was not kept for carbon credit but we heard about it we became interested in participating. ....Climate change made us to understand that there is a lot of carbon dioxide from other industrial countries in the atmosphere, and the plants take that away and give us oxygen. REDD+ is coming to tell us how much CO<sub>2</sub> is being taken by our trees and pay us for that.

It is clear that the main motivation for forest conservation by these communities is twofold: first, intrinsic which is a responsibility to the future generations (Partridge, 1980, De-Shalit, 1995), and second, extrinsic in expectation of monetary incentives (Bond, 2009, Loaiza et al.,

2015). So, aggregation in this case means that local communities are innovative and are willing to restructure their local forest practices to suit local and global benefits.

However, there is also the issue of changing expectations. Prior to REDD+, the communities used to depend on sustainable timber harvesting and international funding to meet their development needs. With the introduction of REDD+ expectation of carbon money was heightened and became a serious problem for the officials to overcome. As discussed in chapter 5, motivation crowding effects became evident amongst some respondents and people were now willing to participate only if adequate incentives were provided. The project is popularly known as *carbon credit* owing to the communities' interest in monetary payments. Payments are expected for historic conservation efforts and not just for carbon additionality. What the communities have brought to the negotiation table is that carbon within the standing trees should be calculated and paid for in advance in addition to payments from future carbon storage. This community requirement does not match global payment arrangements for REDD+. In the REDD+ policy documents payments will only be made for demonstrable evidence of halting emissions from deforestation and degradation and enhancement of carbon stock (Wunder, 2005, Streck, 2010, Karsenty and Ongolo, 2012). A respondent from Ekuri said:

If you meet the community people and ask them: do you know about carbon credit? They will say yes, we know and they will tell you that it's some big money that is coming because we are keeping our forest so we are going to be paid heavily, that every child and every family is going to be a millionaire. That was the thinking at the initial stages of the project. So, they see REDD+ as a money spinning machine that has come, so they expect livelihoods to change, infrastructure, they expect a whole change of life with the coming of the REDD+ program.

Some of the members in Ekuri opined that the Forestry Commission should enlist them into REDD+ but they should be allowed to continue with their sustainable forest management practices if they will not be compensated for historic conservation efforts. One of the prominent officials of the Ekuri Initiative criticizes the performance-based payment structure of REDD+ as grossly insufficient to cater for their expected benefits. His assumption was based on the outcome of a carbon measurement exercise which produced about 500 metric tons of carbon per hectare. According to his projections, if it takes hundreds of years for a single hectare to sequester only 500 metric tons of carbon then it means that the forest cannot store significant amount in 5 or 10 years. He argued:

If it took hundreds of years for a hectare to produce just 500 metric tons of carbon, then it means in the 5 or more years it cannot accumulate up to 5 metric tons. REDD+ is only going to pay for that addition and that is our greatest fear. We feel that the project is likely going to impact negatively on the economy of our community because that additional metric ton is not worth anything.

This situation underscores the concern raised by Kerr et al. (2014) about the complex nature of incentives, conditionality of payments and how local people can craft new institutional arrangements for managing their resources in innovative ways expected of them. In this case, collective community engagement in REDD+ would depend on how the proponents are able to reconcile between community expectations and what REDD+ is actually willing or able to offer. Divergent community preferences in this case expose the weaknesses of REDD+ design as a performance-based payment for ecosystem services project. If REDD+ payments are only channelled to compensate for additionality as suggested, then communities like Ekuri and Iko-Esai that have made significant trade-offs for maintaining their historic record of conservation practices would be disadvantaged. To ameliorate these concerns the UN-REDD program in partnership with the Small Grants Programme (SGP) has launched a new social safeguard pilot approach called Community-based REDD+ (CBR+) in 2014. Under this approach each of the four pilot countries (Cambodia, DR Congo, Nigeria, Panama, Paraguay, and Sri Lanka) would receive up to 50,000 USD in grant for capacity building projects in communities with track record of forest conservation in preparation for REDD+. One of the REDD+ officials in the Forestry Commission said:

CBR+ is a special intervention that needs to take place now as a parallel effort that can give direct and immediate positive impact on their livelihood while they are waiting for the eventual REDD regime that will bring carbon credit funding.

While the REDD+ officials in Cross River State are working with the UN-REDD to provide a temporary fund-based mechanism under the CBR+ before the carbon credits are generated and sold on the market, some of the communities prefer incentive-based funding arrangement that is not predicated on future performance. Even at the international level there is a financing agreement gap that generates debates regarding the most suitable REDD+ funding structure that will guarantee avoided deforestation in developing countries (Angelsen, 2008, Pedroni et al., 2009, Skutsch and McCall, 2010). The critics of market-based funding pointed at the potential problems that might result from the fluctuations in the global carbon pricing system. For example, Conte and Kotchen (2010) argued that prices on

the voluntary carbon markets are usually low and uncertain. Their results show a reduction of about 70 per cent in prices of forestry-based offsets from projects that are located in least developed countries owing to their weak institutional structure that will not guarantee permanence and additionality.

Another process of aggregation is shown in how some of the communities in CRS are using REDD+ to re-negotiate land and tenure systems as a pre-requisite for participation. As highlighted in chapter 6, community land ownership in CRS is customary and so titles are not legally protected against revocation by the state government. The community people are also demanding for a formal free, prior and informed consent to be carried out before they sign any contract document for REDD+. This is an important issue to them because clarifying the land tenure through FPIC will also determine their ownership of the carbon credits, and which will in turn determine the amount of benefits they stand to gain. It also allows them to take control of the benefit sharing arrangement since they see themselves as the main beneficiaries. One of the community leaders in Ekuri said:

The whole thing is the carbon that is captured which is the yardstick for payment, and so what captures the carbon? It's the forest, and if you say you own the carbon then where is it captured? And if it's not captured you are not paid. That is why our emphasis is the ownership of the forest. Only when we clarify this then we can say we have the right over the money and determine how it's shared, we can pay the government for facilitating but we decide who gets what.

To these community members renegotiating the tenure arrangement is also a buffer against their perception of a possible land grab under the guise of REDD+.

Related to the land tenure issue is the community demand for REDD+ to comply with the land use plan which has been existing for many decades. This demand is more peculiar to Ekuri community because in Iko-Esai the people feel more secured about their land tenure because of their partnership with CERCOPAN which is also coupled with the fact that they have been following a modified land use plan as part of their contract with CERCOPAN. Iko-Esai people are confident that the Forestry Commission has a good working relationship with CERCOPAN and so in their view the problem of land grab may not arise. As discussed in chapter 6 the people of Ekuri has always been sceptical of the Forestry Commission in terms of land rights. They want the REDD+ programme to comply with their existing land use plan which sets aside some portions of the forest for different uses. The communities are not

willing to take the risk of giving out the whole forest for REDD+ for the fear of losing ownership and access. Therefore, the community members are calling for a legal review of the tenure laws. One of the Ekuri Initiative officials opined:

We are asking for a legal review that will give the communities absolute powers over the piece of forest land for the REDD+. That is the only thing that will make our community people to agree. We have to clear the land tenure issue first before we go into any agreement. If that is not done, then can the government issue us a certificate saying this land belongs to us and we have the powers of negotiation? We need to bring a legal team to look at the Land Use Act to clarify things. If it gives us absolute powers, then we can use it to negotiate but if it has the clause that says government oversees and has the over ruling powers then it's a problem.

As suggested by Cleaver (2002), externally crafted and socially embedded institutions can co-exist together through bricolage practices in order to support the implementation of a new resource governance arrangement. This section highlights how the bricolage process of aggregation was practiced by the communities through piecing together their intrinsic and extrinsic motivations for forest conservation, experiences and expectancies to craft a new institutional arrangement under the REDD+ regime. These findings resonate with De Koning and Cleaver (2012) because it shows that these communities are able to adapt to newly introduced institutions or rather give them various meanings and purposes to pursue different agendas which are often set up by the local communities. In this case, while Iko-Esai has less problems working with REDD+, the Ekuri community is seizing the opportunity of the REDD+ process to create a multi-purpose arrangement that will help determine their unsettled forest tenure and to push for a development agenda in exchange for their participation. In the proceeding section, the process of articulation will be discussed.

**(a) Articulation:** Socially embedded institutions related to the practice of articulation include: customary land use and tenure system, local forest governance arrangement, belief in ancestral deities, and place identity. As mentioned previously, the Ekuri community members are more sceptical of REDD+ implementation than other communities within the cluster and so they respond differently. The bricolage process of articulation in Ekuri occurred in response to the previous government's process of implementing REDD+ in the state as well as the new policy direction of the present administration towards infrastructural development projects. In terms of the REDD+ project, this community reaction was triggered by many factors. First, participation and representation in REDD+. The continuous

marginalisation of the Ekuri Initiative who is supposed to be representing the people in the REDD+ process resulted in anger and frustration by the Ekuri community. There is a feeling of suspicion that the Ekuri Initiative has been rendered less important by the Forestry Commission by choosing to engage with the NGO's board of trustee's chairman as an individual rather than their collective representative. The Forestry Commission has made him the coordinator for all the communities in the cluster instead of a voice for the Ekuri people alone. One of the community members lamented: 'We don't have a Coordinator for Ekuri Initiative, he [Board of Trustees Chairman] is performing a dual function now, and his relationship with the Forestry Commission is something I can't explain, it shouldn't be like that'. Therefore, the community feel that they are not adequately represented.

Second, there is the issue of refusal to recognise their historical sustainable management practice that is socially embedded for decades and has been a major source of income for the community. As discussed in chapter 6, following the inauguration of the Anti-Deforestation Task Force, all timber activities in the state were banned and declared illegal. However, they also claim that the legal process of *salvage* which allows for the trees removed during road constructions or by strong winds to be sold as timber by the nearby communities was also denied to them. The ATF argued that the communities do logging in disguise as salvage. One of the officials said: 'There is no such word as salvage, clear felling is clear felling. If you fall a tree down, you are killing it. So, we still have a job to do and we are doing it'. This position did not go well with the people of Ekuri.

Third, the issue of benefits and benefits sharing arrangement which is paramount. As pointed out in chapter 6, the Forestry Commission was planning to introduce a new arrangement under REDD+ that will allocate only 10 per cent of the carbon incentives to the communities. This to them is unacceptable because they are claiming ownership of the forest and its carbon.

These resentments suddenly translated into community resistance. For example, on the 19<sup>th</sup> of October 2015 a group of REDD+ officials and the Forestry Commission came for preliminary carbon measurement as part of the pilot for Monitoring Reporting and Verification Exercise (MRV) process in Ekuri and the community mobilised themselves to refuse to allow the exercise to take place. The community cited many reasons for that action in a written statement sent to the Forestry Commission (see box 7.1 below).

Following that incident, the Forestry Commission and the REDD+ team organised a community town hall meeting on 11<sup>th</sup> of November, 2015 to have a dialogue with the community in order to clear some misconceptions and to strengthen their relationships. During the meeting, the spokesperson for the two Ekuri villages lamented: 'We stopped measurements so that you will come to us to resolve the issues. We consider that we have sinned to conserve our forest. The whole world knows that Ekuri is a leading community in conservation. But we are ignored'. The meeting ended with a resolution on how to move forward by addressing some of the main issues raised by the community.

Box 7.1 Ekuri communities' reasons for rejecting the carbon measurement exercise in their forest

1. Limited or no recognition on the part of government, the Forestry Commission, or REDD+ of the Ekuri communities for their inestimable passion, commitment, and efforts in biodiversity conservation and contribution to mitigating climate change, which is beneficial to the world at large.
2. Civil society/non-government organisations campaigning against Cross River State Government's proposed superhighway through Ekuri, without considering accessibility and other development needs of the Ekuri Communities.
3. Forestry Commission's failure to recognise and encourage the contributions of Ekuri communities towards sustainable forest management in Cross River State. This includes denying the communities permit to salvage 38 trees that were felled during road construction and by windstorm as the communities were unable to pay a fee of two million naira that the Commission requested.
4. Failure of the REDD+ Programme to recognise the relevance of Old and New Ekuri Communities and their customary practices; and most times they hear of REDD+ events after they have already been conducted in other locations. "What is wrong bringing selected members of Ekuri community to meetings in Calabar, Abuja and outside Nigeria to show the world of a committed community on forest conservation and climate change?"
5. The use of a "divide and rule method" to hold separate meetings with each of the communities, and most times with Old Ekuri, thus raising suspicion of attempting to split the community to gain access to their forest. Meetings with Ekuri should be held together with Old and New Ekuri.
6. Lack of tangible benefits. In spite of having been "working for years now, all the communities hear and see are meetings, workshops and research without any tangible benefit to the communities".
7. Concern over transparency in benefit sharing and possibility of benefit capture by elites in the REDD+ process. The Ekuri communities said they are aware from the internet that "44 billion naira has been released to REDD+ for communities and that this money has been shared between the Federal, State and the share for Ekuri community has been 'cornered' by the pilot site coordinator who is also the Chairman of Ekuri Initiative Board of Trustees".
8. Desire for programmes that will encourage infrastructural development/service provision like improved education and health care, and poverty reduction.
9. Dissatisfaction over incentives from field activities, describing it as "unequal remuneration' or 'pittance payment' to community members compared with outsiders who visit to work in the community forest".
10. In their concluding words, they said "We have been doing conservation for so many years; so many people have died without seeing any benefit, we have no good school, no good hospital, no road, poverty is everywhere yet people say forest is wealth. We don't want forestry, we don't want REDD+, let them leave us alone, we are tired."

Source: Supplementary field data, 2015

Ekuri community have also rejected the planned social safeguard programme under REDD+. Initially, the Forestry Commission was planning to introduce snail farming, bee keeping, and commercial mushroom farming to the communities as a means of alternative livelihoods strategy of the community-based REDD+ (CBR+) project. The Forestry Commission Chairman said:

We are trying to create an alternative livelihood that is why we have the CBR+ program. ...the communities will be trained on sustainable enterprises like honey and bee keeping, mushroom farming, snail farming etc.

However, this plan is conflicting with Ekuri community's ideas about economic diversification strategies. During a focus group discussion one of the community members said:

We need skills acquisition because we don't value snail farming here, who will come and buy snails from us? We need skills like carpentry, welding, mechanic etc. to enable those without education to benefit. We know our problems better than anybody; they cannot handle it for us. All we need is to be guided as we take our decisions.

Another community member argued that the Forestry Commission Chairman cannot decide for the Ekuri community about which alternative livelihood options they should choose. He said that the community perceive mushroom farming as economically unsustainable which is not capable of generating sufficient income for the community because most people will prefer to grow it naturally in the wild instead of buying it from the markets. He said:

One cannot just sit there in Calabar and decide that snail farming, bee farming is good for the Ekuri people. The people know better. Obinna<sup>20</sup> has been talking about mushroom farming because he has not been consulting the communities that is why he thinks if he introduces mushroom it will be accepted. Our people are not interested in all those peanuts projects; they want something that is sustainable.

In contrast to the Ekuri case, Iko-Esai community members have always suspected the motives of Forestry Commission but are generally indifferent about it. Instead of being confrontational like the Ekuri community people, Iko-Esai is waiting patiently for REDD+ benefits to come to them no matter how long it will take. The village head said:

They said other communities in other countries like Indonesia have benefitted. Then I asked in what areas? They said in areas where they don't have roads, roads were

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<sup>20</sup> Obinna was the immediate past chairman of the Cross River State Forestry Commission and state coordinator for REDD+.

constructed, opened railway lines for generations to benefit because of their conservation of the forest. Then what else will I say? We look forward to seeing what is coming to us. On a very serious note I am not yet convinced.

The community secretary also holds the same view with the village head about a peaceful engagement with Forestry Commission as well as a patient and consultative approach to REDD+ because they are confident that some benefits would eventually come. His position on this matter became clear when Environmental Rights Action group came to demand for their cooperation to campaign against the REDD+ project. He said:

As a leader, I cannot be pushed to demonstrate against what I feel will benefit us. You can't fight the government because in the end you still go back to the government, instead we continue to dialogue. If it doesn't suit us we ask them to take it to another community.

Notwithstanding, the community leaders said they are willing to engage in a long-term contract with REDD+ as long as their conditions are met. Their main priority is improved access road that links the village with the highway to facilitate movement of goods and passengers. They are also demanding for good hospital facilities and education opportunities for their children rather than monetary payments. One of the community leaders said:

You have seen the road; it's in a bad condition. People have products from the forest but how can we travel? If we can get a good road we will be almost OK. We also need hospitals and schools; our people need education. We don't need monetary payments because it's not sustainable. Long term solutions are better than liquid cash because when money is involved you will see the youths fighting the chiefs but when it is infrastructure there wouldn't be any conflict.

Articulation process also relates to how Ekuri and Iko-Esai communities are responding to the proposed superhighway project. In mid-2015 the new governor of Cross River State, Ben Ayade, has announced the construction of a 6-lane 260KM dual-carriage road from Calabar to Benue State. This five-year project will cost about N700 billion (3.9 billion Euros) and will be financed by a public-private partnership arrangement with banks, and a 500 million Euros capital investment by an Israeli-British company. According to the governor the project will improve the economy of the state by linking it with major economic centres in the north as well as the proposed deep-sea port in the Bakassi area. He further added that the idea for the project is dated back to the time when the state lost its oil wells to the neighbouring Akwa-Ibom state following the secession of Bakassi peninsula to Cameroun by the International Court of Justice. At the ground-breaking ceremony of the project in October 2015, the

governor remarked: 'The theological kinetics of this road started with the loss of our oil wells consequent upon the loss of Bakassi, therefore the state was reduced to wants in body and spirit. It became imperative that we construct a new means of production; we need to open the horizon to get teeming young people employed'.

Chris Lang (2016) reported that on the 22<sup>nd</sup> January 2016, the governor through the Office of the Commissioner for Lands and Urban Development issued a 'Public Notice of Revocation' statement which was published in a local newspaper – *Weekend Chronicle*, that:

All rights of occupancy existing or deemed to exist on all that piece of land or parcel of land lying and situate along the Super Highway from Esighi, Bakassi Local Government Area to Bekwarra Local Government Area of Cross River State covering a distance of 260km approximately and having an offset of 200m on either side of the centre line of the road and further 10km after the span of the Super Highway, excluding Government Reserves and public institutions are hereby revoked for overriding public purpose absolutely

This decision has attracted widespread local and international condemnation by those who perceive the emergence of a massive land grab by the Cross River State government to the detriment of the communities whose livelihoods depend on the forests. For example, an international green foundation called Heinrich Boll Stiftung Nigeria warned that the project will displace more than 185 communities by seizing more than 25 per cent of the state's total land area. They also raised a red flag about the potential dangers of the project on critically endangered species such as Cross River gorilla and their habitats.

The Ekuri community has the loudest voice against the project and has vowed to frustrate any decision to grab their forest. In a letter dated 7<sup>th</sup> February 2016, the Ekuri community under the banner of Ekuri Traditional Rulers Council wrote to the governor in reply to the published notice of revocation of their forest land (see appendix 3). The letter described how their initial support for the super highway, which was initially based on their long-term desire for improved accessibility, has now vanished following the statement of revocation. They argued that after due consultations with their ancestors, the community people are now worried because the construction will destroy their cultural heritage, infringe on their fundamental human rights, affect their long-term conservation culture, and affect their means of livelihoods. The community also mentioned that they are quite aware of the provisions of the Land Use Act 1978 which overrules any customary claims to land, and as

such the communities will be evicted without any legally binding compensation from the government. Furthermore, they mentioned how the Ekuri community have become globally recognised for their conservation activities and as a major REDD+ site, therefore a super highway project at this time will have negative implication on the REDD+ readiness project in Cross River State. Hence, the communities have collectively decided to withdraw their support for the project and rejected the revocation as a land grab. They stated:

In the light of the above, we consider the revocation a pogrom against us as published and a land grab in the guise of a super highway. Therefore, we have no option but to withdraw our support for the super highway and do not want it to pass through our Ekuri community forest. Our ancestral deities in the forest are crying against this injustice of high magnitude in our history and their cries will never stop and we cannot disobey them knowing the likely implications on us.

The letter was also copied to international donors, environmental movement organisations, local and international NGOs, the media and the Federal Government of Nigeria. However, there hasn't been official acknowledgement for the receipt of the letter or reply from the government of Cross River State so far. Part of the strategies for rejecting the super highway project the Ekuri community has launched an online petition seeking to collect up to 1000 signatures from partners and supporters across the world. On 2<sup>nd</sup> March 2016, *Premium Times* Online Newspaper reported that the Ekuri community in collaboration with neighbouring communities staged a protest where over 500 youths comprising of men and women gather at the village square to campaign against the project. They argued that the project is progressing without environmental impact assessment (EIA) as required by law. On the other hand, the Buhari-led federal government is also very concerned about the need for proper consultations before starting the project. Accordingly, the initial ground-breaking ceremony for the project by the president in September 2015 was cancelled due to a memo sent to the presidency by Federal Ministry of Environment stating that an EIA was not carried out and that the project will affect the Cross River National Park. However, the government of Cross River State confirmed to the president that the project has now been re-routed away from the national park and that an EIA is being handled by an environmental consultant. Following the visit to Cross River State by the president for the ground-breaking ceremony and subsequent visit by the Minister of Environment, the Ministry issued a statement that they are quite aware about the concerns of NGOs, international organisations and the protest of Ekuri community and other host communities. The Ministry confirmed that the

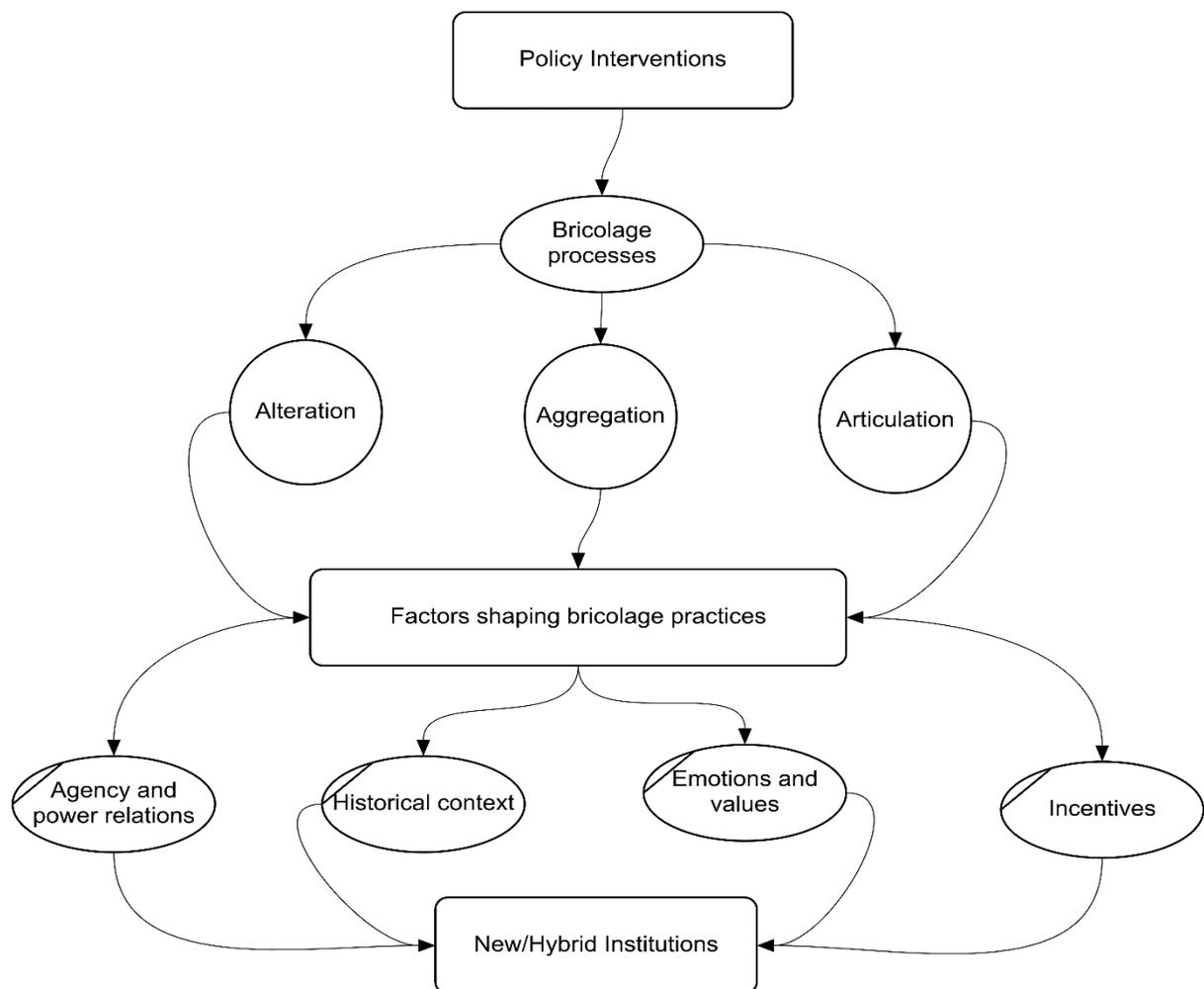
state government have registered for an EIA to be conducted and that the ceremony doesn't imply an official commencement of the project. As a result, the Ekuri community have instructed the state government to evacuate the bulldozers which have already begun massive forests clearance in other communities or face legal action. A former leader of the Ekuri Initiative said:

If the world keeps quiet and allows the bulldozers to have their way, they would not only bulldoze the future of the Ekuri people, the act would entrench impunity, satisfy the lust for capital, promote deforestation in one of the last remaining pristine forest in Africa and blunt our collective hope for tackling global warming. This is a challenge, not just for Ekuri Community but for the entire global community.

The bricolage process of articulation in Iko-Esai community relates mainly to the proposed super highway project as opposed to the situation in Ekuri. Even though Iko-Esai and Ekuri communities are involved in a boundary conflict, the two communities are forming a strong alliance against the super highway project. The Iko-Esai Traditional Rulers Council has also written a protest letter to the Governor of Cross River State in response to the notice of revocation of their forest lands which lie along the proposed route. Surprisingly, the letter was written on the 7<sup>th</sup> March, 2016 – the same day with that of Ekuri, and it also shares the same title (see appendix 3). In the letter, the community elders raised concerns about the government's plan to grab their forest by proposing to use 200m of land on either side of the highway and an additional 10KM of forest land beyond where the highway is expected to stop. They also argued that the amount of forest land earmarked for the project has far exceeded the standard road construction requirement for the country. As contained in the letter, the community cited many reasons for rejecting the proposed project. The content of the letter is analysed in section 7.4. However, the Iko-Esai community's approach to this problem is to a great extent non-confrontational compared to Ekuri. This is because Iko-Esai lacks a strong local forestry institution like the Ekuri Initiative that is capable of challenging the Cross River State. There was also strong condemnation from several local and international agencies and researchers against the proposed super highway project. For example, on the 20<sup>th</sup> October, 2015, a group of NGOs wrote a letter to President Buhari seeking for the re-routing of the super highway away from the rainforest. They also requested for a quick completion of an environmental and social impact assessment. Up till now the official position of CERCOPAN on this issue remain unknown.

## 7.4 Framework for Examining Bricolage Practices in Cross River State

The bricolage processes highlighted in the previous section is a description of how these case study communities are responding to bureaucratic institutions of forest governance in Cross River State. In this section, a conceptual framework was proposed to enable the examination of the factors that shape such community responses in relation to the wider literature. From the framework (see figure 7.1) the identified factors are (a) power relations (b) historical context (c) emotions and values (d) incentives. The novel contribution of this framework is that it identifies the socially embedded processes, their interaction with bureaucratic institutions to create new or hybrid institutions which are in turn shaping forest governance outcome in Cross River State.



Source: Figure 7.1 Conceptual framework for unpacking bricolage practices in Cross River State. Source: Author

**(a) Power relations:** Few (2002) recognised that actors often deploy different power tactics such as manipulation, persuasion, compromise, exclusion and enrolment in order to influence decision-making. The analysis of power relations regarding the implementation of REDD+ in Cross River State follows some of the tactical strategies identified by Few (2002). As discussed in chapter 6, the most powerful actors deliberately manipulate other actors in the REDD+ policy network in order to influence outcomes. This manipulation is practiced in different governance aspects. For example, in terms of land tenure, the Cross River State is taking advantage of the existing tenure dualism enshrined in the Nigerian constitution (see Derik-Ferdinand et al., 2015) which recognizes both customary and statutory land ownerships to dominate the REDD+ process. In preparation for REDD+, the Cross River State government through the Forestry Commission reviewed the extant forestry laws to give the government more powers over land and forest resources in the state under the guise of co-management. Such arrangement is explicitly stated in section 24 (a-h) of the new Forestry Commission Law 2010. Co-management of common pool resources which refers to a power sharing arrangement between the state and resource owners or users (Carlsson and Berkes, 2005), means that the communities in Cross River State have the rights to determine and create their own local institutions of forest governance in collaboration with the state. They also have rights of access and entitlements to the forest resources as agreed. However, in many countries, especially Sub-Saharan Africa, problems are usually encountered during the implementation of co-management arrangements as a result of weak transfer of power and rights to local actors over natural resources (Shackleton et al., 2002, Béné et al., 2009, Njaya et al., 2012).

In section 7.2 it was shown that the state government announced the revocation of the customary forest ownership in preparation for road development and has been the major source of stakeholder conflicts. In addition, carbon commodification under the REDD+ regime has exacerbated the situation by creating a paradox that gave rise to new political and economic grounds which is jeopardizing the existing devolution arrangement in many countries (Sandbrook et al., 2010). Carbon tenure has become another problem that is gaining traction in power relations over forests because of emerging green grabbing phenomenon (Fairhead et al., 2012), and accumulation by dispossession of local people's resources (Benjaminsen and Bryceson, 2012) under the guise of environmental protection.

However, despite the repeated calls for recognition and guaranteeing tenure and human rights of forest people as a pre-requisite for REDD+ to thrive (Sunderlin et al., 2009, Larson, 2011), there is growing scepticism about the possibility of recentralizing forest ownership by the state under the REDD+ regime (Phelps et al., 2010b).

Manipulation also include the distortion of drivers of deforestation information for the state to accuse the local communities for high forest loss. This provided the justification for the establishment of the ATF to police the forests and enforce conservation laws to make the state REDD+ ready. In chapter 6, it was discussed that the ATF was later used as an institution of oppression and was alleged to be the major supplier of wood in the state thereby exacerbating forest loss rather than improving conservation.

Persuasion is in the form of convincing other actors to accept and participate in REDD+ by informing them that the project will also promote their interests. To achieve this, the Cross River State government in collaboration with other powerful actors organised a stakeholders' summit in 2008. At this meeting, the Cross River State government maintained that the forest communities stand to gain financially from REDD+ carbon credits and that all actors will be properly represented. It was shown in Chapter 6 that this was not achieved, a situation that has negative implications for successful REDD+ implementation in the state. This power relation was used to gain acceptability and legitimacy for the project. Here, persuasion also relates to the tactic of enrolment where the government enlisted a wide range of actors into the REDD+ policy network (see Table 6.6) in order to attract more funding and to minimise the risk of rejection. The tactic of exclusion is also utilised by the Forestry Commission in the form of limiting some actors from having access to decision making fora. It was discussed in chapter 6 that most of the communities living around the REDD+ pilot sites are systematically marginalised from attending meetings where critical decisions are deliberated. This led to weakened resource access and loss of customary land control by the communities. The initial euphoria that gained through persuasion and enrolment was replaced by suspicion, and mistrust similar to what Hauck and Sowman (2001) reported, and there is a growing feeling of insecurity because there is no effective representation, formal FPIC process, and effective communication between the communities and project proponents. This mirrors the findings of Thondhlana et al. (2015) that collaborative governance in South Africa was constrained by lack of trust and

communication, as well as unequal power relations between the government and local communities living around forest protected areas.

Struggles over ownership of forest resources raised the problems of legitimacy of REDD+ as a project of environmental governance in community forests. While policy makers are trying to negotiate for an international legitimacy for REDD+, there is an existing debate about achieving both input and output legitimacy at the implementation stages (Lederer, 2011) which is seen as necessary to achieve equity in benefit sharing (Corbera et al., 2007). Effectively, input and output legitimacy here relate to what Thomas Sikor and co-authors referred to as 'justice in ecosystem service governance' (Sikor, 2013, Sikor et al., 2014) where the procedural, recognition and distributive elements of justice should be pursued and accorded to all actors in a fair manner. In Cross River State, the local communities will consider REDD+ to be legitimate only if the new institutional arrangements are negotiated rather than imposed on them in a top-down fashion. For Ekuri the cases in point include the imposition of the logging moratorium, abolishing of their sustainable timber forestry and salvage, as well as the changing benefit sharing arrangement without their input. After 4 years into the REDD+ readiness phase they feel short-changed in the institutional arrangements of decision making implementation and thus consider the project as illegitimate. Adding to this problem is the changing interests of the newly constituted CRS government. The new government is moving away from carbon forestry policies to expanding economic opportunities through improved transport network within the state which transformed the existing tensions created by REDD+ into a full-blown conflict. Official statement of revocation of the communities' customary land ownership in favour of the superhighway by the CRS government justified the communities' mistrust and suspicions and therefore they sought to fight back through forming multi-level alliances, legal procedures and violent confrontations. Unlike what Few (2002) reported in the area planning project in Belize, the Cross River State government in partnership with other powerful actors are not willing to compromise their stance by way of redirecting the proposed road project into areas with less forest cover or accepting the terms and conditions of forest communities regarding REDD+ implementation. Similar to the situation in Tanzania (Martin et al., 2014) unequal power relationship between actors in natural resources management in Cross River

State gave rise to a different conception of justice which in turn serves as a strong determinant of conflicts and contestations .

In contrast to the argument of Pansardi (2012) who advocates for a unified conception of social power, here the analysis of power relations retains a dualistic separation of the concept into 'power to' and 'power over' (see, Allen, 1999; Pansardi, 2012). As suggested by Allen (1999) 'power over' is the ability of actor(s) to place restrictions on the choices of other actor(s) in order to shape behavioural responses. While 'power to' refers to the exercise of resistance against domination by subordinate individual or groups as a demonstration of agency and empowerment. It shows that the powerful NGOs are exerting significant power over forest communities and other weak actors in terms of land and carbon tenure issues; participation and representation; access and entitlement to forest resources; and benefits sharing arrangement. On the other hand, the forest communities have also exercised power to resist marginalisation by refusing to attend meetings and allowing the REDD+ officials access to the forests under their control for carbon measurement, and the proposed superhighway project. In addition, taking a feminist approach to the analysis of power which seeks to understand the subordination of women as suggested by Allen (1999), it is clear that women are being marginalised in the Nigerian REDD+ process in particular and in other aspects of forest governance in general. This situation is expected owing to the patriarchal nature of Nigerian society where women are given passive roles in decision making as described in chapter 4. As argued by Sikor and Lund (2009) the resistance, acceptance or diversion of policies remain central to the issue of legitimacy in everyday resources politics which is also found to be contingent on historical circumstances

**(b) Historical Contexts:** Communities' responses to bureaucratic institutions of resources governance is also a function of their previous experiences and historical trajectories (Cleaver and De Koning, 2015). This section will show how differences in the emergence of local resources institutions and historical experiences with conflicts determine the communities' responses to REDD+ and the superhighway project in Cross River State. For example, both the Ekuri and Iko-Esai communities have been historical conservationists for many decades through local institutions as mentioned previously. Unlike Iko-Esai, the Ekuri community-based forestry been through historical transformations which involved conflicts and disagreements with the state authorities over forest resources abstraction and development

projects prior to the introduction of REDD+. Historically, the two villages of Old and New Ekuri, which together formed the Ekuri communities have been living in the forests for many decades and have collectively owned and managed the 33,000 hectares of the community forests. Over these years, a robust conservation culture was established and decisions are usually negotiated through bottom-up consultations of all the actors and social groups. In 1989 the government of Cross River State took advantage of their isolation and the dire need for access road to the neighbouring towns to impose on them a logging concession project. This process did not follow the usual consultations with local institutions existing within the communities but rather a connivance between the Old Ekuri local chiefs, logging company and the Forestry Department. The motive was to allow logging in their forest in exchange for road construction from the highway up to Old Ekuri. In 1994 there was a widespread resistance against it by some community elders, the chief was dethroned, and eventually the project was stopped. Two years later, the government intervened through a court order that asked for the reinstatement of the chief and permitted the logging company to resume work or face legal action. The 6 leaders of the resistance decided to serve 2-year jail terms rather than allow the logging of their forest. One of them said: 'Because of our resistance to logging the government raised phantom charges against the 6 of us. We were sent to 2 years in prison to save the forest and that is how we defeated the government. Now we are being praised for our conservation efforts only because of REDD+'. Eventually Ekuri community was able to construct a 40-kilometer earth road for themselves through collective income tax, levies, and participation of able-bodied community members. The rejection of forest concession arrangement and subsequent collective action to address community development needs marked the beginning of formal community-based forest management which led to the formation of Ekuri Initiative. This supports the assertions that co-management arrangement could generate conflicts if there is absence of local participation in decision making (Castro and Nielsen, 2001), involves logging or mining concessions (Yasmi, 2002), or any other forms of public intervention in forest management (Castro and Díaz, 2016).

The evolution of community forestry in Iko-Esai wasn't similar to that of Ekuri because they haven't been involved in any face-off with the government over the control or management of their forests in their history. Since Iko-Esai has an experience with a form of multi-level forest management where an international NGO (CERCOPAN) was managing the forest on

their behalf, the community members are more accommodating, had little suspicions and were ready to change their local institutions for REDD+. On the other hand, Ekuri's previous conflict with the Forestry Commission is responsible for their mistrusts and negative perceptions about the possibility of a land and carbon grab under REDD+. Similarly, the local forest institutions between Ekuri and Iko-Esai are very different in terms of structure and international recognition. This also has strong influence on their responses to REDD+, the superhighway and other development interventions. While Iko-Esai's CCDC was just a small local institution involving a small group of people, the Ekuri Initiative has been a registered CBO (now NGO), has an office in Calabar and run by educated people who have a good knowledge of modern forestry practices. As mentioned in chapter 6, Ekuri community was a recipient of the UNDP Equator Award in 2004 for its community forestry practices and it is now recognised as the most successful community managed forest in West Africa by international NGOs (UNDP, 2012). Thus, owing to their previous experience in conflict with the Forestry Commission Ekuri community members are more resistant to REDD+ and the road project through the bricolage process of articulation. Historical circumstances explain the reason why Iko-Esai was willing to alter their socially embedded forestry practice to adapt to REDD+ while Ekuri subscribed more to aggregation by attempting to create multi-purpose institutions to negotiate for tenure security maintain their livelihoods and social identities.

Differing historical formations, experiences, and approaches between Iko-Esai and Ekuri fit into the broader arguments that communities are complex and heterogeneous entities (Agrawal and Gibson, 1999), and are mostly assumed to be homogenous to legitimize intervention projects (Kumar, 2005, Blaikie, 2006). Studies have shown that existence of such complexity is embedded in the communities' social fabric (Cleaver, 2002), and delocalization of community engagements and alliances (Ojha et al., 2016). Such inherent community complexities are responsible for delivering uncertain and unexpected outcomes (Mehta et al., 1999, Dietz et al., 2003).

**(c) Emotions and Values:** Current literature is focussing on the roles of emotional ecological geographies in mediating nature-society relationship, resources control and conflicts (Sultana, 2011, Graybill, 2013) as well as environmental volunteerism and ecological restoration (DiEnno and Thompson, 2013) . As shown in chapter 6, motivations for forest

conservation among the communities in CRS is a mixture of both instrumental and non-instrumental values of the forest. This confirms that rationalities and meanings attached to places and resources are not just pragmatic but also emotional and symbolic of peoples' identities and values (Cleaver and De Koning, 2015). Here, emotional appeal is central to the understanding of how various traditions and logics were consciously or unconsciously called upon by the communities in order to justify resistance to introduced institutions. In their respective letters to the Governor of Cross River State in response to the superhighway project, both Ekuri and Iko-Esai community elders have made explicit references to what Kearney (2009) called 'emotional geography of heritage and homeland'. These emotive narratives include the feeling of pride, care, fear, injustice, betrayal, vulnerability, worry, shame, embarrassment, anger, powerlessness, desperation, despair, grief, and demoralisation (Pile, 2010), which are related to place, culture, everyday experiences and ancestral relationships.

In order to justify their resistance to the superhighway, both Ekuri and Iko-Esai communities display themselves as the pride of Nigeria and West African sub-region as globally recognised conservationists. As mentioned previously the Ekuri Initiative is an award-winning NGO and over the years the community people have built an international image on this achievement. In the letter, they said 'we have for centuries conserved and managed our Ekuri community forest for its rich biodiversity and ecosystems services not only for our sustainable development but for the entire world'. Similarly, the Iko-Esai community are proud to be associated with CERCOPAN and their collective efforts in saving endemic primates from extinction and for maintaining an important tourist site. They proudly said '...there is a Canadian based NGO (CERCOPAN) in our community forest breeding monkeys since 1990...a situation that is fast turning Iko-Esai into another tourist centre...'. These emotional feelings of pride in caring for nature point to the communities' sense of environmental identity that rationalise their claims to social or institutional labels (Hogg et al., 1995, Clayton, 2003), situations that are often found to mediate between knowledge and conflicts (Samuelson et al., 2003). In both cases, the communities labelled themselves as 'global environmentalists' who must be recognised and respected by the CRS government. In the same vein, communities' environmental identity is also linked to the REDD+ readiness project. However, Ekuri's initial suspicions of REDD+ as a form of land grab in disguise was

suddenly dropped and now they see the project as an important global policy that – if allowed to be implemented – will save their forest against destruction by the superhighway project. They feel that the revocation of their customary land claims will bring shame and embarrassment to Nigeria in its fight against climate change as a member of the Governor's Climate and Forests Task Force (GCF). They said: 'As the representative of Cross River State which is the only African member in the GCF, we expect that your role should be to strengthen our conservation efforts....and not otherwise'.

The communities also portray themselves as vulnerable groups that must be protected under the international law. In their letter both Ekuri and Iko-Esai have demonstrated significant knowledge of indigenous people's rights to their ancestral lands and cultural heritage as mentioned in Articles 7 and 8 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). They are also aware of the provisions of the International Labour Organisation (ILO) against violations of fundamental human rights. Both communities have – almost exclusively – relied on the forests for livelihoods and any project that could destroy the forests or deny them access is perceived as an act of infringement on their environmental entitlements (Leach et al., 1999). This feeling of vulnerability and injustice is also embedded in their sense of oppression and powerlessness which has provoked the anger in them. For example, the Iko-Esai elders said: '.... we consider the revocation [land] an act of wickedness against us and a land grab in disguise of a superhighway'. This situation illuminates the seemingly elusive process of reconciling between conservation and development by practitioners (Salafsky, 2011, Shahbaz et al., 2011) which often results into evictions and displacements of indigenous peoples (Penz et al., 2011, Beymer-Farris and Bassett, 2012).

There is also the feeling of betrayal among the community members that reflects their sense of affective relationship with the ecological landscape. Even though these communities have no specific sacred sites for worship their histories and cultural identities are rooted in their ancient traditions and are also tied to their interaction with the natural environments (Anderson, 2010). In their attempt to attract sympathy from the government both communities have referred to the cultural significance of maintaining their natural heritage sites and appeasing their ancestral deities. In both letters, the communities mentioned that 'Our ancestral deities in the forests are crying against this injustice of unparalleled magnitude in our history and their cries will never stop until this decision is reversed'. This implies that

revoking their forests is an act of betrayal to their ancestral forebears from who they inherited the land. In order to emphasise the cultural value of their ancestral territories the communities have turned the non-human natural things into persons with the abilities for emotional experiences and consciousness. Milton (2002) argued that such personification of non-human objects is often subscribed by conservation advocates for the purpose of generating human sympathy for nature in order to avoid doing harm. In this case the communities paint a picture of certain features of their cultural landscape as emotive humans who are worried about being harmed. They said: '...even the vulnerable and defenceless rivers and streams and every living plant and creature in our forests are complaining bitterly...'. These findings follow the argument of Dallman et al. (2013) that emotional and cultural meanings attached to natural resources or landscapes are often ignored by policy makers during development interventions.

**(d) Incentive Payments:** In addition to emotions and values incentive payments is another factor that shapes communities' responses to introduced institutions in CRS. Based on the idea of institutional crafting within mainstream institutional thinking (Ostrom, 1990), REDD+ offers to pay incentives in return for forest conservation. Thus, the bricolage practices of aggregation and articulation in response to REDD+ was largely driven by the expectations of positive (monetary payments) or negative (punishment) incentives. In chapter 5 it was shown that these forms of incentives associated with REDD+ have triggered motivation crowding effects among some of the participants. However, contrary to the rational choice assumptions that economic considerations are predictors of collective action behaviours (Ostrom, 1998, Hardin, 2015), incentivizing conservation is found to have both crowding-in and crowding out of intrinsic motivations in Ekuri and Iko-Esai . Chapter 6 shows that in all the communities there are evidences of motivation crowding-in among the communities since some of them see REDD+ incentives as a way of strengthening their traditional conservation culture (Frey and Jegen, 2001, Van Hecken and Bastiaensen, 2010). While some of them were complying because of the strict enforcement of conservation laws by the Anti-deforestation Task Force similar to what was reported in Costa Rica (Arias et al., 2016) . On the other hand, motivation crowding-out also exist due to perceptions of land grab, frustrations (Kerr et al., 2012), frame shifting towards short term economic benefits (Cardenas et al., 2000), or changes in values due to long term economic reasoning (Greiner

and Gregg, 2011). These supports the argument that people's motivation for collective action is a blend of economic, emotional, and moral rationalities that are embedded in their histories and everyday social lives (Cleaver and De Koning, 2015). Motivational change also exemplified empirically the concept of institutional *leakage* (Koning, 2011) that traditional beliefs and practices can be reinterpreted and re-invented by various people to adapt to changing circumstances or to fit into a new agenda (Cleaver, 2002).

## **7.5 Conclusion**

The case studies presented in this chapter describe how the two communities are responding to bureaucratic institutions through the practices of bricolage. It shows that the relationship between externally crafted forest management institutions is non-linear, and so the preconceived assumptions about community compliance by the project proponents does not always happen in practice. In spite of their hypothetical grouping into a single forest cluster by the REDD+ proponents, Ekuri and Iko-Esai communities behave as complex entities that are producing diverse and unexpected forest governance outcomes through the bricolage processes of aggregation, alteration, and articulation. The process of aggregation in Ekuri means that some of the community members are willing to incorporate REDD+ into their already existing community-based forest management practices. However, REDD+ proponents must comply with some of their expectations and preferences which were derived from everyday experiences. Through the Ekuri Initiative NGO the communities are negotiating for land and carbon tenure security and appropriate benefit sharing arrangements in exchange for their participation. In this way, multiple purposes are pursued and new or hybrid institutions that can piece together existing norms, routine practices and development expectancies into the REDD+ process become the new rules of engagement.

On the other hand, the Iko-Esai community's response to REDD+ is slightly different to that of Ekuri. Rather than aggregating their traditional forest practices to align with the REDD+ processes, they decided to alter them. They had no problems complying with the logging moratorium and halting all sustainable timber harvesting imposed on them by the Forestry Commission. They are willing to sign a long-term contract for REDD+ as long as the promises are fulfilled.

However, both of the communities have rejected the proposed superhighway project in their forests. Even though there is unresolved boundary dispute between Ekuri and Iko-Esai they collectively resisted the revocation of their customary land titles by the CRS government through various means. These include direct actions, global collaborations and alliances, legal action, and petitions against the state government. To an extent, this resistance is yielding some positive results because the project is now stopped by the federal government until an Environmental Impact Assessment was completed, all stakeholders are consulted, and common agreement is reached.

Finally, this chapter shows that these institutional bricolage processes were shaped by agency and power relationships between communities and the state; their historical formations; emotions and nature of forest values; as well as expectations of incentive payments. These findings have implications for critical institutionalism literature by identifying the socially embedded processes some of which are place-based and their interaction with bureaucratic institutions to create new or hybrid institutions which are in turn shaping forest governance in Cross River State.

The next chapter will present summary, conclusion and contributions of this study to the literature.

## Chapter Eight – Summary and Conclusion

### 8.1 Introduction

In this chapter, the main empirical findings from this study are summarised and relevant conclusions are drawn based on the overarching research question. In an attempt to examine how place-based values, motivations and emotions and institutional bricolage practices shape REDD+ governance in community-managed forests in Cross River State, three main aims are put forward. The first was to examine how place-based motivations for forest conservation, emotions and values affect forest governance. The second aim was to explore the politics of design and implementation of REDD+ in Nigeria. The third aim is to identify and examine the social and institutional structures interacting with bureaucratic institutions and how they are shaping forest governance in the REDD+ pilot communities. These aims were achieved through a mixed methodological approach involving Q methodology, social network analysis, interviews, focus groups, and analysis of policy documents and newspapers.

Section 8.2 summarizes the key findings of the study in relation to the 3 aims. Section 8.3 presents the major theoretical and empirical contributions of the study to REDD+ and more broadly the environmental governance literature. Policy implication of the study and recommendations are presented in Section 8.4. In section 8.5, limitations of the study and areas of further work are identified.

### 8.2 Summary of Findings

The main findings of this study are presented according to the three main aims used to address the overarching research question outlined in Section 8.1 above.

#### 8.2.1 Research Aim One:

To examine how place-based motivations for forest conservation, emotions and values affect forest governance.

The environment is increasingly becoming a subject of concern for various utilitarian, consequential or moral reasons that have direct bearing on overall human well-being. Place matters to individuals and communities because recent research suggests that places are embodiments of such values and drivers of attitudes (O'Neill et al., 2008, Tuan, 2013). One of the conclusions of this study is that individuals living within the communities identified as

REDD+ pilot in Cross River State attach subjective values to their forests environments. Such values and perceptions that shape them are discovered to be directly associated with communities' long-term motivations for conservation behavior. This study found that the inherent intrinsic motivations held by community members were based on pro-natural and pro-social considerations which are gradually changing among some of them in response to the introduction of REDD+. The pro-natural intrinsic motivations among these communities are largely based on their utilitarian values of the forests. The communities' agrarian economy explains why the 'forests for survival' discourse (see Chapter 5) has emerged as the predominant factor motivating conservation behavior particularly among Buanchor, New Ekuri and Kanyang II participants. This is because for many decades both timber and non-timber forest products have been extracted to meet individual needs and for funding community development projects since there is little or no government support in these communities. To some community members especially in Old Ekuri and Okokori forests are aesthetically and culturally significant landscapes representing places that should be collectively managed and protected. Similar to the Ugandan case study reported by Fisher (2012), this study found that some of the community members in the study areas also attach meanings to the forest landscapes and childhood experiences they derive from them. This aesthetic value of forest is represented by the participants in the 'forest is beautiful' discourse.

The pro-social intrinsic motivations are discovered to be rooted in both local and global dimensions of place. To these communities, attachments and identities linked to the social characteristics of place explains why keeping the forests is important. There is a strong sense of responsibility to future generations to enable them to experience a natural forest environment and to provide them with livelihoods support base. The communities' attachment to the forest environment and social interactions help to create their identity as forest peoples and globally recognized conservationists who have an intricate connectedness to their trees and animals.

Also, as environmental citizens, some community members share altruistic concerns about the impacts on climate change on other people around the world. Their commitment to conservation is also motivated by their understanding of how local forest degradation is connected to global environmental change. Some scholars argue that in this era of climate

change emphasis on place attachments and identities will encourage people to think global while acting local in a collective way (Feitelson, 1991, Devine-Wright, 2013). This study has found such argument to be relevant for the forest communities in Cross River State. The empirical contribution here is that collective action at the local level towards forest conservation among some community members is being shaped by their knowledge of the consequences of deforestation to the global climate change.

Extrinsic motivations linked to monetary incentives also exist in the study areas. This study concludes that the introduction of REDD+ as a market-based conservation instrument is changing the behavior among community members. The pro-natural and pro-social motivations are gradually being crowded-out by the desire for positive incentives. For the 'no pay, no care' discourse holders dominated by some participants in Kanyang II, Buanchor and Old Ekuri lack of positive incentives is lowering their conservation morale. Some of them are frustrated by restricted forest access, unfulfilled promises and non-harmonious relationship with the state Forestry Commission. This category of people is even threatening to chop down the forests if their demands are not met. On the other hand, the 'we care, but pay' discourse holders mostly found in Okokori and New Ekuri are more concerned with compensation for their conservation sacrifices. However, several scholars have argued that motivation crowding-in also takes place whenever incentives are used to promote collective action (Rodriguez-Sickert et al., 2008, Van Hecken and Bastiaensen, 2010, Narloch et al., 2012). It can be concluded that public discourses about monetary valuation and carbon commodification advanced by proponents of market-based conservation mechanisms (Neuteleers and Engelen, 2015) have a significant crowding-in effect on intrinsic motivations among community members in Cross River State. Expectations of REDD+ money has encouraged acceptance and participation in the project because it is reinforcing their previously held values (Sommerville et al., 2010), or are seen as acknowledgment of conservation behavior (Van Hecken and Bastiaensen, 2010). In summary, this study shows that communities are heterogeneous entities and have different forms of motivations for forest conservation. The argument presented in this study is that the mainstream institutionalist approach to REDD+ has failed to identify these complex social and institutional structures of forest governance. As argued by Scott (1998) and Acheson (2006) resource management regimes like REDD+ will continue to deliver unexpected outcomes if

these complexities are not made legible and incorporated into policy making. Making these complexities legible through institutional bricolage analysis is one of the major contributions of this thesis.

### **8.2.2 Research Aim Two:**

To explore the politics of design and implementation of REDD+ in Nigeria. This is achieved by examining historical circumstances, power relations and stakeholder participation in the REDD+ process.

This study concludes that historical circumstances linked to pre-colonial, colonial and post-colonial forest governance have shaped contemporary property rights and claims to forest ownership in Nigeria. The questions of power relations between actors, context-dependent circumstances related to property rights and benefits sharing are central to the discussions on REDD+ (Sunderlin et al., 2009, Luttrell et al., 2012, Brockhaus et al., 2014a, Brockhaus et al., 2014b). Chapter 6 shows that the nested approach to REDD+ in Nigeria was designed to reflect the country's federal political structure and colonial forest history that allows state governments to exercise absolute control over the forests in their territories. As a result, institutional governance and legal structures were developed by the Cross River State representatives and that of Federal Ministry of Environment in collaboration with local and international NGOs. Thus, the Nigerian REDD+ is jointly owned by the Cross River State and Federal Government of Nigeria. Social network analysis clearly points to the dominance of these actors over others who largely represent forest communities or depend on the forest for livelihoods. These powerful actors control decision making processes, flow of information and resources in the Nigerian REDD+ policy process similar to what was reported in Cameroun, Nepal, Papua New Guinea, Vietnam and Indonesia (Di Gregorio et al., 2012, Pham et al., 2012, Brockhaus et al., 2014b). Yet, the Nigerian case study shows contestations of power and divergence of interests among some of the state forest governance institutions. In Cross River State, such contestations emerged from the restructuring of the Forestry Commission to include the Anti-Deforestation Task Force Unit (ATF), the activities of the ATF itself and the financial priorities it received from the state government. The implication is that even at the macro-level there are overlapping domains of authority and responsibility with some actors or institutions exercising more power than others within the policy process.

The local communities are not adequately represented nor properly consulted during the policy design and implementation stages. An example of this is manifest in the processes that led to the formation of the ATF, where the decision about a ban on logging was allegedly communicated to these communities through their local chiefs in an unfair manner. Prior information about REDD+ was not provided and the local chiefs who were contacted were not adequately informed about the benefits and impacts of the project in their forests. This study shows that most of the information reached these communities through rumors, speculators and visiting researchers. In some communities the activities of the ATF was described as “exclusionary, militaristic and protectionist” so much so that REDD+ implementation and its attendant conservation enforcement in Cross River State was forcefully imposed rather than negotiated (Asiyanbi, 2016b). Thus, REDD+ in Cross River State resembles the REDD+ process in Cameroun where, according to Awono et al. (2014) a formal FPIC process was not carried out at the Mount Cameroun project site. In Cameroun, REDD+ was not officially introduced to the communities which results to their exclusion. In contrast to the Cameroun case, the REDD+ project was officially introduced by the proponents in Nigeria and proposed alternative livelihoods projects and incentives payments are being pursued. Yet, there are conflicts between the REDD+ proponents and local communities in Cross River State about suitable livelihoods options acceptable to all local communities. This study confirms that FPIC process remains a planned activity for the future rather than a pre-requisite process to be carried out at the outset. At present, FPIC is assumed to be granted by the communities managing forests in the pilot areas. Within the literature, it was reported that similar situations exist in Vietnam and Indonesia where FPIC was totally lacking, characterized by conflicts or postponed until further notice by the project proponents (Howell, 2015, Pham et al., 2015, Di Gregorio et al., 2013, Lathifah, 2012). It can be concluded that the transformational change expected in REDD+ is not addressing unequal power relationships and agency in Cross River State which may undermine cooperation and eventually jeopardize policy implementation.

This study concludes that free prior and informed consent was not formally carried out in the pilot communities since proponents assume that the state selected representatives are speaking on their behalf. Accordingly, Nuesiri (2016) observed that in Nigeria there is an absence of local representation even at the UN-REDD policy board and consultative

processes at the initial states of the project. He further maintained that local government authorities within the state are not invited to meetings because the project proponents complained about insufficient funds to provide logistics support for them to participate. Nuesiri maintained that the exclusion of local representatives was because most of them lack environmental knowledge to make meaningful contributions and are likely going to pursue selfish agendas. Asiyambi (2016a) also argues that there is absence of decentralized forest governance under REDD+ in Nigeria as the government is only willing to share power with the NGOs and not with local communities who manage the forests. Findings from this study support those arguments.

Marginalization of local forest communities and the institutions that represent them in the Nigerian REDD+ raised questions about property rights. This study concludes that rights to forests and carbon credits are also contested between the state and local communities. The revised Cross River State Forestry Commission Law recognized customary land claims but has placed statutory powers over all forests within the realm of the state government. In Cross River State, carbon rights are not defined by the REDD+ proponents because carbon ownership will imply legal ownership of forests land. Granting carbon ownership to forest communities will jeopardize the government's initial motivation for expanding state revenue sources from carbon forestry as argued in chapter 6. Dwindling revenue from oil and ecotourism in the state and hard economic recession facing the nation's economy at present will not allow the government to allocate the bulk of carbon revenues to forest communities. It can be concluded that the determination of carbon rights in Cross River State through conservation easements as suggested by Karsenty et al. (2014) may not be possible. This is because allocating carbon ownership based on bundles of rights to include non-legal owners of forest lands will further complicate the tenure arrangement by extending entitlements to other non-state actors. In community managed forests of Nigeria and tropical Africa, such assertion does not fit because determination of carbon rights and ownership is very necessary to avoid grabbing of the new carbon commodity by the state or opportunistic behaviors of carbon speculators if local communities become carbon owners. Similar to other reported cases in Papua New Guinea and Brazil, the absence of clear carbon tenure legislation might jeopardize the long-term sustainability of REDD+ in Cross River State. This conclusion confirms the findings of Asiyambi (2016b) that coupling carbon rights and land

rights under the existing legal tenure arrangement in Cross River State will encourage recentralization of natural resources by the government. Therefore, the militarization of forest protection, suspension of sustainable timber extraction and non-recognition of existing community resource governance institutions characterized the Nigerian REDD+ program. A recent decision to officially revoke communities' customary rights to their forests in order to pave the way for a superhighway project is evidence for these uncertain, insecure tenure rights. The indigenous forest communities are disadvantaged because they are losing their customary tenure and livelihoods support base through revocation of ownership by the Cross State government. This situation points to the conclusion that REDD+ is indeed threatening to recentralize forest governance since most projects are often implemented in tropical countries where tenure is insecure and heavily contested (Naughton-Treves and Wendland, 2014, Phelps et al., 2010b).

Related to the issue of property rights are benefits sharing arrangements. In Cross River State, the 4 million USD take-off grants received from the UN-REDD programme has already sparked controversies. While the REDD+ officials are arguing that the money is meant for capacity building, the local communities are feeling disenfranchised from the REDD+ funds. Thus, the controversial benefit sharing proposal produced by the Cross River State Forestry Commission generated more mistrust and suspicion among the communities. This study shows that some communities in the study areas are not willing to accept any benefit sharing arrangement that will not allocate them the largest portion of the REDD+ benefits. Allocating benefits on this latter basis as practiced in Brazil, Tanzania and Peru is an advantage for the local communities as reported by Luttrell et al. (2012). However, the problem with this approach is that it undermines the additionality requirement enshrined in the global REDD+ architecture. Even if that aspect is resolved other problems may arise from intra-community's benefits sharing given their diverse preferences about monetary payments or development projects in lieu. This agrees with the assertion that varying preferences of direct or indirect payments in PES settings in the form of cash payments or providing infrastructure exist among stakeholders (Peskett et al., 2008, Ferraro and Kiss, 2002). There is also the problem of identifying beneficiaries among the REDD+ actors. Following the suggestions of Luttrell et al. (2012), beneficiaries can be identified and selected based on legal ownership of forests in line with existing statutory or customary property

rights. However, as discussed earlier in Chapter 6 these criteria cannot be easily applied in the Nigerian context because forest tenure is heavily contested between the state governments and local communities. In Cross River State despite the 70-30 percent benefits sharing arrangement from timber extraction that has been practiced for decades and allocated based on the customary and statutory ownerships, communities are increasingly becoming suspicious of land grab under REDD+. Such suspicions were escalated by the decision of the state government to revoke their ownership in favour of the proposed super highway projects. The situation in Cross River State mirrors that of Cameroun where communities were agitating for property rights reform to secure their uncertain tenure and maximize carbon benefits (Awono et al., 2014).

### **8.2.3 Research Aim Three:**

To identify and examine the social and institutional structures interacting with bureaucratic institutions and how they are shaping forest governance in the REDD+ pilot communities.

This study concludes that in Cross River State communities are responding to formal forest governance institutions through the process of bricolage. It is argued in chapter 7 that the bricolage practices follow the classification of Koning (2011), Cleaver (2012), as well as De Koning and Cleaver (2012), namely aggregation, alteration and articulation. In response to REDD+ and the superhighway, multipurpose new institutions were created; socially embedded institutions were adapted with bureaucratic ones; social norms and conservation motivations were re-interpreted, twisted or tinkered with; while some were rejected based on direct conflicts with socio-cultural and spiritual values and identities.

The conclusion is that communities' responses to policy interventions through bricolage are shaped by context specific factors such as history, agency and power, emotions and values about place as well as the desire for monetary incentives. In terms of REDD+, these responses vary from one community to another as shown in chapter 7. In Ekuri community, the bricolage practice of aggregation was to blend intrinsic and extrinsic motivations together to pursue forest and carbon tenure security, gain more international recognition for their conservation work, as well as to negotiate favourable benefits sharing arrangement. For the Iko-Esai community, aggregation is practiced through piecing together intrinsic motivations with the REDD+ policy objectives as a way of accepting another forest governance arrangement similar to that of CERCOPAN. Securing tenure wasn't the driving force for the

Iko-Esai people. While Ekuri community was struggling to realign their well-known traditions of sustainable practices with REDD+ requirement for a total logging ban, the people of Iko-Esai were ready to accept the new terms. This can be explained by their several years of experience with CERCOPAN. Further, while Ekuri Initiative had remained the local institution for forest management for the Ekuri people, the people of Iko-Esai had replaced their local forestry group (CCDC) with CERCOPAN through alteration practices. In terms of REDD+, articulation was mostly practiced by the Ekuri community by rejecting the new benefit sharing arrangement and their refusal to cooperate in the community MRV exercise. This is because their level of mistrust, perceptions of marginalisation in key decision making and fear of land grab is stronger in Ekuri community than in Iko-Esai and other REDD+ pilot communities. The newly introduced superhighway project generated a unanimous resistance by both Ekuri and Iko-Esai because it is threatening to recentralise forest ownership by the government and violate their cultural and spiritual relationships with their forest environments.

All these practices agree with the critical institutionalists' arguments about the dynamic nature of human behaviour in collective action for managing natural resources, often in deviation from what policy experts have previously assumed (Cleaver, 2012). Community institutions of forest governance in Cross River State are found to be patchworks of formal and informal arrangements that weave through conscious and unconscious sets of emotional, social, economic and moral rationalities (Bourdieu, 1977, Cleaver, 2000, Smith et al., 2001, Boelens, 2008). This study supports the findings of Benjaminsen and Lund (2002) where the process of formalisation of water governance and land rights in Africa are shaped by political contestations, social values and historical circumstances. Collectively these practices lay bare inherent complexities that make widely applicable institutional design principles difficult to implement while contextual issues such as social norms, political reorganisation and other adaptive practices are at play.

### **8.3 Answering the Research Question**

The perspective of power relations becomes central in answering the big research question: 'how do place-based values, motivations, emotions and institutional bricolage practices are shaping REDD+ implementation and forest governance in community-managed forests in Cross River State. Power, generally defined by several scholars as 'a relation in which one

actor is able to cause the behaviour of another actor' (Pansardi, 2012, p: 74), is relevant to unpack the complex connections between place-based values, motivations and emotions in forest governance in Cross River State. It was found that REDD+ and other forest governance policies were introduced in a top-down fashion without paying attention to forest communities' place identities and attachments. These communities are discovered to have pluralistic set of instrumental and non-instrumental values attached to the forests. It is also discovered that motivations for forest conservation is a complex blend of pro-social and pro-natural intrinsic, and various forms of extrinsic motivations that are poorly understood by the state and project proponents. The government thought that introducing market-based conservation mechanisms such as REDD+ in community-managed forests will guarantee their cooperation and would encourage them to relinquish their customary control over the forests.

This thesis has shown that REDD+ implementation and forest governance in Cross River State is largely unsuccessful thus far because of the unequal power relations among the actors and institutions in the REDD+ policy network. The government and other international collaborators assume that the forest communities can be manipulated, and persuaded into accepting projects that are conflicting with their socially embedded institutions of forest governance in exchange for monetary incentives. The project proponents also thought that excluding forest communities and their organisations that appear to be problematic from decision-making and placing a total ban on sustainable timber harvesting would ensure a successful implementation of REDD+ in Cross River State. As discussed in previous sections, these situations were not achieved. Rather, the communities are reacting to these bureaucratic institutions through various bricolage practices that tend to shape or justify their acceptance or rejections of the proposed projects. These reactions are nonetheless, the function of place-based values, identities, attachments and dynamic motivations for forest conservation that have been in practiced by these communities for decades prior to the introduction of REDD+ as discussed in chapter 5.

#### **8.4 Contributions of the Study**

This study makes significant theoretical and empirical contributions to existing knowledge in development geography and environmental governance. Theoretically, this study builds on the argument of Van Laerhoven and Ostrom (2007) and Cleaver (2012) that current trends

in the study of the commons requires making complexity legible by shifting away from mainstream institutionalist thinking about crafting and directing institutions to achieve desirable outcomes. In the same vein, a recent call for furthering critical institutionalism research by Cleaver and De Koning (2015) emphasises the need to draw on the bricolage lens to examine power relations and intersections of formal and informal arrangements for mediating society-environment relations. Cleaver and De Koning (2015:4) maintained that: 'peoples' motivations to cooperate in collective arrangements are a mix of economic, emotional, moral and social rationalities informed by differing logics and world-views'. Yet, while the commons literature has over the last 15 years addressed some of these issues in various contexts, important aspects of emotions, motivation and values have remained essentially implicit.

This study thus takes a distinctive approach to the theory of critical institutionalism by making explicit the complexities of motivation, emotions and environmental values within the context of REDD+ governance. Even though critical institutionalism acknowledges the role of emotions in shaping human behaviour, this has received very little attention thus far by academics and policy makers. This study shows that place-based emotional narratives are often invoked by forest communities to resist introduced institutions perceived to be in conflict with embedded social and cultural practices. It was also discovered that such emotions were not static, but rather 'leaked' from one policy intervention to another in order to protect communities' cultural values and legitimise resistance. The emotional leakage identified here is synonymous with institutional leakage (Koning, 2011, De Koning and Cleaver, 2012), where cultural meanings are changed by bricoleurs to adapt traditions that have changed with new interests. However, the main difference is that emotional leakage emphasises how several emotions are used to protect existing interests or resist formal institutions within traditions that largely remain unchanged. Thus, emotional leakage was invoked to create emotional response of sympathy from or shame by the state authorities. In chapter 7 for example, it is shown that communities have weaved through the emotional feelings of anger, powerlessness, desperation, grief, shame, worry, embarrassment, fear, injustice, and demoralization in justifying their collective resistance to the superhighway project and revocation of their customary tenure. Some communities like Ekuri, Iko-Esai, Buanchor, and Kanyang II have used emotions like sense of care for the forests, and their

pride as renowned community conservationists to negotiate favorable benefits sharing and tenure security arrangement with the REDD+ proponents.

Similarly, the emotional feeling of betrayal of trust and generational conservation efforts have also been shown by these forest communities in their responses to both REDD+ and superhighway projects. These emotions are found to be rooted in the peoples' sense of place, identity, culture, everyday relationships, ancestral representations and utilitarian values of the forest. Therefore, approaching bricolage from a place-based perspective has enabled such complex emotional attachments to forests and social identities become more legible within the communities. Drawing on Tuan's (1979) 3 aspects of place namely: spirit of place, personality of place, and sense of place to understand dynamics of motivations for forest conservation and institutional bricolage is one of the main contributions of this study. Place attachment and identity based on sacredness of forests communities as places where ancestral spirits reside was used to justify the bricolage process of articulation in response to REDD+ and other introduced institutions. Personality of place related to astonishment and affection attached to forest communities is also found to be a strong factor influencing intrinsic motivations. Sense of place through perceptions of morality, aesthetics and visual appeal of forest communities is shaping pro-social and pro-natural intrinsic motivations as well as bricolage practices of aggregation and articulation in Cross River State.

In addition, this study also makes significant contribution to critical institutionalism theory by unpacking complex forest values among the communities and how they shape motivations for collective action. In chapter 5, Q methodology was used to identify subjectivities driving intrinsic and extrinsic motivations and the mechanisms through which they become manifest. Most mainstream institutionalists argue that actors as rational self-seeking individuals behave towards maximizing economic benefits within the commons, and so only incentives can stimulate collective action (Hardin, 1968, Ostrom, 1990, Ostrom et al., 1993). On the contrary, critical institutionalists posit that human behaviour is not predicated on incentives rather, behaviours follow complex moral and ecological rationalities, rooted in historical circumstance, emotions, agency and power (Cleaver, 2000, Cleaver, 2001, Nunan et al., 2015). This study has extended these debates by showing that motivations consist of different pro-social and pro-natural intrinsic mechanisms that drive collective action among forest communities earmarked for REDD+. Chapter 5 shows that although these intrinsic

motivations exist prior to the introduction of REDD+, they tend to persist or even become stronger through motivation crowding-in mechanisms. Pathways through which extrinsic motivation behaviours are expressed in expectation for monetary incentives were identified and their implications for REDD+ are discussed. The main contribution is that motivation is some complex and dynamic human characteristics that is underpinned by both rational and emotional considerations. Mixing Q methodology and qualitative approaches in this study has made explicit how motivations are shaped by place-based factors which in turn shape communities' participation in forest conservation and governance.

Empirically, this study contributes to the literature on payments for ecosystem services with specific emphasis on REDD+. Debates about the dangers of economic valuation, commodification and marketization of ecosystem services as a way for encouraging nature conservation still persist. It is argued that this emerging neoliberal trend is nothing but a contradictory policy conceit (Fletcher and Büscher, 2017), that will only promote commodity fetishism (Kosoy and Corbera, 2010), support capitalism (Arsel and Büscher, 2012), exacerbate social and environmental justice concerns (Matulis, 2014), and eventually result in compromising the intrinsic value of nature for material gains (McCauley, 2006). Martin et al. (2008) cautioned that payments for ecosystem services will lead to a permanent crowding-out of intrinsic motivation for nature conservation in favour of monetary incentives. In contrast to that assertion, however, results from this study show that although the REDD+ project is being implemented in community-managed forests in Cross River State, a significant number of the forest community members are not losing their intrinsic basis for conservation. In fact, some of these intrinsic bases are being strengthened following the introduction of REDD+ in those communities through different motivation crowding-in mechanisms. As a result, REDD+ is seen by some community members as a conservation bonus with or without which traditional forest conservation practices cannot be undermined. This study also provides empirical support for some of hypotheses put forward by Neuteleers and Engelen (2015) about how 'commodification in discourse' (talking about monetary valuation and carbon commodification) could promote or undermine nature conservation. This study confirms their third hypothesis that 'intrinsic motivation is more robust than extrinsic motivation and leads to less free riding' as discussed in chapter 5. Chapter 5 also confirms the fourth hypothesis that 'monetary valuation framing and crowding effects can

decrease support for environmental protection' since motivation crowding-out perceptions is evident particularly among the 'no pay, no care' discourse holders which could be a potential threat to forest conservation in Cross River State.

The study also makes a novel contribution to the broader literature on forest governance by bringing critical institutionalism and REDD+ together and discussing them around the concept of place more explicitly. Such combination has helped in gaining deeper insights into the persistent disconnect between global and local in terms of REDD+ implementation. Place-based analysis further uncovers the mythical existence of communities as homogenous entities with common social norms and preferences that should respond to policy interventions in a predictable way (Clever, 1999, Kumar, 2005, Head, 2007). The application of critical intuitionism here shows that communities have varying expectations, histories, values and motivations, place identities and attachments as well as degree of agency and power shaping their behaviour. The explanatory power of bricolage has helped in unpacking these place-based complexities in response to REDD+ and other introduced forest policies in the Nigerian context. Social network analysis applied in this study helped in showing graphically the power relations between the REDD+ actors. Indices of social network analysis such as betweenness and degree centrality support the analysis of power relations by calculating the relative positions and strengths of actors within the REDD+ policy network. Finally, all these contribute in adding to the West African perspectives in the REDD+ literature which have remained relatively scanty thus far.

### **8.5 Policy Implications and Recommendations**

The overall findings of this study have significant implications for global environmental governance. Environmentalists, development geographers and practitioners have reported severally that approaching policy making from a design perspective doesn't always lead to expected outcomes (see Cleaver, 2012). This thesis suggests that tackling collective action problems like climate change should incorporate rational and emotional underpinnings of human behavior as products of dynamic micro and macro level processes. Rather than following a rational and evidence-based crafting this study has emphasized the importance of embracing complexity of institutions and the emerging bricolage practices that may result. Otherwise, reproducing so-called ideal policies on how to govern the commons and enacting them in a variety of locales without recourse to contextual peculiarities will not help.

The global environmental policy experts must acknowledge that incorporating community-managed forests of low income countries into REDD+ requires policy restructuring that will recognize their existing values, motivations dynamics, livelihoods, varying preferences and embedded social systems. By implication, policies are supposed to be pieced together, negotiated and implemented in a bottom-up instead of expert-dominated top-down arrangement. Thus, incorporating local ideas and dialogue will generate reflexive knowledge necessary for problem solving which is more important than relying on critical knowledge of experts that will only create more questions than answers (Burawoy, 2008). In the evolutionary emergence of REDD+ it is obvious that at successive Conference of the Parties meetings, representatives have raised critical questions on how to solve problems such as tenure, benefits sharing, FPIC and participation. However, proponents have failed to engage in reflexive reconfiguration of those policies and adapting them to local realities at the implementation stages. It is clear from early lessons and findings of this study that instrumental knowledges that are created thereof simply don't fit. Governing and implementing REDD+ through bricolage will strengthen local governance arrangement and tap into conservation cultures that have been practiced for decades. This is a huge opportunity moving forward.

Harmonizing power relationship among the key REDD+ actors is equally important in order to achieve the desired outcomes. The REDD+ proponents in Cross River State should understand that allowing some powerful stakeholders to hijack resources allocation, decision making and overall governance arrangement will only stagnate the process further. The marginalized communities who eke out precarious livelihoods from forests under their control must be recognized as historical custodians of the forests without which REDD+ cannot stand. As shown in chapter seven government's decision to revoke their customary tenure will regenerate deeply held suspicions and mistrust and unnecessary conflicts that will jeopardize any development intervention in those communities. Finally, it can be argued that the situation in Cross River State has steadily moved from an emergent green grab under REDD+ to massive land grab under the proposed superhighway project which with serious negative implications on procedural, distribution and recognition justice.

## 8.6 Further Research

Pursuing development through bricolage – though relevant for addressing power relations between policy and implementation - also raises some question as to how plurality of actors and interests can be managed particularly with respect to REDD+. Future studies need to be carried out to test how this theoretical recommendation can be effectively applied on the ground especially in developing country contexts where governance institutions are weak. It will be important to know how much power and resources the state is willing to share with other actors and how that boost can be managed towards achieving the objectives of the projects, bearing in mind the limited amount of money involved in most PES schemes. Also, moving beyond the utilitarian framing of REDD+, more work is needed on the relevance of capability approach framing in REDD+ and how it can broaden our understanding of well-being as suggested by Polishchuk and Rauschmayer (2012).

In addition, several other critical areas require more attention by scholars (Mbatu, 2016). This includes the gendered dimension of REDD+ and the resultant social inequalities that may arise if women are continually excluded from participation. This aspect of research is particularly relevant for Cross River State because the REDD+ Readiness Preparation Proposal clearly mentioned that ‘particular attention will be given to gender...and key gender concerns will be identified especially gender-biased risks and/or unequal benefits that can hamper the welfare of different social groups, especially women...’ (R-PP 2013: 9). Therefore, further study needs to be carried out to examine how REDD+ could affect the role of women as fuelwood collectors for domestic energy consumption. There is also the need to understand the role of women in REDD+ consultations, participation in meetings at local and national levels as well as decision making processes in Nigeria. Given the long history of forest conservation practices in Cross River State there is the need to understand the role of women in community-based forest conservation and resistance against bureaucratic institutions. Similarly, gendered dimension of benefits sharing arrangement in the REDD+ also requires further investigation especially in areas where women are traditionally relegated in inheritance rights and other social entitlements. Gendered dimension of Nigerian REDD+ is one of the main limitations of this study.

Another limitation of this study that merits further attention is the governing and implementing community-based MRV in Nigeria. Recent literature has found that the

technological gap in developing robust MRV systems can be complemented by using local communities to estimate and monitor forest biomass. Drawing on examples from southeast Asia, Danielsen et al. (2013) and Danielsen et al. (2011) argued that local uneducated stakeholders can effectively measure forest biomass to IPCC standards using ropes and sticks. These authors further argue that the process can effectively substitute the use of expensive satellite systems and result in a more equitable and inclusive REDD+. It will be interesting to see how that process can be implemented in Nigeria given the varying socio-economic and political circumstances between the two regions.

Finally, there is also the need to examine the implementation of the UN-REDD's community-based REDD+ programme as a parallel project with other readiness demonstration activities. This aspect will be particularly interesting in Nigeria given the new policy direction of present Cross River State government and growing conflicts between the state and local communities over revocation of their customary forest titles.

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# Appendix 1

## Sociometric Questionnaire sample

### SECTION 1: PERSONAL INFORMATION

1. What is the name of your organization? NIGERIAN CONSERVATION FOUNDATION (NCF)
2. How long have you been working in this organization? 4 YEARS
3. What is your present rank/status? REGIONAL COORDINATOR
4. What are your specific duties/responsibilities/mandate?  
Coordinate the NCF Species Important Bird Areas and Conservation  
Survey management programmes

### SECTION 2: NETWORK INFORMATION

INSTRUCTION: Please supply information for the following REDD+ stakeholders as appropriate:

REDD+ Stakeholders	Relationship e.g. Yes/No, Direct/Indirect	Describe the nature of Relationship/contact e.g. Regulatory, supervisory/financial, supportive/advisory/collaborative	Frequency of relationship/contact e.g. High/Low/Moderate	Provide names of key individual(s)/ Officer(s) involved	What are the specific roles of these individual(s)/ Officer(s)
Federal Ministry of Environment	Yes (1)	Advisory Collaborative	High	Mr. Alade Adeleke	Historian
House of Representatives Committee on Climate Change	(1)				
Senate Committee on Environment and Ecology	(2)				
National Forestry Development Committee (NFDC)	Yes (1)	✓	High	✓	✓
National Council on Environment	Yes (1)	✓	✓	✓	✓
Forestry Research Institute of Nigeria (FRIN)	Yes (1)	Supervisory, advisory, collaborative	✓	✓	✓
National Parks Service	Yes (1)	✓	✓	✓	✓
National					

Environment Standards and Regulations Enforcement Agency (NESREA)	Yes (i)	High	✓	✓	✓
National Oil Spills Detection and Response Agency (NOSDRA)	(i)				
Federal Ministry of Agriculture and Water Resources	Yes (i)	✓	✓	✓	✓
Federal Ministry of Finance	(i)				
National Planning Commission	(i)				
The Rock and Partners	(i)				
Pro-Natura International (PNI)	Yes (i)	Financial Supportive Collaborative	✓	✓	✓
Nigerian Conservation Foundation (NCF)	(i)				
International Centre for Energy, Environment and Development (ICEED)	Yes (i)	Advisory Collaborative	✓	✓	✓
Friends of the Earth Nigeria/ Environmental Rights Action	Yes (i)	Collaborative	High	✓	✓
Cross River State Forestry Commission	Yes (i)	Advisory Collaborative	High	✓	✓
Cross River National Park	Yes (i)	Advisory Collaborative	High	✓	✓
University of Calabar Department of Forestry and Wildlife Resources Management	Yes (i)	Advisory Financial Collaborative	High	Ruth Akagwu	✓
University of Calabar Department of Geography	(i)				
Wildlife Conservation Society (WCS)	Yes (i)	Collaborative	High	Ruth Akagwu Alade Adedeke	✓

Fauna and Flora International (FFI)	Yes (1)	Financial Collaboration	High	Atade Adeleke	✓
Nature Conservation Research Center (NCRC)	(0)				
Tropical Forest Group (TFG)	(0)				
Development in Nigeria (DIN)	Yes (1)	Collaborative	✓	Rutti Aksgu	✓
NGO Coalition for Environment (NGOCE)	(0)				
Pandrilus	Yes (1)	✓	✓	Rutti Aksgu	✓
Center for Education, Research and Conservation of Primates and Nature (CERCOPAN)	Yes (1)	✓	✓	✓	✓
Ekuri Initiative	Yes (1)	✓	✓	✓	✓
Forest Management Committees (FMC)	Yes (1)	✓	✓	Atade Adeleke	✓
Conservation Association of the Mbe Mountains (CMM)	(0)				
United Nations Development Program (UNDP)	Yes (1)	✓	✓	Atade Adeleke Funmi Isonuw	✓
United Nations Environment Program (UNEP)	Yes (1)	✓	✓	✓	✓
Food and Agricultural Organisation (FAO)	Yes (1)	✓	Moderate	✓	✓
OneSky Nigeria	Yes (1)	✓	Moderate	Atade Adeleke Rutti Aksgu	✓

# Appendix 2

## Sections of Q Methodology output file (.lis file)

```

PQMethod2_35
Path and Project Name: C:\Users\usman\Desktop\pqmethod\pqm2015
Exploring values and Motivations for Forest Conservation
Correlation Matrix Between Sorts
SORTS      1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
30
 1 K2F42      100  8 24  9 14 37  3 35 -1 -3 -26 17  1 18 -27 -6 17 20 24  5  4 31  2  6 -5 11 16 -11  4
 7
 2 K2M27      8 100 11 13 20 13 23 16 34 24 29 17 23 31 28 34 23 24 14 18 44 13 19 26 13  7 18 28 30
24
 3 K2M36      24 11 100 33 36 21 25 18 29 27 41 48 31  2 17 20 29 17  6 11  4 22 19 41 27 30 45 25 40
36
 4 K2M52      9 13 33 100 29 29 18 19 41 43 32 43 30 12 13 41 36 21  9 31 12 29 42 21 15 42 46 49 36
25
 5 K2M60      14 20 36 29 100 22 39 29 26 26 19 27 21 18 -5 35 27 28 27 30 13 25 19  4 28 12 55 22 48
36
 6 BOM32      37 13 21 29 22 100  5 37 21 15 -6 22 13 17 -1 10 39 26 -3 12  0 58 32 19  4 12 30 11 18
25
 7 BOM40      3 23 25 18 39  5 100 29 31 41 43 31 -3 19 15 19 28 -3  9 22 13  7 -9 20 39 19 35 37 33
39
 8 BOM29      35 16 18 19 29 37 29 100 34 29 21 17 29 59 -11  1 42  5  6 24 -8 21 -7  5 27  3 39 20 30
11
 9 BOM50      -1 34 29 41 26 21 31 34 100 47 44 40 10 17 17 24 21 22 -5 21  6 18 26 24 37 23 44 47 27
64
10 BOM35      -3 24 27 43 26 15 41 29 47 100 52 45 18 29 13 26 42 10 21 21 13 11 19 34 52 20 41 36 31
49
11 BCF23      -26 29 41 32 19 -6 43 21 44 52 100 26 24 14 24 38 17  8 25 37 21  0 19 27 43 29 33 36 30
34
12 OKM50      17 17 48 43 27 22 31 17 40 45 26 100 14 17 31  8 35 22 22 11 16 23 34 38 29 33 55 37 47
27
13 OKM40      1 23 31 30 21 13 -3 29 10 18 24 14 100 37  3 15 26 18  2 14  7 38 22 13  8 14 39 30 35
 9
14 OKM54      18 31  2 12 18 17 19 59 17 29 14 17 37 100  5 11 41 12 11 20 13 25 14 15 21  7 35 34 37
 2
15 OKM38      -27 28 17 13 -5 -1 15 -11 17 13 24 31  3  5 100  8 14 10 11 10 12  2 14 29 10 19 27 40 25
10
16 OKM57      -6 34 20 41 35 10 19  1 24 26 38  8 15 11  8 100 13 26 14 43 25  8 49 14 10 20 27 12 10
16
17 OKF30      17 23 29 36 27 39 28 42 21 42 17 35 26 41 14 13 100 23 -7 18 13 27 31 18 22 21 33 37 58
18
18 OEM52      20 24 17 21 28 26 -3  5 22 10  8 22 18 12 10 26 23 100 35 36 35 39 54 13 18 28 27  5 21
 6
19 OEM53      24 14  6  9 27 -3  9  6 -5 21 25 22  2 11 11 14 -7 35 100 57 42 20 13 13 30 14 13 -6 13
-6
20 OEM69      5 18 11 31 30 12 22 24 21 21 37 11 14 20 10 43 18 36 57 100 38 25 28 17 28 12 27  9 21
12
21 OEM39      4 44  4 12 13  0 13 -8  6 13 21 16  7 13 12 25 13 35 42 38 100 25 38 12 10 17  0  7 32
-4
22 OEM56      31 13 22 29 25 58  7 21 18 11  0 23 38 25  2  8 27 39 20 25 25 100 41 26  0 24 25 15 20
 8

```

*QPHD2015\_New\_ITS.lis*

*Exploring values and Motivations for Forest Conservation*

*Basic: Paragraph of list at the  
of Outdoor Adventure Experience*

*The results for factor 5 seem should be below 0  
movement (Down, 1980)*

PAGE 1  
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	1	2	3	4	5
1 K2F42	0.0226	0.0298	0.6972X	-0.1557	0.1525
CF2 K2M27	0.1484	0.3927	-0.1072	0.1799	0.3706
CF3 K2M36	0.4353	0.0113	0.2799	0.4160	0.0112
4 K2M52	0.3248	0.1795	0.2845	0.5170X	0.0407
5 K2M60	0.4961X	0.2937	0.3403	0.0117	0.1610
6 BCM32	0.0862	-0.0169	0.7268X	0.2088	0.1564
7 BCM40	0.6614X	0.0943	-0.0969	-0.0049	0.2228
CF8 BCM29	0.3689	-0.0430	0.3584	-0.2106	0.6559
9 BCM50	0.6387X	0.0559	0.1276	0.3068	0.0276
10 BCM35	0.6545X	0.1651	-0.0107	0.2046	0.1958
11 BCF23	0.5970X	0.3449	-0.2882	0.2332	0.0876
CF12 OKM50	0.3716	0.0774	0.1853	0.5210	0.1375
13 OKM40	0.0025	0.0810	0.1696	0.2905	0.4800X
CF15 OKM54	0.0859	0.1224	0.0943	-0.0122	0.8235X
16 OKM57	0.0472	0.0889	0.3883	0.5360	0.1219
17 OKF30	0.2576	0.5602X	0.0648	0.2141	-0.1233
CF18 OEM52	0.1862	0.0247	0.2792	0.3063	0.5530X
19 OEM53	-0.0433	0.5637	0.3780	0.2914	0.0213
20 OEM69	0.1273	0.7228X	0.0268	-0.1202	0.0558
21 OEM39	0.2684	0.7254X	0.0882	-0.0331	0.1213
22 OEM56	-0.0995	0.7201X	-0.0965	0.1613	0.1680
CF23 OEF40	-0.0837	0.2470	0.6143X	0.3086	0.2233
24 NEM42	-0.1134	0.4935	0.3103	0.3776	-0.0471
25 NEM29	0.2232	0.0551	-0.0328	0.5885X	0.1668
26 NEM29	0.6472X	0.1403	-0.1511	0.1465	0.2212
CF27 NEM45	0.1784	0.1162	0.0679	0.6491X	0.0234
CF28 NEM57	0.5657	0.0281	0.2124	0.4687	0.3391
CF29 NEM27	0.4241	-0.1054	-0.1538	0.6183	0.3812
30 NEM56	0.2821	0.1216	0.0219	0.4516	0.5767X
% expl. Var.	15	10	9	12	9

Free Distribution Data Results  
 Exploring Values and Motivations For Forest Conservation  
 Path and Project Name: C:\users\usman\Desktop\pqmethod\pqhd2015

QSORT	MEAN	ST.DEV.
1 K2F42	0.000	2.379
2 K2M27	0.000	2.379
3 K2M36	0.000	2.379
4 K2M52	0.000	2.379
5 K2M60	0.000	2.379
6 BCM32	0.000	2.379
7 BCM40	0.000	2.379
8 BCM29	0.000	2.379
9 BCM50	0.000	2.379
10 BCM35	0.000	2.379
11 BCF23	0.000	2.379
12 OKM50	0.000	2.379





Factor Q-Sort Values for Each Statement

No.	Statement	No.	Factor Arrays
1	Because of our previous experiences, I think the incentives	1	1
2	Belonging to a volunteer group for conservation in this comm	2	-2
3	Doing my activities in this community is more important to m	3	-3
4	Even if I am tired of living here I don't have any place to	4	-3
5	Forests are valuable to keep for future generations of human	5	0
6	Humans are above all other living things, so they are create	6	0
7	I am sometimes doubtful about the forest preservation and co	7	-2
8	I am willing to accept REDD to conserve the forest for clima	8	-3
9	I cannot substitute this community with any other place on e	9	-1
10	I think the problem of deforestation is as bad as many peop	10	-1
11	I feel deep love for the forest its surroundings.	11	-1
12	I feel spiritually bonded to the forest, its species and sur	12	-3
13	I feel the forest and its biodiversity have become a part of	13	-2
14	I have attended a public hearing or meeting about forest man	14	0
15	I have contacted a government agency to get information or c	15	0
16	I have contributed money or time to an environmental or wild	16	0
17	I have deep understanding of how my activities affect the fo	17	0
18	I have regulated or changed my behaviour and agricultural pr	18	0
19	I have stopped buying wood from loggers or animals killed in	19	0
20	I live in this community because my family is here.	20	-3
21	I need to have as much forest around me as possible.	21	-1
22	I often encourage others that environmental conservation is	22	0
23	I often feel close to the forest and its species.	23	0
24	I often feel joy looking at the forest.	24	1
25	I practice conservation because forests and its biodiversity	25	5
26	I think too much emphasis have been placed on conservation b	26	-5
27	I value forests and other natural areas for their sounds, sm	27	-5
28	I value forests because they provides special places of wors	28	-5
29	I value forests because they serve as habitat for variety of	29	-4
30	I value forests because they serve as places of natural and	30	4
31	I value forests because they serve as places for tourism and	31	3
32	I value forests for themselves but the welfare of people has	32	2
33	I value forests mainly for their own sake and not for any be	33	-1
34	I value the forest and its resources because it provides foo	34	-5
35	I value the forest because it reminds me of my childhood day	35	4
36	I was engaged in tree planting exercise to improve the qual	36	4
37	I will conserve the forest even if I don't receive any incen	37	1
38	I will support a long term REDD contract in this forest.	38	1
39	I would like to join and actively participate in an environm	39	-2
40	If I get extra income I would donate some money to an enviro	40	-1
41	If incentives stop coming I will support logging and hunting	41	-4
42	It bothers me that people are running out of wood resources	42	-4
43	Living around the forest says a lot about who I am.	43	-2
44	My own welfare is linked to the survival of the forests and	44	0

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No.	Statement	Factor Arrays
45	My relationship with the extended family in this community is	1 2 3 4 5
46	My right to exist on earth is not more important than that of	-1 -1 -1 0 0
47	No matter how valuable the forest is to me, I will only cons	0 -2 -5 -4 -3
48	People are afraid of arrest that is why they stop logging an	-4 -1 -1 2 -2
49	Spending time in the forest takes my worries away and that m	-1 -1 0 -2 -1
50	The better the incentives given to me the more effort I wil	-1 -5 1 -1 -2
51	The community forest, the reserves and their surroundings, a	2 2 2 3 3
52	The friendships I developed by doing various community activ	0 -2 1 1 1
53	We have waited endlessly for the conservation benefits promi	0 0 -2 -2 -3
54	Without my close relationship with other families in this co	-2 -1 -1 -4 -3

Variance = 5.556 St. Dev. = 2.357

Path and Project Name: C:\Users\usman\Desktop\pqmethod\pqmethod2015

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Factor Q-Sort Values for Statements sorted by Consensus vs. Disagreement (Variance across Factor Z-Scores)

No.	Statement	Factor Arrays
10	I think the problem of deforestation is as bad as many peop	1 2 3 4 5
7	I am sometimes doubtful about the forest preservation and co	-1 -1 -3 -2 -1
51	The community forest, the reserves and their surroundings a	-2 2 0 -3 3
52	The friendships I developed by doing various community activ	0 0 0 -1 1
22	I often encourage others that environmental conservation is	2 3 3 2 -2
28	I value forests because they provides special places of wors	-5 -4 -4 -3 -2
43	Living around the forest says a lot about who I am.	0 1 1 -1 -1
50	The better the incentives given to me the more effort I wil	-1 2 2 -1 0
27	I value forests and other natural areas for their sounds, sm	1 1 4 2 3
11	I feel deep love for the forest its surroundings.	0 2 2 3 0
6	Humans are above all other living things, so they are create	0 -2 2 0 0
12	I feel spiritually bonded to the forest, its species and sur	-3 -2 -5 -2 -2
29	I value forests because they serve as habitat for variety of	4 4 0 0 0
54	Without my close relationship with other families in this co	-2 -1 -1 -3 -4
18	I have regulated or changed my behaviour and agricultural pr	1 -2 2 3 3
39	I would like to join and actively participate in an environm	1 1 -2 2 1
44	My own welfare is linked to the survival of the forests and	0 0 4 4 2
17	I have deep understanding of how my activities affect the fo	2 2 1 1 0
46	My right to exist on earth is not more important than that o	0 0 -5 -4 -3
24	I often feel joy looking at the forest.	1 4 0 0 0
42	It bothers me that people are running out of wood resources	-2 -3 -1 -1 0
45	My relationship with the extended family in this community i	-1 -1 -1 4 4
14	I have attended a public hearing or meeting about forest man	0 0 3 3 5
5	Forests are valuable to keep for future generations of huma	2 2 1 1 2
8	I am willing to accept REDD to conserve the forest for clima	3 0 3 -1 2

Standard Errors for Differences in Factor Z-Scores  
(Diagonal Entries Are S.E. Within Factors)

Factors	1	2	3	4	5
1	0.263	0.305	0.334	0.334	0.305
2	0.305	0.343	0.368	0.368	0.343
3	0.334	0.368	0.392	0.392	0.368
4	0.334	0.368	0.392	0.392	0.368
5	0.305	0.343	0.368	0.368	0.343

Exploring Values and Motivations For Forest Conservation  
Path and Project Name: C:\Users\usman\Desktop\pqmethod\qphd2015

*Specific 1 descriptive will  
primary monthly and then  
intermediate activities.*

Distinguishing Statements for Factor 1

(P < .05 ; Asterisk (\*) Indicates significance at P < .01)  
Both the Factor Q-Sort Value (Q-SV) and the Z-Score (Z-SCR) are shown.

No. Statement	Factors				
	1	2	3	4	5
34 I value the forest and ...	5 1.87*	0 -0.00	1 0.42	0 0.00	1 0.24
35 I value the forest bec ...	4 1.40*	1 0.42	-2 -0.72	0 -0.04	1 0.38
17 I have deep understand ...	2 1.05	1 0.40	-1 -0.59	0 -0.26	-1 -0.36
38 I will support a long ...	1 0.80	0 -0.04	-2 -0.62	-3 -1.41	0 0.18
36 I was engaged in tree ...	1 0.63	-4 -1.53	0 -0.20	-1 -0.42	-5 -2.06
46 My right to exist on e ...	-1 -0.43	-5 -1.68	-4 -2.06	-3 -1.40	-3 -1.20
48 People are afraid of a ...	2 0.23	1 0.23	2 0.86	-3 -1.48	-3 -1.46
32 I value forests for th ...	-2 -1.06	2 0.90	1 0.50	1 0.56	-1 -0.34
3 Doing my activities in ...	-3 -1.45*	1 0.31	0 -0.08	-1 -0.59	4 1.49
47 No matter how valuable ...	-4 -1.66*	1 -0.41	5 1.87	-2 -0.79	3 1.20
26 I think too much empha ...	-5 -1.95*	-2 -0.96	-1 -0.40	1 0.67	0 -0.09

Exploring Values and Motivations For Forest Conservation  
Path and Project Name: C:\Users\usman\Desktop\pqmethod\qphd2015

Distinguishing Statements for Factor 2

(P < .05 ; Asterisk (\*) Indicates significance at P < .01)  
Both the Factor Q-Sort Value (Q-SV) and the Z-Score (Z-SCR) are shown.

*Factor One: Summer  
recreation.*

*after summer, good info*



Factors

No. Statement	1	2	3	4	5
2 Belonging to a voluntee ...	1 0.35	-1 -0.48	0 0.24	5 1.48*	-1 -0.30
40 If I get extra income ...	-1 -0.29	-2 -0.97	-4 -1.55	4 1.30*	-2 -0.54
9 I cannot substitute th ...	-2 -0.85	-1 -0.32	0 0.26	3 1.25	-1 -0.29
26 I think too much empha ...	-5 -1.95	-2 -0.96	-1 -0.40	1 0.67	0 -0.09
19 I have stopped buying ...	0 -0.23	3 1.45	-2 -0.93	1 0.62	-1 -0.37
4 Even if I am tired of ...	-3 -1.61	5 1.87	1 0.61	-2 -0.68*	-4 -1.99
49 Spending time in the f ...	-1 -0.31	0 -0.11	-5 -2.13	-3 -1.16	0 -0.24
58 I will support a long ...	1 0.80	0 -0.04	-2 -0.62	-3 -1.41	0 0.18
1 Because of our previou ...	-2 -0.85	0 -0.24	0 -0.24	-5 -2.30*	4 1.51
33 I value forests mainl ...	-1 -0.38	1 0.01	-2 -0.86	-5 -2.42*	-2 -0.79

*Place - rank by - on 1st and 2nd  
Conservation - 1st rank*

PMMethod2.35 Exploring Values and Motivations For Forest Conservation  
Path and Project Name: C:\Users\usman\Desktop\PMMethod\QPHD2015

Distinguishing Statements for Factor 5

(P < .05 ; Asterisk (\*) Indicates significance at P < .01)

Both the Factor Q-Sort Value (Q-SV) and the Z-Score (Z-SQR) are Shown.

Factors

No. Statement	1	2	3	4	5
1 Because of our previou ...	-2 -0.85	0 -0.24	0 -0.24	-5 -2.30	4 1.51*
3 Doing my activities in ...	-3 -1.45	1 0.31	0 -0.08	-1 -0.59	4 1.49*
51 The community forest ...	2 1.00	-2 -1.12	3 1.03	3 1.17	1 0.25
41 If incentives stop com ...	-4 -1.74	-3 -1.47	2 0.96	-4 -1.72	0 -0.04*
32 I value forests for th ...	-2 -1.06	2 0.90	1 0.50	1 0.56	-1 -0.34
16 I have contributed mon ...	0 0.20	-5 -1.63	1 0.59	0 0.15	-2 -0.62
52 The friendships I deve ...	0 -0.19	0 -0.15	-1 -0.25	-1 -0.33	-2 -1.06
37 I will conserve the fo ...	1 0.52	-1 -0.39	0 0.27	2 0.96	-3 -1.16

*After doing, nature  
was better for planting but  
some cases.*

PMMethod2.35 Exploring Values and Motivations For Forest Conservation  
Path and Project Name: C:\Users\usman\Desktop\PMMethod\QPHD2015

Consensus Statements -- Those That Do Not Distinguish Between ANY Pair of Factors.

All Listed Statements are Non-Significant at P>.01, and Those Flagged with an \* are also Non-Significant at P>.05.

Factors	1	2	3	4	5
---------	---	---	---	---	---

No.	Statement	No.	Q-SV	Z-SCR										
7	I am sometimes doubtful	7	-2	-0.71	-1	-0.33	-3	-1.09	-2	-0.76	-1	-0.37	-1	-0.37
10	I think the problem of ...	10	-1	-0.52	-3	-1.21	-2	-0.81	-1	-0.64	-2	-0.44	-2	-0.44
51	The community forest , ...	51	2	1.00	2	1.12	3	1.03	3	1.17	1	0.25	1	0.25

QANALYZE was completed at 19:08:21

## Crib Sheet used for Q Methodology Interpretation

### FACTOR INTERPRETATION CRIB SHEET: Factor One

#### 1. Items ranked at +5

- 25 I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world +5
- 34 I value the forest and its resources because it provides food, water and timber for the use of humans +5

#### 2. Items Ranked Higher in Factor 1 Array than in Other Factor Arrays

- 8 I am willing to accept REDD to conserve the forest for climate change and biodiversity +3
- 10 I think the problem of deforestation is a bad as many people make it to be -1
- 13 I feel the forest and its biodiversity have become a part of me +2
- 17 I have deep understanding of how my activities affect the forests and other living things living there +2
- 18 I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment +3
- 27 I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them +2
- 29 I value forests because they serve as habitat for variety of plants and animals species +4
- 35 I value the forest because it reminds me of my childhood days, and that makes me happy +4
- 36 I was engaged in tree planting exercise to improve the quality of the forest +1
- 38 I will support a long-term REDD contract in this forest +1
- 46 My right to exist on earth is not more important than that of trees and animals in the forest o
- 52 The friendships I developed by doing various community activities strongly connect me to this place o

#### 3. Items Ranked Lower in Factor 1 Array than in Other Factor Arrays

- 3 Doing my activities in this community is more important to me than doing them in any other place -3
- 9 I cannot substitute this community with any other place on earth -2
- 14 I have attended a public hearing or meeting about forest management o
- 20 I live in this community because my family is here -3
- 32 I value forests for themselves but the welfare of people has to come first -2
- 41 If incentives stop coming I will support logging and hunting of animals to for people to survive -4
- 44 My own welfare is linked to the survival of the forests and its species o
- 45 My relationship with the extended family in this community is very special to me -1
- 47 No matter how valuable the forest is to me, I will only conserve it for a longer time if adequate incentives are given to me -4
- 50 The better the incentives given to me the more effort I will put towards conservation -1

#### 4. Items Ranked at -5

- **26** I think too much emphasis have been placed on conservation by the government and NGOs -5
- **28** I value forests because they provide special places of worship and other religious activities -5

## **FACTOR INTERPRETATION CRIB SHEET FOR FACTOR 2**

### **1. Items Ranked at +5**

- **4** Even if I am tired of living here I don't have any place to go +5
- **31** I value forests because it is a place for tourism and recreational activities +5

### **2. Items Ranked Higher in Factor 2 Arrays than in Other Factor Arrays**

- **6** Humans are above all other living things, so they are created to serve us +2
- **7** I am sometimes doubtful about the wilderness preservation and conservation programs -1
- **11** I feel deep love for the forest its surroundings +4
- **12** I feel spiritually bonded to the forest, its species and surrounding landscape -2
- **15** I have contacted a government agency to get information or complain about forest degradation/ destruction +3
- **19** I have stopped buying wood from loggers or animals killed illegally from the forest +3
- **22** I often encourage others that environmental conservation is important +3
- **23** I often feel close to the forest and its species +3
- **24** I often feel joy looking at the forest +4
- **27** I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them +2
- **32** I value forests for themselves but the welfare of people has to come first +2
- **33** I value forests mainly for their own sake and not for any benefits they provide for humans +1
- **43** Living around the forest says a lot about who I am +2
- **49** Spending time in the forest takes my worries away and that makes me feel happy o
- **52** The friendships I developed by doing various community activities strongly connect me to this place o

### **3. Items Ranked Lower in Factor 2 Array than in Other Factor Arrays**

- **2** Belonging to volunteer groups for conservation in this community is very important to me -1
- **10** I think the problem of deforestation is as bad as many people make it to be -3
- **13** I feel the forest and its biodiversity have become a part of me -3
- **14** I have attended a public hearing or meeting about forest management o
- **25** I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world -2
- **29** I value forests because they serve as habitat for variety of plants and animals species o
- **34** I value the forest and its resources because it provides food, water and timber for the use of humans o
- **39** I would like to join and actively participate in an environmentalist group -2
- **42** It bothers me that people are running out of wood resources for construction just because of conservation -3

- 44 My own welfare is linked to the survival of the forests and its species 0
- 45 My relationship with the extended family in this community is very special to me -1
- 53 We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale -2

#### 4. Items Ranked at -5

- 16 I have contributed money or time to an environmental or wildlife conservation group -5
- 46 My right to exist on earth is not more important than that of trees and animals in the forest -5

### FACTOR INTERPRETATION CRIB SHEET FOR FACTOR 3

#### 1. Items Ranked at +5

- 47 No matter how valuable the forest is to me, I will only conserve it for a longer time if adequate incentives are given to me +5
- 53 We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale +5

#### 2. Items Ranked Higher in Factor 3 Arrays than in Other Factor Arrays

- 6 Humans are above all other living things, so they are created to serve us +2
- 8 I am willing to accept REDD to conserve the forest for climate change and biodiversity +3
- 14 I have attended a public hearing or meeting about forest management +3
- 16 I have contributed money or time to an environmental or wildlife conservation group +1
- 18 I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment +3
- 20 I live in this community because my family is here +2
- 41 If incentives stop coming I will support logging and hunting of animals to for people to survive +2
- 42 It bothers me that people are running out of wood resources for construction just because of conservation 0
- 44 My own welfare is linked to the survival of the forests and its species +4
- 45 My relationship with the extended family in this community is very special to me +4
- 48 People are afraid of arrests that is why they stop logging and hunting of animals +2
- 51 The community forest, the reserves and their surroundings are very special to me +3

#### 3. Items Ranked Lower in Factor 3 Array than in Other Factor Arrays

- 5 Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today +1
- 7 I am sometimes doubtful about the forest preservation and conservation programs -3
- 17 I have deep understanding of how my activities affect the forests and other living things living here -1
- 19 I have stopped buying wood from loggers or animals killed illegally from the forest -2
- 21 I need to have as much forest around me as possible -2
- 23 I often feel close to the forest and its species -3
- 24 I often feel joy looking at the forest 0
- 27 I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them -1

- **29** I value forests because they serve as habitat for variety of plant and animals species 0
- **30** I value forests because they serve as places of natural and human history -1
- **35** I value the forest because it reminds me of my childhood days, and that makes me happy -2
- **40** If I get extra income I would donate some to an environmental conservation agency -4
- **43** Living around the forest says a lot about who I am -1

#### **4. Items Ranked at -5**

- **12** I feel spiritually bonded to the forest, its species and surrounding landscape -5
- **49** Spending time in the forest takes my worries away and that makes me feel happy -5

### **FACTOR INTERPRETATION CRIB SHEET FOR FACTOR 4**

#### **1. Items Ranked at +5**

- **2** Belonging to a volunteer group for conservation in this forest community is very special to me +5
- **5** Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today +5

#### **2. Items Ranked Higher in Factor 4 Arrays than in Other Factor Arrays**

- **9** I cannot substitute this community with any other place on earth +3
- **10** I think the problem of deforestation is as bad as many people make it to be -1
- **12** I feel spiritually bonded to the forest, its species and surrounding landscape -2
- **21** I need to have as much forest around me as possible +4
- **26** I think too much emphasis have been placed on conservation by the government and NGOs +1
- **28** I value forests because they provide special places of worship and other religious activities -2
- **37** I will conserve the forest even if I don't receive any incentives from government or conservation agencies +2
- **40** If I get extra income I would donate some to an environmental conservation agency +4
- **51** The community forest, the reserves and their surroundings are very special to me +3

#### **3. Items Ranked Lower in Factor 4 Array than in Other Factor Arrays**

- **8** I am willing to accept REDD to conserve the forest for climate change and biodiversity -1
- **29** I value forests because they serve as habitat for variety of plant and animals species 0
- **38** I will support a long-term REDD contract in this forest -3
- **41** If incentives stop coming I will support logging and hunting of animals to for people to survive -4
- **43** Living around the forest says a lot about who I am -1
- **48** People are afraid of arrests that is why they stop logging and hunting of animals -3
- **50** The better the incentives given to me the more effort I will put towards conservation -1
- **54** Without my close relationship with other families in this community I would probably move to another place -4

#### **4. Items Ranked at -5**

- **1** Because of our previous experiences, I think the incentives must be given to us first before we agree with any conservation initiative in our forest -5

- 33 I value forests mainly for their own sake and not for any benefits they provide for humans -5

## **FACTOR INTERPRETATION CRIB SHEET FOR FACTOR 5**

### **1. Items Ranked at +5**

- 5 Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today +5
- 30 I value forests because they serve as places of natural and human history +5

### **2. Items Ranked Higher in Factor 5 Arrays than in Other Factor Arrays**

- 1 Because of our previous experiences, i think the incentives must be given to us first before we agree with any conservation initiative in our forest +4
- 3 Doing my activities in this community is more important to me than doing them in any other place +4
- 7 I am sometimes doubtful about the forest preservation and conservation programs -1
- 13 I feel the forest and its biodiversity have become a part of me +2
- 14 I have attended a public hearing or meeting about forest management +3
- 39 I would like to join and actively participate in an environmentalist group +3
- 49 Spending time in the forest takes my worries away and that makes me feel happy 0
- 50 The better the incentives given to me the more effort I will put towards conservation +2
- 54 Without my close relationship with other families in this community I would probably move to another place 0

### **3. Items Ranked Lower in Factor 5 Array than in Other Factor Arrays**

- 2 Belonging to a volunteer group for conservation in this forest community is very special to me -1
- 4 Even if I am tired of living here I don't have any place to go -4
- 6 Humans are above all other living things, so they are created to serve us -1
- 11 I feel deep love for the forest its surroundings 0
- 15 I have contacted a government agency to get information or complain about forest degradation/ destruction -2
- 17 I have deep understanding of how my activities affect the forests and other living things living here -1
- 18 I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment -1
- 22 I often encourage others that environmental conservation is important +1
- 31 I value forests because it is a place for tourism and recreational activities 0
- 37 I will conserve the forest even if I don't receive any incentives from government or conservation agencies -3
- 42 It bothers me that people are running out of wood resources for construction just because of conservation -3
- 48 People are afraid of arrests that is why they stop logging and hunting of animals -3
- 51 The community forest, the reserves and their surroundings are very special to me +1
- 52 The friendships I developed by doing various community activities strongly connect me to this place -2

#### 4. Items Ranked at -5

- 28 I value forests because they provide special places of worship and other religious activities -5
- 36 I was engaged in tree planting exercise to improve the quality of the forest -5

#### Interpretation Categories

##### Factor One:

##### A. Value orientation

- 34 I value the forest and its resources because it provides food, water and timber for the use of humans +5 (economic value)
- 27 I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them +2 (aesthetic)
- 29 I value forests because they serve as habitat for variety of plants and animals species +4 (ecological value orientation)
- 35 I value the forest because it reminds me of my childhood days, and that makes me happy +4 (cultural value orientation)
- 32 I value forests for themselves but the welfare of people has to come first -2 (use value)
- 28 I value forests because they provide special places of worship and other religious activities -5 (spiritual)

##### B. Connectedness to Nature

- 17 I have deep understanding of how my activities affect the forests and other living things living there +2
- 46 My right to exist on earth is not more important than that of trees and animals in the forest 0
- 44 My own welfare is linked to the survival of the forests and its species 0

##### C. Place identity

- 13 I feel the forest and its biodiversity have become a part of me +2
- 52 The friendships I developed by doing various community activities strongly connect me to this place 0
- 3 Doing my activities in this community is more important to me than doing them in any other place -3
- 9 I cannot substitute this community with any other place on earth -2
- 20 I live in this community because my family is here -3
- 45 My relationship with the extended family in this community is very special to me -1

##### D. Environmental Behaviour

- 10 I think the problem of deforestation is as bad as many people make it to be -1 (Apathy)
- 18 I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment +3 (pro-environmental behaviour)
- 14 I have attended a public hearing or meeting about forest management 0 (pro-environmental behaviour)
- 26 I think too much emphasis have been placed on conservation by the government and NGOs -5 (Apathy)

- 36 I was engaged in tree planting exercise to improve the quality of the forest +1 (pro-environmental behaviour)
- 38 I will support a long-term REDD contract in this forest +1 (pro-environmental behaviour)

#### E. Motivation for Conservation

- 25 I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world +5
- 8 I am willing to accept REDD to conserve the forest for climate change and biodiversity +3
- 41 If incentives stop coming I will support logging and hunting of animals to for people to survive -4
- 47 No matter how valuable the forest is to me, I will only conserve it for a longer time if adequate incentives are given to me -4
- 50 The better the incentives given to me the more effort I will put towards conservation -1

#### Factor two

##### A. Value orientation

- 31 I value forests because it is a place for tourism and recreational activities +5 (recreation)
- 27 I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them +2 (aesthetic)
- 32 I value forests for themselves but the welfare of people has to come first +2
- 33 I value forests mainly for their own sake and not for any benefits they provide for humans +1 (intrinsic)
- 25 I practice conservation because forests and its biodiversity are beneficial to the survival of other people around the world -2 (altruism)
- 29 I value forests because they serve as habitat for variety of plants and animals species o (ecological value)
- 34 I value the forest and its resources because it provides food, water and timber for the use of humans o

##### B. Connectedness to Nature

- 6 Humans are above all other living things, so they are created to serve us +2
- 11 I feel deep love for the forest its surroundings +4
- 12 I feel spiritually bonded to the forest, its species and surrounding landscape -2
- 23 I often feel close to the forest and its species +3
- 24 I often feel joy looking at the forest +4
- 49 Spending time in the forest takes my worries away and that makes me feel happy o
- 44 My own welfare is linked to the survival of the forests and its species o
- 46 My right to exist on earth is not more important than that of trees and animals in the forest -5

##### C. Place identity

- 4 Even if I am tired of living here I don't have any place to go +5
- 43 Living around the forest says a lot about who I am +2

- 52 The friendships I developed by doing various community activities strongly connect me to this place o
- 2 Belonging to volunteer groups for conservation in this community is very important to me -1
- 13 I feel the forest and its biodiversity have become a part of me -3
- 45 My relationship with the extended family in this community is very special to me -1

#### **D. Environmental Behaviour**

- 7 I am sometimes doubtful about the wilderness preservation and conservation programs -1 (apathy)
- 15 I have contacted a government agency to get information or complain about forest degradation/ destruction +3
- 19 I have stopped buying wood from loggers or animals killed illegally from the forest +3
- 22 I often encourage others that environmental conservation is important +3 (activism)
- 10 I think the problem of deforestation is as bad as many people make it to be -3
- 14 I have attended a public hearing or meeting about forest management o
- 39 I would like to join and actively participate in an environmentalist group -2
- 42 It bothers me that people are running out of wood resources for construction just because of conservation -3 (anthropocentric)
- 16 I have contributed money or time to an environmental or wildlife conservation group -5

#### **E. Motivation for Conservation**

- 53 We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale -2

#### **Factor Three**

##### **A. Value orientation**

- 5 Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today +1 (future value)
- 27 I value forests and other natural areas for its sounds, smell and beautiful landscape I experience in them -1 (aesthetic value)
- 29 I value forests because they serve as habitat for variety of plant and animals species o (ecological value)
- 30 I value forests because they serve as places of natural and human history -1 (historic)
- 35 I value the forest because it reminds me of my childhood days, and that makes me happy -2 (cultural)

##### **B. Connectedness to Nature**

- 6 Humans are above all other living things, so they are created to serve us +2
- 44 My own welfare is linked to the survival of the forests and its species +4
- 17 I have deep understanding of how my activities affect the forests and other living things living here -1
- 21 I need to have as much forest around me as possible -2
- 23 I often feel close to the forest and its species -3
- 24 I often feel joy looking at the forest o
- 12 I feel spiritually bonded to the forest, its species and surrounding landscape -5

- 49 Spending time in the forest takes my worries away and that makes me feel happy -5

### C. Place identity

- 20 I live in this community because my family is here +2
- 45 My relationship with the extended family in this community is very special to me +4
- 51 The community forest, the reserves and their surroundings are very special to me +3
- 43 Living around the forest says a lot about who I am -1

### D. Environmental Behaviour

- 7 I am sometimes doubtful about the wilderness preservation and conservation programs -1 (apathy)
- 14 I have attended a public hearing or meeting about forest management +3
- 16 I have contributed money or time to an environmental or wildlife conservation group +1
- 18 I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment +3
- 42 It bothers me that people are running out of wood resources for construction just because of conservation o (anthropocentric)
- 7 I am sometimes doubtful about the forest preservation and conservation programs -3 (apathy)
- 19 I have stopped buying wood from loggers or animals killed illegally from the forest -2
- 40 If I get extra income I would donate some to an environmental conservation agency -4 (activism)

### E. Motivation for Conservation

- 47 No matter how valuable the forest is to me, I will only conserve it for a longer time if adequate incentives are given to me +5
- 53 We have waited endlessly for the conservation benefits promised by government and NGOs and this is affecting our conservation morale +5
- 8 I am willing to accept REDD to conserve the forest for climate change and biodiversity +3
- 41 If incentives stop coming I will support logging and hunting of animals to for people to survive +2
- 48 People are afraid of arrests that is why they stop logging and hunting of animals +2

### Factor Four

#### A. Value orientation

- 5 Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today +5 (future value)
- 28 I value forests because they provide special places of worship and other religious activities -2 (spiritual)
- 29 I value forests because they serve as habitat for variety of plant and animals species o (ecological)
- 33 I value forests mainly for their own sake and not for any benefits they provide for humans -5 (intrinsic)

#### B. Connectedness to Nature

- 12 I feel spiritually bonded to the forest, its species and surrounding landscape -2

- **21** I need to have as much forest around me as possible +4

### C. Place identity

- **2** Belonging to a volunteer group for conservation in this forest community is very special to me +5
- **9** I cannot substitute this community with any other place on earth +3
- **51** The community forest, the reserves and their surroundings are very special to me +3
- **43** Living around the forest says a lot about who I am -1
- **54** Without my close relationship with other families in this community I would probably move to another place -4

### D. Environmental Behaviour

- **10** I think the problem of deforestation is as bad as many people make it to be -1
- **26** I think too much emphasis have been placed on conservation by the government and NGOs +1 (apathy)
- **40** If I get extra income I would donate some to an environmental conservation agency +4 (activism)

### E. Motivation for Conservation

- **37** I will conserve the forest even if I don't receive any incentives from government or conservation agencies +2
- **8** I am willing to accept REDD to conserve the forest for climate change and biodiversity -1
- I will support a long-term REDD contract in this forest -3
- **41** If incentives stop coming I will support logging and hunting of animals to for people to survive -4
- **48** People are afraid of arrests that is why they stop logging and hunting of animals -3
- **50** The better the incentives given to me the more effort I will put towards conservation -1
- **1** Because of our previous experiences, I think the incentives must be given to us first before we agree with any conservation initiative in our forest -5 (participation)

### Factor Five:

#### A. Value orientation

- **5** Forests are valuable to keep for future generations of humans even if it means I am reducing my standard of living today +5 (future value)
- **30** I value forests because they serve as places of natural and human history +5 (historic value)
- **31** I value forests because it is a place for tourism and recreational activities o (recreation)

#### B. Connectedness to Nature

- **49** Spending time in the forest takes my worries away and that makes me feel happy o
- **6** Humans are above all other living things, so they are created to serve us -1
- **11** I feel deep love for the forest its surroundings o
- **17** I have deep understanding of how my activities affect the forests and other living things living here -1

#### C. Place identity

- **3** Doing my activities in this community is more important to me than doing them in any other place +4
- **13** I feel the forest and its biodiversity have become a part of me +2
- **54** Without my close relationship with other families in this community I would probably move to another place 0
- **2** Belonging to a volunteer group for conservation in this forest community is very special to me -1
- **4** Even if I am tired of living here I don't have any place to go -4
- **51** The community forest, the reserves and their surroundings are very special to me +1
- **52** The friendships I developed by doing various community activities strongly connect me to this place -2

#### **D. Environmental Behaviour**

- **7** I am sometimes doubtful about the forest preservation and conservation programs -1 (apathy)
- **14** I have attended a public hearing or meeting about forest management +3
- **39** I would like to join and actively participate in an environmentalist group +3 (activism)
- **15** I have contacted a government agency to get information or complain about forest degradation/ destruction -2
- **18** I have regulated or changed my behaviour and agricultural practices in some ways because of my concern for the environment -1
- **22** I often encourage others that environmental conservation is important +1 (activism)
- **42** It bothers me that people are running out of wood resources for construction just because of conservation -3 (anthropocentric)

#### **E. Motivation for Conservation**

- **1** Because of our previous experiences, i think the incentives must be given to us first before we agree with any conservation initiative in our forest +4 (motivation for participation)
- **50** The better the incentives given to me the more effort I will put towards conservation +2 (participation)
- **37** I will conserve the forest even if I don't receive any incentives from government or conservation agencies -3
- **48** People are afraid of arrests that is why they stop logging and hunting of animals -3



Why did you disagree with the two statements placed at -5 and -4?

Statement Number.....

Because.....  
.....  
.....  
.....  
.....

Statement Number.....

Because.....  
.....  
.....  
.....  
.....

## Appendix 3

### Interview and Focus Groups Questions

#### INTERVIEW QUESTIONS (OFFICIALS)

##### **THEME 1: FOREST RELATED POLICIES AND LAWS**

1. Does Nigeria have a national forest policy/ laws/strategy?
2. How did those policies change over time and what are the driving forces?
3. Do you think the laws/strategies have addressed the main drivers of deforestation and degradation?
4. Do government policies recognize non-market values such as cultural ecosystem services and traditional uses of the forest?
5. Has Nigeria signed and ratified forest related conventions e.g., CITES, CBD etc.?

##### **THEME 2: LEGAL FRAMEWORK FOR THE PROTECTION OF LAND TENURE, OWNERSHIP AND USE RIGHTS**

1. Who own forests land and resources in Nigeria, and how is forest rights and tenure determined?
2. Apart from land and vegetation, is the ownership of other resources found on the land e.g. carbon, genetic resources, wildlife, water, minerals etc. clear?
3. Is there any conflict between formal and informal forest rights?
4. Does the law include sharing of management authority over some public forests with local communities?
5. What ways do you think the REDD project might affect land ownership and access rights?

##### **THEME 3: INSTITUTIONAL FRAMEWORKS**

1. Can you mention some key national and state agencies responsible for forest management in Nigeria?
2. To what extent are these agencies mutually supportive or conflicting?
3. Who are the key agencies and how are they working to implement REDD in Nigeria

##### **THEME 4: FINANCIAL INCENTIVES AND BENEFIT SHARING**

1. Do existing forest laws provide for sharing of benefits or income from public forests with local communities?
2. To what extent are forest communities allowed access to government controlled forests?
3. Do forest management laws protect non-market goods and services e.g. water quality and cultural resources (shrines)?
4. What are social safeguard initiatives against negative impacts on community livelihoods under REDD?

5. In what ways can REDD benefits be distributed?
6. What are the criteria for the distribution of benefits?
7. Do you perceive any form of domination of community people by some powerful stakeholders?
8. What is your perception about the basis for conservation, e.g. utilitarian (ecosystem services) or intrinsic (moral)?

#### **THEME 5: STAKEHOLDER PARTICIPATION**

1. Are consultations with community peoples carried out in the REDD process, and is the feedback incorporated in the decision making?
2. Is the civil society involved in the consultation process? What is their view about REDD? Are those views representing community interests?
3. What are you doing to improve the capacity of forest people to be actively engaged in the REDD readiness projects?
4. Do you think community interests and rights will be captured and integrated into the REDD policy making?
5. What is your perception about the possibility of conflicts over carbon rights?
6. Is there a possibility of a shift from community management to government control of forests under REDD?

#### **THEME 6: LAW ENFORCEMENT**

1. Are there serious conflicts between different communities and user groups in the context of forest access and use?
2. How are these conflicts resolved?
3. Will community members continue to have secured access to forest resources under REDD?

#### **THEME 7: GENERAL**

1. What is the role of your agency in implementation of the REDD readiness project in Nigeria?
2. What is the present status of REDD implementation in Nigeria?
3. What are the key challenges and opportunities for REDD in Nigeria?
4. In what ways do you think the Nigerian REDD project is different or similar with projects in other parts of the world?

#### **INTERVIEWS QUESTION (LOCAL COMMUNITIES)**

##### **THEME 1: History of Community Forest Association**

1. What is the name of the community forest association?
2. How did this forest come into being?
3. Did the forest obtained legal status since the time of its formation?
4. How many years has this forest had its present structure and process?
5. What have been the major changes in the character and rules if this forest association since its origin?

6. What are the activities carried out by the association?

#### **THEME 2: GOVERNANCE AND STRUCTURE**

1. How many members are there in this association?
2. How are the most of the executive committee or general representative body of the association selected?
3. How often do they meet?
4. Who participate in the meetings? (Any gender representation?)
5. How do you obtain benefits from the forest?
6. How are these benefits distributed?
7. How is the forest protected and who are responsible for its protection?
8. How are the guards selected to watch over the forest?

#### **THEME 3: RESOURCES MOBILIZATION AND ACCOUNT KEEPING**

1. What are the major financial sources of this forest association?
2. Is the funding adequate?
3. If the association does not receive any external funding how did it meet its financial needs?
4. What is the largest expenditure spent on?
5. Does any other association or external funding agency determine how the forest association spends its income?

#### **THEME 4: RULE MAKING**

1. Does the association have a written statement of its mission and objectives?
2. Who created and wrote most of the statements?
3. Are the rules in conformity with the REDD requirements?

#### **THEME 5: INTERNAL RELATIONS**

1. Do internal conflicts occur within the association?
2. What are the mechanisms for conflict resolution?
3. Who are the stakeholders with which the association relates in the context of REDD?

#### **THEME 6: LEGAL FRAMEWORK, LAND RIGHTS, OWNERSHIP AND USE RIGHTS**

1. Who owns the resources and lands in this forest?
2. How were these rights determined by law?
3. Does the law include sharing of management authority over some public forests with local communities?
4. What ways do you think the REDD project might affect land ownership and access rights?
5. Apart from timber and non-timber resources, do you use the forest for any cultural or religious functions?

#### **THEME 7: FINANCIAL INCENTIVES AND BENEFIT SHARING**

1. How are forest benefits shared among community members?

2. Do existing laws provide for sharing of benefits/income from forests with local communities?
3. What are the plans for the distribution of REDD benefits? Any established or proposed criteria for its distribution?
4. How can these benefits be distributed without doing harm to existing community arrangement?
5. Do you perceive any form of domination of community people by some powerful stakeholders?
6. What is your perception about the basis for conservation, e.g. utilitarian (ecosystem services) or intrinsic (moral)?
7. What are social safeguard initiatives against negative impacts on community livelihoods under REDD?

#### **THEME 8: STAKEHOLDER PARTICIPATION**

1. Is your community consulted in the REDD process?
2. If you are to sign a contract document for REDD what will be your conditions and preferences for compliance?
3. How long do you want to engage with REDD and why?
4. Do you feel your views will be incorporated in the REDD policy decision making?
5. Is the civil society involved in the consultation process? What is their view about REDD? Are those views representing community interests?
6. What is your perception about the possibility of conflicts over carbon rights?
7. Is there a possibility of a shift from community management to government control of forests under REDD?

#### **THEME 9: LAW ENFORCEMENT**

4. Are there serious conflicts between different communities and user groups in the context of forest access and use?
5. How are these conflicts resolved?
6. Will community members continue to have secured access to forest resources under REDD?
7. What is your view about the logging moratorium imposed by the state forestry commission?

#### **THEME 8 ECOSYSTEM VALUES**

1. What are the kinds of values do you derive from the forests? E.g. economic values (logging/ non-timber forest products, hunting, fishing, mining etc.), visual/aesthetic values, community values, recreational values, sense of place/ feeling at home, religious values/ sacred sites/traditional beliefs, equity values (intergenerational equity) etc.
2. How important are these values to your well-being? E.g. physical and health well-being, stress relief; experience pleasure from the natural beauty; gaining knowledge; connection with the ancestors/ spiritual world; cultural identity

3. Can you rank these values in their order of importance? (Ranking will be done on a separate sheet of paper)

Ekuri Community's protest letter

## **EKURI TRADITIONAL RULERS COUNCIL**

Ekuri Community,  
Akamkpa L.G.A.,  
Cross River State,  
Nigeria.  
E-mail: ekuri1@yahoo.com

7th February, 2016.

His Excellency,  
Governor of Cross River State,  
Governor's Office,  
Calabar.

Your Excellency Sir,

### **RE: NOTICE OF REVOCATION OF RIGHTS OF OCCUPANCY FOR PUBLIC PURPOSE LAND USE ACT 1978: OUR POSITION**

We the undersigned Chiefs, Elders, Women Leaders and Youth Leaders for and on behalf of Old Ekuri and New Ekuri villages, otherwise called Ekuri community (situated in the tropical forest) in Akamkpa Local Government Area in Cross River State of Nigeria were elated when you announced your signature projects on May 29, 2014 during your swearing-in. We had high hopes that your new administration will turn around the fortunes of Cross River State and Nigeria at large because of the signature projects. Late last year, when we learnt that the proposed Super Highway was to pass through our Ekuri community forest, we were full of joy as this road, would have helped to address centuries old problems of poverty due to poor road, high costs of transportation, ridiculous prices for our farm/forest products. We were carried away by your good gesture and goodwill and decided to support the Super Highway without consulting our ancestral deities on the likely implications of this road.

However, our attention has been drawn to a publication in Weekend Chronicle of January 22, 2016 signed and dated 13th January, 2016 by Elder (Dr.) John Inyang, Commissioner for Lands and Urban Development on the above subject matter. The Public Notice of Revocation stated that "all rights of occupancy existing or deemed to exist on all that piece of land or parcel of land lying and situate along the Super Highway from Esighi, Bakassi Local Government Area to Bekwarra Local Government Area of Cross River State of Nigeria covering a distance of 260km approximately and having an offset of two hundred meters (200m) on either side of the centre line of the road and further 10km after the span of the Super Highway, excluding Government Forest Reserves and public institutions are hereby revoked for overriding public purpose absolutely". We have studied the published Notice of

Iko-Esai's protest letter

**IKO ESAI TRADITIONAL RULERS COUNCIL**

Iko Esai Village  
Akamkpa L.G. A.  
Cross River State.

7<sup>th</sup> March, 2016.

His Excellency,  
Governor of Cross River State,  
Governor Office,  
Calabar.

Your Excellency Sir,

**RE: NOTICE OF REVOCATION OF RIGHT OF OCCUPANCY FOR PUBLIC  
PURPOSE LAND USE ACT 1978: OUR OPPOSITION**

We the undersigned Chiefs, Elders, Women and Youth Leaders for ourselves and on behalf of the people of Iko Esai Community situated in the tropical Forest in Akamkpa Local Government Area of Cross River State of Nigeria were very happy hearing you announce your signature projects during your swearing-in on the 29<sup>th</sup> May 2015. We envisaged that your administration will give Cross River State and Nigeria at large a new look.

Your choice of opening a super High way in Cross River State to pass through Iko Esai Community Forest gladdened our hearts bearing in mind the promise made by the president, His Excellency Muhamadu Buhari on the Occasion of ground Breaking Ceremony, that communities along the route shall be linked to the super high way. This statement filled our hearts with joy, as we thought that the road was going to alleviate us from age-long poverty caused by bad road, low prices of our farm produce, high cost of transportation etc.

From the publication in weekend Chronicle of January, 22<sup>nd</sup> 2016 dated 13<sup>th</sup> January, 2016 by Elder (Dr.) John Inyang, Commissioner for Lands and Urban Development on the above subject matter, the public Notice of Revocation stated that, All rights of Occupancy existing or deemed to exist on all that piece of land or parcel of land lying and situated along the super High way from Esighi, Bakassi

## Ekuri's letter to CERCOPAN

# EKURI COMMUNITY

C/o The Clan Head,  
Old Ekuri,  
Akamkpa LGA

4th July, 2014.

The Executive Director,  
Cercopan,  
4 Ishie Lane, HEPO Box 826,  
Calabar,  
Cross River State,  
Nigeria.

Dear Sir,

### RE: TOWARDS SUSTAINABLE LANDSCAPE MANAGEMENT IN THE IKO-AGOI LANDSCAPE PART 1: LAND COVER CHANGE

We the Chiefs and leaders on behalf of Old Ekuri and New Ekuri villages otherwise called the Ekuri community, joint owners of the famous Ekuri community forest and the largest communally best managed forest in Nigeria wish to acknowledge in our possession your above document authored by Chris Hamley, NTFP Coordinator dated January, 2013. We are aware that this malicious document has been circulated worldwide through the internet which is why we are reacting.

From the introduction of this document, the Iko-Agoi Landscape being your focus communities consist of Owai, Iko Esai and Agoi Ibami and the remote sensing activities was to enable you produce up to date an accurate land cover map for these communities which is a welcome development in view of decades long prevalence of deforestation and degradation in your beneficiary communities. However, we wonder why you suddenly changed focus by inclusion of Ekuri community forest. We have taken pains to read carefully this document/report and wish to react as follows:

- ↓ The inclusion of Ekuri community forest was illegal as there was never free prior and informed consent sought by you from us and obtained.
- ↓ Your activities into Ekuri community forest as in Figure 1 across Lokpoi River being the boundary, amounts to trespass and we view this severe crime against our territorial integrity which is wholly unacceptable.
- ↓ Figure 2: Village land use areas applied for the deforestation change assessment at the local scale in Agoi Ibami, Iko Esai, Owai, Iko Ekperem, Ifumkpa and Ekuri is fake and manipulated by you to dis-enfranchise us of our forestland in favour of Agoi Ibami and Iko Esai.
- ↓ Table 3 which approximates total of 19,539ha land in Ekuri, forest cover 19,160ha in 1986 and 17,125ha in 2000 is untrue and a fabrication by you to falsify a surveyed and accurate size of 33,600ha under our communal control and the purported percent change of 10.62% between 1986 - 2000 is a calculated attempt by you to portray us to the global community as being anti-conservation
- ↓ Figure 3 showing deforestation (1986 - 2000) across 6 villages, you cynically showed Ekuri community as having high deforestation dotted all over the falsified Ekuri community forest, a criminal intent to destroy our famed status of the best and largest communally managed forest in West Africa. Furthermore, this is to deny us the needed supports locally and internationally, weaken us and thereby making possible your annexation of part of our Ekuri community forest into Agoi and Iko Esai's.

## CERCOPAN's reply to Ekuri community



Ekuri Community  
C/o The Clan Head  
Old Ekuri  
Akampa LGA

February 7<sup>th</sup>, 2015

### Mission Statement

*To conserve Nigeria's primates through sustainable rainforest conservation, community partnerships, education, primate rehabilitation, and research.*

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### Trustees:

*Chief Asiam Asiam SAN*

*Ms Amy Baxter*

*Mr Robert Baxter*

*Mr Graham Brown*

*Mrs Claire Coulson*

*Mr Robert Warren*

### **RE: TOWARDS SUSTAINABLE LANDSCAPE MANAGEMENT IN THE IKO-AGO!** **LANDSCAPE PART 1: LAND COVER CHANGE**

Esteemed Chiefs and leaders of Ekuri community and conservation colleagues of Cross River State's forests, CERCOPAN management wishes to thank you for your letter received on Feb 5<sup>th</sup>, 2015 on the above subject.

Our congratulations to you on seeking out and carefully reading the subject article. It demonstrates an acute interest in the conservation of Cross River's community forests, and we honour you for this.

To allay your concerns, we wish to state categorically that the community forest boundaries are a matter between the communities themselves and the appropriate state and federal authorities. CERCOPAN is no arbiter in this matter, and indeed has no interest in this matter. The maps shown in the report do not in any manner represent a claim by any party on the land. As requested by you, we sincerely apologise for the misunderstandings that you were led to, and we thank you very much indeed for this opportunity to rectify the situation with all speed.

We remain ever cooperative with Ekuri community in the cause of environmental conservation, and wish to assure you of our kindest wishes for your success in continuing to manage your Community Forests in an excellent manner.

Sincerely,

Richard Mundy  
Acting Director  
CERCOPAN