

The Role of the Market in Financing for Nature: A Case Study of the Political Ecology of Zambia's Luangwa Valley

Kathleen Bergs

A thesis submitted to the University of Ottawa
in partial fulfillment of the requirements for the
Doctorate in Philosophy degree in International Development

School of International Development and Global Studies
Faculty of Social Sciences
University of Ottawa

© Kathleen Bergs, Ottawa, Canada, 2025



Unless otherwise indicated, this thesis is made available under the terms of a [Creative Commons Attribution-NonCommercial 4.0 International licence](https://creativecommons.org/licenses/by-nc/4.0/)

Preface

As per the University of Ottawa's Academic Regulation II-7 on Theses, I declare that I am the sole researcher for this thesis, responsible for all data collection, transcription, coding and summarization of findings. I am the sole author of all three journal articles as well as the finalised thesis manuscript. I am grateful for the support provided by a number of people along the way—and acknowledge them in the following section—but any mistakes are my own.

Prior to inception, this research project was approved by my thesis committee as well as by the University of Ottawa's Social Sciences and Humanities Research Ethics Board, File Number S-02-23-8757.

I was accepted as a Research Affiliate with the University of Zambia for the period of this research and received approval from their Humanities and Social Sciences Research Ethics Committee, Reference Number HSSREC-2023-MAR-018.

The reader may observe inconsistencies in the choice of spelling (American vs British English). This was unavoidable, as the articles which form part of this thesis had to comply with the guidelines of the respective journals to which they were submitted. In addition, figures and tables have been numbered chronologically throughout this thesis, so there will be a discrepancy with the numbering in the original journal articles.

Acknowledgements

A number of people ‘share the blame’ for my decision to pursue a late career PhD. These include Dyan Lee, who ‘planted the seed’ by asking a group of work colleagues what we would do with our lives if money was no object; Jamie McCallum, who encouraged me to go beyond trolling the web and reading thought-provoking articles (during COVID lockdown) and begin connecting with the authors; Lauchlan Munro, a professor at the University of Ottawa that I stumbled across and reached out to—and who encouraged me to apply (long before I considered myself at the application stage); and my irrepressible daughter Sarah, who persuaded me that I had nothing to lose by submitting an application, and who has remained a source of inspiration and, at times, technical expertise, ever since.

I am extremely grateful to the University of Ottawa’s School of International Development and Global Studies (SIDGS), who took a chance on me, offering an Admission Scholarship, which brought the possibility of attending into the realm of the possible; to dedicated individuals in Teaching & Learning Support Services, such as Michelle Laurence, and the Morisset Library, such as Majela Guzman, Mish Boutet and Patrick Labelle, who helped me bridge the 40-year gap since completing my Master’s degree, introducing me to the wonders of research databases, Zotero and Nvivo; and to the SIDGS administrative team, in particular Sylvie Thériault and Josée Carbonneau, who made navigating the minefields of uoZone service requests and Workday less daunting.

The International Development Graduate Student Association (GDVM) was to play an increasingly significant role in my academic journey, beginning with the first gathering in Major’s Hill Park, where I met Colleen Cranmer, a member of my cohort and a ‘study buddy extraordinaire’ who has remained a pillar of support from afar; Lina Aburas Awadalla, with her natural gift for networking, who introduced me to members of her cohort as well as to my ‘Balkan friends’, and Deborah Parkes, whose monthly calls keep me feeling connected. Heartfelt thanks to Cecilia, Michael, Kai and Lara Gibbons, who became my first ‘Canadian family’; and Mary Enns, now a dear friend, whose bustling, cheerful house I was privileged to call home.

I thank Professor Paul Haslam, who gave me the ‘tools’ to conduct academic research in DVM8108; Professor Chris Huggins, who provided the platform to critically interrogate community-based natural resource management in DVM6102; and to the members of my comprehensive examination committee, Professors Ramisch, Baranyi and McCarney, who were sufficiently impressed with my newly-acquired knowledge of the theories, policies and practices of international development to award me with a distinction, somewhat dislodging the ‘imposter syndrome’ threatening to take root.

My experience was enriched by working as a Teaching Assistant for seven different professors (including Akalewold Gebremeskel, whom I am proud to call a friend), exposing me to a variety of pedagogical approaches. I benefited greatly from the courses on university teaching, with dynamic and engaging direction from Professor Maryse Sullivan, Adrienne Annan and David MacDonald. My appointment as a part-time professor, teaching an undergraduate course on Current Theories of International Development, was one of the

highlights of my PhD journey. I was inspired by so many of my students, including Mitch Thompson, Tesnime Zribi, and Yicheng Liu, amongst many others.

With the guidance and support of my thesis committee—Professors Lauchlan Munro, Joshua Ramisch and Lavagnon Ika—I was able to utilize my approved thesis proposal to obtain ethical clearance as well as to become a research affiliate of the University of Zambia, under the local supervision of Dr Bridget Bwalya Umar. This opened the door for me to conduct field research in Zambia’s Luangwa Valley June – August 2023.

I am very grateful to the management and staff of BioCarbon Partners and Frankfurt Zoological Society for agreeing to participate in my research. In particular, I want to express my thanks to my hosts in the field, Mundia Akende in Nyimba (and to the governance structures and community members of Luembe chieftain with whom I engaged); Manson Libayi in Mfuwe (and to the traditional authorities and governance structures of Jumbe, Malama, Mnkhanya, Msoro and Nsefu chieftains); Bester Muzeya (and the traditional authority, governance structures and community members of Chifunda chieftain with whom I engaged) and Kelvin Bob (and the traditional authority, governance structures and community members of Mukungule chieftain with whom I engaged). Without your participation, this thesis would not exist. I hope the findings may be of some value in creating an enabling environment that will support the work you do more effectively and equitably. I thank too the members of government, civil society, donors and investors that willingly participated in this research project, rounding out my understanding of the complexities inherent in successful community-based natural resource management. Lastly, thanks to Dr Sue Snyman, for being a sounding board in the early stages of case study selection, and to Dr Philippa Kethro, who became a sounding board later during the writing stage. Your inputs are highly valued.

My supervisor, Professor Lauchlan Munro, has played such an enormous role throughout this entire journey, I scarcely know where to begin. Suffice it to say that his unwavering support from our very first conversation, which ultimately inspired me to apply, to our final efforts to tweak this thesis manuscript prior to submission, have kept me steadfastly on track. I have learned so much from him and pushed myself far beyond what I ever thought possible. I hope I have done you proud.

For the first three years, I took great joy in spending Christmas with my son Daniel, his partner Molly, and their son Sam at their home in Illinois. This year my visit coincided with a conference in Chicago, and the recent arrival of their second son Will. The warmth with which I am embraced lifts me up and gives me the strength to carry on.

Finally, thanks to Professors Melissa Marschke and Billy Mukamuri, who have joined my thesis committee as internal / external examiners. Your inputs into the finalization of this body of work are highly valued.

In dedication

I was truly blessed to have a ‘champion’ in my corner, who not only imagined that I might successfully complete a PhD but was entirely certain that I would, and believed wholeheartedly in the significance of my work. My husband Steve encouraged me daily, taking great interest in the minor ups and downs that a journey of this magnitude entails.

When trying to plan the logistics for my field work in Zambia's Luangwa Valley, it became clear that I would need a rugged 4x4 vehicle and an experienced driver if I was to have any chance of accessing the remote communities I hoped to visit. Who better, I thought, than Steve? (I learned he had secretly hoped I would ask but had not wanted to impose on my research plans.) We eventually decided the best option would be to dip into our savings to buy an overland vehicle, with this trip to be the first of many we would again take together.

While I juggled numerous tasks in Ottawa, Steve assumed responsibility for identifying just the right vehicle and kitting it out for our upcoming trek. We departed from our home in Stanford, in South Africa's Western Cape, on June 1st and spent the next 10 weeks travelling over 10,000km on my 'research expedition' (see Figure 6). Steve drove every kilometre of the way, building the fire each evening while I wrote up the transcripts from the days' engagements. Every day was an adventure, as we forded 13 rivers, explored remarkable landscapes—and had the time of our lives!

For four years, Steve had been in remission from Stage IV cancer. Eventually the situation changed though, so I returned home to South Africa in the spring of 2024 to support him through chemotherapy. His system did not respond to the treatment and, in the early hours of November 9th, he lost his battle with cancer. Even as he struggled with fatigue and nausea, he wondered aloud what he would wear to my thesis defence. I would not have completed this research without him, and I dedicate my work to his memory and honour.

Figure 1: My 'research assistant'



Image author's own

Abstract

The world faces interconnected crises of biodiversity loss, climate change, and inequality. Academics and practitioners collectively call for development which is equitable, nature-positive and carbon neutral. The integration of these crises is particularly acute in sub-Saharan Africa, where 89% of the poor live in rural areas, highly dependent upon natural resources for their survival. Financing for these interconnected crises is woefully inadequate, creating what has become known as the ‘conservation finance gap’.

While public finance has been the largest source of funds to address these challenges globally, recent shifts—such as the sudden closure of USAID—have caused a re-think of this modality. This research is thus timely and relevant, looking at the potential of the private sector (the ‘market’) to contribute to the financing of global public goods, such as climate and biodiversity.

Through comparative case study research in Zambia’s Luangwa Valley, I question whether there is greater evidence of sustainability and / or ecological justice in the donor-dependent North Luangwa landscape than in South Luangwa, where nature has been ‘commodified’ for profit (for example, through tourism, hunting or carbon credits). My cases include i) Luangwa Community Forests Project, Africa’s largest forest carbon project, protecting over one million hectares of forest and benefitting over two hundred thousand community members; and ii) North Luangwa Conservation Programme, which has successfully leveraged private philanthropy to unlock long-term donor support.

My research revealed an unexpected finding, as I was unable to uncover greater evidence of ecological justice whether the form of finance was aid-based or commercial. My findings reveal the importance of good governance and strong institutions—bolstered by robust public-private partnerships—in the effort to combat climate change, stem biodiversity loss and reduce poverty, irrespective of the form of finance. Another key finding was the unanimity with which communities, traditional authorities, government and donors seem to have embraced the need to develop sustainable revenue streams.

Through a series of journal articles, I address three elements of my over-arching question:

The article “The Global Green Policy Assemblage: Forging alignment in Zambia’s Luangwa Valley” (submitted for review) looks at how the Luangwa Community Forests Project (LCFP) creates value—and for whom—considering power dynamics amongst the actors.

The article “The Role of the Voluntary Carbon Market in Addressing Global Social Challenges: Ecological (in)justice in Africa’s largest REDD+ project?”, published in the *Global Social Challenges Journal*, provides a set of recommendations for policymakers to improve equity in the LCFP.

The article “Financing Global Public Goods: ‘Green capitalism’ vs foreign aid in Zambia’s Luangwa Valley” (submitted for review) supports the rationale for private sector financing of global public goods, as I was unable to find greater evidence of ecological justice in the donor-dependent North Luangwa landscape than in South Luangwa, where nature has been ‘commodified’ for profit. Elite capture of benefits hampers the sustainable and equitable financing of global public goods—whether the source of finance is commercial or aid-based.

Table of Contents

The Role of the Market in Financing for Nature: A Case Study of the Political Ecology of Zambia's Luangwa Valley.....	i
Preface.....	ii
Acknowledgements.....	iii
Abstract.....	vi
Table of Contents	vii
List of Figures / Tables.....	x
Summary of Acronyms	xi
Definition of Key Terms	xii
Chapter 1: Introduction.....	1
Topic and Significance.....	1
Research Philosophy.....	3
Research Design.....	3
Research Gap	3
Goals – Research Aims and Objectives	3
Theoretical Framework – Political Ecology	3
The Research Questions – Seeking Explanations.....	4
The Methodology – Comparative Case Studies.....	5
Validity – Closeness of a Finding to Reality.....	6
Chapter 2: Literature Review.....	8
Accumulation by dispossession - the commodification of nature	8
Commodification of nature – the critics	9
Commodification of nature – the proponents	11
The case for the Voluntary Carbon Market.....	14
History of offsetting.....	14
The rise of REDD+	14
The Voluntary Carbon Market - valuing benefits beyond carbon?	16
The road from good governance to ecological justice	17
The role of institutions.....	17
From good to transformative governance	19
Ecological justice	21
An analysis of power dynamics - duality of agency and structure	23

‘Governmentality’ and ‘Environmentality’	23
Managing the assemblage	25
Power resources and ‘weapons of the weak’	25
Chapter 3: Theoretical, Conceptual and Methodological Frameworks	27
Theoretical framework.....	27
Conceptual framework.....	28
Case selection.....	29
Luangwa Community Forests Project (LCFP)	29
North Luangwa Conservation Programme (NLCP)	29
Mixed methods.....	32
Desk research.....	33
Fieldwork.....	33
Survey data.....	37
Mapping the actors: ‘Chains of explanation’	37
Data Analysis	40
Limitations	41
Chapter 4: Findings.....	43
The Real	43
Zambia: A study in contrasts.....	43
Early experiments in community-based natural resource management	44
The policy environment	45
The Actual	47
LCFP Impacts	47
NLCP Impacts.....	49
The Empirical.....	50
LCFP Observations	50
NLCP Observations	53
Chapter 5: Article #1	57
The Role of the Voluntary Carbon Market in Addressing Global Social Challenges: Ecological (in)justice in Africa’s largest REDD+ project?.....	57
Abstract.....	57
Introduction.....	57
Literature Review.....	58
Context and Methods	66
Findings.....	71

Discussion	77
Recommendations / Conclusion	78
Chapter 6: Article #2	80
The ‘Green Global Policy Assemblage’: Forging alignment in Zambia’s Luangwa Community Forests Project.....	80
Abstract	80
Introduction.....	80
Literature Review.....	82
Methodology and Findings	85
Discussion	92
Conclusion	94
Chapter 7: Article #3	96
Financing Global Public Goods: ‘Green capitalism’ vs foreign aid in Zambia’s Luangwa Valley	96
Abstract	96
Introduction.....	96
Subject and Methods.....	98
Results.....	103
Discussion	106
Conclusion	108
Chapter 8: Conclusion.....	109
Discussion	109
Strengths and Limitations	119
Implications for Theory, Policy and Practice.....	122
References.....	126
Annexures	145
Annexure A: Research affiliation.....	145
Annexure B: Ethics clearance – University of Ottawa	147
Annexure C: Ethics clearance – University of Zambia	149
Annexure D: Participant information sheet	152
Annexure E: Consent form – Focus group discussions	153
Annexure F: Focus group discussion guide	154
Annexure G: Consent form – Interviews	155
Annexure H: Interview guide.....	156

List of Figures / Tables

Figure 1: My ‘research assistant’	v
Figure 2: Reviewing the day’s transcripts.....	7
Figure 3: Conceptual model for CBNRM.....	28
Figure 4: Luangwa Valley, encompassing North and South Luangwa National Parks.....	31
Figure 5: Overview of the North Luangwa landscape	32
Figure 6: ‘Research expedition’ map	34
Figure 7: Governance level and scale	38
Figure 8: Into the field	42
Figure 9: Original theory of change: REDD+.....	61
Figure 10: Average carbon credit price per tonne of carbon emissions	64
Figure 11: The LCFP logic model	69
Figure 12: The extent of the Luangwa Community Forests Project.....	70
Figure 13: Net Greenhouse Gas Emissions or Removals (GERs) by period.....	76
Figure 14: Map – Luangwa Community Forests Project and Lower Zambezi REDD+	86
Figure 15: Spectrum of stakeholders involved in LCFP.....	88
Figure 16: Map of the study area	100
Figure 17: Summary of findings	102
Table 1: Engagement summary.....	35
Table 2: Zambia’s institutional framework	46
Table 3: Strengths and weaknesses of LCFP	51
Table 4: Perceived threats to LCFP	53
Table 5: Strengths, weaknesses, opportunities and threats of NLCP.....	56
Table 6: Empirical findings.....	75
Table 7: Results summary	115

Summary of Acronyms

ADMADE	Administrative Management Design for Game Management Areas
BCP	BioCarbon Partners
BSM	Benefit Sharing Mechanism
CAD	Canadian Dollar
CBNRM	Community-based Natural Resource Management
CFMG	Community Forest Management Group
CO ₂	Carbon Dioxide
CoCoBa	Community Conservation Bank
COP	Conference of the Parties
CRB	Community Resources Board
EUR	Euro
FAO	Food and Agriculture Organization
FZS	Frankfurt Zoological Society
GHG	Greenhouse Gas
GER	Greenhouse Gas Emissions or Removals
GMA	Game Management Area
HA	Hectare
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
LCFP	Luangwa Community Forests Project
LIRDP	Luangwa Integrated Resources and Development Project
NCQG	New Collective Quantified Goal
NGO	Non-governmental Organization
NLCP	North Luangwa Conservation Programme
NORAD	Norwegian Agency for Development Cooperation
PAI	Project Activity Instance
PES	Payments for Ecosystem Services
REDD	Reducing Emissions from Deforestation and Forest Degradation
SWOT	Strengths, Weaknesses, Opportunities & Threats
TI	Transparency International
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USD	United States Dollar
VAG	Village Action Group
VCM	Voluntary Carbon Market
VCS	Verified Carbon Standard
WASH	Water, Sanitation and Hygiene

Definition of Key Terms

BSM	Before a Community Forest Management Group assigns the right to sell carbon credits on their behalf to a third party, a benefit sharing mechanism must be agreed upon. According to Zambia’s Carbon Stock Management Regulations, this agreement must be derived from the gross revenue of carbon credits sold.
CBNRM	Community-based Natural Resource Management combines the twin goals of environmental conservation and rural development, with decentralized institutional arrangements to facilitate both aims. Practical challenges arise in its implementation, such as struggles for political authority and control over resources.
CFMG	A group of persons living in the vicinity of a forest may apply to Zambia’s Forestry Director for recognition as a Community Forest Management Group with the consent of the Chief of the area in which the forest is located. Under the 2015 Forests Act, Community Resources Boards are allowed to register as CFMGs (see below).
CRB	A community residing in a GMA may apply to Zambia’s Minister of Tourism for registration of a Community Resources Board , with the local chief as a patron of the board. Their function is to manage the natural resources falling under their jurisdiction and to administer any funds generated by these resources.
GMA	An area of land in Zambia declared a Game Management Area allows human settlement and the sustainable utilization of wildlife. Residents in a GMA must comply with the general management plan for the area as per the Wildlife Act of 2015.
PES	Payments for Ecosystem Services are financial incentives offered to farmers or landowners for managing their lands to provide ecological benefits. These include carbon sequestration (through forest management), watershed protection, biodiversity conservation and the maintenance of landscape beauty (for tourism or recreation).
REDD	Reducing Emissions from Deforestation and Forest Degradation is a framework of policies and financial incentives to support developing countries to reduce emissions from deforestation and forest degradation, promoting sustainable forest management. It was developed under the UN Framework Convention for Climate Change and integrated into the Paris Agreement (Article 5.2).
VAG	In Zambia a Village Action Group is a local governance structure composed of elected representatives that involves residents in development decisions. VAGs are the foundational bodies for larger representative structures, such as CRBs.
VCM	The Voluntary Carbon Market is a decentralised market where private actors voluntarily buy and sell carbon credits. Each carbon credit represents one metric tonne of carbon dioxide reduced or removed from the atmosphere.
VCS	The Verified Carbon Standard program is the world’s most widely used GHG crediting program. It aims to drive finance towards activities that reduce and remove emissions, improve livelihoods and protect nature.

Chapter 1: Introduction

Topic and Significance

The challenges in financing global public goods – such as climate and biodiversity – are not new (Baralon et al, 2021; Deutz et al, 2020; Rendlen & Uzsoki, 2021; Tobin de la Puente et al., 2021) but they are increasing in scope and magnitude. By way of example, wealthy countries have consistently failed to meet their commitment to provide \$100 billion of new and additional climate finance annually (Richards et al., 2023; UNFCCC, 2010). Alarmingly, a recent study undertaken by CARE revealed that little of the money that was forthcoming was actually ‘new’ or ‘additional’ (Hattle & Nordbo, 2023). Their analysis of all public climate finance reported from 2011 - 2020 showed that most of this funding was redirected development aid (ibid). Redirecting development aid undermines resilience to climate change and increases vulnerability for a community at any given level of climate shocks (IPCC, 2023). Although COP29 (the 29th annual UN Climate Change Conference) ended with an agreement to triple this amount by 2035 ("COP29...Agrees to Triple Finance", 2024), US President Donald Trump’s recent withdrawal from the Paris Agreement and his freezing of USAID funding (Munro, 2025) undermine the potential to achieve this commitment. Trump’s actions also highlight the implications of the worldwide rise in right-wing populist governments. Their focus on the national—at the expense of the global—calls for a fresh look at the potential of the market to contribute to the financing of global public goods.

According to neo-classical economics, as the private sector (the ‘market’) expects a return on their investment, the incentive to finance global public goods is lacking, as they are available to all (non-excludable) and can be enjoyed by some without diminishing their value to others (non-rivalrous) (Chin, 2021). In addition, for many global public goods—such as the mitigation of climate change—the benefits are realized in the future, while the costs are incurred today, what Carney (2021) refers to as the ‘Tragedy of the Horizon’. Yet, it is argued that we won’t solve climate change without the private sector as, not only is the money required simply too large (with public funds falling far short), but we also need their insights and innovation (ibid)—generating a need for incentives. Olmsted et al. (2021) argue that excluding the private sector excludes the potential to reduce the drivers of biodiversity loss. Nonetheless, the role of the market in financing for nature remains highly contentious and my Literature Review explores these debates.

A UNEP report on the *State of Finance for Nature* (2023) revealed that USD 7 trillion flows into nature-negative activities annually, defined as activities that could potentially have a negative effect on nature (Deutz et al., 2020). Of that, 69% goes to the energy sector, 20% to agriculture and the balance to forestry and fisheries. By way of comparison, only 3% of that amount—or USD 200 billion—flows into nature-positive activities (i.e., nature-based solutions) annually (ibid), described by Büscher and Fletcher (2020, p.142) as “mopping the floors with the taps wide open”.

UNEP (2023) recommends a three-pronged response, firstly reducing nature-negative financial flows (‘greening finance’) and scaling investment into nature-based solutions

(‘financing green’). Political will is required to realign these financial flows—with government called upon to incentivize the positive and regulate the negative (ibid). That political will has been called into question though e.g., in the hosting of the COP28 summit in 2023 by the United Arab Emirates, one of the world’s largest fossil fuel producers, with critics arguing that they used the forum as a platform to seal new oil deals (Katz-Rosene, 2023), followed by COP29 in Baku, Azerbaijan, another major oil producer, triggering similar concerns (Besliu, 2024). The lack of political will has been emphasized by Trump’s popular catchphrase ‘drill baby drill’, included in his 2025 inaugural address.

The third prong focuses on the ‘just transition’ – the need to balance sustainable development with ecological justice (UNEP, 2023). The report acknowledges that Indigenous peoples manage half the world’s lands, protect 80% of its biodiversity, but largely due to lack of land tenure, receive miniscule amounts of finance (e.g., less than one percent of climate finance).

The Kigali Call to Action¹ (APAC, 2022) highlights the insufficiency of funds for Africa’s protected and conserved areas, vital to realizing Africa’s growth potential and the empowerment of its people. The Call notes though that “it is not just the volume of funding that matters, but the way it is used to address the most important threats and weaknesses” (ibid, p. 3-4). The call for ecologically and socially just transitions in Africa and the wider developing world is growing louder and receiving global attention, as evidenced by deliberations at the recently held Africa Climate Summit² in Addis Ababa, Ethiopia in July 2025. The summit provided a platform for African leaders to address global social challenges of climate change, biodiversity loss and inequality in order to advance Africa’s climate agenda and sustainable development priorities.

While the financing need is greatest in low income and emerging economies, the *State of Finance for Nature* report notes that, in countries where opportunities are primarily protection-related, the financing need is relatively low (as is the case in Africa). In countries where the focus is on restoration activities, such as Asia, the Middle East and Latin America, the financing need is much greater (UNEP, 2023, p.23). The report thus seems to imply a ‘window of opportunity’ to advance the objectives of the Rio conventions³ most efficiently by investing in Africa’s protected areas and avoiding deforestation.

Recognizing the asymmetry between the causes and consequences of climate change, with those countries least responsible the hardest hit, the need for redress has been acknowledged. For example, the sheer existence of the Loss and Damage Fund is recognition of this asymmetry (Chandrasekhar et al., 2023), although the funds pledged at COP28 of \$770.6 million (little of which was new or additional) amount to less than 2% of the amount needed (Lakhani, 2023). Research that addresses these overlapping crises of climate change, biodiversity loss and ecological injustice is thus timely and relevant.

¹ The Call to Action was an output of the African Protected Areas Congress (APAC), the first continent-wide gathering of African stakeholders to discuss the role of protected areas in conserving natural and cultural heritage, delivering ecosystem services and promoting sustainable development <https://apacongress.africa/>.

² Second Africa Climate Summit (ACS2) <https://africaclimatesummit2.et/about/>

³ Rio Conventions (outputs of the 1992 Rio Earth Summit) - UN Framework Convention on Climate Change (UNFCCC), Convention on Biodiversity (CBD) and UN Convention to Combat Desertification (UCCD)

Research Philosophy

Based on a philosophy of critical realism, I utilize multiple data sources to ‘form a bridge’ between our epistemological knowledge and ontological reality (Vincent & O’Mahoney, 2018). Adopting this philosophy enabled me to bridge social constructions, e.g., of nature-based solutions, with empirical observations obtained in the field (ibid). Understanding that observations are oftentimes merely the ‘tip of the iceberg’, the application of this philosophy to my research provided for a rich analytic, also incorporating the unseen (contextual factors and verified occurrences) obtained through desk research (Bhaskar, 1998).

Research Design

Research Gap

Engaging in the fierce debates surrounding the commodification of nature, I provide a critical contribution to the literature by providing empirical evidence on the strengths and weaknesses of a liberal approach to financing the dual imperatives of conservation and development (King et al., 1994). The thesis also answers the call for more research to explain how and why community-led conservation could help protect biodiversity in socially sustainable and ecologically just ways (Kopnina, 2019), addressing the role of institutions in creating an enabling environment.

Goals – Research Aims and Objectives

This research highlights the tensions in the use of market mechanisms to finance global public goods, such as climate and biodiversity. The aim is to interrogate whether market mechanisms (specifically Payments for Ecosystem Services, such as carbon finance) can deliver not only sustainability but also ecological justice, which seeks to balance intrinsic values of nature with social equity (Kopnina, 2019). In the ‘beyond aid’ era, complements to Official Development Assistance and philanthropy are essential to deliver the sustainable financing of global public goods (Janus et al., 2015). Not only are the amounts of aid and philanthropy insufficient (Hattle & Nordbo, 2023; UNEP, 2023), but traditional channels and modes of aid delivery are often ill-suited to meeting needs which are longer term in nature, with results difficult to measure.

Through a comparative study of two cases in Zambia’s Luangwa Valley, I analyze a variety of approaches to financing for nature. My objective is to reveal the strengths, weaknesses, opportunities and threats to sustainability from the perspectives of a diverse array of stakeholders.

Theoretical Framework – Political Ecology

Utilizing a theoretical framework of political ecology, this research examines the power dynamic in financing for nature (Benjaminsen & Svarstad, 2021). ‘Political’ reflects the field’s focus on various forms of power, while ‘ecology’ refers to its broad emphasis on

environmental issues (Benjaminsen & Svarstad, 2021). It is the ideal framework within which to situate my research, as it addresses processes through which national governments, typically in the Global South, are influenced to restrict access to land and / or natural resources to protect the environment or the climate (ibid). It also addresses the relationship between theory and evidence, synthesizing normative and empirical analysis, comparing what should (or could) be with what it is e.g., the extent to which the benefits received by communities for conserving natural resources are commensurate with (opportunity) costs.

This theoretical framework provides a structure for the literature review, including i) an analysis of the arguments of the critics and the proponents of the ‘commodification of nature’; ii) a discussion of the highly contentious Voluntary Carbon Market; iii) a review of the journey from ‘good governance’ to ecological justice in community-based natural resource management; and iv) an analysis of power dynamics between the actors involved and the ‘weapons’ employed by the ‘weak’ to mitigate a power asymmetry.

The literature review reveals a high degree of skepticism in the potential of the market to address societal needs, with transparency noted as a critical factor for success (Davis et al., 2020; Franks et al., 2018; Korwin, 2016). My research delves into the fierce debates surrounding this potential, providing empirical evidence on the strengths and weaknesses of a liberal approach to financing the dual imperatives of conservation and development. In this way, I am able to make a critical contribution to this ongoing controversy in the literature (King et al., 1994).

Based on my review of the literature, I hypothesize that models of development that align natural, social, and economic benefits are not currently widespread, largely because of a power asymmetry that undermines the agency of communities, which is exacerbated by weak institutions.

While political ecology applies a critical approach to the analysis of power, it also provides constructive suggestions to further ecological justice—thus encompassing not only a ‘hatchet’ but also a ‘seed’ (Alhojärvi & Sirviö, 2018; Benjaminsen & Svarstad, 2021; Robbins, 2012). In that vein, my research identifies systemic weaknesses and threats to sustainability but also suggests ways in which the market could contribute to addressing global social challenges of climate change, biodiversity loss and ecological justice, with implications for theory, policy and practice.

The Research Questions – Seeking Explanations

- How does the commodification of nature in Zambia’s Luangwa Valley create value – and for whom?
- In what ways does the institutional environment promote (in)justice in community-based natural resource management?
- What is the rationale for private sector financing of global public goods, such as climate and biodiversity?

Specifically, my research questions address the following gaps in the literature:

Question 1 invites an analysis of the value creation process in Payments for Ecosystem Services (PES) schemes in order to provide empirical evidence on this contentious issue

(responding inter alia to Fletcher's [2010] call for 'empirical flesh on the theoretical skeleton' of 'neoliberal environmentality'). I interrogate who the winners are in this system of value creation, as discussed in the fourth and final section of the Literature Review more generally and in the second section with a specific focus on one mechanism, namely REDD+ and the Voluntary Carbon Market.

Question 2 seeks to fill the gap in examples of an equitable approach to conservation, as discussed in the third section of the Literature Review. Franks et al (2018) note that, while the Convention on Biodiversity Aichi Target 11 calls for 'effective and equitably managed Protected Areas', much has been written on effective—but very little on equitable—management. The authors find that there are few examples of an equitable approach to conservation, with equity linked almost entirely to the quality of governance.

Question 3 addresses the need for empirical evidence in the debate regarding the suitability of private sector financing for attaining social / environmental outcomes, as discussed in the first section of the Literature Review.

A focus on 'how' or 'why' questions supports a case study methodology that is explanatory—as opposed to exploratory or purely descriptive (Yin, 2018). These questions are addressed in a series of articles, to be found in the Results section of the thesis:

The role of the Voluntary Carbon Market in addressing global social challenges: Ecological (in)justice in Africa's largest REDD+ project? 2025, *Global Social Challenges Journal*, <https://doi.org/10.1332/27523349Y2025D000000049>.

The 'Green Global Policy Assemblage': Forging alignment in Zambia's Luangwa Community Forests Project, submitted for review.

Financing Global Public Goods: 'Green capitalism' vs foreign aid in Zambia's Luangwa Valley, submitted for review.

The Methodology – Comparative Case Studies

I use theoretical replication to determine whether the form of finance matters, questioning whether there is greater evidence of sustainability and / or ecological justice in the South Luangwa landscape, where nature has been 'commodified', than in the donor-dependent North Luangwa landscape. My cases include i) Luangwa Community Forests Project (originating in the South Luangwa landscape), Africa's largest REDD+ project, protecting over one million hectares of forest and benefitting over two hundred thousand community members; and ii) North Luangwa Conservation Programme, a 'Legacy Landscape' which has successfully leveraged private philanthropy to unlock long-term multilateral support.

Based on a philosophy of critical realism, I utilize multiple data sources in order to strengthen the explanatory potential of the research (Vincent & O'Mahoney, 2018).

I conducted desk research to develop an understanding of the real (mechanisms or structures that explain the 'why' behind an occurrence) (Bhaskar, 1998). These include an overview of the socio-economic situation in Zambia, encompassing an understanding of the threats posed by deforestation and climate change. Early Zambian experiments in community-based

natural resource management (CBNRM) were studied to provide an historical background and an awareness of lessons learned. The fragmented policy environment was assessed and a review of the literature highlighting the challenges posed by this fragmentation undertaken. Finally, more recent policies, including the 2024 national policy on CBNRM, were reviewed to ascertain the degree to which these may address the challenges noted above.

I relied on project documents, triangulated with third party verification, to identify the actual (the occurrence) (Bhaskar, 1998). This data served to confirm the existence (or not) of forest protection, the issuance (or not) of carbon credits and the distribution (or not) of revenue from the sale of said credits in the first case; as well as the existence of measurable benefits to conservation and communities in the second case.

I utilized mixed methods during my field research to develop an understanding of the empirical (the observed) (Bhaskar, 1998). These included i) 15 focus group discussions with local community governance structures, including Community Forest Management Groups, Community Resources Boards and Village Action Groups ii) 57 semi-structured interviews with key informants (including project management and staff, government officials, traditional authorities, donors / investors, as well as local stakeholders identified through ‘snowball sampling’, e.g., village headwoman, local NGOs, and tourism industry representatives); iii) participant observation, including 14 specific events that provided an opportunity to gain unique insights. These included inter alia a village general meeting called in order for grievances to be formally aired, five training sessions on community-based natural resource governance, practical training on early burning and a weekly meeting of a women’s village banking group; and iv) triangulation with quantitative data obtained through a survey conducted by March Associates in June – July 2022 (interviewing 400 households in the project area to assess community perceptions and household income from participation in the Luangwa Community Forests Project) as well as a survey conducted by Chidakel et al. (2021) to determine park perceptions amongst 419 households living adjacent to South Luangwa National Park.

Validity – Closeness of a Finding to Reality

My ability to conduct an informed analysis of the data was enhanced by the 36 years I have spent living and working in southern Africa. This experience provided me with a solid understanding of the context for these case studies, a critical enabler for informed analysis. Nonetheless I am mindful of my positionality as a person born and educated in the Global North. To a degree, this makes me an ‘inside outsider’, as a scholar researching their own field, although from a theoretical rather than a practical perspective, with a concomitant need for reflexivity.

Construct validity was strengthened by triangulation of data from multiple sources, as outlined above (Yin, 2018). In addition, I seized the opportunity to submit a case study on Luangwa Community Forests Project to African Leadership University as part of their *Wildlife Economy Lessons Learned Series*. This case study was reviewed by key informants before being submitted for publication, a tactic suggested to enhance construct validity (Bergs, 2024; Yin, 2018).

Internal validity was enhanced by applying an organized and structured approach to data analysis, facilitated by the utilization of Nvivo software. The coding of all transcripts enabled an identification of patterns and trends (Jackson & Bazeley, 2019).

External validity, in other words, the ability to generalize findings, was fostered through the replication logic that was a feature of my comparative case study. My case studies provided an unexpected finding, namely significant areas of convergence despite the different funding models, with communities paradoxically clamouring to participate in LCFP, in spite of shortcomings identified (elaborated upon more fully in Article #3 in Section 5). This logic strengthens the claim to external validity (Yin, 2018).

Importantly, my field work was undertaken as a research affiliate of the University of Zambia, under the supervision of Dr. Bridget Bwalya Umar⁴ (see Annexure A). This affiliation enhances the potential for local relevance and perspective, as well as the opportunity for research findings to be taken forward on a longitudinal basis and for questions uncovered for further research to be explored. Together with adherence to a detailed case study protocol and the maintenance of a chain of evidence, this enhances *reliability*, maximizing the potential for replication (Yin, 2018).

Figure 2: Reviewing the day's transcripts

Image author's own



⁴ Dr Bridget Bwalya Umar <https://www.unza.zm/people/school-of-natural-sciences/departments-of-geography-and-environmental-studies/bridget-bwalya>

Chapter 2: Literature Review

Political ecology, with its focus on the power dynamic inherent in community-based natural resource management (CBNRM), provides an ideal theoretical framework for structuring my literature review. This review focuses on the role of the market in financing for nature, with an analysis of the dynamics of power and its impact on environmental governance forming a thread that weaves its way through my review. Through this review, I seek to gain an understanding of who it is that is benefiting from the ‘commodification’ of nature.

The Literature Review starts with a discussion of the processes whereby poor, vulnerable people have been and continue to be dispossessed of access to land and/or natural resources, often in the name of ‘development’. This is followed by an analysis of the debate that has subsequently ensued regarding the relative merits of ‘putting a price tag on nature’ i.e., ‘commodifying’ it. My research does not shy away from this tension, highlighting the fierce debates surrounding the commodification of nature. My field research provides empirical evidence on the strengths and weaknesses of market mechanisms in financing the dual imperatives of conservation and development.

I follow this with an examination of one of the most contentious commodities—namely forest carbon—and an in-depth review of the Voluntary Carbon Market (VCM). The controversy is fueled by ‘commodity fetishism’ – the information gap between production (in this case, forest conservation) and consumption (of carbon credits), with the gap widening the more global the commodity becomes (Benjaminsen & Svarstad, 2021). Adopting a philosophy of critical realism, I am able to bridge social constructions of the VCM revealed through this review with empirical observations obtained in the field (Vincent & O’Mahoney, 2018).

The third section of the literature review homes in on the role of institutions, tracing the trajectory from ‘good governance’ to ecological justice. An understanding of the plurality of the dimensions of ecological justice provides an essential frame through which to interpret empirical observations of (in)justice noted during my field work.

Finally, I analyze the power dynamic inherent in CBNRM, moving from Foucault's (2008) concept of ‘governmentality’ to Agrawal's (2005) notion of ‘environmentality’ and Fletcher's (2010) ‘multiple environmentalities’. The role of the assemblage in the making of ‘environmental subjects’ is explored (Li, 2007a). Finally, my research again synthesizes normative understandings of structures of power with empirical observations of the ‘weapons’ utilized by the ‘weak’ (Scott, 1985).

Accumulation by dispossession - the commodification of nature

Although political ecology is a relatively ‘young’ field, emerging in the 1980s, its roots in political economy can be traced back to the 1860s—when Marx (1867), in his book *Capital*, described the process of privatization referred to as the Enclosure Movement that had occurred over the previous centuries in England (Benjaminsen & Svarstad, 2021). During the period from 1750 – 1850 approximately 4,000 individual enclosures were enacted in Parliament, whereby land that had formerly been owned in common by all members of a

village, or at least available to the public for grazing animals and growing food, was converted to privately owned land, usually enclosed by walls, fences or hedges. As a result, many smallholders lost access to land and became laborers in the emerging textile factories in Manchester and Liverpool (Mingay, as cited in Benjaminsen & Svarstad, 2021, p.32). Marx referred to this process as ‘die sogenannte ursprüngliche Akkumulation’—literally ‘the so-called original accumulation’—translated after his death as ‘primitive accumulation’, which he saw as a key feature of capitalism (Angus, 2023; Marx, 1867).

Although primitive accumulation may be seen as a relic of a distant past, Harvey argues that there is nothing ‘primitive’ about it. The combination of the dispossession of vulnerable people and the accumulation of capital is an ongoing process around the world. He coined the term ‘accumulation by dispossession’ to describe this phenomenon, which gained traction during the colonial era and has arguably increased in pace with economic globalization (Harvey, 2003).

Benjaminsen and Svarstad (2021) argue that states, private business interests and even large conservation organizations accumulate capital, while local communities are denied access to land or natural resources. In the process, land and wildlife are valued, while the people who historically occupied these spaces are seen to be ‘in the way’ (Benjaminsen & Svarstad, 2021, p.32). Li (2010) develops this tension further, arguing that this dispossession is detached from any prospect of labor absorption. These places may hold potential for the large-scale production of food crops or biofuel or for the development of ecotourism, but local people are in the way of such investments. In contrast to the double process of enclosures and industrialization in England, local peoples’ labor in these instances is largely superfluous (ibid).

The literature on this dispossession, often referred to as ‘land grabbing’ or ‘green grabbing’, is abundant (e.g., Alhassan et al., 2018; Fairhead et al., 2012; Oberlack et al., 2016) but even when local communities are not dispossessed of their land in the name of conservation, the restructuring of rules and authority in the access, use and management of resources can have profoundly alienating effects (Barrett et al., 2013; Büscher, 2014; Büscher & Fletcher, 2019; Fairhead et al., 2012; McMichael, 2012). Barrett et al. flag the significant shift in ideology, with nature originally conceptualized as a sphere requiring protection from economic forces, while today ironically its commodification is seen as essential to sustaining its existence (2013, p.338).

Commodification of nature – the critics

The 1992 Rio Earth Summit opened the door to market-based approaches to nature conservation, such as debt-for-nature swaps, and promoted the concept of ‘polluter pays’. It also laid the foundation for Payment for Ecosystem Services (PES) schemes, in which the beneficiaries of ecosystem services, such as clean water or carbon sequestration, would compensate those who maintained or enhanced those services (UN, 1992). These mechanisms sparked controversy as to the ethics and the efficacy of this approach.

Referred to as ‘green capitalism’, Smith (2007) argues that, rather than a means of ‘softening’ the environmental impacts of the capitalist exploitation of nature, it is in fact a major strategy for continued ecological commodification, marketization and

financialization. While the original motivation behind PES schemes was to garner political support for conservation by demonstrating the economic value thereof, critics argue that remuneration will not necessarily ensure provision, creating what Büscher (2014) refers to as ‘fictional conservation’, simply circulating capital in new economic systems. The central use value – for instance of a conserved forest or a restored wetland – becomes its ability to garner exchange value under the new conditions of created scarcity (Smith, 2007). Fairhead et al. (2012, p.244) argue that “once there are markets for nature’s assets, so nature’s assets can be stripped”.

Buller (2022, p.242) weighs in on the debate as to whether nature can be conserved by giving it a price. She defines ‘natural capital’ as the monetary value of capital stocks, from mineral resources to water, soil and species; and ‘ecosystem services’ as the services the environment provides to humanity, although viewed through the narrow prism of their role in supporting the economy in a way that can be formally quantified and priced. She concedes that natural capital accounting systems can, in theory, allow for better stewardship, internalizing the cost of degradation. She contends thought that, in seeking to ‘internalize’ carbon emissions currently unpriced by the market, “carbon markets are generating a cascade of new externalities, through the appropriation of land, nature and livelihoods” (Buller, 2022, p.247).

Ramutsindela et al. (2022) believe that we can best understand the relationship between capitalism and conservation through the lens of policy changes from fortress conservation⁵ to community-based natural resource management (CBNRM) and back. Gradually, fortress conservation was replaced by CBNRM, which, since the 1990s, has focused on addressing the human costs of violent exclusionary policies that had been practiced (Dressler et al., 2010). Dressler et al. (2010, p.6) go on to argue though that for all the idealism inherent in CBNRM, seeking to return the stewardship of biodiversity and natural resources to local communities through participation, empowerment and decentralization, it has never been ideal in practice. To rekindle the original hope, the authors urge a focus on social and environmental justice over the logic of the market.

Heffernan (2022a) takes a more nuanced view of CBNRM’s potential. As part of his doctoral research into CBNRM in Namibia, he divided the literature into three loose groupings, which he has labelled the panaceans (whose thinking predominated from 1996 - 2006), the utilitarians (who were active from roughly 2007 – 2015) and the skeptics (who have become quite vocal over the past decade). Panaceans believed that CBNRM had the potential to deliver on its triple mandate of environmental conservation, economic development and community empowerment. Utilitarians, on the other hand, believed that CBNRM had produced conservation wins and some measure of economic development but had failed in its mandate to empower communities. Given that environmental goals are global in scope, and economic benefits (apart from local labor) seldom remain in communities, skeptics ask

⁵ According to Ramutsindela et al. (2022), ‘fortress conservation’ was applied in the US and Europe as a means of managing nature reserves as wilderness areas and excluding people from those areas, often using government agencies with police powers and paramilitary structures and styles of operation. The concept was introduced into Africa during the colonial era, linked to the exploitation of resources and the (often) violent treatment of people living in resource-rich areas.

to what degree CBNRM is community-based at all (Heffernan, 2022b). My own research, in particular Article #2, will contribute to this analysis.

Another Marxist concept—'commodity fetishism'—has become highly relevant in today's global economy. The term refers to the 'ideological veil' obscuring our understanding of capitalist production, with commodities appearing as objects detached from the social conditions under which they are produced (Benjaminsen & Svarstad, 2021, p.33). The information gap between production and consumption widens the more global the product becomes, with the carbon market a perfect example (discussed in greater detail in the section on REDD+ and the Voluntary Carbon Market).

Lindsey et al. (2022) see this disconnect as an example of 'tele-coupling', which—by separating consumers from the environmental consequences of their actions—can exacerbate deforestation and land-use change (e.g., from natural ecosystems to crop and grazing land), and result in increased pollution and greenhouse gas emissions. By exporting the environmental costs of their consumption to poorer countries, high-income countries are able to ensure that nature in their own 'backyards' remains relatively well protected, but places great pressure on biodiversity in low and middle-income countries (WWF, 2020, as cited in Lindsey et al., 2022, p.94). Buller (2022, p.277) argues that radical shifts in the distribution of wealth, consumption and power are required—rather than the green capitalist solutions that are, at best, a 'deadly distraction'⁶ and, at worst, actually undermine society's ability to effectively adapt to climate change.

In their book on *Dismantling Green Colonialism*, Hamouchene and Sandwell (2023) argue that environmental and human costs are externalized from the core to the periphery, with carbon credits ('pollution permits') an example of this externalization. They claim the 'green economy' and 'sustainable development' are presented by international financial institutions, corporations and governments as a new paradigm, but words can mask relations of domination. In reality they are merely an extension of the existing logics of capital accumulation, commodification and financialization, including of the natural world (ibid).

Commodification of nature – the proponents

On the other side of the divide are scholars and activists who argue that the rule of thumb in nature conservation is that "if it pays, it stays". The idea is that wildlife and natural resources will only be conserved if they bring economic benefits to local communities. The argument can be seen as a market-based response to Hardin's Tragedy of the Commons (1968), creating property rights and incentives to avoid overexploitation and environmental collapse.

Lewis et al. (2011, p.13961) cite a retrospective study that showed that World Bank projects with biodiversity goals were as successful in attaining development objectives as those focused solely on development, with "the only predictor of biodiversity success the presence of market mechanisms and sustainable finance". In addition, they argue that the adoption of a local business-based approach removes the time constraints that plague Integrated

⁶ "Offsetting is worse than doing nothing...as it triggers a rebound away from meaningful mitigation...while creating the veneer of action to placate consumers and governments" (Andersen, 2012, as cited by Buller, 2022, p.89).

Conservation and Development Projects funded by short- to medium-term grants of aid money.

The *State of the Wildlife Economy in Africa* report compiled by African Leadership University looks at the ‘Big Five’ activities of ecotourism, hunting, wildlife ranching, the harvesting of non-timber forest products and the generation of carbon credits. The report cites Child et al. (2012), who argues that “it took 60 years for wildlife to emerge as an important and economically viable land-use globally”, with it now a proven economic model “able to provide significantly more jobs and economic growth than conventional uses of the same land given the right ecological and institutional circumstances” (Snyman et al., 2021, p.12).

Carney (2021) advises that, before putting a price on a good, consideration should be given as to whether this will alter its meaning—in other words, when the ‘commercialization effect’ is not additive but corrosive (e.g., offering a child a financial incentive to read a book, thus making it a chore to be compensated for rather than an intrinsic good to be enjoyed). He cautions though against the Tragedy of the Horizon, which allowed us to ignore the impacts of climate change on communities and biodiversity for a long time because they were not formally valued.

Angula et al. (2018) conducted a survey of rural residents across 32 conservancy areas in Namibia to discern local attitudes towards sustainable utilization, arguing that—in the fierce debate over the ethics of trophy hunting—local voices often go unheard. Their study revealed that a ban on trophy hunting would be received very poorly by conservancy area residents and would weaken their support for conservation, citing responses to an open-ended question on the topic, such as the following: “Please give us a reason for wanting to take us back to being poor and with no benefits from our wildlife. I need an explanation of why it is good for photographers to benefit but not for us” (Angula et al., 2018, p.28).

These findings are reinforced and expanded on by numerous authors (Barnes et al., 2002; Bwalya Umar & Kapembwa, 2020; Kansky et al., 2020, 2021; Naidoo et al., 2011) and echoed by Störmer et al. (2019). The authors contend that community-based conservation programs can positively impact attitudes towards wildlife and conservation, but this is conditioned by the type and magnitude of benefits received and costs incurred at the community as well as at the household level.

Nelson et al. (2021) contend that the rise of CBNRM in the 1990s was shaped by the post-Cold War period of global democratization, political decentralization and liberalizing economic reforms. These economic reforms were seen by some as a way for international financial institutions to downsize the economic role of the state (in the spirit of the Washington Consensus [Williamson, 2004]), in the act pushing costs down onto communities. These measures may also have been embraced by states lacking financial or administrative capacity for service delivery. The question is whether benefits received by communities have been commensurate with these costs and addressed further in Article 2.

Nelson et al. (2021) believe that east and southern Africa have been a ‘key laboratory’ for community-based approaches to conservation for over three decades and note significant growth in CBNRM when key institutional conditions exist (citing Lindsey et al., 2014; Lubilo & Child, 2010; Murphree, 2000). They take issue with Dressler et al.'s (2010)

conclusion that CBNRM is in a state of crisis, finding that—despite challenges—progress has been catalyzed by private enterprise and entrepreneurial local conservation organizations working in partnership with local communities (Davis et al., 2020; Lewis et al., 2011; Nelson et al., 2021).

Adeyanju et al. (2021) believe CBNRM is a ‘step in the right direction’, but for it to work, it will require cooperation with actors beyond the community (such as government departments, other communities, travelling herders and private enterprise), recommending an integrated landscape approach. The authors concede that this approach is not a ‘win-win’ per se, but a negotiated trade off to “win more and lose less” (ibid, p.3).

McGahan's (2021) insights on New Stakeholder Theory (NST) remind us that stakeholders—however diverse they may be—will sustain their connection to an organization only if they expect and ultimately receive appropriate returns on their contributions. This echoes the sentiments articulated by Murphree three decades prior, with the ‘guiding rule’ for Zimbabwe’s pioneering Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) being that benefits outweigh costs (Murphree, 1991).

Carney (2021, p.317) states emphatically that “while private actions have been part of the problem [of climate change and biodiversity loss] in the past...we won’t solve climate change in the future without the private sector”. He goes on to argue that, not only is the money required simply too large, but we also need the private sector’s insights and innovation (ibid) while Olmsted et al. (2021) note that excluding the private sector excludes the potential to reduce the drivers of biodiversity loss.

The *State of Finance for Nature 2023* reveals an annual USD7 trillion in public and private capital flows into nature-negative activities – in sectors including fossil fuels, agriculture and construction. Only USD200 billion per year goes towards nature-based solutions, defined as “actions to protect, restore and sustainably manage...ecosystems, which address social, economic and environmental challenges effectively...”. (UNEP, 2023, p.v). These numbers must be flipped by reducing nature-negative investments and instead investing in nature-based solutions – with custodians of the land, such as Indigenous Peoples, among the chief beneficiaries (Baralon et al., 2021; Deutz et al., 2020; IFC, 2022; Rendlen & Uzsoki, 2021; Tobin-de la Puente & Mitchell, 2021; UNEP, 2023).

Is there a rationale for attempting to bridge the gap in financing for nature by bringing in the private sector? My own research (particularly as outlined in Article 3) provides empirical evidence on this highly contentious issue.

Janus et al. (2015) contend that although aid’s initial focus was poverty reduction, attempts by donors to keep aid agendas free of other policy objectives is being challenged by demands related to the provision of global public goods. The authors contend that broad goals, such as climate change mitigation and biodiversity conservation, cannot be achieved solely by increasing aid, describing a transformation of development cooperation ‘beyond aid’ (ibid). The next section will explore this question further by examining what has arguably become one of the most contentious emerging markets—namely the Voluntary Carbon Market.

The case for the Voluntary Carbon Market

History of offsetting

The notion of offsetting dates back to the 1980s, when fossil fuel companies grappled with the harms of fossil fuels and were looking for novel ways to reduce emissions. The idea of surrounding power stations with forests was touted but found impractical – hence the idea of planting (or protecting) forests elsewhere. TIME Magazine heralded the “Antidote for a Smokestack” when a coal-burning power plant in Connecticut gave \$2 million to enable the Guatemalan Forestry Service and the Peace Corps to support 40,000 local farmers to plant 52 million seedlings (TIME Magazine, 1988).

A decade later, the concept of carbon offsetting was enshrined in international law, as thirty-seven industrialized nations and the European Union agreed to emissions-reduction targets under the Kyoto Protocol (UN, 1998). Through the United Nations’ Clean Development Mechanism (UN, 1998, Article 12), rich countries struggling to meet their climate change goals could compensate by paying for projects in impoverished ones. While public finance to develop a global carbon market has been lacking (Angelsen et al., 2018), in its stead we have seen the rise of the Voluntary Carbon Market (VCM), which started in the 1990s and grew slowly for two decades. After the 2015 Paris Agreement (UNFCCC, 2016) was signed, however, the VCM doubled in size within five years, with the largest demand coming from private companies (Dyck, 2022) and the largest supply from REDD+ (Reducing Emissions from Deforestation and Forest Degradation) (Dyck et al., 2023).

The rise of REDD+

REDD+ was originally conceived as a performance-based payment to forest owners and users to reduce emissions and increase removals of carbon dioxide. The idea was that direct payments would provide strong incentives to better manage forests and clear less forestland. Forest conservation would become more lucrative than the alternatives, such as raising cattle or selling coffee, cocoa or charcoal (Angelsen et al., 2009).

Debates centered on the concepts of strong incentives, direct payments and full compensation (payment to whom for which opportunity costs?). In addition, the inclusion of non-carbon (social and environmental) benefits led to complaints that REDD+ had lost its focus. While seen as the only way to ensure that the developmental aspirations of forest-dependent communities were taken into consideration—and that carbon objectives did not overshadow biodiversity concerns—they complicated outcome expectations (Angelsen et al., 2018, p.23).

Sikor (2013) assesses the extent to which the design of REDD+ promotes the delivery of justice, noting that the so-called safeguards enshrined in the UN Framework Convention on Climate Change make reference to participation and recognition, in an effort to protect affected people from adverse impacts, but fail to address the distributive outcomes of REDD+ actions. He argues that distributive and procedural issues have not only ‘vertical’ but also ‘horizontal’ dimensions, with questions arising as to what kinds of local actors receive REDD+ benefits and who participates in decisions about their distribution.

Considerations of ecological justice are dealt with further in the following section of the Literature Review.

Another complicating factor is the link between deforestation and corruption, which has been almost universally recognized, threatening international efforts to conserve forests and alleviate poverty (Korwin, 2016). The importance of transparency and accountability will be discussed further in the following section on environmental governance.

In 2018, ten years after REDD+ entered the global scene, a team of 62 scholars reviewed the track record of the initiative and suggested ways in which lessons learned could be applied. The authors argue that, although REDD+ has not been the ‘quick, cheap and easy’ way to mitigate the impacts of land-use change that it was originally intended to be (and as many policy innovations are initially promoted in order to gain buy in), it remains a valid concept, arguably more so now than ever (Angelsen et al., 2018, p.xx).

Initial results were not able to keep pace with the rapid rate of REDD+ expansion. Simonet et al. (2018) found that the scarce evidence available on local REDD+ outcomes showed modestly encouraging results for forest conservation and carbon stock enhancement. They found that weak demand in carbon markets was impeding the sale of sizeable quantities of already-verified emissions, with only a third of REDD+ project implementers having already sold some credits. In addition, challenges were identified in designing REDD+ initiatives that were both effective at reducing forest carbon emissions and were strongly pro-poor (Duchelle et al., 2018). The authors observed however that it is more likely to achieve results that are more equitable and long-lasting when local people are involved from an early stage in REDD+ program design and implementation.

Over the next five years—and as the issuance of carbon credits continued to rise—investigative journalists began sounding alarm bells, touting headlines such as “More than 90% of forest carbon offsets by biggest certifier are worthless” (Greenfield, 2023). Much of their critique focused on the methodologies utilized by Verra, a standards-setting body, whose Verified Carbon Standard (VCS) is the world’s most widely used.

The most serious challenges with REDD+ relate primarily to proving the counterfactual (what would’ve happened in the absence of an intervention), avoiding leakage (reducing rather than merely displacing deforestation) and ensuring permanence (as some Greenhouse Gas emissions remain in the air for centuries while a forest could be lost tomorrow) (Filewod & McCarney, 2023; Jones, 2024). To that end, Verra published its much-anticipated new REDD+ methodology in the days leading up to COP28 (“Verra Launches New Era of Forest Protection”, 2023).

In addition to creating a unified best-practice methodology, revisions include i) shortening the timeframe for recalibration of baselines from 10 years to six, so that estimates of future deforestation are linked to a more recent past; ii) ensuring that emissions reductions achieved by projects ‘add up’ to a jurisdictional (national or sub-national) whole; and iii) digitalizing monitoring, reporting and verification to enhance transparency and integrity. Critically, the responsibility for establishing the baseline will shift from the project proponent to Verra, the standards setting organization, in order to eliminate any potential for bias or conflict of interest.

Many of the changes to the VCS have been made in an effort to strengthen its alignment with the Core Carbon Principles established by The Integrity Council for the Voluntary Carbon Market, with the council formally approving the VCS program in May 2024 (Simon, 2024).

Despite methodologies having been improved, and integrity councils established, the question remains as to whether the Voluntary Carbon Markets and REDD+ are able to fulfill their intended purpose, not only mitigating climate change but also providing measurable benefits to communities commensurate with costs. My thesis provides valuable empirical evidence that can assist in answering this critical question.

The Voluntary Carbon Market - valuing benefits beyond carbon?

In the financial crisis of 2008, the social contract (society's belief in the fairness and effectiveness of the market system as regulated by government) broke down—and there is evidence to suggest that it has not been fully restored, with business' social license to operate continuing to erode (Carney, 2021; GlobeScan, 2020). Carney calls for a rebuilding of social capital to 'make markets work' (Carney, 2021, p.12). The erosion of values manifested during the COVID pandemic, with the Corruption Perception Index revealing that top performers during the crisis were those countries that scored highest in trust and legitimacy (ibid).

While arguments abound that the VCM provides a license to pollute (Overy & Sibeko, 2023), according to Verra, companies engaged in the market are overwhelmingly those already doing the most to reduce their own footprints ("Statement to VCM Stakeholders", 2023), a finding endorsed by Ecosystem Marketplace (O'Sullivan et al., 2024). Italian energy company Eni, for example, states that 95% of its target to achieve net zero emissions by 2050 will be achieved by decarbonizing its operations, with only 5% made up of offsetting projects (Eni, n.d.). Bayon contends that companies involved in offsetting in the VCM aren't the worst actors on climate change but arguably the best of an "admittedly slow bunch" and that rather than punishing the leaders, the world should be shifting its criticism to the laggards (Bayon, 2023).

Despite calls to 'significantly elevate funding', the very vocal sentiments of anti-REDD+ activists have contributed to driving down the price of exchange-traded carbon credits globally. As more projects are developed and the supply of credits increases, this too can drive down prices, with benefits to early market entrants likened to a 'pyramid scheme', which threatens to collapse as the number of entrants grows⁷. From early 2021 to mid-2023 there was a downward trend of prices in general, with removals (at USD15 per ton) at the top and nature-based solutions (at less than \$5 per ton) at the bottom (World Bank, 2023).

This downward pressure on the carbon price not only reduces benefits to communities in the short run but also discourages companies from participating in the VCM in order to avoid charges of 'greenwashing', potentially depressing demand in the medium-term (Griscom, 2023).

⁷ Integrity Council for the Voluntary Carbon Market, Comments: public consultation period, February 2024 <https://icvcm.org/public%20consultation/>

In order to enhance market liquidity, credits that meet certain minimum criteria are grouped, resulting in a ‘least common denominator’ effect. To avoid this, sellers of high-quality credits tend to prefer bilateral deals, resulting in a bifurcation of prices (World Bank, 2023). These over-the-counter sales enabled sellers of high-quality credits to realize significant price increases in 2022 even while exchange-traded prices fell (Donofrio & Procton, 2023; World Bank, 2023).

There are allegations though that the biggest beneficiaries of these premium prices are project developers and brokers, as exemplified by the highly-publicized case of the Kariba project in Zimbabwe, in which EUR86 million of the EUR100 million generated in carbon revenues went to the broker and technical lead (South Pole) and the project developer (Carbon Green Investments), while only EUR14 million trickled down to Kariba’s communities (Greenfield & Chingono, 2024). Critics contend this is merely illustrative of the wider issues within the market, with benefits to international traders overshadowing those to local communities involved in REDD+ projects. Human Rights Watch notes that it is really only the project developers that know how much money is coming in – and how much of that is reaching the ground (Téllez, as cited in Greenfield & Chingono, 2024).

This opacity—and consequences for ecological justice—are explored in my own empirical research and are discussed further in the section on environmental governance.

The road from good governance to ecological justice

In 1987 the Brundtland Commission produced *Our Common Future*, in which the concept of sustainable development was first articulated as that which “meets the needs of the present without compromising the ability of future generations to meet their own needs” (1987, p.41-43). The Commission believed that

In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance current and future potential to meet human needs and aspirations.

The role of institutions

The fourth element—namely the role of institutions and institutional change—rose to prominence in the 1990s under the banner of new institutional economics. Institutions—the ‘rules of the game’—reduce uncertainty by providing a structure to everyday life (North, 1990). Giddens (1984) describes these social structures as encompassing rules and resources that not only restrict the actions actors can use but also make actions possible. Thus, structure has the duality of creating a basis for action and being the result of that action.

North’s research into the relationship between institutions and economic performance earned him a Nobel Prize—with his groundbreaking work followed up numerous other Nobel-prize winning neo-institutionalists (Acemoglu & Robinson, 2012; North, 2005; Ostrom, 2010; Williamson, 2000).

Williamson (2000, p.597) provides a social analysis based on the longevity of the various types of institutions. His framework divides institutions into four levels, with i) the first order being the embeddedness of norms and traditions (which typically persist for centuries); ii) the second order being the formal institutional environment—the ‘rules of the game’ (which tend to survive for decades); iii) the third order being governance structures—the ‘play of the game’ (typically lasting from one to ten years); and iv) the fourth order being the market—signaling resource allocation and the alignment of pricing and incentives (which is continuous), to some degree explaining the ‘path dependence’ of embedded institutions in spite of changes in governance or incentives.

North (2005) describes the ‘scaffolds’ that humans erect, created by the stock of human knowledge, embodied in the beliefs held and the institutions created to reflect those beliefs. He argues that the gap between intentions and outcomes reflects the tension between the scaffolds humans erect to understand the landscape (reduce uncertainty) and the ‘reality’ of that ever-changing landscape—resulting in a circular rather than a linear process.

Both North (1990) and Ostrom (2010) take issue with rational choice theory as, not only do individuals operate in a context of imperfect information, but they are often motivated by much more than simple utility-maximizing behaviour.

Ostrom's (2010) framework for institutional analysis was developed as she debunked the notion that private individuals do not have the capacity to solve collective problems (the oft-lamented tragedy of the commons [Hardin, 1968]), finding multiple examples in which resource users were able to organize themselves. The framework consists of five kinds of rights in the management of common pool resources, namely i) access; ii) withdrawal (the right to harvest); iii) management (the right to transform and regulate); iv) exclusion (the right to decide access); and v) alienation (the right to lease or sell the above four rights). Ostrom highlights the importance of trust and communication between stakeholders in overcoming social dilemmas and notes that a critical factor in the governance of common pool resources is active participation of resource users in management of the flow of benefits from the use of these resources.

Acemoglu and Robinson (2012) divide institutions into those that allow for such active participation and those that don't, classifying the former as ‘inclusive’ and the latter as ‘extractive’. The authors find a causal link between inclusive political institutions and prosperity and develop this into a theory as to ‘why nations fail’ (ibid). They believe that inclusive institutions create a level playing field, distributing power widely, while extractive institutions concentrate power in the hands of a few, who use this power to extract resources from the many (using these resources, in what becomes a ‘vicious circle’, to cement their hold on power). My fieldwork reveals the consequences of this lack of inclusivity.

Acemoglu and Robinson (2012) contend that major institutional change is a requisite for major economic change. They argue though that this change takes place as a result of the interaction between existing institutions and ‘critical junctures’, which they describe as ‘historic turning points’—major events that disrupt the existing political and economic balance in one or many societies (such as the Black Death, the opening of Atlantic trade routes or the Industrial Revolution) (ibid, p.431). COVID-19 was no doubt a critical juncture, with much lip service paid to the notion of ‘building back better’. Climate change can arguably be seen as another such critical juncture and my research notes ways in which

institutions are changing as a result, for instance with the growth of the VCM following the signing of the Paris Agreement. The pursuit of sustainable development invites us to consider whether this disruption enhances (or impedes) current and future potential to meet human needs and aspirations.

From good to transformative governance

Bevir (2012) tells us that—rather than a focus on institutions (North’s [1990] ‘rules of the game’)—governance focuses on the *process* of governing (the ‘play of the game’ [Williamson, 2000]). Since the 1980s, governments increasingly rely on private and voluntary sector actors to manage and deliver services, giving greater scope to markets and networks (ibid).

Fukuyama (2013, p.4), in seeking to determine what constitutes ‘good governance’, notes that the quality of governance is different from the ends that it is meant to fulfill, in that an authoritarian regime can be well governed, just as a democracy can be poorly administered. He provides a critique of the World Bank Institute’s Worldwide Governance Indicators (Kaufmann et al., 2009), which focus on procedural components, such as accountability and transparency, but neglect state capacity—essentially the state’s ability to implement policies effectively. The importance of these procedural components though is picked up on again in the following section on Ecological Justice. Fukuyama further notes that the quality of governance can vary widely within countries, both within functions and regions (Fukuyama, 2013) and—as observed during fieldwork—between chiefdoms.

Bevir (2012) describes new practices of governance, which find political actors increasingly constrained by mobilized and organized elements in society; with states sharing the activity of governing with social actors, including private firms, non-governmental organizations and non-profit service providers. The joint value created through this cooperation is deemed ‘greater than the sum of the parts’—not only in the outcomes generated but in the value creation process itself, with enhanced social cohesion and capacity improvements as a result (Klein et al., as cited in Cabral et al., 2019, p.471).

These new practices of governance extend across the ‘developed’ and ‘developing’ world; and are prominent among strategies to regulate transnational activities and to govern the global commons (Bevir, 2012; Ostrom, 2010). Community-based natural resource management can be seen as a transformation in global environmental governance, with governments increasingly outsourcing or devolving functions traditionally administered by the state (Heffernan, 2022). The rising sense of urgency in tackling environmental challenges (such as climate change) has resulted in a proliferation of actors, contributing to the increasingly networked public-private character of global environmental governance (ibid). This phenomenon is elaborated on in Article #2, which examines the network of actors coalescing to deliver on the goals of REDD+.

Although climate change is regarded as a global threat to all life, ‘technical fixes’ will only be as effective as the governance arrangements into which they are embedded (Nuesiri, 2025). The author argues that the Paris Climate Agreement is more focused on technical fixes than on governance arrangements and his Discussion Paper calls for an amendment to

the Agreement at COP30 in Belem, Brazil in November 2025. Seizing this opportunity could enable a more structured, rights-based approach to global climate governance (ibid).

Agrawal et al. (2022) call for a shift from current modes of environmental governance to governance for sustainability, moving from an analysis of institutions and rules to a focus on choices and actions delivering transformational change. The authors argue that a continuation of existing socio-economic trajectories is unsustainable. A focus on the environment—rather than the linkages, trade-offs and co-benefits between social, economic and environmental domains—constrains our attention to what exists, rather than how to move to a more just, equitable and prosperous world (ibid).

In *Transforming Biodiversity Governance*, Visseren-Hamakers and Kok (2022) echo Agrawal et al.'s sentiments that fundamental, transformative changes are needed in order to reverse current socio-ecological trends and 'bend the curve' of biodiversity loss. They argue that transformative change will require attention to the drivers of biodiversity loss emanating in one part of the world while affecting another, a sentiment oft shared (Hickel, 2019; Lindsey et al., 2022; McMichael, 2012). Visseren-Hamakers and Kok (2022, p.10) note that there is a burgeoning literature on transformative change, but significantly less on transformative governance, with transformative change the 'shift' and transformative governance the 'steering of the shift'. Their definition of transformative governance includes not only the formal and informal rules and rule-making systems but also the actor-networks at all levels of society that enable transformative change (in this case, towards biodiversity conservation and sustainable development more broadly).

Visseren-Hamakers and Kok (2022) believe that the Convention on Biodiversity (UNEP, 1992), the global framework for biodiversity governance, represented a paradigm shift from species-specific ecosystem-based nature conservation to a holistic, development-oriented approach to biodiversity, with its three objectives (biodiversity conservation, sustainable use, and fair and equitable sharing of benefits) promoting new concepts of legal polycentricity, intergenerational responsibilities (viz Brundtland et al, 1987) and the need for inclusive and participatory processes. They ask probing questions regarding how to ensure inclusivity, recognizing that the identification of a problem and the setting of an agenda (which typically occur before local communities are engaged) reflect power asymmetries which should not be exacerbated or re-enforced (Benjaminsen & Svarstad, 2021; Borrini-Feyerabend & Hill, 2015; Visseren-Hamakers & Kok, 2022).

The authors adopt a skeptical stance towards biodiversity finance, asking how transformative the changes wrought by this finance can be, given that it tends to influence decision making at the individual level rather than challenging systemic or structural drivers of change (Buller, 2022; Visseren-Hamakers & Kok, 2022). They go on to ask whose values 'financeable' biodiversity represents, contending that such financing can widen the gap between market value and local value, possibly 'crowding out' intrinsic motivations of local people to conserve (Carney, 2021; Jarwar et al., 2024; Kopnina, 2019; Visseren-Hamakers & Kok, 2022).

As injustice and threats to biodiversity are closely intertwined – either as a cause (e.g., colonialism) or as a result (e.g., climate change) - a 'just transition' demands heightened attention to justice in biodiversity governance (Coates et al., 2018; Franks et al., 2018; Hamouchene & Sandwell, 2023; Schlosberg, 2004; Visseren-Hamakers & Kok, 2022).

Ecological justice

Scholars have been debating the requirements of justice for over 2,000 years, with Aristotle identifying distributive and correctional justice as fundamental (Aristotle, 1926).

Rawls (1971) seminal work on *A Theory of Justice* introduced the concept of a ‘veil of ignorance’. According to this concept, without knowing your station in life, it would be possible to come up with a fair notion of justice that would ensure just distribution. Ignorant of our race, gender or social status, we would choose a system that was fair and impartial since we could end up in any position in society. Schlosberg (2004) argues that issues of distribution are essential but incomplete, as part of the reason for unjust distribution is a lack of recognition of group difference. Thus, justice requires attention to both distribution and recognition. This approach moves beyond Rawls’ ideal scheme to an exploration of what the real impediments to such schemes are (Fraser, 2000).

Schlosberg (2004) then moves from the theoretical to the practical with an analysis of environmental justice movements, finding that the most oft cited, and most obvious, evidence of environmental injustice is in the realm of distribution, mirroring the inequity in socio-economic and cultural status. Another fundamental critique that emerges though is the lack of meaningful participation offered to the public. This lack of meaningful participation was considered a key factor in the breakdown of World Trade Organization negotiations in Cancun in 2003, as countries in the Global South bemoaned their decreasing control over global decisions regarding their own economies, including their environments and natural resources (ibid, p.527). Ultimately, Schlosberg (2004) notes, there is a direct link between justice as equitable distribution, cultural recognition, and democratic participation; focusing on one notion at the expense of others, or while ignoring others, simply cannot satisfy the threefold nature of justice sought by the movement (as described also by Franks et al., 2018; Fraser, 2000; Pickering et al, 2022).

A final aspect of justice that is not always explicit in the tripartite categorization of recognition, procedure and distribution is corrective or remedial justice, involving measures to correct or remedy unjust actions or omissions (Pickering et al, 2022, p.158), as theorized by Aristotle (1926), and as manifested in the recent establishment of a Loss and Damage Fund (Chandrasekhar et al., 2023; Lakhani, 2023) and calls for a ‘just transition’ (UNEP, 2023). The latter focuses on the real inclusion and human rights challenges inherent in current approaches to incentivizing conservation and calls for nature markets that work more justly and efficiently in favor of marginalized groups (ibid).

There are also scholars who advocate for the inclusion of a radical version of Sen’s capabilities approach in our understanding of environmental justice (Benjaminsen & Svarstad, 2021; Day, 2017; Sikor, 2013), arguing that environmental conditions are prerequisites of other essential capabilities, thus affecting the opportunity to achieve what we value being and doing, as embodied in the concept of social-ecological justice.

Social-ecological justice is based on the understanding that environmental degradation and social inequities are interconnected. A truly just society is not possible if the environment is being destroyed and you cannot protect the environment effectively if social injustices persist (“Social-Ecological Justice”, 2025). Key considerations include access and control

over resources (acknowledging that marginalized communities have historically been dispossessed of their resources and aligned to the concept of recognition of rights); distribution of environmental harms and benefits (revealing deep societal biases and power imbalances and closely aligned to distributional justice); and participation and decision-making (with meaningful participation a key component of procedural justice), thus aligning closely to the concept of ecological justice (ibid; Schlosberg, 2004).

Global norms entrenched in international frameworks, such as the Convention on Biodiversity or the UN Framework Convention on Climate Change, include many of these elements of justice (Pickering et al, 2022, p.161). Despite these advances, biodiversity continues to decline at unprecedented rates (ibid). To reverse this trend will require a large-scale mobilization of financial resources and a shift away from financing activities that destroy biodiversity (Deutz et al., 2020; Tobin-de la Puente & Mitchell, 2021; UNEP, 2023).

Two critical questions for ecological justice revolve around how the global effort of mobilizing resources should be shared among state and non-state actors and how resources should be allocated among countries and communities. In terms of mobilizing resources, the three principles of i) polluter pays; ii) capacity to pay; and iii) beneficiary pays are widely debated, although it is hard to see how requiring a beneficiary to pay for damage to the environment that they have not caused would be considered just (Lindsey et al., 2022; Pickering et al, 2022; Richards et al., 2023). There is a call for inclusive deliberations and enhanced transparency regarding amounts provided and obligations fulfilled (Hattle & Nordbo, 2023; Pickering et al, 2022).

When it comes to allocations, need is at times at odds with quality of governance. Indigenous peoples and local communities, for example, steward over 80% of the world's remaining biodiversity, yet their ability to do so is threatened by weak and/or infringed political, economic and social rights and constrained by a lack of access to finance, having received less than one percent of international climate finance over the last decade (Pickering et al, 2022; UNEP, 2023, p.50). Duus-Otterström (2016) believes that enhancing recipient countries' control of allocations of biodiversity finance at a sub-national (e.g., community) level could enhance the effectiveness of implementation as well as furthering principles of procedural justice.

My own research, in particular Article #1, addresses the effectiveness of the REDD+ mechanism as well as its potential to deliver ecological justice in the Luangwa Community Forests Project (see Chapter 5: Results). While the Convention on Biodiversity Aichi Target 11 calls for 'effective and equitably managed Protected Areas' (UNEP, 2011), much has been written on effective—but very little on equitable—management (Franks et al., 2018). The authors find that there are few examples of an equitable approach to conservation, with equity linked almost entirely to the quality of governance. My research addresses this gap in the literature. They conclude that giving more attention to enhancing equity (in its three dimensions of recognition, procedure and distribution), rather than directly improving livelihoods, could lead to greater contributions of Protected Areas to human wellbeing, as well as better conservation (ibid). These contributions include, inter alia, ecosystem services as well as employment-related benefits, theoretically compensating for a reduction in access to natural resources and a potential increase in human-wildlife conflict.

Franks et al. (2018, p.27) note that what looks like equitable governance often fails to deliver equity or justice. Firstly, appearances can be deceptive e.g., what looks like reasonably equitable governance—such as inclusive participation—is not always the case, at times due to manipulation by certain influential individuals or groups. Secondly, decisions made through an equitable process may not be equitably implemented, i.e. there may be a disconnect between governance and management (see also Pressman and Wildavsky, 1984). Thirdly, sometimes benefits that are equitably allocated don't deliver the expected results, possibly due to a poor understanding of contextual factors. Fourthly, some activities designed to strengthen governance bring unexpected negative social impacts, for example high transaction costs that undermine the value of benefits. Finally, equity can mean different things to different people, so the social impacts of decisions are not always in line with what people thought they had agreed to.

These findings underscore the 'wicked' nature of the challenge of equitable governance. 'Wicked' challenges include a level of socio-political complexity, with stakeholders holding differing views of the nature of the problem, both at any given point in time and over time, as the situation evolves (Swanson & Bhadwal, 2009). Ramalingam et al. (2014) argue that complexity in the environment needs to be respected and navigated, not retreated from. This philosophy is embraced by Garmendia and Pascual (2013) in their critique of the current market-based approach to valuing ecosystem services. They believe justice demands a recognition of the incommensurability of the values embedded in complex social-ecological systems, calling for a move from over simplified top-down processes of decision making to more transparent, deliberative and integrated evaluation processes. Swanson and Bhadwal (2009) call for a decentralization of decision-making to the lowest effective accountable level of governance in order to improve adaptive capacity. This stance invites a broader discussion on power dynamics and the relationship between agency and structure, the final section in the Literature Review.

An analysis of power dynamics - duality of agency and structure

Man makes his own history, but he does not make it out of...conditions chosen by himself, but out of such as he finds close at hand. The traditions of all past generations weigh like [...a nightmare] upon the brain of the living.

(Marx, 1852, p.5)

Marx understood human agency as constrained and to a large extent produced by historically established structures in a society. Political ecologists today point out that, while structure generates the potential and limits for the exertion of power, there is a tendency for agency to reproduce that structure (Benjaminsen & Svarstad, 2021). The following section of the review 'sets the stage' for a consideration of the power dynamic inherent in CBNRM – and the extent to which it is able to live up to its ideals in practice.

'Governmentality' and 'Environmentalality'

Gramsci, in *Letters from Prison* (1994), articulated his observation that ordinary peoples' ideas and world views were often in line with the interests of their rulers. He believed that,

for most people, the rulers' perspectives seemed to be the only possible ways of perceiving reality. He called this situation 'hegemony'.

Foucault (2008) introduced the term 'governmentality', which he describes as a pluralized form of power which uses state and non-state actors, not to enforce control from above, but to guide their subjects implicitly. Even more insidiously, governmental power inhabits both the facilitators and the targets of its interventions. Individuals learn to govern themselves and the role of the state is to make the population governable.

Li (2007b) argues that 'governmentality' mobilizes the will to improve, and the sincerity of its spokespeople – from colonial administrators and missionaries to development experts and political activists – is not in question. Accordingly, one can see 'governmentality' at work in myriad domains, from agriculture and health to conservation and poverty reduction initiatives.

The word 'environmentality' was subsequently coined to demonstrate the linkage between the objectives of environmental movements and manifestations of 'governmentality' (Luke, 1999). It was Arun Agrawal (2005) though who popularized the term, as he sought to explain why, when, how, and in what measure people come to develop an environmentally oriented subject position.

Agrawal (2005) asks what the direction of the causal connection is—do people care more about the environment because they are more involved, or are they more involved because they care more? The author identifies participation as the decider, observing that when villagers participate (e.g., in monitoring and enforcement), they come to realize at a personal level the social costs generated by those who do not adhere to the practices and expectations that have been collectively established. In a process Agrawal describes as 'intimate government' (as opposed to 'government from a distance'), villagers now protect forests and control illegal practices of harvesting and extraction. They use the same language of regulation and protection as state officials deploy, but they do so in pursuit of goals that they imagine as their own (ibid).

Fletcher (2010) builds upon these arguments, proposing a framework which describes competing positions within the conservation debate as expressions of distinct 'environmentalities'. These 'environmentalities' can either be disciplinary (based on norms), sovereign (based on rules), neoliberal (based on incentives) or truth (based on fundamental laws of nature, as found inter alia in traditional knowledge ecologies). These 'environmentalities' overlap, compete with and challenge each other; a microcosm of the political arena—the art of government according to the rationality of truth, of economic agents, of the sovereign state or of the governed themselves (ibid).

With political ecology arguably more concerned with social and environmental justice than with biodiversity preservation, Fletcher (2010) goes on to identify a fifth category – 'liberation environmentality'. Fletcher cites Ostrom et al. (1999, p.282), who contend that achieving sustainable resource management on a global scale

will require forms of communication, information and trust that are broad and deep beyond precedent, but not beyond possibility. Protecting institutional diversity related to how diverse peoples cope with Common Pool Resources may be as important for our long-run survival as the protection of biological diversity.

Rather than an internalization of norms, to which individuals (in theory) conform, ‘neoliberal environmentality’ creates external incentive structures, utilizing a cost-benefit ratio to encourage preservation over resource extraction (Fletcher, 2010; Foucault, 2008). My research addresses the call for ‘empirical flesh on [this] theoretical skeleton’ (Brockington, 2006. as cited in Fletcher, 2010, p.178), to consider whether these incentives are succeeding in their objective, empowering communities to protect forests, and providing benefits commensurate with (opportunity) costs.

Managing the assemblage

Li (2007a) provides a useful analytic that focuses on practices of assemblage—the on-going labor of bringing disparate elements together and forging connections between them. She identifies these as i) forging alignment – educating and reminding the community of their interest in forest management; ii) authorizing knowledge – which can be dangerous when forest rights are linked to standards of community cohesion and forest conservation communities cannot meet; iii) rendering technical – reducing a problem (such as deforestation) to a technical challenge, glossing over the ‘messiness’ of the social situation; iv) anti-politics – with donor agencies setting their improving agendas within the limits set by their need to continue to engage with the state apparatus; v) managing failure – which is presented as a rectifiable deficiency in technique; and vi) re-assembling – believing communities will manage forests sustainably not because it is their custom to do so but rather because experts have set the appropriate conditions and market incentives to encourage the approved behaviour. Li then demonstrates the power of this assemblage through an extended study of community forest management in Indonesia – while I utilize her analytic in my study of community forest management in Zambia (ibid).

Heffernan (2022a) refers to the assemblage that has formed in Namibian CBNRM as the ‘green global policy assemblage’. He argues that the Namibian state maintains power at a distance rather than empowering communities. Communities remain dependent upon a proliferating array of actors, thus rendering them less autonomous and more reliant. He contends that CBNRM is not a domestic conservation policy that is then influenced by global power relations. Instead, it is a confluence of relations occurring at both global and local levels (ibid).

In a study of REDD+ readiness materials, Müller finds local actors are valued as agents of change—albeit ones that are still in a subaltern status and therefore in need of empowerment (Müller and Ziai, 2017, as cited in Müller, 2020).

Power resources and ‘weapons of the weak’

As relations of power feature prominently in political ecology’s analysis of social / environmental systems and drivers of change (Robbins et al., 2014), it is useful to consider the range of power resources used by various actors.

Economic resources, including not only financial capital but also ownership of or access to land and natural resources, are a strong predicator of power. Political resources, including

the ability to influence policies, laws, public budgets and bureaucracies, are—even in democracies—prone to power asymmetries, and strongly linked to the control of economic resources (Benjaminsen & Svarstad, 2021).

Considering that ‘knowledge is power’, production of and access to information represents another important power resource, with the ability to control discourse identified by Foucault (2008) as an instrument of ‘governmentality’. Li (2007a) notes that ‘authorizing knowledge’ often refers to possible positive outcomes rather than challenges on the ground, such as land or resource rights, which are often complex, contested and overlapping. She cites Benda-Beckmann and Benda-Beckmann (1999, p.2-3), who are critical of the discourse of sustainable resource management, which creates new resources (biodiversity, the global commons) and new rights bearers (the global community, conservation lobbies). They contend these ‘rights bearers’ feel authorized to intervene in people’s lives with new or intensified practices of exclusion, regulation and zoning—echoing the sentiments of many anti-REDD+ activists.

In the face of asymmetric power, people may employ various forms of everyday resistance, utilizing what Scott (1985) refers to as the ‘weapons of the weak’, such as feigned ignorance, gossip, acts of minor sabotage or ‘go slows’. Weaker actors are arguably far less interested in changing the larger structures of the state and the law than in “working the system...to [their] minimum disadvantage” (Hobsbawm, 1973, p.13). While this everyday resistance does not openly contest structures of power, Scott contends that public transcripts rarely tell the whole story about power relations. He recommends augmenting these with ‘hidden transcripts’, through which critiques of power can be disguised in the form of rumors, proverbs, jokes, and folktales.

Another ‘weapon’ used to address power asymmetries is ‘discursive resistance’, which is exemplified by local leaders or community members attempting to persuade outsiders, such as NGO representatives or researchers, to speak on their behalf. By amplifying local voices, ‘discursive resistance’ is seen as a way to influence policy or public debate in general (Cavanagh & Benjaminsen, 2015) – a phenomenon I experienced and speak of in the sections on Limitations in Chapters 3 and 8.

Scott (1985) places this resistance somewhere between structure and agency. Thus, he claims that most of the political life of the ‘weak’ is to be found neither in the overt collective defiance of the powerful, nor in complete hegemonic compliance, but in the vast territory between these two extremes (see also Musonda, 2023). Through my research I am able to contribute ‘hidden transcripts’ to enrich our understanding of the power dynamic at play in the ‘environmentality’ (Agrawal, 2005) of community-based forest management.

Chapter 3: Theoretical, Conceptual and Methodological Frameworks

Theoretical framework

Political ecology is an interdisciplinary field, synthesizing the natural and social sciences (Benjaminsen & Svarstad, 2021). The ‘political’ aspects involve a focus on various forms of power while ‘ecology’ reflects its focus on environmental issues. It is an overarching framework which encompasses various types of governance (including CBNRM), providing both critical and constructive contributions (the ‘hatchet’ and the ‘seed’) (ibid).

Political ecology combines critical perspectives with the hard-won insights distilled from field work (Rocheleau, 2008). Consistent with this theoretical approach, I have opted for a case study methodology as an appropriate means to link perspectives unearthed through my literature review with evidence obtained firsthand. This methodology can create a bridge between the normative and the empirical, i.e. between social constructions of ‘green capitalism’ and observations of nature-based solutions at work.

Understanding though that observations are oftentimes merely the ‘tip of the iceberg’, I apply a philosophy of critical realism to my research (another tenet of political ecology, synthesizing realism and social constructivism). This approach provides a rich analytic, also incorporating the unseen (contextual factors and verified occurrences) obtained through desk research (Bhaskar, 1998). My findings assist in answering the questions first raised in the Introduction and contextualized in the Literature Review:

- How does the commodification of nature in Zambia’s Luangwa Valley create value – and for whom?
- In what ways does the institutional environment promote (in)justice in community-based natural resource management?
- What is the rationale for private sector financing of global public goods, such as climate and biodiversity?

My research is explanatory—rather than purely descriptive—in a search to understand ‘how’ and ‘why’ things happen. As critical realists differentiate between the *real*, the *actual* and the *observed*, the application of this philosophy enables me to deepen the explanatory potential of my thesis. In addition, political ecology’s ‘chains of explanation’ enable linkages to be made between events observed locally and those occurring provincially, nationally, regionally and even globally (Blaikie & Brookfield, 1987; Rocheleau, 2008). This allows a ‘global green assemblage’ to be envisaged (Heffernan, 2022a; Li, 2007a), with significant ramifications for an analysis of the power dynamic as well as the community empowerment that CBNRM purports to develop.

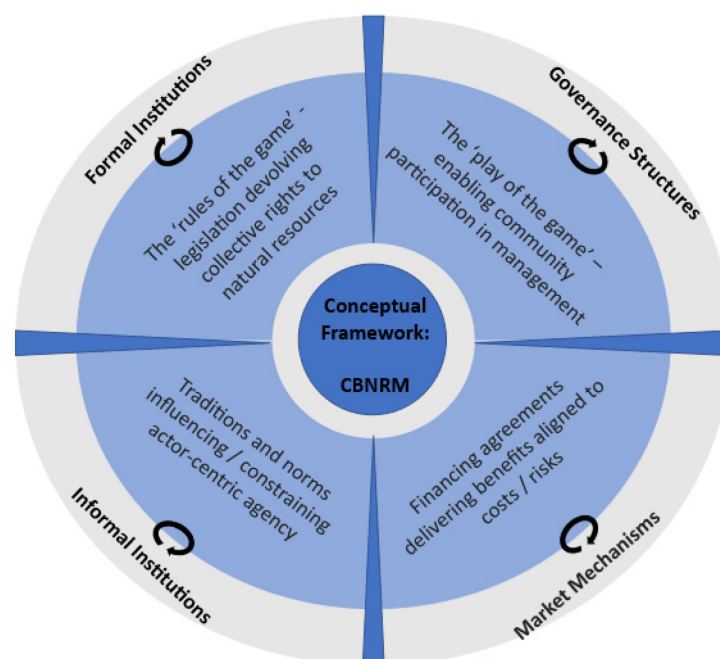
Another synthesis is emerging between political ecology and adaptive co-management, with its approach of learning-by-doing, collaboration and adaptation in managing socio-ecological systems (Armitage et al., 2008; Plummer et al., 2012). The synthesis of political ecology’s focus on power with adaptive co-management’s emphasis on inclusive participation can help reveal whether co-management genuinely redistributes power or

merely reinforces existing hierarchies. Adaptive co-management seeks to blend local knowledge systems with scientific learning while political ecology asks whose knowledge matters (see also Li, 2007a); collectively they may be able to create more reflexive, equitable learning processes. Further research may reveal the extent to which their shared focus on multi-level linkages in governance can mitigate power asymmetries and enhance collaboration (see also Blaikie & Brookfield, 1987; Butler et al, 2020).

Conceptual framework

Borrowing the compass from Ramalingam et al.'s (2014) complexity-based theory of change, I have developed a model to depict Williamson's (2000) institutional framework visually and tailored it to the analysis of community-based natural resource management, through which communities are incentivized to manage natural resources sustainably, with authority devolved to local governance structures. The circularity reflects the fact that progress is not linear. It also conveys the belief that each order affects and is affected by other orders, depicting the duality of structure and agency.

Figure 3: Conceptual model for CBNRM



(Adapted from Ramalingam et al., 2014, p.27)

Schlosberg's (2004) pluralistic view of justice can be seen in the model, with formal institutions able to afford recognition to communities, governance structures to enable participation and the market to provide a platform for distribution of benefits. While social norms may potentially constrain actor-centric agency, they also offer the potential to develop social capital and enhance trust.

The framework also provides a means of synthesizing normative and empirical analyses, thus addressing the relationship between theory and evidence.

Case selection

In opting for a multiple-case study, my objective is to determine whether the form of finance matters, questioning whether there is greater evidence of ecological justice in the South Luangwa landscape, where nature has been ‘commodified’ (primarily through ecotourism and a REDD+ scheme) than in the donor-dependent North Luangwa landscape. Prior to conducting my research, I predicted contrasting results for anticipatable reasons (Yin, 2018). Although the South Luangwa and North Luangwa landscapes appear contiguous on a map, in fact the differences between them provide what I consider to be a most likely / least likely scenario if, in fact, the source of finance is the differentiator. I believe this mitigates the narrowness of the selection and enhances the ability to make a meaningful contribution to theory (Yin, 2018). The main sources of revenue in the South Luangwa landscape during the period of my research came from tourism and carbon credits. As there is abundant literature on ecotourism in South Luangwa (Chidakel et al., 2021), I relied on secondary sources for this component and focused my empirical investigations on the more recently established forest carbon project. In the case of the North Luangwa landscape, I utilized the conservation programme as my unit of analysis.

Luangwa Community Forests Project⁸ (LCFP)

Africa’s largest REDD+ project, protecting over one million hectares of forest and benefitting over two hundred thousand community members, the 30-year LCFP (2015 – 2045) is developed and operated by social enterprise BioCarbon Partners (BCP). In addition to reducing emissions through avoided deforestation, the project aims to conserve a large part of the catchment of one of southern Africa’s longest rivers (the Luangwa), conserve Zambia’s largest hippopotamus population, conserve a (nearly) continuous wildlife corridor between five national parks⁹, and benefit local communities. Although expanding rapidly, LCFP’s base lies in the communal Game Management Areas surrounding South Luangwa National Park, Zambia’s most popular park in terms of tourism numbers, consistently attracting over 40% of the total visitors to Zambia’s major national parks (Snyman & Mwale, 2022, p.23), with the hub at Mfuwe boasting an international airport. The project has also recently been cited as the largest in the world by quantified social impact, having been certified ‘triple gold’ against Verra’s standard for benefits to climate, community, and biodiversity¹⁰.

North Luangwa Conservation Programme¹¹ (NLCP)

NLCP represents a 20-year Collaborative Management Partnership (2024 – 2044) between the Zambian Department of National Parks and Wildlife and the Frankfurt Zoological Society (FZS) to sustainably manage the remote North Luangwa National Park (and

⁸ Luangwa Community Forests Project <https://bcp.earth/projects/luangwa/>

⁹ Lower Zambezi, South Luangwa, Luambe, Lukusuzi and North Luangwa National Parks

¹⁰ Luangwa Project Largest CCB Triple Gold Verified REDD+ Project in the World <https://bcp.earth/news-and-press/luangwa-ccb-verified-redd-project/>

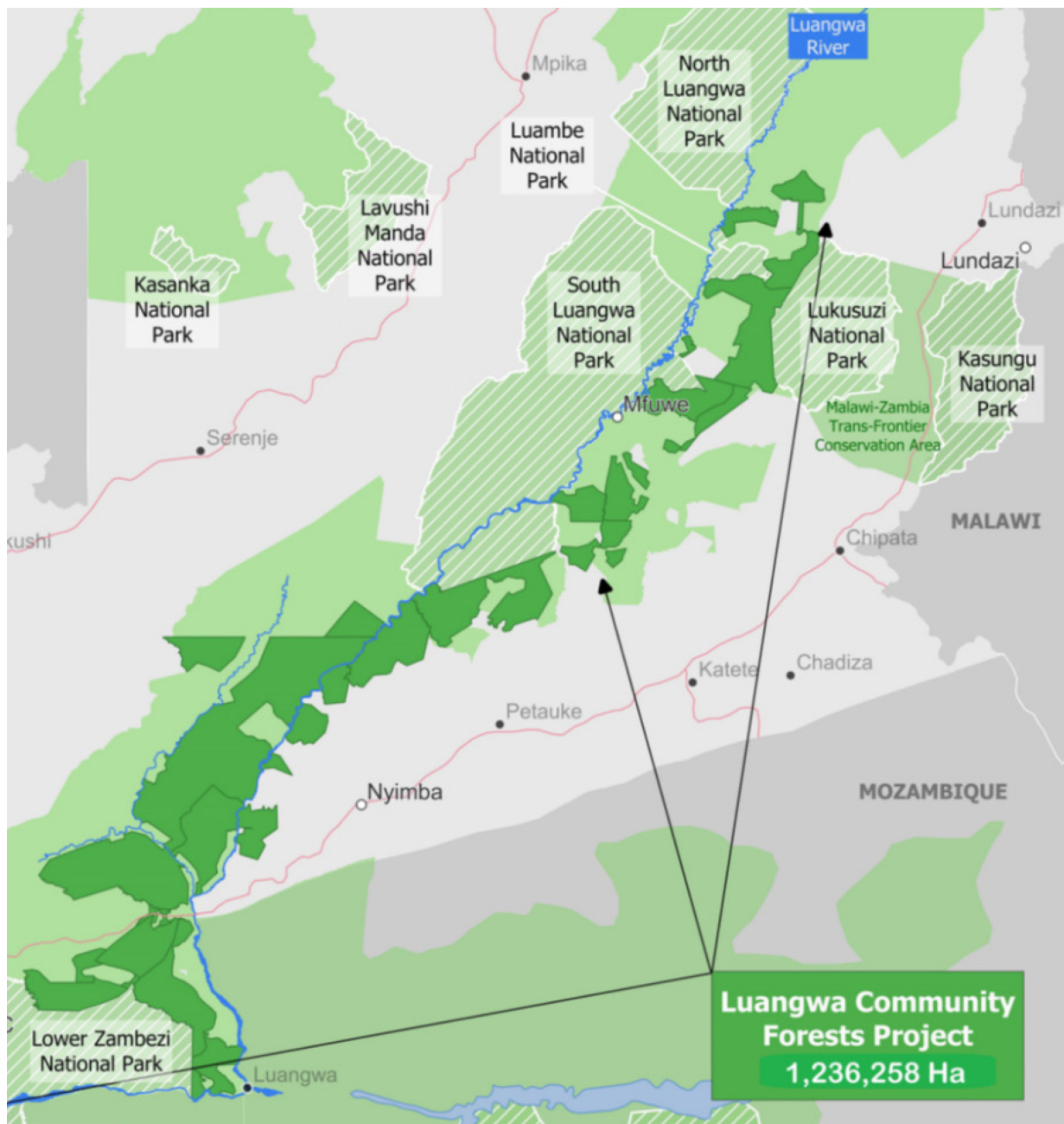
¹¹ North Luangwa Conservation Programme <https://fzs.org/en/projects/zambia/north-luangwa-national-park/>

surrounding communal Game Management Areas), building upon a relationship that began in 2008. Specifically, the programme aims to protect biodiversity and reduce wildlife crime in this 22,000 km² wilderness while improving socio-economic benefits for over 120,000 local community members through integrated conservation and development initiatives. The designation as a ‘Legacy Landscape’¹², has enabled NLCP to leverage private philanthropy to unlock long-term multilateral support. There are few discernible sources of revenue though, with the park described as ‘pristine wilderness’ and “Zambia’s best-kept secret” (n.d.) and management wary of the ‘carbon cowboys’ (Personal Correspondence, 4 November 2022). The park has been ‘green listed’ by the IUCN as evidence of good governance, effective management and successful conservation outcomes (IUCN, 2022) and is home not only to Zambia’s only black rhino population but also its largest and only increasing elephant population (FZS, 2023).

My expectation was that the different funding models would provide contrasting results, not only in the dynamic within the assemblages that have been formed, but also in the perceptions of equity and wellbeing amongst local stakeholders. Further, I believe the unique attributes of the two cases constitute a justification for considering this a critical case study, mitigating the narrowness of the selection, and enhancing the ability to make a meaningful contribution to theory (Yin, 2018).

¹² Legacy Landscape Fund <https://legacylandscapes.org/map/north-luangwa/>

Figure 4: Luangwa Valley, encompassing North and South Luangwa National Parks



(Adapted from BCP, 2024a)

Figure 5: Overview of the North Luangwa landscape



(FZS, 2024)

Mixed methods

Based on a philosophy of critical realism, I utilized multiple data sources and methods in order to link epistemological knowledge with ontological reality (Vincent & O'Mahoney, 2018).

The use of mixed methods, combining quantitative and qualitative approaches, provides multiple sources of evidence, enabling triangulation in order to enhance construct validity (Yin, 2018). As outlined below, I employed desk research, semi-structured interviews with key informants and other stakeholders identified through snowball sampling, focus group discussions and participant observation. My findings were triangulated with the results of a quantitative survey undertaken in 2022 by March Associates, who were contracted by BCP to assess community perceptions from participation in LCFP, as well as the results of a park perception survey undertaken by Chidakel et al. (2021) amongst communities living adjacent to South Luangwa. These surveys provided valuable inputs at the household level, supplementing my own engagements in this landscape. The stakeholder engagement summary (Table 1) as well as stakeholder mapping depict my attempts to engage with a range of actors from the local to global.

I recognize the need to balance the attainment of my research objectives with the resources available to do so. The best means to do so is by focusing on the choice of research methods,

considering what any given method can or cannot tell me in relation to what I want to know, attempting to achieve an acceptable balance between time, cost and quality

Desk research

I conducted a desk review of grey literature, including relevant laws, policies and reports produced by the Government of Zambia and other sources, as well as local media coverage thereof, to develop an understanding of the *real* (mechanisms or structures that explain the ‘why’ behind an occurrence) (Bhaskar, 1998). The challenges posed by the fragmented policy environment were revealed as I assessed legislation related to natural resource management and local governance, including inter alia Zambia’s REDD+ Strategy (2015), Forests Act of 2015 and subsequent forest carbon management legislation (2018, 2021), Wildlife Act of 2015, and National CBNRM Policy (2024), as well as the Report of the Committee on Local Governance, Housing and Chiefs Affairs (2020). I supplemented this with books and journal articles providing a rich analytic of the impacts of the Zambian legislative framework. I further included publications of multilateral and academic institutions to strengthen my contextual understanding.

My desk research began with an overview of the socio-economic situation in Zambia, including an understanding of the threats posed by deforestation and climate change. Early Zambian experiments in CBNRM were studied to provide historical background and an awareness of lessons learned. The fragmented policy and legal environments were assessed and the challenges posed by this fragmentation analyzed, with conservation efforts governed by overlapping and at times contradictory laws under the authority of different ministries and governing bodies. In the Findings section, I present the examples of wildlife, forestry and fisheries management to illustrate this fragmentation. Finally, more recent policies, including the National Community Based Natural Resources Management Policy (2024), were reviewed to ascertain the degree to which they may address some of the challenges noted above.

My review also included the most recent project documents produced by implementing partners, triangulated with third party verification reports compiled according to international standards, to identify the *actual* (the occurrence) (Bhaskar, 1998). In the case of LCFP, these include BCP’s 5th Monitoring Report (BCP, 2024b) and the fifth VCS verification report of the LCFP prepared by the independent audit firm AENOR CONFÍA, S.A.U (AENOR, 2024). This report then underwent an accuracy review by Verra, to strengthen reliability. In the case of NLCP, I relied on information made available by the IUCN following their review of the programme in order to award ‘Green List’ status. I augmented this information with quantifiable impacts obtained from the NLCP’s inaugural Socioeconomic and Biodiversity Impact Report (FZS, 2024).

Fieldwork

I utilized mixed methods during my field research to develop an understanding of the *empirical* (the observed) (Bhaskar, 1998).

Ethical clearance was obtained from the University of Ottawa’s Research Ethics Board in March 2023 (renewed in February 2024 and again in February 2025) and the University of Zambia’s Humanities and Social Sciences Research Ethics Committee in May 2023 (renewed in April 2024). These approvals are attached as Annexures B and C respectively.

Field work was undertaken during June – August 2023, with reliability enhanced by strict adherence to a collection protocol and by maintaining a chain of evidence (Yin, 2018). I travelled overland by road from my home in South Africa in a 4x4 camper, with a map of my ‘research expedition’ included as Figure 6. Travelling in this manner not only afforded me with access to the remote locations that I would be visiting but also enabled me to keep all transcripts safely under lock and key during the day. In addition, the ability to camp and to cook my own meals ensured the affordability of the expedition.

Figure 6: ‘Research expedition’ map



Credit: Marina Beech, cbio, 2023

The entire journey covered a distance of just over 10,000km in a period of just under 10 weeks – eight of which were spent in Zambia. I started and ended my field work in Lusaka, the capital city. I then camped for one week at Nyimba (visiting the Luembe chiefdom, which contains the largest intact forests in the project area), three weeks at Mfuwe (visiting six chiefdoms – Malama, Mnkhangya, Msoro, Jumbe, Nsefu and Kakumbi, where the forests are under the greatest threat due to the influx of internal migrants), one week at Chifunda (visiting the remote Chifunda chiefdom), crossing the Luangwa River by pontoon and traversing North Luangwa National Park in order to spend one week at Mukungule (visiting

the [nearly] ‘peri-urban’ Mukungule chiefdom), with a final day in Mpika before journeying back to Lusaka along the Great North Road.

I received financial support from the University of Ottawa to enable this critical component of my research. This support included a Doctoral International Research Scholarship of CAD 4,000 and two reimbursable research travel grants totaling CAD 2,050.

I kept a daily log, in which dates, times and places of interviews, discussions and/or observations were recorded. In addition, an interview log was kept, in which the name and a brief description of the interviewee (including their gender and their role), together with a summary of the interview, were recorded. A separate tab in this log was created to capture similar details on focus group participants.

Before engaging with participants, a clear explanation was provided as to the purpose of our discussion, with the Participant Information Sheet provided as Annexure D. This sheet was translated into Kunda and Chewa, two of the predominant languages spoken in the Luangwa Valley, for use as necessary.

My plan was to engage with approximately 100 stakeholders – 60 through focus group discussions (6 groups of 10) and 40 through individual interviews. In fact, I overshot this target by 100%, as I engaged with over 100 stakeholders through 15 focus group discussions and nearly another 100 stakeholders through interviews, with community members often spontaneously joining in. Participatory approaches were employed in order to maximize validity and reliability of information generated. These included listening, not lecturing; probing rather than passing on to the next subject; and learning about peoples’ concerns and priorities (Chambers, 1994). I followed Chambers’ recommendation to seek variability rather than averages and cross-check findings through triangulation. Combining these methods allowed not only for triangulation of a wider breadth of data but also mitigation of the limitations of any one approach. There is a risk within focus groups, for example, that certain voices may dominate, drowning out the potential for disagreement. On the other hand, focus groups provide an opportunity to observe voices coming together in consensus or in dissent (Kitzinger, 1994). Semi-structured interviews with key informants allow for engagement with a wide cross-section of stakeholders, providing a diversity of perspectives, yet may leave the researcher wondering whether saturation point has been reached (Weller et al., 2018).

Table 1: Engagement summary

Method	Category	Case 1	Case 2	Total	Participants
Key Informant Interviews	Project developer senior leadership	2	2	4	4
	Project developer operational staff	8	7	15	15
	Government officials / contractors	9	2	11	11
	Investors / donors	3	3	6	8
	Traditional authorities	2	2	4	6
	Community members	1	6	7	42
	Community Resource Board Association	3	0	3	3
	Other stakeholders	5	2	7	8
	Sub-total			57	97

Focus Groups	Community Resource Boards / VAGs / Community Forest Management Groups	6	9	15	109
Participant Observation	Project development staff with local stakeholders	11	3	14	276 (estimated)
Total				86	482

In my own experience, participant observation provided some of the most telling moments, as these were not constructed for my benefit – but rather were previously scheduled events that I was privileged to attend (Kang, 2017).

In terms of compensation, I reimbursed all travel costs of interviewees / respondents and provided refreshments (or a meal allowance). An honorarium was paid to the chiefdoms, as dictated by local customs.

Focus Group Discussions

A total of 15 focus group discussions were conducted with local community governance structures, including Community Forest Management Groups, Community Resources Boards and Village Action Groups (VAGs). All groups signed consent forms before the session began (with a sample form attached as Annexure E) and permission to record the session was obtained. It was seldom necessary to utilize the services of a translator, as there were usually a number of people in each group who spoke English, and virtually all participants demonstrated at least a passive understanding of the language. Nonetheless, when the services of a translator were employed, the individual signed a confidentiality agreement. The format of the discussion loosely followed that of a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis, with the discussion guide appended as Annexure F. Rather than focusing on the distinction between internal (strengths and weaknesses) and external factors (opportunities and threats), I asked participants to describe strengths and weaknesses that they currently experienced and then opportunities and threats that they perceived in the future.

Key Informant Interviews

A total of 57 semi-structured interviews were conducted with project / program staff at both a senior as well as at a more operational level, government officials, donors / investors, traditional authorities, and other local stakeholders identified through ‘snowball sampling’ (e.g., village headwoman, local NGOs, and tourism industry representatives). All individuals provided consent (with a sample consent form appended as Annexure G). The format of the semi-structured interview was a SWOT analysis, with the interview guide appended as Annexure H.

Participant Observation

Although every day that I was in the field provided possibilities for participant observation, there were 14 specific instances that were noted for the unique opportunities for learning that were provided. These included, inter alia, a village general meeting called for grievances to be formally aired, five training sessions on community-based natural resource governance, practical training on early burning and a weekly meeting of a women’s village banking group. In each instance, I was introduced to the group, the reason for my presence explained, and verbal permission obtained for me to attend as an observer. (In the case of

the village general meeting, the community welcomed my presence so eagerly, I felt cast more in the role of ‘witness’ than ‘observer’ – a nuance perhaps akin to Geertz's [1973] differentiation between a ‘twitch’ and ‘wink’- as I was not merely a passive observer but actively encouraged to bear witness to the exchange that took place). Additionally, although not directly linked to my research aims and objectives, I did observe the dominance of patriarchal influences. A hierarchy was apparent, with men seated on benches and the women on the ground. Most of the grievances were lodged by the men and those few women that did rise to speak tended to reiterate comments made by the men. Further research into the ongoing marginalization of women in the conservation sector, despite calls for inclusion in Zambia’s CBNRM policy (2024) and efforts to reduce gender-based violence in the sector (Malasha, 2020) would have merit.

Survey data

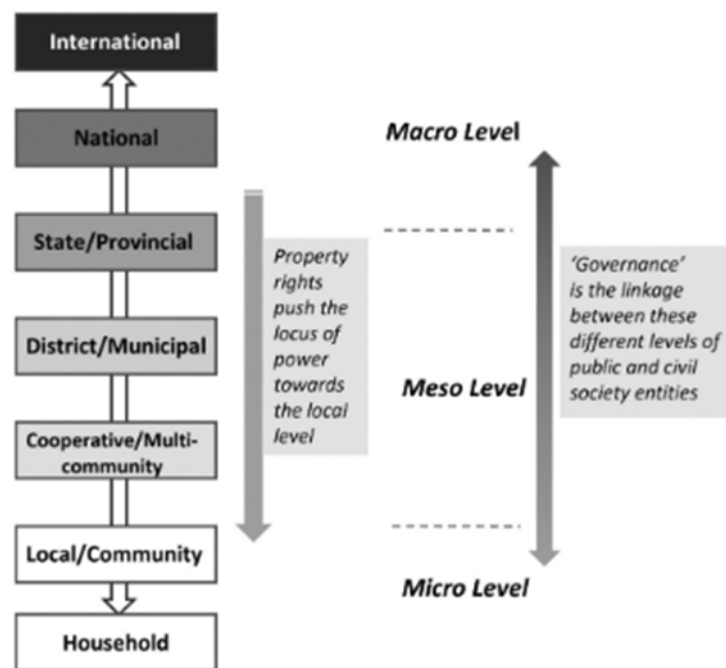
This qualitative data was triangulated by quantitative data obtained through two third-party surveys. The first was a survey conducted by March Associates in June – July 2022 (interviewing 400 households in the project area). March Associates was contracted by BCP to undertake the 2022 Social Monitoring Survey to assess community perceptions and household income from participation in their REDD+ projects, including the LCFP. This builds on previous surveys undertaken in 2020 and 2016 (when a baseline was established). The second was a park perception survey conducted by Chidakel et al. (2021) with 419 households living in the five chiefdoms closest to South Luangwa National Park’s main gate.

Mapping the actors: ‘Chains of explanation’

As discussed in the Literature Review, skeptics ask to what degree CBNRM is community-based at all, given that environmental goals are global in scope, with limited economic benefits devolving to communities (Heffernan, 2022a). In this section, I consider ‘chains of explanation’ in my case study analysis, understanding that structural factors and actors at both national and global levels can have great influence at the local level (Benjaminsen & Svarstad, 2021).

Lubilo and Child (2010) argue that many of the fundamental challenges to CBNRM lie in the allocation of roles and responsibilities and in the configuration of power and competition for resources between actors and across different scales. They depict this visually, in the figure below:

Figure 7: Governance level and scale



(Lubilo & Child, 2010, p.203)

To further my understanding of this dynamic, I engaged with stakeholders at all levels (see Figure 7 as well as Table 1 above).

Although I had limited firsthand engagement at the **household** level, I was able to augment participant observations and focus group discussions with survey data of 400 households in the project area provided by March Associates as well as approximately 400 households living in the vicinity of South Luangwa National Park.

At the **local / community** level I was able to engage with village headmen and headwomen and village action groups in the form of semi-structured interviews and focus group discussions. I also participated as an observer in a number of meetings, including that of a disgruntled community that called for a meeting with the chief, in order to express their dissatisfaction with benefit sharing arrangements. (Such meetings with the Chief are the traditional channel available to communities to voice such sentiments.) I engaged with the local offices of BCP and FZS, interviewing their staff, some of whom had been recruited from the local community. I also engaged with eight other local stakeholders, identified through snowball sampling.

At the **cooperative / multi-community** level, I had focus group discussions with governance structures, such as Community Resources Boards and Community Forest Management Groups, whose members are drawn from the Village Action Groups in the chiefdom. I also had semi-structured interviews with four of these chiefs.

I met with the Mambwe **District** Commissioner, who enriched my understanding of his role in coordinating the efforts of various government ministries with NGOs and implementing partners. I also interviewed a District Forestry Officer and observed his training of community-appointed fire marshals.

Zambia is piloting a jurisdictional REDD+ program in the Eastern **province**, and I had two meetings with government contractors to further my understanding, not only of the process of nesting existing projects, but also of their holistic approach to emissions reductions. This approach includes emissions reductions due to reduced deforestation, as well as to the promotion of climate-smart agricultural practices and the use of fuel-efficient cookstoves (Ministry of Green Economy & Environment, n.d.). I also met with the provincial representative of the Community Resources Board Association.

At the **national** level, I not only met with officials in the Department of Forestry and Department of National Parks and Wildlife, but also country managers for BCP and FZS as well as other key members of their head office teams. I had two meetings with the chairperson of Zambia's CBNRM Forum (who is also a technical advisor to the Community Resources Board Association and the chairperson of the **regional** Community Leaders Network of Southern Africa¹³).

At the **international** level, I conducted semi-structured interviews not only with bilateral donors / investors, but also with multilateral institutions such as the IUCN and the Legacy Landscapes Fund. In addition, to keep abreast of changing methodologies in the carbon markets I participated in a number of webinars, organized inter alia by Verra, whose Verified Carbon Standard is the world's most widely used Greenhouse Gas (GHG) crediting program ("Verified Carbon Standard", n.d.). I also had a number of direct e-mail exchanges with them for clarification purposes.

Heffernan (2022a, p.100) argues that CBNRM is not a domestic conservation policy that is then influenced by global power relations. Instead, it is a 'green global policy assemblage' that emerges through a confluence of social relations, both global and local, as well as public and private. By mapping my engagements along the spectrum from the local to the global, I was able to identify the assemblage at work in the Luangwa Valley.

My own stakeholder engagements mapped closely to Li's (2007a) list of parties to the assemblage, including official forestry departments, conservationists, (agro)forestry experts, donor agencies and forest villagers. I drew on secondary sources, such as the 2021 Greenpeace report (Mulungu, 2021), to incorporate the views of activists. While land tenure is discussed as a driver of deforestation, I did not engage with legal advocates, as the securing of land rights is beyond the scope of this research. As much of the land in the Eastern Province is under customary land tenure, permission to settle and use land is at the discretion of the local chief. I suggest that the challenges for forest management posed by this traditional form of local governance could be a topic for further research (Ministry of National Development Planning, 2017, p.28-29), building also on the work of Honig (2022) in unpacking the concentrated benefits and collective costs of land titling and the vertical and horizontal linkages that impede this process.

Blaikie and Brookfield (1987), in their 'chains of explanation' approach, recommend starting empirical examinations at the level of the immediate land manager (e.g. smallholder farmer), and working upwards through national and global scales. They look at how a smallholder uses land and natural resources, and what the reasons are for using them in a particular way. They then ask what the social, economic and political conditions are that

¹³ Community Leaders Network of Southern Africa <https://www.communityleadersnetwork.org/>

influence this land use. Benjaminsen and Svarstad (2021) argue that power relations flow largely in the opposite direction. Nevertheless, using local sites as points of departure can be useful for identifying the ways in which various actors and processes influence power relations between local and distant spaces (ibid).

These ‘chains of explanation’ and the ‘green global policy assemblage’ are elaborated on in the second of my three articles, “The ‘Green Global Policy Assemblage’: Forging alignment in Zambia’s Luangwa Community Forests Project”.

Data Analysis

I adopt a critical constructivist approach to my analysis of the data – offering the ‘hatchet’ as well as the ‘seed’ of political ecology. While bearing the ‘hatchet’ of critique, recognizing its necessity for political and intellectual renewal, a constructivist approach also plants a ‘seed’, envisioning the potential for more just alternatives (Alhojärvi & Sirviö, 2018).

The 36 years I have spent living and working in southern Africa—much of that time in the conservation sector—provided me with a solid understanding of the context for these case studies, a critical enabler for informed analysis. Nonetheless I am mindful of my positionality as a person born and educated in the Global North. To a degree, this makes me an ‘inside outsider’, as a scholar researching their own field, although from a theoretical rather than a practical perspective. This position calls for reflexivity, acknowledging the potential for a deeper, more nuanced understanding, while also aware of the risk that pre-conceived ideas may bias objectivity (Chambers, 1983/2014).

I made the decision to employ Nvivo software, as it facilitates an organized and structured approach to qualitative data analysis (Jackson & Bazeley, 2019). Using this software, I was able to anonymize and import transcripts. Thematic codes were determined deductively from the research questions; namely Value Creation (Q1), Enabling Environment (Q2), Ecological Justice (Q2) and Sustainability (particularly relevant to Q3). Each thematic code was then broken down into sub-codes inductively, based on participants’ responses, which were tallied at the end. Typically, things respondents cited as strengths fell under the code Value Creation, while weaknesses often centred largely on elements of Ecological Justice. Perceived opportunities or threats tended to be clustered under Sustainability. I used spreadsheets to summarize the responses and was solely responsible for all transcription, coding and summarization. Sometimes responses fell into two categories; for instance, the creation of jobs might be considered a strength (creating value in the eyes of the respondent) but the perception of favouritism in the allocation of these jobs would be a weakness (with the lack of transparency undermining ecological justice). This structured analysis serves to enhance internal validity (Yin, 2018).

The conceptual framework provides a link between the literature and my empirical findings as regards the role of the enabling (institutional) environment in promoting ecological justice.

In addition, I seized the opportunity to submit a case study on Luangwa Community Forests Project to African Leadership University as part of their Wildlife Economy *Lessons Learned* series (Bergs, 2024). This case study was reviewed by key informants before being

submitted for publication, a tactic Yin (2018, p.80) suggests in order to enhance construct validity.

Limitations

There are limitations to case studies, one of these being case selection bias. Most likely / least likely cases, though, tend to demonstrate the advantage of selecting on the dependent variable—in this case assessing ecological justice and sustainability to determine whether the form of finance matters (George & Bennett, 2005). I would argue that the selection of South and North Luangwa as the sites for my cases provides such an advantage, with replication logic enhancing external validity and the potential for generalizability (Yin, 2018).

Another potential limitation of case study research is a lack of representativeness (George & Bennett, 2005). A trade-off between explanatory richness and manageability is acknowledged, although I am more interested in finding conditions under which and mechanisms through which outcomes occur than in demonstrating the frequency thereof. As such, I have limited my selection to two cases in adjacent landscapes in the same country, mindful that the inclusion of additional cases in other landscapes and / or countries would potentially enrich the study, but could complicate comparability, and would require significantly greater resources and time than were at my disposal. Given my argument that these represent a critical case study, I believe this mitigates the narrowness of the selection and enhances the ability to make a meaningful contribution to theory (Yin, 2018).

I acknowledge the biases that existed in participant selection (Chambers, 1981, 1994), with the majority either a participant in LCFP or NLCP (although I was able to interview members of a community that had decided not to participate in the project). I was able to overcome spatial bias by travelling overland in a rugged 4x4 vehicle, but was not able to overcome seasonal bias, as the Luangwa Valley becomes impassable in the wet summer months, with many communities becoming virtual islands, as bridges are all but non-existent.

I acknowledge the fact that I worked through ‘gatekeepers’, as BCP and FZS facilitated not only introductions to the local chiefs, but also the community-level governance structures with whom I conducted focus group discussions. They also facilitated participant observation, as noted above, and allowed me to interview members of their respective teams, both at Head Office and in the field. In some cases, they provided an e-introduction to other key informants, such as government officials and donors. I realize that this held the potential to bias the information that I received but was reassured that communities were not shy to speak their minds, understanding that they had nothing to lose by being honest (and potentially something to gain, considering the potential for ‘discursive resistance’ alluded to in the Literature Review). In every instance, it was made clear that I was an independent researcher, affiliated with the University of Zambia, and that I was there to learn from them. I reiterated that I was not a representative of BCP or FZS – and that their confidentiality would be respected. Respondents were indeed frank, and sometimes (self-)critical, indicating that working through gatekeepers did not completely bias the results. In fact, my final question was always whether they had any questions for me, with the most frequent response being a desire to know what I would do with what they had told me. In every

instance, I explained that I could not guarantee that anything would change, but I could guarantee that their voices would be heard (most importantly, in Zambia, thanks to my local affiliation). In most instances, this appeared to suffice.

Another limitation is the time allotted for research—given the constraints of a PhD program of study—and have included recommendations for a longitudinal study in my suggestions for further research in the Conclusion section of this thesis.

Finally, I acknowledge my positionality, as a researcher representing an institution based in the Global North. Although communities were always somewhat shocked and amazed to learn that I was ‘back at school’, I appreciate the privilege that this represents. My affiliation with the University of Zambia ‘bridged the gap’ somewhat, as I was able to speak of an institution with which they were familiar (and in some instances, a professor - my local supervisor, Dr. Bwalya Umar – under whom some had studied). One aspect that may have inadvertently played in my favor was my age, as being an ‘elder’ engenders a respect not necessarily available in western cultures.

Figure 8: Into the field

Image author’s own



Chapter 4: Findings

The information in this section essentially represents the data which I then draw upon to develop the three articles presented in Chapters 5, 6 and 7.

The Real

I conducted a desk review of grey literature, including relevant Zambian laws, policies and reports produced by the Government of Zambia, as well as local media coverage thereof, to develop an understanding of the *real* (mechanisms or structures that explain the ‘why’ behind an occurrence) (Bhaskar, 1998).

My desk research began with an overview of the socio-economic situation in Zambia, including an understanding of the threats posed by deforestation and climate change. Early Zambian experiments in CBNRM were studied to provide an historical background and an awareness of lessons learned. The fragmented policy and legal environment was assessed and the challenges posed by this fragmentation analyzed. Finally, more recent policies, including the 2024 National Community Based Natural Resource Management Policy, were reviewed to ascertain the degree to which they may address some of the challenges noted above.

Zambia: A study in contrasts

Zambia is one of Africa’s most resource-rich countries – endowed with mineral riches, ranking as the second largest producer of copper on the continent (Rajkotwalla, 2024). It boasts a number of perennial rivers, including the mighty Zambezi (Africa’s fourth longest river and the largest flowing into the Indian Ocean [Misachi, 2021]) and two of its major tributaries, the Kafue and the Luangwa. The fourth highest forest cover on the continent is to be found in Zambia (Statista, 2023), as it sits in a dense forestry belt, which stretches from Angola in the west, through the Democratic Republic of Congo (DRC) to Tanzania in the east (ibid, Igini, 2022).

Yet in spite of this wealth in natural capital, the country is burdened with a staggering rate of poverty, with 61% of the population living below the poverty line and 48% considered multidimensionally poor (OPHI & UNDP, 2023). If Lusaka and Copperbelt provinces are excluded (the former containing Zambia’s capital and largest city and the latter containing the bulk of its mining activity), this statistic rises alarmingly, revealing that 79% of the population lives below the poverty line and 65% are considered extremely poor (ZamStats, 2024).

The dense forestry belt in which Zambia is beneficially situated has one of the world’s highest deforestation rates, with the continent’s deforestation rate nearly double the world’s average (FAO, 2020; Igini, 2022). This is considered a ‘double whammy’, as not only is the world losing a vital carbon sink, with forests able to absorb up to 30% of global fossil fuel emissions, but deforestation and forest degradation contribute approximately another 11% to carbon emissions (UNEP, 2021).

Forest cover in Zambia comprises around 45 million hectares, or over 60% of the total land area, although the government acknowledges the high deforestation rate in the country, estimated between 250,000 – 300,000 hectares per annum. This places Zambia among the 10 countries with the highest deforestation rates in the world (Matakala et al., 2015).

Zambia was thus a logical candidate in 2010 for the introduction of REDD+, with multilateral donors supporting the country through a readiness phase, which culminated in the development of a National REDD+ Strategy (ibid).

The question remains unresolved and contentious—can REDD+ address these overlapping crises—reducing deforestation, mitigating climate change, and alleviating poverty? Zambia’s early experiments with community-based natural resource management provide some insight into the country’s track record with this approach.

Early experiments in community-based natural resource management

If anthropogenic pressures can be minimized, biological systems adapt to withstand ecological fluctuation and tend to take care of themselves. Thus community-based natural resource management (CBNRM) is more about managing people than managing biological systems (Child, 1996). This sentiment was echoed 10 years later in Agrawal’s (2005) writing on ‘environmentality’ (found in the Literature Review).

In the case of Zambia, the CBNRM system was ‘birthed’ in response to a decline in global copper prices in the mid-1970s. Mining is considered the bedrock of the Zambian economy, with copper accounting for 70% of the country’s export earnings (Manchisi et al, 2021). This reliance on copper contributes to the fragility of Zambia’s economy, as shocks to the global copper price significantly impact tax revenues and government budgets (ibid). The decrease in revenue caused resources for wildlife protection to dwindle and a poaching crisis to ensue. In 1983 the Lupande Development Workshop was convened, resulting in the decision to use more ‘community friendly’ forms of natural resource management (Lyons, 2000). The workshop identified poverty as the main reason for rampant poaching and recommended that local communities should participate in both management of, and sharing of benefits from, wildlife (Dalal-Clayton & Lewis, 1984). Two programs emerged from this workshop - ADMADE and LIRDP.

With support from USAID, the Administrative Management Design for Game Management Areas (ADMADE) became the official policy for wildlife management in the communal Game Management Areas surrounding Zambia’s national parks. It was a top-down approach to management, creating committees to manage wildlife through the appointment of village scouts. Communities had no say in the awarding of hunting concessions, with all proceeds held by the Wildlife Department in a revolving fund. Disbursements were periodically made for community projects, but records and audits of the revolving fund were notoriously incomplete, so communities were seldom aware of how much money they were getting (Gibson, 1999 in Lubilo & Child, 2010). These projects had the characteristic of a public good, with benefits available to all members of a community, whether or not they participated in the initiative (Ostrom et al., 1993). Thus, all residents in the ADMADE project area stood to gain whether they poached or conserved wild animals (Gibson & Marks, 1995).

The Luangwa Integrated Resources and Development Project (LIRD) operated in six chiefdoms in the Luangwa Valley from 1986 to 2009, heavily reliant throughout on funding from the Norwegian Agency for Development Cooperation (NORAD) (Aongola et al, 2009). Like its sister program, ADMARE, the LIRD employed a top-down approach, aside from a brief window from 1996 – 2002, when 100% of hunting revenues were retained by the community. Lubilo and Child (2010, p.222) argue that—perversely—NORAD funding had the unintended consequence of disenfranchising communities. Although aimed at transforming the wildlife sector into an engine for economic growth, the program focused instead on building the state wildlife agency rather than on empowering communities. (ibid).

Subsequent analyses have identified the two greatest barriers to the development of CBNRM in Zambia as i) the lack of devolved collective rights over natural resources to local communities; and 2) weaknesses in local management institutions related to collective, community-level natural resource governance (Chidakele & Child, 2022; Davis et al., 2020; Lindsey et al., 2014; Lubilo & Child, 2010; Snyman & Mwale, 2022).

Bwalya Umar and Kapembwa (2020) describe the apathy that ensues due to low levels of participation and a sense of exclusion from benefits (due to elite capture at the local level). As there are relatively few ways for communities to engage in the wildlife (wild fauna) economy, Zambia’s Game Management Areas are facing enormous land use conversion pressures (Davis et al., 2020).

In a conference on African Wildlife Management in 2000, Murphree lamented that successful CBNRM remains elusive, “not because it has been tried and found wanting; it has been found difficult and rarely tried” (as cited in Lubilo & Child, 2010, p.223). As my research reveals, Zambia is again trying, having adopted legislation to enable communal resource management of forests and fisheries, but is hampered in its efforts by overlapping and at times contradictory legislation under the authority of different ministries and other governing bodies.

The policy environment

Zambia’s fragmented and contradictory policies affect not only the ways in which a range of natural resources within a geographic area are managed (e.g., wildlife, forests and fisheries), but also the ways in which traditional authorities engage with elected officials in local governance.

Table 2 highlights some of the challenges posed by the fragmented legal and policy environment. On communal lands designated as Game Management Areas, it is often the same individuals that ‘wear two hats’, acting both as the Community Resources Board, managing fees from hunting, and the Community Forest Management Group, managing revenues from carbon credits. Their dual reporting lines result in a lack of coordination, with competing priorities and approaches. One government official lamented that “The departments don’t speak the same language...there is a tug of war” (IGZ1408_2).

Table 2: Zambia's institutional framework

Legislation	Ministry	Local Governance Structure	Comments
Wildlife Act of 2015	Ministry of Tourism	Community Resources Boards (est. 1998)	Centralized control through Department of National Parks & Wildlife; CRBs receive concession and hunting fees from Treasury
Forests Act of 2015	Ministry of Green Economy & the Environment	Community Forest Management Groups	Devolved rights; statutory instruments provide guidelines for community forest management (2018); carbon stock management (2021)
Fisheries Act of 2011	Ministry of Fisheries & Livestock	Fish Management Committees	Low awareness, weak law enforcement, limited benefits with no sharing mechanisms
Lands Act of 1995 (amended 2010)	Ministry of Lands & Natural Resources	Biggest challenge - allocation of tribal land done by a chief who cannot be held accountable by regular democratic means; applies to 61% of land in Zambia	
Chiefs Act of 1965	Ministry of Chiefs & Traditional Affairs (dissolved in 2021)	House of Chiefs now sits under the Ministry of Local Government and Rural Development "where it belongs" ("Move to Dissolve...the Ministry of Chiefs", 2021).	
Local Government Act of 2019	Ministry of Local Government & Rural Development	Traditional leadership not participating in local structures due to limited capacity (Committee on Local Governance, Housing & Chief's Affairs, 2020)	

Although a new National Community Based Natural Resource Management Policy (2024) has been launched, the lengthy and costly process to amend corresponding legislation and drive implementation lies ahead. Nonetheless, the need for collaboration and harmonization has been identified, which is a necessary first step.

Ironically, this fragmentation was brought about by the introduction of formal institutions, as the creation of natural resource sub-sectors led to uncoordinated efforts in sustainable management. In pre-colonial times traditional leaders held authority over access rights to all natural resources within their chiefdoms (ibid).

A recent government report noted that for traditional leadership to be an effective tool in delivering the much-needed development in chiefdoms, issues of good governance, accountability and political neutrality will be required (Committee on Local Governance, Housing and Chief's Affairs, 2020). This will entail not only capacity building in areas such as English (Zambia's official language), computer literacy and management skills (ibid), but also a move away from an historically neo-patrimonial system, in which elite capture is ubiquitous (Lubilo & Child, 2010).

The Actual

I relied on project documents, triangulated with third party verification, to identify the *actual* (the occurrence) (Bhaskar, 1998).

LCFP Impacts

In the case of LCFP, this data served to confirm the existence of forest protection, the issuance of carbon credits and the distribution of revenue from the sale of said credits.

As at the end of 2022, the project spanned 1,236,258 hectares of forest, having incorporated 5 new chiefdoms into the project that year (BCP, 2024a, 2024b).

The question remains as to how confident we can be that deforestation is being avoided and emissions from deforestation reduced in the LCFP. This is determined based on an historical rate of deforestation, and it is on this basis that emissions reductions are calculated. For each carbon credit issued, a metric ton of CO₂ equivalent supposedly has not been released that would otherwise have been. This equivalence is difficult to prove as the counterfactual — what would have happened to deforestation without a REDD+ project — cannot be observed (Jones, 2024). Instead, a reference area with similar bio-physical characteristics is delineated, to which the project area can be compared.

The Community Forest Management Groups (CFMGs) have appointed BioCarbon Partners (BCP) as the project implementer, assigning the carbon trading rights to them. BCP then facilitates the third-party verification of emissions reductions and the issuance of carbon credits according to Verra's Verified Carbon Standard (VCS).

BCP's 5th Monitoring Report (BCP, 2024b, p.158) calculates net GHG emission reductions in 2022 at 1,946,717 tCO₂e utilizing Verra's VM009 methodology. This figure was derived by adjusting baseline emission reductions of 2,267,514 tCO₂e to account for project emissions underestimated ex ante. In addition, an amount of 10% is allocated to a global buffer pool to enhance permanence by mitigating the risk of reversals.

An independent audit team, AENOR CONFÍA, S.A.U., carried out the fifth VCS verification of the LCFP, agreeing with GHG emissions calculations and finding the project compliant with VCS criteria (AENOR, 2024). Questions have been raised as to the independence of the auditors, given that they are contracted and paid by the project proponent. While the potential for bribery and falsification of results obviously exists, I have relied upon AENOR's track record, as they have been accredited by the UNFCCC, selected by the World Bank to validate and verify REDD+ projects in Costa Rica, Indonesia and Chile¹⁴, and have verified the Kasigau Corridor Project in Kenya¹⁵, heralded as the world's first and longest-standing certified REDD+ project ("Kasigau, Kenya", n.d.). The organization is publicly committed to independence and impartiality, demanding that all staff, subcontractors or

¹⁴ www.en.aenor.com/internacionales/Proyectos%20Forest%20Carbon%20Partnership%20Facility.pdf

¹⁵ https://standfortrees.org/wp-content/uploads/Kasigau-Phase-CCB_VCS_verification-1_compressed-1.pdf

collaborators involved in certification or inspection guarantee that they have no link whatsoever to the evaluations in which they participate¹⁶.

Verra's accuracy review, however, found that, due to the inclusion of new chiefdoms in the LCFP, the reference area was no longer representative of the whole project area. A 30% discount was thus applied to the gross verified volume to allow for this deviation (AENOR, 2024, p.4). Verra's increased focus on improving the rigor of baseline calculations may also enhance confidence in the validity of the counterfactual. Additionally, it has prompted BCP to recalibrate baselines one year ahead of schedule (BCP, 2024b). In the meantime, participating communities absorb the cost, receiving 30% less in carbon fees.

BCP's 5th Monitoring Report (2024b) calculates cumulative net GHG emission reductions in excess of 11 million metric tons. By way of comparison, Global Forest Watch ("Zambia Deforestation Rates & Statistics", n.d.) estimates that deforestation in Zambia in 2023 resulted in 75.5 million metric tons (megatons) of CO₂ emissions. LCFP's contribution to reducing deforestation and resultant emissions is thus significant.

As an indicator of benefits 'beyond carbon', the credits are certified 'triple gold' against Verra's Climate, Community and Biodiversity Standard (AENOR, 2024). BCP then sells the carbon credits on the Voluntary Carbon Market (VCM) on behalf of the CFMG. BCP was successful in securing a 20-year Emissions Reduction Purchase Agreement with Italian energy company, Eni, with the first credits sold in 2019 and---despite the vagaries of the carbon market and changing methodologies—a fairly reliable income stream thereafter (Eni, 2019).

By the end of 2023 an amount of \$12 million had been disbursed to communities, of which approximately \$10 million has gone into infrastructure projects, supporting education, health, and water, sanitation and hygiene (WASH), while \$2 million has been directed towards livelihoods projects at household level (BCP, 2024a).

The benefit sharing mechanism (BSM) as at end 2022 was based on a 45% share of *net* proceeds to CFMGs, which they are then required to split 80:20 (with 80% to communities, 10% to chiefs and 10% for administration and law enforcement costs). At the time these initial BSMs were negotiated, while highly opaque, they were not illegal, as there was no legislation in this regard. The situation changed in 2021, with the passage of *Zambian Statutory Instrument 66*. Three years later, BCP was still not in compliance with the law, which requires that a BSM be derived from the *gross* revenue of carbon credits sold (Forest [Carbon Stock Management] Regulations, 2021, Clause 23.2d). Although BCP is currently negotiating the revision of the BSMs as they come up for renewal with the CFMGs, this lag in compliance has fueled suspicion and mistrust—not only of communities, but also of government and partner organizations. This barrier to distributive justice emerged as a weakness during my field work.

¹⁶ Public accountability: AENOR <https://www.en.aenor.com/conocenos/acreditaciones-y-reconocimientos>

NLCP Impacts

In the case of NLCP, I relied on information made available by the IUCN following their review of the programme in order to award ‘Green List’ status¹⁷. I augmented this information with quantifiable impacts obtained from the NLCP’s Socioeconomic and Biodiversity Impact Report (FZS, 2024).

The IUCN breaks key achievements into three categories: conservation, good governance and community development. In the case of NLCP, these are noted as the following:

The key conservation attributes noted were its black rhino population, pristine wilderness and level of protection. Since re-introduction of the rhino, there have been no instances of poaching, and the black rhino population has achieved a compound growth rate of >5% per annum. A recent vegetation survey which did a thorough assessment of forest and ecosystem intactness revealed very positive results in terms of the natural state of the park, with no reports of invasive species and 100% maintenance of its pristine wilderness. While the reports of patrol coverage and incidents of illegal activity are restricted, it was evidenced by the Zambian Expert Assessment Group during their site visit that the area has seen minimal incidents of illegal activity in the previous 12 months due to intensive patrols for rhino protection. This level of protection was seen to benefit all species within the park.

Good governance was evidenced in the NLCP’s working partnerships, its comprehensive Environmental Social Management System and its newly approved 2021 – 2031 General Management Plan, which serves as an example of integrated strategic planning. At the time of the assessment, the NLCP co-management contract between Zambia’s Department of National Parks and Wildlife and Frankfurt Zoological Society was under review, pending final signing, but has subsequently been signed (FZS, 2023). The programme also has established relationships with the Community Resource Boards (CRBs) in the communities surrounding the national park.

Community benefits include ownership of several small tourism businesses, infrastructure development and job creation. Three self-catering tented lodges have been constructed in the surrounding communities as well as three campsites within the park, the proceeds of which are received by the CRBs. Infrastructure support focused on offices for the CRBs, supplemented by capacity building and operational support. A total of 193 jobs directly linked to the NLCP have been created, with most of the work force recruited from surrounding communities. This excludes the casual employment opportunities that arise when there are road works, fence line maintenance and other construction projects.

To date a total of USD 5.1 million has gone into infrastructure while an annual investment of USD 8.8 million is made into North Luangwa National Park and the surrounding chiefdoms (FZS, 2024). In addition to its Green Listing, the park also underwent a management effectiveness assessment, attaining a score of 60%. The assessment covers not only inputs, processes, outputs and outcomes, but also the degree to which significant values and context are incorporated into planning (a relative weakness) as well as the relevance and usefulness of the management plan for effective conservation (a relative strength) (ibid). The report notes that, although communities in the North Luangwa landscape have largely

¹⁷ IUCN Green List <https://iucngreenlist.org/sites/north-luangwa-national-park/>

supported conservation initiatives (elaborated on further in the section below), it is important to develop business models that not only support the Department of National Parks and Wildlife in its conservation efforts but also enhance socio-economic opportunities and employment for local communities (a point picked up on in Article #3).

The Empirical

I utilized mixed methods during my field research to develop an understanding of the *empirical* (the observed) (Bhaskar, 1998).

LCFP Observations

In the case of LCFP, the findings were as follows:

Strengths

Zambia's Eastern Province—in which the LCFP is largely situated—is more than 90% rural and unemployment is high, with a large portion of the population engaged in informal economic activities such as subsistence farming and fishing in the rainy season (Ministry of National Development Planning, 2017). With limited livelihood options, and provision of infrastructure and social services by government practically non-existent, REDD+ has been embraced by local communities.

The majority of respondents, both to my own qualitative research as well as to the quantitative research conducted by March Associates, see REDD+ (and specifically the LCFP) as valuable, with forests a source of carbon revenues and ecosystem services. As stated by one of the respondents “Conserving the forest is the start of development” (FGD2806_1)¹⁸. During the course of the focus group discussion, others elaborated on the sense of ownership that has emerged, as the communities understand that the forest is theirs. They cited the fact that the forest provides traditional benefits to them, such as honey and herbal medicine. With poaching reduced, wildlife numbers are also increasing, with the forests providing valuable habitat.

Unsurprisingly, given the limited opportunities to generate cashflow, respondents to my own qualitative fieldwork as well as to March Associates' survey cite carbon fees as the biggest strength of the project. The importance of intact forests is nonetheless clear, with respondents also citing a number of ecosystem services provided by trees, including cooler temperatures, higher rainfall, moisture retention in the soil and reduced soil erosion. Community members voiced the sentiment that deforestation was a selfish act, benefiting individuals, while intact forests benefited all. A third benefit cited was the creation of jobs, largely in the form of village scouts, employed by the Community Forest Management Groups to protect the forests.

Weaknesses

Through semi-structured interviews and focus group discussions, perceptions of ecological (in)justice emerged as the greatest weaknesses of the project. The majority of respondents

¹⁸ The coding was used to anonymize the transcripts obtained from discussions with respondents.

cited the benefit-sharing mechanism (BSM) as problematic. While there was little consensus as to what a ‘fair share’ would look like, it was strongly linked to issues of transparency. Nobody knows exactly how much the project proponent, BioCarbon Partners, is making, but the presumption is that there is a reason for their opacity. There is reportedly no benchmark for such benefit-sharing arrangements (IPD2609_1), indicating a need for further research in this regard.

This is mirrored by unhappiness with the accountability of the representative structures—the Community Forest Management Groups—tasked to administer disbursement of the funds received. The challenges of good governance within the CFMGs were augmented by charges of elite capture and favoritism, with the importance of building strong trust-based relationships clear. One CFMG member acknowledged that “The people in the villages say, [CFMG] you are eating our money” (FGD2606_1). Respondents also cite local elites that ‘have their cake and eat it too’, as they derive benefits from deforestation while simultaneously reaping the benefits of REDD+ (IGZ2706_1).

Interestingly only 16% of survey respondents cited any negative experiences with the project—and those that were mentioned focused primarily on restrictions in accessing land and forest resources (including firewood).

The strengths and weaknesses of the LCFP, as determined by my own qualitative research are compared with survey findings in the table below:

Table 3: Strengths and weaknesses of LCFP

Discussion groups / Interviews	Survey findings
Strengths	
Carbon fees: 69%	Carbon fees: 60%
Importance of forests: 35%	Forest conservation: 36%
Jobs: 27%	Employment: 13%
Weaknesses	
BSM transparency: 69%	Limited options of expanding fields: 15%
Accountability / elite capture: 50%	Restricted access to forest products: 5%
Trust: 28%	Lack of consultation: 2%

While survey findings mirrored my own findings quite closely as regards strengths, they also noted improved knowledge in climate smart agriculture and farming techniques as a significant benefit, identified by 22% of the respondents.

Our findings differed significantly though as regards weaknesses. This may be due to the fact that I simply asked respondents where there was room for improvement within the project, whereas March Associates asked whether respondents had any negative experience(s) with the REDD+ project—a binary yes / no question. Only 16% answered ‘yes’, and of these the biggest factors were the limited options of expanding their fields / losing access to new lands, followed by restricted access to firewood and forest products. This discontent may reflect spatial injustice, as those households living closest to the protected forests experience the greatest (opportunity) costs, while benefits are (at least in theory) shared equally throughout the chiefdom.

In addition, the survey revealed a 10% change in perceptions of wellbeing and overall project satisfaction, with 80% of respondents approving of the implementation of the LCFP in their forests in 2022 (up from 72% in 2020 and 67% in 2016). It also provided a number of recommendations for improvement. These included enhancing communication, expanding the potential for employment, defining the role of traditional authorities and governance structures clearly, and ensuring a fair allocation of projects amongst the villages in the project area.

Opportunities

Based on feedback received during fieldwork, the opportunities vary, depending upon the stakeholder group. To communities, the biggest opportunity lies in addressing the weaknesses. To BCP, the project proponent, the biggest opportunity lies in an expansion of the project area (with plans to triple the hectareage of LCFP over the next three years) (BCP, 2023). The biggest opportunity in Eni's eyes lies in the ability to demonstrate impact, fending off what they consider unfounded attacks of anti-REDD+ critics (IID1109_1). For government, the biggest opportunity lies in a jurisdictional approach¹⁹, 'nesting' existing projects within the Eastern Province, in order to 'force transparency' (IGZ1606_1) and enabling them to 'claw back' some of the money they see going into private pockets (IPD2006_1).

Threats

Encroachment into the REDD+ zone, fueled by a rapidly increasing population due to an inward flux of 'climate migrants', is seen as the greatest threat. The largest driver of agricultural expansion into these forest lands is seen as weak land tenure, as 90% of the local population are customary landowners without title (Ministry of National Development Planning, 2017, p.28). Traditional authorities, in turn, feel they lack the support of government in dealing with this inward migration (ITA2209_1). Climate change is also seen as a driver of this migration, increasing precarity, with farmers seeking to increase the prospect of a harvest by clearing new fields.

This is followed by concerns related to weak law enforcement, due to a lack of coordination between the Wildlife and Forestry Departments and insufficient funding. The policy environment is fragmented, with different ministries tasked to manage each of the natural resources, e.g., wildlife by the Ministry of Tourism, forests by Green Economy and Environment and fish by Fisheries and Livestock. This fragmentation emerges as a key driver of deforestation, which results in a lack of coordination, with competing priorities and approaches. The shortage of funds for community scouts appointed by the CFMGs prompted one respondent to note "[scout] salaries are so low, it is like voluntary" (ICA0907_01).

Additionally, respondents cited inadequate land use planning, exacerbating the challenge in allocating land to internal migrants, and insufficient capacity building, particularly as community-level governance structures, such as the CFMGs, are elected every three years. These threats to project success are summarized in the table below:

¹⁹ Eastern Province Jurisdictional Sustainable Landscape Programme <https://ziflp.org.zm/>

Table 4: Perceived threats to LCFP

Threats
Encroachment into the REDD+ zone: cited by 45% of respondents
Weak law enforcement / insufficient funding: cited by 35% of respondents
Inadequate land use planning / capacity building: cited by 33% of respondents

An unexpected finding was that only a few respondents cite fuel wood harvesting as a threat, although over 75% of the Zambian population relies on firewood or charcoal for cooking, and the only solution in the pipeline—according to an official in the Ministry of Green Economy and the Environment—an effort to increase the usage of fuel-efficient cookstoves and promote sustainable charcoaling. This underscores the importance of aligning conservation initiatives with development objectives and a longitudinal study on the struggle to promote fuel wood-saving technologies in southern Africa may be of some value here. To some degree this is a ‘vicious circle’ as areas cleared for charcoal production are often quickly utilized for agricultural expansion, with farmers (typically inward-migrants) taking advantage of already-cleared fields (BCP, 2019).

NLCP Observations

In the case of NLCP, I *observed* a number of ‘double-edged’ swords. In other words, the same item, such as human-wildlife conflict or jobs, would come up both as a strength and as a weakness. While grateful for the support they were receiving, respondents often felt the support was insufficient and / or perceived favoritism in its distribution. This has important ramifications not only for transparency and trust, but also for perceptions of the park and donor dependency. The findings are summarized as follows:

Strengths

Respondents (both focus group participants as well as interviewees) cited the value of conservation and natural resource protection as one of the greatest strengths of the programme. Approximately half of these cite the utilitarian benefits of an increase in natural resources—particularly wildlife—as most significant, as this brings not only the potential for hunting revenue, but also the creation of jobs, primarily as scouts. Another benefit cited was the attraction that a growing wildlife population holds for other stakeholders, such as donors and NGOs, who may bring new opportunities into the landscape (FGD2407_1). A smaller number of respondents cited the potential for their children to view wildlife as a benefit—although a sense of exclusion from, rather than ownership of, the national park must be considered in tandem.

Another benefit that emerged as a key strength of the programme is the network of Community Conservation Banks (CoCoBa)s that have been created. The purpose of the CoCoBas is described as two-fold—to empower women financially and to create conservation champions (as membership is contingent on signing a pledge not to engage in wildlife crimes in the future, even if they engaged in poaching in the past) (ICM2507_1). The initiative is not without its drawbacks—firstly because membership is strictly limited to 30, with demand far exceeding supply; and secondly due to a degree of donor dependency,

as there is reportedly a tendency to turn to FZS to provide a revolving fund to augment (sometimes) meager savings (IPD2407_1).

The third key strength—also featuring prominently in the IUCN Green List assessment as well as the NLCP Impact Report (FZS, 2024)—is the value of jobs created. As mentioned above, this is another ‘double-edged’ sword, due to perceptions of favoritism in recruitment as well as the need not only for more jobs overall (especially for women, who are seldom recruited as casual laborers) but also year-round employment (as many positions are only for six months of the year, with operations scaling back dramatically in the rainy season).

Weaknesses

Although FZS has invested significant time and resources in improving governance, this remains a challenge, with comments related to accountability, benefit sharing, participation, transparency and trust clustered under this general heading. It should be noted that there was little criticism levelled at the CRBs, although it is understood that the CRBs have no cash at present due to a hunting ban imposed by the President²⁰ (as the majority of CRB revenue is derived from hunting fees—described earlier in this section). To fill the gap created by this shortfall, communities’ expectations have shifted to FZS—with complaints that ‘promises’ made are not kept, eroding trust—also linked to issues of donor dependency. Somewhat related are concerns regarding corruption and elite capture, although this tends to refer to people in positions of power, including traditional leaders (with the allegedly illegal sale of an agricultural block in Mukungule an oft-cited example).

Another serious challenge is the issue of human-wildlife conflict—particularly in park-adjacent communities. Although grateful for the ‘chili bombs’ provided by FZS (made from chilis grown by local farmers) and the ‘chili patrollers’ (local youth who are incentivized by the program to patrol the fields, deploying the ‘bombs’ as required to chase the elephants), it seems these are grossly inadequate to counter the ever-present danger posed by wildlife. This challenge is linked to the threat of donor dependency, as FZS’ strategy is that local communities will take ownership of proven methods, while communities’ expectation is that FZS will expand the scope of the program, incentivizing patrollers year-round, protecting the villages as well as the fields (FGD1807_2). Community members note that “When animals terrorize our farms there is no result, so that person starts starving...; sometimes it even results in loss of life but there is no compensation; but when a villager kills an animal, they can go to prison” (FGD2007_1) implying a belief that wildlife is prioritized above humans.

A third challenge cited by a number of respondents is the lack of infrastructure—particularly of roads and bridges—impeding not only access to markets but also to hospitals and schools. Community members described how a person trampled by an elephant or experiencing complications in childbirth could die on the way to the hospital, with the journey taking more than twice the time it should, due to the poor state of the road. The weakness of the social contract is apparent, as communities seem to have no expectation that government will provide these essential services, turning to FZS in their absence. One respondent

²⁰ A controversial decision by Zambian President Hichilema in 2023 – 2024 effectively banned hunting in 19 concessions. Rumoured to be an attempt to clamp down on corruption in the tendering process, the decision was subsequently reversed by a High Court judge (ICA1309_1).

commented “The better these partnerships function, the more communities rely on [NLCP for] services that should be provided by the state” (IID2811_1). This also fuels the perception that wildlife is valued more highly than humans. Respondents note “Where animals stay, some good roads; where people stay, some bad roads. Why?” (FGD1707_1).

Opportunities

As noted in the management effectiveness assessment, there is a need to enhance socio-economic opportunities, focusing on livelihoods and income generation. Focus group discussants were quick to enumerate possible income generating suggestions, but these tend to focus on tourism development and carbon credits. Communities seem to have welcomed BCP into their midst with open arms, even if the response on the part of FZS has been a bit more guarded (elaborated on further in Article #3). Park-adjacent communities, desperate to participate in the carbon project from which they see chiefdoms to the south deriving benefit, tell BCP “We are ready...we are waiting for you” (IPD2808_1). Thus, despite misgivings on the part of NLCP management, BCP had already begun supporting chiefdoms in the NLCP landscape to register Community Forest Management Groups at the time of my visit (a process finalized over the following 12 months). It was noted though that big projects create big expectations, and the introduction of an investment opportunity into a community changes the social dynamic (possibly a subject for further research) (IPD0108_01).

Another opportunity is the promotion of capacity building, critical for the development of human capital. While FZS is lauded for the investment they have made in governance training to date, respondents are hungry for more. Some feel ill-equipped to perform their roles, for instance as a Conservation Teacher in the local primary school (with no background in conservation, having only received a one-day orientation) (ICM1807_1). The observation was made that, if local talent is nurtured, conservation can become not only a career but a lifestyle (IPD2807_2). Opportunities to learn from each other—e.g., exchange visits between VAGs (Village Action Groups)—was suggested, as group members describe themselves as ‘toothless’ (FGD2407_2).

Finally, there is an opportunity to improve perceptions of the national park. As a result of its ‘fortress conservation’ approach, community members believe if they are found inside the park, they will be arrested. Although the conservation textbook used in the schools states boldly, “This is YOUR North Luangwa National Park”, most local community members have only seen the park in pictures. Local village headmen believe that they could become conservation ambassadors if they had an opportunity to visit the park (FGD2507_1). FZS’ historic ‘inside out’ approach, with a primary focus on park protection and a secondary focus on park-adjacent communities, is now being balanced by a more recent landscape level approach—described as ‘outside in’. This more holistic understanding of the park’s place in the broader landscape may help to improve perceptions which, at the moment, are divided.

Threats

The biggest threats to the programme appear to be financial, with complaints of insufficient funding mirrored by evidence of—and concern regarding—donor dependency. FZS clearly wants local communities to take ownership of projects, but this is—by and large—not happening. Dependency exists at all levels, from community members who acknowledge “Without FZS, this [Ituba] camp would not be” (ICM2107_1); to traditional authorities who

note “If donors stop, nothing would work” (ITA2407_1); to government officials, who report that the Ministry [of Tourism] sees FZS paying for human-wildlife conflict mitigation and anti-poaching (implying there is no need for them to budget for these activities) (IGZ1707_1). Some communities are even refusing to speak to government, stating that FZS does more for them than government does (IPD1707_1). The question was also raised as to whether an endowment decreases incentives to raise other funds (IID0911_1). Despite NLCP’s Legacy Landscape status, landscape budgets can run far in excess of annual receipts as the scope of the budget expands to include communities.

Another threat to the programme is constraints in law enforcement, largely related to a shortage of funds, but also due to the need for better sensitization of community scouts. A failure to address this threat could result in corruption and / or a souring of community relations.

These findings are summarized in the table below:

Table 5: Strengths, weaknesses, opportunities and threats of NLCP

Responses from focus group discussions / interviews	
Strengths	Weaknesses
Value of nature conservation: 40%	Governance challenges: 27%
CoCoBas: 25%	Human-wildlife conflict: 21%
Jobs: 14%	Employment opportunities: 19%
Opportunities	Threats
Income generation: 33%	Insufficient funding: 40%
Capacity building: 31%	Donor dependency: 36%
Perception of the park: 15%	Law enforcement constraints: 10%

Chapter 5: Article #1

The Role of the Voluntary Carbon Market in Addressing Global Social Challenges: Ecological (in)justice in Africa's largest REDD+ project?

Citation: Bergs, K., 2025, The Role of the Voluntary Carbon Market in Addressing Global Social Challenges: Ecological (in)justice in Africa's largest REDD+ project? *Global Social Challenges Journal*. <https://doi.org/10.1332/27523349Y2025D000000049>.

Abstract

The sheer existence of the Loss and Damage Fund is an acknowledgement of the asymmetry between the causes and effects of climate change, with those countries least responsible the hardest hit. The funds pledged at COP28 (little of which was new or additional) amount to less than 2% of the amount needed. Most alarmingly, more than half of climate finance reported by wealthy countries for the period 2011 – 2020 was redirected development aid, undermining delivery on other pressing priorities. The need to augment public sources of finance with private is apparent—yet triggers debates around the ‘commodification of nature’ and the suitability of market mechanisms to deliver social and environmental outcomes. Through case study research in Zambia’s Luangwa Valley, home to the largest REDD+ project in Africa, I interrogate the extent to which capital pursues financial efficiencies over development effectiveness. Although there is evidence that the Voluntary Carbon Market can deliver a price that includes benefits ‘beyond carbon’, the opacity in over-the-counter sales fuels suspicion that communities may not be receiving their fair share. In addition, the fragmented policy environment emerges as a key driver of deforestation while weak local governance erodes trust, with allegations of elite capture commonplace. Nonetheless, communities’ desire to retain their forests—and to benefit financially from so doing—is strong, and their voices should not be drowned out in the furor. Measures to enhance transparency and reduce corruption are needed in order to promote ecological justice.

Introduction

Whether it’s called the Loss and Damage Fund or the Climate Impact Response Fund (Chandrasekhar et al., 2023), the fund’s sheer existence is an acknowledgement of the asymmetry between the causes and the effects of climate change, with those countries least responsible the hardest hit. The funds pledged at COP28 of \$770.6 million (little of which was new or additional) amount to less than 2% of the amount needed—estimated at \$400 billion (Lakhani, 2023). This fund, though morally significant, pales in comparison to the amounts considered essential to mitigate climate change in poor countries (assessed by the IPCC at \$1.4 – 2.8 trillion per annum) as well as adapt thereto (with UNEP providing an annual median estimate of \$202 billion) (Richards et al., 2023, p.13-14). Given that wealthy countries have consistently failed to meet their commitment to provide \$100 billion of new

and additional climate finance annually (long recognized as entirely inadequate), it seems unlikely that they will step up to deliver the (as-yet-to-be-determined) New Collective Quantified Goal (NCQG) ("COP28 Agreement", 2023).

More worrying is the fact that much of this finance is neither 'new' nor 'additional', as determined in a study undertaken by CARE, in which they analyzed all public climate finance reported from 2011 - 2020 (Hattle and Nordbo, 2023). In the absence of definitions, CARE defined 'strong additionality' as the amount of climate finance provided on top of the long-standing commitment to provide 0.7% of Gross National Income as Official Development Assistance and 'weak additionality' as the amount of climate finance provided on top of the level of development finance provided in 2009. Their analysis revealed that only 7% of reported climate finance was strongly additional; and even under the weak definition, 52% was redirected development finance (ibid). The IPCC notes that this undermines resilience to climate change and increases vulnerability for a community at any given level of climate shocks (2022). The necessity to augment public sources of funding with private is apparent, with the concept of offsetting structurally aligned to the principle of the NCQG, in which those most responsible for climate change are held accountable.

Purpose and outline of paper

In this paper I apply not only a critical but also a constructivist approach to an analysis of the REDD+ (Reducing Emissions through Deforestation and Forest Degradation) mechanism and the Voluntary Carbon Market (VCM). My purpose is not only to identify systemic weaknesses and threats to sustainability, but to suggest ways in which the VCM and REDD+ could contribute to addressing global social challenges, not only mitigating climate change but also moving towards ecological justice.

The literature review that follows will examine the concept of value creation when nature is commodified (as in Payment for Ecosystem Services [PES] schemes in general and REDD+ in particular) and consider the requirements of transformative governance in pursuit of ecological justice. In addition to a desk review of the literature, my methodology includes case study research conducted in June – August 2023 in Zambia's Luangwa Valley, home to the largest REDD+ project in Africa (BioCarbon Partners' Luangwa Community Forests Project). The discussion that follows will explore links to Bennett's contribution to the article "Global social challenges for development studies in the Crisis in the Anthropocene" published in the *Global Social Challenges Journal* (Simon et al., 2023), namely the systemic integration of development finance with development theory and practice. The conclusion will provide a set of recommendations, in this way contributing to the policy debate on the merits of REDD+ (where some would even 'axe' the VCM) and the potential to improve an imperfect tool.

Literature Review

My research is guided by a theoretical framework of political ecology – with its synthesis of the natural and social sciences, its focus on power dynamics and its attention to dimensions of ecological justice. The analysis in this section focuses on current debates regarding the suitability of market mechanisms for attaining social and / or environmental outcomes, in order to interrogate whether the process of value creation in the carbon markets

can deliver equity in its procedural and distributive components. This analysis will then be extended to the Zambian context, considering the potential for transformative governance in this complex landscape.

Market mechanisms and the commodification of nature

Inspired *inter alia* by theoretical insights from Marx, Polanyi, Gramsci and more recently Harvey, with the rise of PES schemes since the early 2000s, there has been a veritable explosion of scholarship examining the neo-liberalization of environments, nature and conservation (Barrett et al., 2013; Büscher, 2014; Büscher & Fletcher, 2019; Fairhead et al., 2012; McMichael, 2012). These authors contend that, even when local communities are not dispossessed of their land in the name of conservation, the restructuring of rules and authority in the access, use and management of resources can have profoundly alienating effects. They question the notion behind PES, with the original motivation to garner political support for conservation by demonstrating the economic value thereof, arguing that remuneration will not necessarily ensure provision and creating what Büscher refers to as ‘fictional conservation’, circulating capital in new economic systems (2014). Further authors flag the significant shift in ideology, with nature originally considered as requiring protection from economic forces. Over time, ironically, its commodification was seen as essential to sustaining its existence (Barrett et al., 2013, p.338). The term ‘nature’ itself (in this case, taken as the natural—as opposed to the built—world) is a contested notion, with language not only reflecting but also shaping our views (Hajer & Versteeg, 2005, as cited in Benjaminsen & Svarstad, 2021, p.41).

On the other side of the divide are scholars who argue that the rule of thumb in nature conservation is that “if it pays, it stays”. Lewis et al. (2011, p.13961) cite a retrospective study that showed that World Bank projects with biodiversity goals were as successful in attaining development objectives as those focused solely on development, with the strongest indicator of biodiversity success the presence of market mechanisms and sustainable finance. In addition, they argue that the adoption of a local business-based approach removes the time constraints that plague Integrated Conservation and Development Projects. These projects are often long-term in nature, taking up to 20 years to design, roll-out and implement, yet tend to be funded by short- to medium-term grants of aid money (three to five years in duration), which may or may not be renewed.

Lindsey et al. (2022) argue that rising global consumption is intensified by ‘telecoupling’—socioeconomic and environmental interactions over distances—including flows of ecosystem services. Because it separates consumers from the environmental impacts of their actions, telecoupling not only fuels destructive practices such as deforestation, but exacerbates the political, societal and economic undervaluation of nature and unsustainable use of natural resources. The authors suggest regulating the utilisation of resources by foreign actors; aligning conservation and development (e.g., monetising and selling ecosystem services and empowering communities as key decision makers); and strengthening efforts by significantly elevating funding (*ibid*, p.105)—a sentiment echoed by numerous others (Barnes et al., 2002; Kansky et al., 2020, 2021; Naidoo et al., 2011; Snyman et al., 2021; Störmer et al., 2019).

The debate regarding the ‘commodification of nature’ and the suitability of market mechanisms to deliver social / environmental outcomes rages unresolved, but perhaps the

answer is relative—rather than absolute—with ‘tipping points’ beyond which commodification may become self-destructive. I argue that the potential for nature-based solutions to contribute not only to climate change mitigation but also to improved livelihoods and enhanced resilience impels us to critically assess findings on the ground, through case studies such as this one. I utilise the UN Environment Assembly definition of ‘nature-based solutions’, namely actions to protect, sustainably manage and / or restore ecosystems while also addressing societal challenges—thus simultaneously providing human well-being, ecosystem resilience and biodiversity benefits (UN Environment Assembly, 2022).

History of offsetting

The notion of offsetting dates back to the 1980s, when fossil fuel companies grappled with the harms of fossil fuels and were looking for novel ways to reduce emissions. The idea of surrounding power stations with forests was touted but found impractical—hence the idea of planting (or protecting) forests elsewhere. TIME Magazine heralded the “Antidote for a Smokestack” when a coal-burning power plant in Connecticut gave \$2 million as seed funding to enable the Guatemalan Forestry Service and the Peace Corps to support 40,000 local farmers to plant 52 million seedlings (TIME Magazine, 1988).

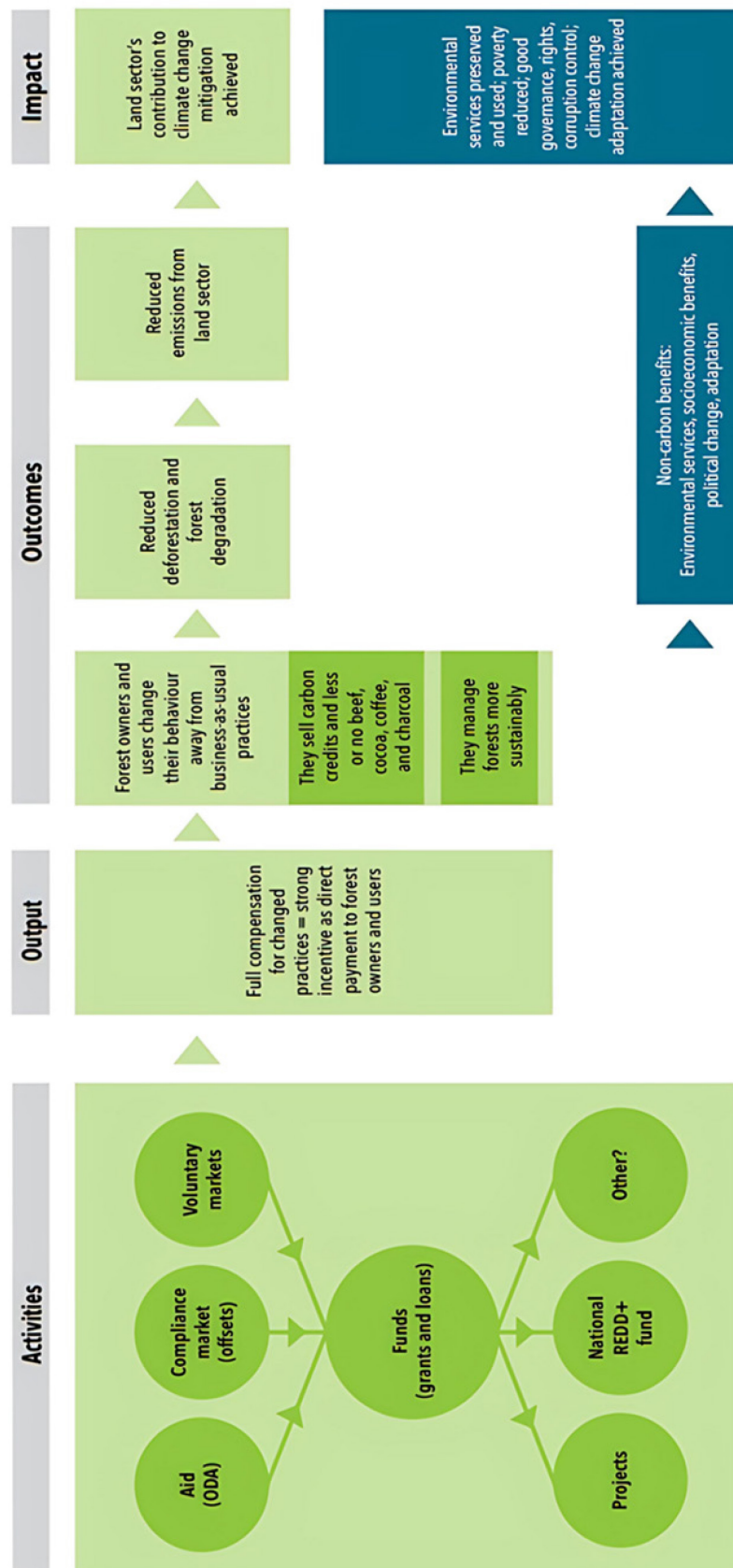
A decade later, the concept of carbon offsetting was enshrined in international law, as thirty-seven industrialized nations and the European Union agreed to emissions-reduction targets under the Kyoto Protocol (UN, 1998). Through the United Nations’ Clean Development Mechanism (UN, 1998, Article 12), rich countries struggling to meet their goals could compensate by paying for projects in impoverished ones. While public finance to develop a global carbon market has been lacking (Angelsen et al., 2018) in its stead, we have seen the rise of the Voluntary Carbon Market (VCM), which started in the 1990s and grew slowly for two decades. After the 2015 Paris Agreement (UNFCCC, 2016) was signed, however, the VCM doubled in size within five years, with the largest demand coming from private companies (Dyck, 2022) and the largest supply from REDD+ (Dyck et al., 2023).

The rise of REDD+

REDD+ was originally conceived as a performance-based payment to forest owners and users to reduce emissions and increase removals (Figure 9). The idea was that such payments would provide strong incentives to better manage forests and clear less forestland. Forest conservation would become more lucrative than the alternatives, such as raising cattle or selling coffee, cocoa or charcoal (Angelsen et al., 2009).

Debates centred on the concepts of strong incentives, direct payments and full compensation (payment to whom for which opportunity costs?). In addition, the inclusion of non-carbon (social and environmental) benefits led to complaints that REDD+ had lost its focus. While seen as the only way to ensure that the developmental aspirations of forest-dependent communities were taken into consideration—and that carbon objectives did not overshadow biodiversity concerns—they complicated outcome expectations (Angelsen et al., 2018, p.23).

Figure 9: Original theory of change: REDD+



(Angelsen et al., 2018, p.21)

In 2018, ten years after REDD+ entered the global scene, a team of 62 scholars and scientists delivered on a massive undertaking to review the track record of the initiative and to suggest ways in which lessons learned could be applied. The authors argue that, although REDD+ has not been the ‘quick, cheap and easy’ way to mitigate the impacts of land-use change that it was originally intended to be, it remains a valid concept, arguably more so now than ever (Angelsen et al., 2018, p.xx). Studies show that land-oriented climate solutions—especially those avoiding unplanned deforestation and promoting forest restoration—could contribute one third of the mitigation needed to meet the targets of the Paris Agreement (ibid), with forests able to absorb up to 30% of fossil fuel emissions (UNEP, 2021). In spite of this, land-oriented climate solutions only receive about 3% of climate funding (Angelsen et al., 2018, p.xx). In the meantime, deforestation contributes a further 11% to carbon emissions (UNEP, 2021).

As a result of weak demand, carbon credit sales were not able to keep pace with the rapid rate of REDD+ expansion (Simonet et al., 2018). The authors found that, although the evidence showed modestly encouraging results for forest conservation and carbon stock enhancement, only a third of REDD+ project implementers had managed to sell carbon credits for already-verified emissions.

In addition, challenges were identified in designing REDD+ initiatives that were both effective at reducing carbon emissions from deforestation and were strongly pro-poor (Duchelle et al., 2018). The authors observed however that the likelihood of achieving results that are more equitable and long-lasting increases when local people are involved from an early stage in REDD+ programme design and implementation.

Over the next five years—and as the issuance of carbon credits continued to rise—investigative journalists began sounding alarm bells, touting headlines such as “More than 90% of forest carbon offsets by biggest certifier are worthless” (Greenfield, 2023). Much of their critique focused on the methodologies utilised by Verra, a standards-setting body, whose Verified Carbon Standard (VCS) is the world’s most widely used.

The most serious challenges with REDD+ relate primarily to proving the counterfactual (what would’ve happened in the absence of an intervention), avoiding leakage (reducing rather than merely displacing deforestation) and ensuring permanence (as some Greenhouse Gas [GHG] emissions remain in the air for centuries while a forest could be lost tomorrow). To that end, Verra published its much-anticipated new REDD+ methodology in the days leading up to COP28 (“Verra Launches New Era of Forest Protection”, 2023).

In addition to creating a unified best-practice methodology, revisions include i) shortening the timeframe for recalibration of baselines from 10 years to six, so that estimates of future deforestation are linked to a more recent past; ii) ensuring that emissions reductions achieved by projects ‘add up’ to a jurisdictional (national or sub-national) whole to avoid ‘double counting’ at project level; and iii) digitalising monitoring, reporting and verification to enhance transparency and integrity. Critically, the responsibility for establishing the baseline will shift from the project proponent to Verra, the standards setting organisation, in order to eliminate any potential for bias or conflict of interest.

Many of the changes to the VCS have been made in an effort to strengthen its alignment with the Core Carbon Principles established by The Integrity Council for the Voluntary

Carbon Market²¹, with formal recognition of this alignment having been received from the council recently (Simon, 2024).

Despite methodologies having been improved, and integrity councils established, the question remains as to whether the Voluntary Carbon Markets and REDD+ are able to contribute to addressing global social challenges, not only mitigating climate change but also providing measurable benefits to communities and biodiversity.

Value and value(s): knowing the price of everything and the value of nothing?

In the financial crisis of 2008, the social contract (society's belief in the fairness and effectiveness of the market system as regulated by government) broke down—and there is evidence to suggest that it has not been fully restored, with business' social licence to operate continuing to erode (GlobeScan, 2020). Carney (2021, p.12) calls for a rebuilding of social capital to 'make markets work'. The erosion of values manifested during the COVID pandemic, with the Corruption Perception Index revealing that top performers during the crisis were those countries that scored highest in trust and legitimacy (ibid).

While private actions have been part of the problem in the past, we won't solve climate change in the future without the private sector. Carney (2021, p.317) argues that, not only is the money required simply too large, but we also need the private sector's insights and innovation while Olmsted et al. (2021) note that excluding the private sector excludes the potential to reduce the drivers of biodiversity loss.

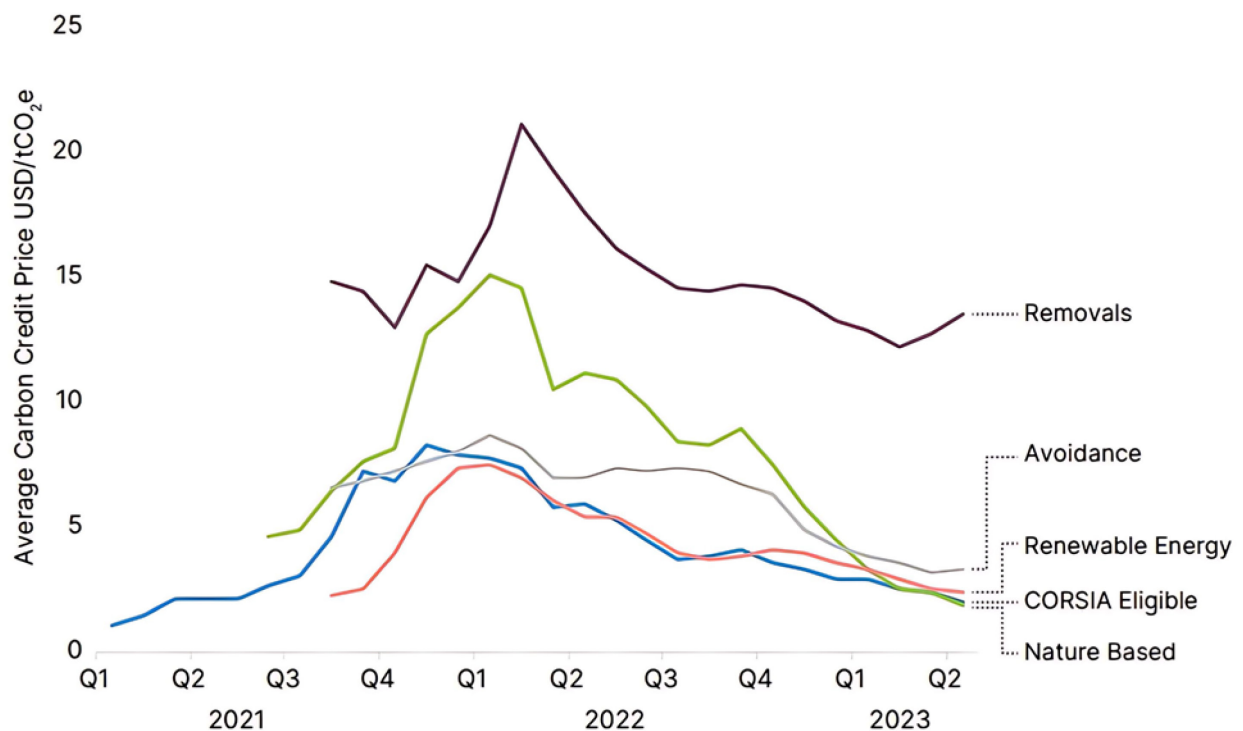
While arguments abound that the VCM provides a licence to pollute (Overy & Sibeko, 2023), according to Verra, companies engaged in the market are overwhelmingly those already doing the most to reduce their own footprints ("Statement to VCM Stakeholders", 2023), a finding endorsed by Ecosystem Marketplace (O'Sullivan et al., 2024). Italian energy company Eni, for example, states that 95% of its target to achieve net zero emissions by 2050 will be achieved by decarbonizing its operations, with only 5% made up of offsetting projects (Eni, n.d.). Bayon contends that companies involved in offsetting in the VCM aren't the worst actors on climate change but arguably the best of an 'admittedly slow bunch' and that rather than punishing the leaders we should be shifting our criticism to the laggards (Bayon, 2023).

Despite calls to 'significantly elevate funding', the very vocal sentiments of anti-REDD+ activists have contributed to driving down the price of carbon credits globally, with the price for nature-based solutions at the bottom of the pile (Figure 10).

This downward pressure on the carbon price not only reduces benefits to communities in the short run, but also discourages companies from participating in the VCM in order to avoid charges of 'greenwashing', potentially depressing demand in the medium-term (Griscom, 2023).

²¹ The Integrity Council is an independent governance body for the Voluntary Carbon Market <https://icvcm.org/about-the-integrity-council/>.

Figure 10: Average carbon credit price per tonne of carbon emissions



(World Bank, 2023, Figure 14)

In order to enhance market liquidity, credits that meet certain minimum criteria are grouped, resulting in a ‘least common denominator’ effect, illustrated in Figure 10. To avoid this, sellers of high-quality credits tend to prefer bilateral deals, resulting in a bifurcation of prices (World Bank, 2023). These over-the-counter sales enabled sellers of high-quality credits to realize significant price increases in 2022 while exchange-traded prices fell (Donofrio and Procton, 2023; World Bank, 2023).

Bennett contends that financial capital pursues ‘financial efficiencies over development effectiveness’, tending towards centralisation, standardisation and the imposition of metrics defined by global bodies—in stark opposition to post-developmental calls for decentralisation, self-determination and localisation (Simon et al., 2023, p.234).

While standards for verification of carbon credits are indeed defined by global bodies (such as Verra), the extent to which private sector buyers of these credits are prepared to pay a premium price for high quality credits delivering benefits ‘beyond carbon’ will be a measure of the degree to which financial capital is pursuing ‘financial efficiencies over development effectiveness’. Bennett cites Osborne and Shapiro-Garza (2018) and Merk et al. (2022) in noting that the trend of development practitioners accommodating the need of capital providers exacerbates global social challenges. Merk et al. (2022) concur, arguing that a ‘carbon only’ price (as delivered by most exchange-traded credits) might not result in a socially optimal outcome, as this would imply that all units of carbon are equal and undervalue other ecosystem services.

There are allegations though that the biggest beneficiaries of these premium prices are project developers and brokers, such as the highly-publicised case of the Kariba project in Zimbabwe, in which €86 million of the €100 million generated in carbon revenues went to the broker and technical lead (South Pole) and the project developer (Carbon Green Investments), while only €14 million trickled down to Kariba's communities (Greenfield & Chingono, 2024). Critics contend this is merely illustrative of the wider issues within the market, with benefits to international traders overshadowing those to local communities involved in REDD+ projects. Human Rights Watch notes that it is really only the project developers that know how much money is coming in—and how much of that is reaching the ground (Téllez, as cited in Greenfield & Chingono, 2024).

Ecological justice

While the Convention on Biodiversity Aichi Target 11 (UNEP, 2011) calls for 'effective and equitably managed Protected Areas', much has been written on effective—but very little on equitable—management. A publication of the International Institute for Environment and Development finds that there are few examples of an equitable approach to conservation, with equity—or fairness—increasingly recognised as a crucial component of conservation, yet poorly defined and understood. They describe the three dimensions of equity as recognition (acknowledgement and respect of rights), procedure (participation of actors in decision-making; transparency and accountability) and distribution (allocation of benefits and mitigation of costs / risks) (Franks et al., 2018, p.11). Drawing on lessons learned in Zimbabwe's Communal Areas Management Programme for Indigenous Resources (CAMPFIRE), Murphree (1991) reminds us that there is no single formula for communal resource management, with it and institutional development a mutually reinforcing process, based on the guiding rule that benefits outweigh costs.

The link between deforestation and corruption has been almost universally recognised, threatening international efforts to conserve forests and alleviate poverty (Korwin, 2016). As corruption threatens to undermine the potential of REDD+ to deliver environmental and socioeconomic benefits, Transparency International compiled a manual to assist countries in addressing these risks (Hewitt et al., 2012) and undertook corruption risk assessments in four African countries—Cameroon, Ghana, Zambia and Zimbabwe (Korwin, 2016). Findings from the Zambian assessment are incorporated in the sections below.

In the face of these risks, my research explores the degree to which the REDD+ mechanism can provide a more equitable approach to combatting climate change in Africa's biggest forest carbon project.

A demonstration of theory in practice: Zambia

Zambia is a study in contrasts—one of Africa's most resource-rich countries, with the fourth highest forest cover in Africa, yet generating one of the highest amounts of deforestation on the continent, at up to 300,000 hectares per year (Igini, 2022; Matakala et al., 2015). Despite its wealth in mineral and natural resources, Zambia is burdened with a staggering rate of poverty (with 61% of the country living below the poverty line and 48% considered multidimensionally poor [OPHI & UNDP, 2023]). These figures warrant a closer look into who it is that is benefitting from the exploitation of Zambia's resources and the degree to which Zambia's fragmented policy framework impedes the flow of benefits to communities on the ground. Transparency International finds key drivers of corruption to include a

concentration of power, weak participation of forest communities and inconsistent and conflicting policy frameworks (Korwin, 2016). The analysis that follows will consider whether the commodification that Barrett et al. (2013) cautioned against is succeeding in its mission to conserve our natural world (in this instance, protecting Zambia's rapidly dwindling forests)—as well as whether or not the price, as determined by the VCM, is delivering value in the eyes of local stakeholders.

The two greatest barriers to the development of community-based natural resource management (CBNRM) in Zambia have been identified as i) the lack of devolved collective rights over natural resources to local communities; and 2) weaknesses in local management institutions related to collective, community-level natural resource governance (Chidakel & Child, 2022; Davis et al., 2020; Lindsey et al., 2014; Lubilo & Child, 2010; Snyman & Mwale, 2022). While the Forests Act (2015) did devolve rights to forest products to Community Forest Management Groups, the wildlife sector has chosen rather to operate on the principle of 'shared benefits' rather than 'devolved rights', with communities presented as passive recipients of licence fees paid to government, rather than active managers of wildlife (Zambia Wildlife Act, 2015). Bwalya Umar and Kapembwa (2020) describe the apathy that ensues due to low levels of participation and a sense of exclusion from benefits (due to elite capture at the local level). As a result, Zambia's Game Management Areas (communal lands forming 'buffers' around and between the national parks) are facing enormous land use conversion pressures (Davis et al., 2020).

Nelson and Agrawal (2008) find that the scale of rent-seeking opportunities for central policy makers from wildlife on communal lands is in general inversely related to the political will to devolve authority for wildlife management to the local level. Nelson (2010) cautions though that devolution is only as good as the institutional context in which it unfurls. As natural resources, such as carbon rights, become more valuable, they tend to attract external claimants. For example, the Government of Zambia is seen as trying to 'claw back' some of the carbon revenue it inadvertently gave away with the Forest Act of 2015 (IPD2006_1)²².

There is concern that this may now be the case, as Zambia enters the Emissions Reduction Phase in its Jurisdictional Sustainable Landscape Programme, with Results Based Payments to flow through government coffers before reaching participants on the ground ('nesting' existing REDD+ projects within the jurisdiction) (Ministry of Green Economy and Environment, n.d.; World Bank, 2017).

It is in this context that questions of ecological justice—in its dimensions of recognition, procedure and distribution—will be considered.

Context and Methods

With the literature review providing a rationale for conducting empirical research in Zambia, I decided to focus on the Luangwa Valley, home not only to some of the earliest experiments in community-based natural resource management in southern Africa (Lubilo & Child, 2010); but also the site of Africa's largest REDD+ project by hectareage, and arguably the largest in the world by quantifiable impact, namely the Luangwa Community Forests

²² Coded references refer to anonymized interviews / discussions during fieldwork June – August 2023 (see Context and Methods).

Project (LCFP) (BCP, 2023). My overarching research question is how the commodification of nature (in this case, through REDD+) creates value—and for whom. Secondary questions address the role of the enabling environment in incentivising participation and enhancing equity as well as the potential of the market to provide sustainable finance for global public goods.

Following a desk review of the project, in the context of the Zambian policy environment, I spent June – July 2023 in the Luangwa Valley, supplemented by meetings with government officials in Lusaka as well as virtual interviews with key informants (including not only those individuals unavailable to meet during my time in Zambia but also investors based outside the country) during August – November 2023. Over this period, I was able to engage with 77 stakeholders through 33 interviews and 6 focus group discussions.

Semi-structured interviews as well as focus group discussions followed the format of a traditional Strengths / Weaknesses / Opportunities / Threats analysis, providing a 360° perspective of this ‘flagship’ REDD+ project. Questions were open-ended and care was taken to ensure wording was not ‘leading’. I facilitated focus group discussions with local governance structures (Community Forest Management Groups), and conducted interviews with community members and associations, traditional authorities, project development management and staff (both at Head Office as well as at two field locations, Nyimba and Mfuwe), government officials and contractors as well as donors and investors. A number of other local stakeholder groups, such as NGOs and private sector tourism operators based in Mfuwe, participated in the research as well.

While acknowledging the potential for ‘selection bias’, as the majority of community engagements were with LCFP participants, I actively sought to engage with chiefdoms in the project area that had chosen not to participate, to learn what their reservations were. Through ‘snowball sampling’, I was also able to interview a cross-section of local stakeholders, as outlined above.

In addition, I had a number of opportunities for valuable participant observation. These included a General Meeting, convened at the request of a local Village Action Group in order to air their grievances (with more than 100 community members attending); governance training with five Community Forest Management Groups; ‘early burning’ preparation sessions conducted by the District Forestry Officer with community-appointed ‘fire marshals’; and project developer BioCarbon Partners (BCP) staff meetings.

This qualitative data was triangulated by quantitative data obtained through a survey conducted by March Associates in June – July 2022 (interviewing 400 households in the project area). March Associates was contracted by BCP to undertake the 2022 Social Monitoring Survey to assess community perceptions and household income from participation in BCP’s REDD+ projects, including the Luangwa Community Forests Project. This builds on previous surveys undertaken in 2020 and 2016 (when a baseline was established). Although the survey revealed a positive change in perceptions of wellbeing as well as attitudes towards conservation and project satisfaction, it also provided a number of recommendations for improvement. These included enhancing communication, expanding the potential for employment, defining the role of traditional authorities and governance structures clearly, and ensuring a fair allocation of projects amongst the villages in the project area.

Most importantly, BCP's 2022 Monitoring Report as well as the audit team's Verification Report were made available on the Verra registry in August 2024, enabling an informed analysis of the impacts of the project in reducing deforestation (AENOR, 2024; BCP, 2024b). This is summarised in the Findings section – The Bottom Line: Reducing Emissions from Deforestation.

Project background and institutional arrangements

Zambia's Eastern Province—in which the Luangwa Community Forests Project (LCFP) is largely situated—is more than 90% rural and unemployment is high, with a large portion of the population engaged in informal economic activities such as subsistence farming, fishing (in the rainy season), and the production and selling of charcoal.

Much of the Eastern Province has been designated as conservation estate; either as state-owned national parks or as communally-owned Game Management Areas (GMAs) under the control of traditional authorities. GMAs comprise key buffer zones around and migratory routes connecting Zambia's national parks, accounting for 2/3 of this collective protected estate (Davis et al., 2020; Snyman & Mwale, 2022). The 2015 Wildlife Act provides for representative structures—Community Resources Boards—to manage the natural resources, including the wildlife, in the GMAs (Zambia Wildlife Act, 2015). The Forests Act (2015) allows for these same structures to be registered as Community Forest Management Groups, authorised to manage designated forests within the GMAs. The Acts differ as to the rights and responsibilities of these structures, with the implications of this fragmentation discussed in the next section.

A \$14 million grant from USAID enabled social enterprise BCP to develop the LCFP over a five-year period (2014 – 2019). Development was slow going at first, with communities sceptical that money could be made 'from the air'. As initial credits were issued however, and proceeds began to trickle down, interest in the concept grew. Today the LCFP spans 17 chiefdoms in the Game Management Areas surrounding the national parks of the Luangwa Valley, in which democratically elected Community Resources Boards have been registered as Community Forest Management Groups (CFMGs). The CFMGs, upon entering into an agreement with the Forestry Department, are responsible to ensure the forests are sustainably managed—appointing community scouts for this purpose—as well as to manage the proceeds received from the sale of carbon credits annually. The process of determining the needs of the villagers in the chiefdom is conceptually bottom-up, with Annual Work Plans compiled based on consultations with each of the Village Action Groups (VAGs) in the chiefdom. In practice, the distribution of proceeds is top-down, with the implications featuring strongly in the next section.

The CFMGs have appointed BCP as the project implementer, assigning the carbon trading rights to them. BCP then facilitates the third-party verification of emissions reductions and the issuance of carbon credits according to Verra's Verified Carbon Standard. As an indicator of benefits 'beyond carbon', the credits are certified 'triple gold' against Verra's Climate, Community and Biodiversity Standard²³. BCP then sells the carbon credits in the VCM on

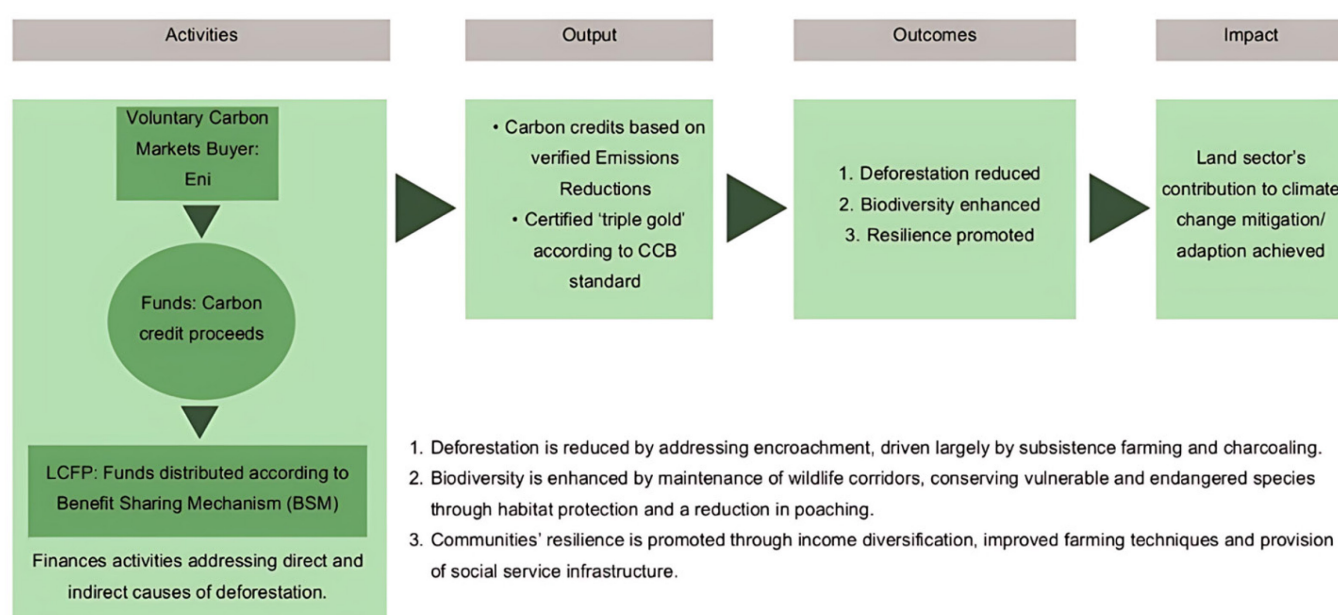
²³ Verra manages the world's largest voluntary carbon markets program, including the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity (CCB) Standard <https://verra.org/about/overview/>. While the VCS focuses on no net harm to communities, the CCB standard measures net positive impacts directly linked to project activities, with attribution to be clearly demonstrated.

behalf of the CFMG. BCP was successful in securing a 20-year Emissions Reduction Purchase Agreement with Italian energy company, Eni, with the first credits sold in 2019 and—despite the vagaries of the carbon market and changing methodologies—a fairly reliable income stream thereafter (Eni, 2019) (Figure 11).

Figure 11: The LCFP logic model

LCFP Logic Model

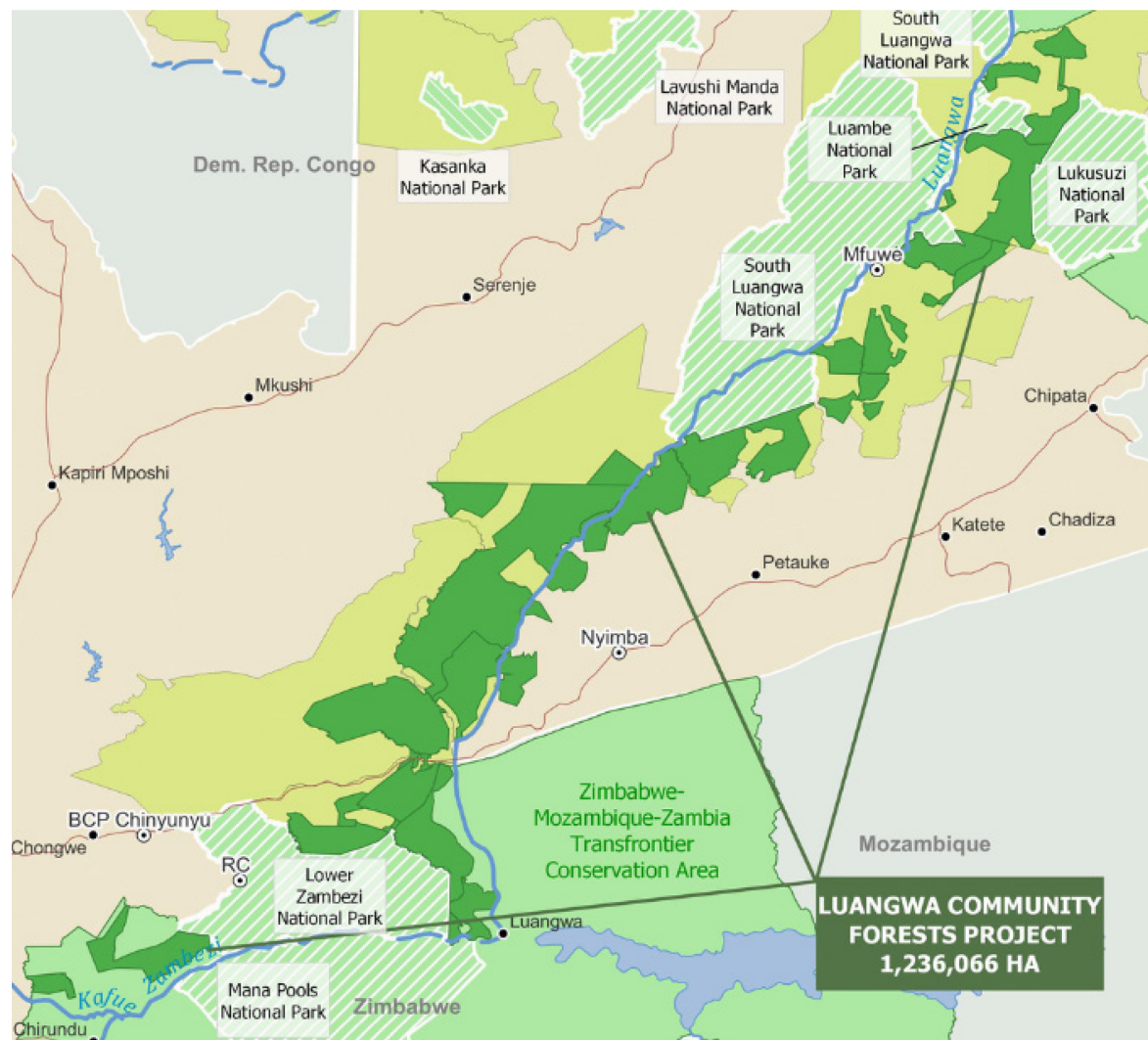
A circular logic whereby, if carbon credits are sold, activities can lead to impact.



(Figure adapted from Angelsen et al., 2018, p.21)

As at the end of 2022, the project spanned 1,236,066 hectares of forest, protecting an estimated 565 million trees (Figure 12).

Figure 12: The extent of the Luangwa Community Forests Project



(BCP, 2023, p.12)

Since project inception an amount of \$12 million has been disbursed to communities, of which approximately \$10 million has gone into infrastructure projects, supporting education, health and Water, Sanitation and Hygiene (WASH), while \$2 million has been directed towards livelihoods projects at household level (BCP, 2024a). Franks et al. (2018, p.3) argue however that enhancing equity rather than directly improving livelihoods could lead to greater contributions to human wellbeing—an argument borne out by my research, with perceptions of unfairness or favoritism undermining the value of benefits received. They find a bottom-up approach that drives participatory (rather than representative) processes not only enhances equity but may also lead to greater conservation outcomes.

The benefit sharing mechanism (BSM) as at end 2022 was based on a 45% share of net proceeds to CFMGs, which they are then required to split 80:20 (with 80% to communities, 10% to Chiefs and 10% for administration and law enforcement costs). At the time these initial BSMs were negotiated, while highly opaque, they were not illegal, as there was no legislation in this regard. The situation changed in 2021, with the passage of Statutory

Instrument 66. At present, BCP is not in compliance with the law, which requires that a BSM be derived from the gross revenue of carbon credits sold (Forest [Carbon Stock Management] Regulations, 2021, Clause 23.d). Although BCP is currently negotiating the revision of the BSMs as they come up for renewal with the CFMGs, this lag in compliance has fueled suspicion and mistrust - not only of communities, but also of government and partner organizations. This barrier to distributive justice will be discussed further in the following section.

Findings

Do the findings demonstrate the potential for nature-based solutions, such as REDD+, to contribute not only to climate change mitigation but also to the delivery of ecological justice?

Commodification of nature – creating value for whom?

In a landscape where livelihood options are limited, and provision of infrastructure and social services by government practically non-existent, REDD+ has been embraced.

The majority of respondents, both to my own qualitative research as well as to the quantitative research conducted by March Associates, see REDD+ (and specifically the LCFP) as valuable, with forests a source of carbon revenues and ecosystem services. As stated by one of the respondents “Conserving the forest is the start of development” (FGD2806_1). During the course of the focus group discussion, others elaborated on the sense of ownership that has emerged, as the communities understand that the forest is theirs. They cited the fact that the forest provides traditional benefits to them, such as honey and herbal medicine. With poaching reduced, wildlife numbers are also increasing, with the forests providing valuable habitat.

In both instances, respondents cite carbon fees as the biggest strength of the project, not surprising in a landscape in which there are few other opportunities to generate cashflow. In addition, the importance of intact forests emerges strongly, with respondents citing a number of ecosystem services provided by trees, including cooler temperatures, higher rainfall, moisture retention in the soil and reduced soil erosion.

While jobs (primarily as community scouts, but also as direct employees of BCP) are considered one of the main strengths of the project, it is important to note that there is dissatisfaction, as communities perceive favouritism in the recruitment / selection process. Although BCP claims that this is not the case, claiming the communities do not understand ‘merit-based appointments’, there is a need to improve transparency and communication.

To mitigate the need for expansion of agricultural lands through clear-cutting of forests, viewed as one of the key drivers of deforestation, BCP has partnered with the Government of Zambia’s Ministry of Agriculture to deliver training in Climate Smart Agriculture (alternatively referred to as Conservation Farming – Minimum Tillage). This method of intensive farming produces higher yields on smaller tracts of land, with upwards of 3,000 smallholder farmers reportedly benefitting from extra income and improved food security

as a result²⁴. Survey respondents cite new farming techniques, focused on retaining moisture in the soil, as a positive project outcome. Particularly in the face of climate change, these techniques enhance the likelihood and the yield of a harvest.

As word of these benefits spreads, so too does interest in joining the project, with BCP being told “We are ready...we are waiting for you” (IPD2808_1). The greatest opportunity for BCP thus lies in an expansion of the project area (with plans to triple the hectareage of LCFP over the next three years) (BCP, 2023).

VCM pricing – incorporating benefits beyond carbon?

BCP’s 20-year Emissions Reduction Purchase Agreement with Eni is an example of a bilateral OTC sale—enabling the project proponent to negotiate a price that reflects its triple gold status (generating benefits to climate, communities and biodiversity). The biggest opportunity in Eni’s eyes lies in the ability to demonstrate impact, fending off what they consider unfounded attacks of anti-REDD+ critics (IID1109_1). Nonetheless, criticisms of this bilateral system abound, with the Centre for Science and Environment admonishing that the carbon market should be a ‘real market’, not a ‘secret pact’ between buyers and sellers (Kamal, 2023).

In addition, in the absence of any clear indication of proceeds retained by the project proponent or paid to any financial / technical intermediaries, there is no way of knowing whether the amounts reaching beneficiaries on the ground reflect the value of the premium price paid.

Perceptions of justice

The lack of transparency on the part of the project proponent—coupled with the difficulties in holding the CFMG accountable for its use of funds—erode the value created by the generation of a ‘premium price’.

Perceptions of ecological (in)justice emerged through semi-structured interviews and focus group discussions as the greatest weaknesses of the project. The majority of respondents cite benefit-sharing mechanisms as problematic. While there was little consensus as to what a ‘fair share’ would look like, it was strongly linked to issues of transparency. Nobody knows exactly how much the project proponent, BioCarbon Partners, is making, but the presumption is that there is a reason for their opacity. There is reportedly no benchmark for such benefit-sharing arrangements (IPD2609-1), indicating a need for further research in this regard.

This is mirrored by unhappiness with the accountability of the representative structures—the Community Forest Management Groups—tasked to administer disbursement of the funds received. The challenges of good governance within the CFMGs were augmented by charges of elite capture, with the importance of building strong trust-based relationships clear. One CFMG member acknowledged that “The people in the villages say, [CFMG] you are eating our money” (FGD2606_1). Ostrom (2010) is emphatic in stressing the critical role

²⁴ Data is available upon request – annual yield assessment carried out by BCP, the Ministry of Agriculture and the Zambian Agricultural Research Institute (ZARI).

that trust plays in developing successful community-based natural resource management programmes.

On the other hand, March Associates' survey found that only 16% of respondents had a negative experience with the LCFP. Their comments focused primarily on limitations in expanding fields / accessing land and in restrictions to collecting firewood / forest products. It is possible that these findings reflect 'spatial (in)justice' (Benjaminsen and Svarstad, 2021), as benefits are shared evenly across a chiefdom, while those communities living closest to the REDD+ forests are the ones most affected by corresponding restrictions. Any attempts at redress however would require an amendment to the 2015 Wildlife Act itself.

The consultants do mention in their recommendations that there is a need to ensure an equitable distribution of projects / employment opportunities, as the perception is that some villages benefit more than others. I witnessed this tension first-hand during a General Meeting called by a local Village Action Group, which I was invited to attend as an observer. The villagers felt strongly that they were not receiving their fair share of benefits—and that the in-kind benefits that they did receive, for example of a new classroom block, were not as meaningful as cash or livelihoods benefits at a household level would have been. Many see infrastructure such as schools and clinics the responsibility of government, and not something that they should be responsible for financing out of carbon fees. The governance challenges may speak to the difference between participatory and representative approaches, with the system established through the *Zambian Wildlife and Forestry Acts* falling into the latter category (*Forests Act, 2015; Zambia Wildlife Act, 2015*)—as one respondent described it—"a committee-based, not a community-based, approach" (ICA0907_1). The biggest opportunity in the eyes of the community thus lies in addressing these weaknesses.

Biggest driver of deforestation: fragmented policy environment

Fighting deforestation is a challenge, but it's also an opportunity. It is difficult because it is not about applying a single intervention but rather requires a whole series of interventions at the same time to be effective. For example, promoting deforestation-free agriculture through intensification...requires more than just forestry measures; it requires attending to land rights, law enforcement, and more. (Munoz, as cited in Angelsen et al., 2018, p.xvi).

The fragmented policy environment emerges as the biggest driver of deforestation, with one government official lamenting that "The departments don't speak the same language...there is a tug of war" (IGZ1408_2). This results in a lack of coordination, with competing priorities and approaches. Although a new National Community Based Natural Resource Management Policy was launched recently (Ministry of Tourism, 2024), the lengthy and costly process to amend corresponding legislation and drive implementation lies ahead. Nonetheless, the need for collaboration and harmonisation has been identified, which is a necessary first step.

Encroachment into the REDD+ zone, fuelled by a rapidly increasing population due to an inward flux of 'climate migrants', is seen as the greatest threat. The largest driver of agricultural expansion into these forest lands is seen as weak land tenure, as 90% of the local population are customary landowners without title (Ministry of National Development Planning, 2017, p.28). Despite the drafting of a National Lands Policy in 2021, Chiefs retain

the right to allocate customary land, to document land rights and to resolve any disputes (Lands Act, 1995; 2010). Nonetheless, one traditional authority highlighted the tension in the fact that, under the 2015 Forest Act, the ownership of all trees and forest products in communal forests is vested in the President, while Chiefs are ‘custodians’ thereof. They observed that “government will not lift a finger to remove encroachers”, as this would make them unpopular (ITA2209_1).

Weak law enforcement is also considered a threat to the integrity of the project. This may, in part, be a neocolonial legacy, as the Acts legislated under British colonial rule were established to foster trade and were thus “good at licencing, but not for protection” (IPD2407_2). In addition, there is a lack of coordination between the Forestry and National Parks and Wildlife departments. Community scouts report to the Department of National Parks and Wildlife yet are expected to also do forest patrols, with this “allegiance of reporting” described as one of the main problems (IGZ1408_2). The lack of apprehensions for deforestation results in an increase in encroachment. This situation is exacerbated by insufficient funds, with one respondent describing the scouts’ salaries as “so low, it is like voluntary” (ICA0907_1).

Some respondents mentioned that good land use plans would reduce encroachment into the REDD+ zones caused by migration into the Luangwa Valley. It is important that these plans are systematically compiled across the entire landscape, in order to ‘fill in the gaps’ in the piecemeal approach adopted to date (IGZ1408_2).

Finally, the need for capacity building emerged—including opportunities for tertiary education (FGD2806_1). Although I attended five days of governance training conducted with the CFMGs, it is questionable as to whether these short training sessions suffice. In addition, the fact that these bodies are re-elected every three years underscores the importance of ensuring that training is updated and repeated on a regular basis.

Most poignantly, interviewees expressed the belief that deforestation was inherently a selfish action, undertaken for individual gain, while intact forests provided a collective benefit for all. While poverty may be a driver at one level, there are also local elites that ‘have their cake and eat it too’, as they derive benefits from deforestation while simultaneously reaping the benefits of REDD+ (IGZ2706_1). These empirical findings are summarised in Table 6.

While March Associates’ survey findings mirrored my own findings quite closely as regards strengths, the survey also noted improved knowledge in climate smart agriculture and farming techniques as a significant benefit, identified by 22% of the respondents.

My findings differed significantly from the survey though as regards weaknesses. The relatively low number of survey respondents that cited ‘limited options of expanding fields’ or ‘restricted access to forest products’ as a weakness may be a reflection of spatial injustice. While forest-adjacent communities bear a bigger (opportunity) cost than those communities living further from the protected forests, benefits are (at least in theory) shared equally throughout the chiefdom.

An unexpected finding was that only a few respondents cite fuel wood harvesting as a threat, although over 75% of the Zambian population relies on firewood or charcoal for cooking, and the only solution in the pipeline—according to an official in the Ministry of Green Economy and the Environment—an effort to increase the usage of fuel-efficient cookstoves

and promote sustainable charcoaling. This may be an illustration of Sen’s theory of ‘adaptive preference’, in which people can internalise the harshness of their circumstances, so that they do not desire what they can never hope to achieve (Sen, 1999). This also raises broader issues of global inequality and the ‘telecoupling’ referred to in the Lit Review, with Lindsey et al. (2022) stressing the need to align conservation and development.

Table 6: Empirical findings

Discussion groups / Interviews	Survey findings
Strengths	
Carbon fees - 69%	Carbon fees – 60%
Importance of forests – 35%	Forest conservation – 36%
Jobs – 27%	Employment – 13%
Weaknesses	
Benefit sharing mechanism transparency – 69%	Limited options of expanding fields – 15%
Accountability / elite capture – 50%	Restricted access to forest products – 5%
Trust – 28%	Lack of consultation – 2%
Opportunities	
Address weaknesses – communities’ response	
Expand project area – project proponent	
Offset residual emissions / demonstrate impact - buyer	
Threats	
Encroachment into the REDD+ zone - 45%	
Weak law enforcement / insufficient funding - 35%	
Inadequate land use planning / insufficient capacity building - 33%	

The bottom line – reducing emissions from deforestation

The question remains as to how confident we can be that deforestation is being avoided and emissions from deforestation reduced in the LCFP. This is determined based on an historical rate of deforestation, and it is on this basis that emissions reductions are calculated. For each carbon credit issued, a metric tonne of CO₂ equivalent supposedly has not been released that would otherwise have been. This equivalence is difficult to prove as the counterfactual — what would have happened to deforestation without a REDD+ project — cannot be observed (Jones, 2024). Instead, a reference area with similar bio-physical characteristics is delineated, to which the project area can be compared.

BCP’s 5th Monitoring Report (2024b, p.158) calculates net GHG emission reductions in 2022 at 1,946,717 tCO₂e utilising Verra’s VM009 methodology. This figure was derived by adjusting baseline emission reductions of 2,267,514 tCO₂e to account for project emissions underestimated ex ante. In addition, an amount of 10% is allocated to a global buffer pool to enhance permanence by mitigating the risk of reversals.

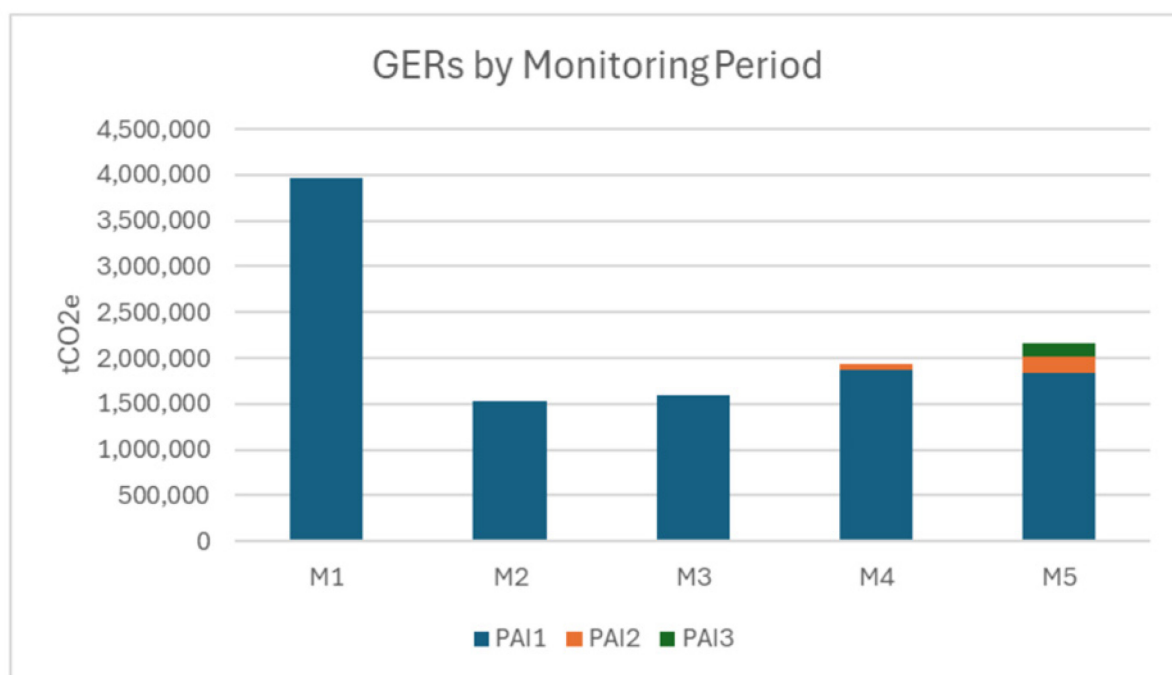
An independent audit team carried out the fifth VCS verification of the LCFP, agreeing with GHG emissions calculations and finding the project compliant with VCS criteria. Concerns have been raised about the robustness and independence of the auditors, given that they are contracted and paid by the project proponent. While the potential for bribery and falsification

of results obviously exists, I have relied upon AENOR's track record, as they have been accredited by the UNFCCC, selected by the World Bank to validate and verify REDD+ projects in Costa Rica, Indonesia and Chile, and have verified the Kasigau Corridor Project in Kenya, heralded as the world's first and longest-standing certified REDD+ project ("Kasigau, Kenya", n.d.). The organisation is publicly committed to independence and impartiality, demanding that all staff, subcontractors or collaborators involved in certification or inspection guarantee that they have no link whatsoever to the evaluations in which they participate²⁵.

Verra's accuracy review, however, found that, due to the inclusion of new chiefdoms in the LCFP, the reference area was no longer representative of the whole project area. A 30% discount was thus applied to the gross verified volume to allow for this deviation (AENOR, 2024, p.4). Verra's increased focus on improving the rigour of baseline calculations may also enhance confidence in the validity of the counterfactual. Additionally, it has prompted BCP to recalibrate baselines one year ahead of schedule (BCP, 2024b).

Figure 13 breaks down net emissions reductions per project area over the five monitoring periods, with cumulative net GHG emission reductions in excess of 11 million tonnes. By way of comparison, Global Forest Watch ("Zambia Deforestation Rates & Statistics", n.d.) estimates that deforestation in Zambia in 2023 resulted in 75.5 million tonnes of CO₂ emissions, highlighting the significance of LCFP's contribution.

Figure 13: Net Greenhouse Gas Emissions or Removals (GERs) by period



(BCP, 2024b, p.157)

Note: Monitoring period 1 (M1) (2015 - 2018); M2 (2019); M3 (2020); M4 (2021); M5 (2022). Project Activity Instance (PAI) 1 - 943,646ha; PAI 2 - 92,990ha; PAI 3 - 199,622ha.

²⁵ Public accountability: AENOR <https://www.en.aenor.com/conocenos/acreditaciones-y-reconocimientos>

Discussion

This empirical research into the LCFP contributes to filling the gap identified *inter alia* by Osborne and Shapiro-Garza (2018, p.88), who highlight a need for theoretically informed, empirically grounded research that interrogates the relative merits resulting from the formation of ‘markets for nature’. Their comparative case study research in Mexico focuses on commodification and embeddedness, concluding that greater embeddedness is likely to lead to more positive local outcomes. Their research demonstrates that the embedding of forest-based carbon markets requires considerable time and extensive networks of nonmarket support. In cases where such support is lacking or insufficient, the requisite embeddedness is unlikely to be attained. This is further dependent on the nature of the finance secured—whether the value (as determined by the market) incorporates values (to climate, communities and biodiversity)—and the **political, institutional, and economic** context in the landscape (*ibid*, p.88). (Bold text added.)

While LCFP has attained certain aspects of this embeddedness, for instance obtaining nonmarket support from USAID in the form of a \$14 million grant for the period 2014 – 2019 to enable the lengthy consultative processes that would contribute to this ‘embedding’ (Integra, 2019), and securing long-term finance in the form of the 20-year Emissions Reduction Purchase Agreement with Eni (a buyer that values co-benefits), the political, institutional and economic [agrarian] contexts in Zambia remain challenging.

Politically, tension exists between the Departments of Forestry and National Parks and Wildlife, with the forests in the LCFP (the mandate of the former agency) situated within Game Management Areas (the mandate of the latter) and the two departments “not speaking the same language”, as the governing acts are not aligned. (IGZ1408_2).

While the Zambian government launched a new integrated Community Based Natural Resource Management Policy in 2024, it is premature to speculate as to the degree to which existing contradictions will be harmonised.

Calls for transformative governance become all the more relevant, with its focus on integration, particularly essential to avoid the fragmentation highlighted above; and inclusivity, including of women and other marginalised groups (Visseren-Hamakers & Kok, 2022). This is reinforced by Transparency International (TI)’s findings, with governance challenges ensuing from political and policy contradictions between REDD+ goals and other development aims, and the difficulty in ensuring effective coordination and cooperation between sectors (Korwin, 2016, p.5).

Institutionally, the opacity of local governance structures erodes trust. Concerns have been raised by interviewees about the ability of CFMGs to manage budgets that can run into hundreds of thousands of dollars. While these governance structures have received some instruction in project management, it is questionable as to whether these short training sessions suffice. This is exacerbated by the loss of institutional memory, with CFMG elections held every three years. Aside from the ability to manage such large amounts of funding, there is also the question of integrity and the potential for elite capture of benefits, as described in the previous section. This can be compounded by excessive influence of the Chief in decision making (Bwalya Umar & Kapembwa, 2020; Davis et al., 2020; Snyman

& Mwale, 2022). The lack of technical and institutional capacity as well as historical failures to ensure full and effective participation, with power concentrated in the hands of traditional leaders, was also noted by TI (Korwin, 2016, p.39).

We are reminded of Carney's call for a rebuilding of social capital to 'make markets work', with the importance of trust and legitimacy highlighted during the COVID pandemic (Carney, 2021, p.12). As Ostrom demonstrates in her work on common pool resources, it is the process by which rules are developed and adapted over time, as well as whether users consider the system to be legitimate and equitable, that is crucial (Ostrom, 2010).

Economically, the greatest threat to the sustainability of LCFP is posed by fears of corruption, with communities unable to determine whether they are receiving their 'fair share' (a weakness that emerged strongly through focus group discussions and interviews; flagged as a risk by TI in its 2016 assessment). The sooner BCP renegotiates the Benefit Sharing Mechanisms the better – with calculations to be based transparently and clearly on gross proceeds from carbon credit sales.

Encroachment into the REDD+ zone, fuelled by a rapidly increasing population due to an inward flux of 'climate migrants' also threatens project viability. Although local communities have agreed to forest boundaries, a consequence of the inward flux of migrants is that new lands are (illegally) opened up to cultivate food and provide income for the increasing population (Ministry of National Development Planning, 2017). TI notes that, despite the major challenges posed by encroachment and corruption, there are few instances of prosecution or punishment (Korwin, 2016, p.41). The REDD+ mechanism alone is insufficient to address the drivers of internal migration. It can even create a 'perverse incentive', increasing pressure on forests as the lure of improved infrastructure (from carbon revenues) grows. This problem is not unique to LCFP nor to Zambia, but is an issue that must be addressed globally, particularly as the impacts of climate change worsen.

Despite these challenges, BCP expects to nearly double the size of the LCFP area in the next annual verification (IPD2808_1). In the absence of alternative sources of income, carbon fees become increasingly attractive—not only to the traditional authorities who invite BCP into their chiefdoms but also to the impoverished community members who are eager to share in the benefits that they see neighbouring communities receiving—telling BCP “We are ready...we are waiting for you” (IPD2808_1). Matthews (2017, p.2658) observes that people's desire for development is 'tangled up' with their desire for equality, dignity and redress. As imperfect as the REDD+ mechanism is—and its flaws, both in theory and in practice (as enumerated above) are many—it does provide communities with some level of participation in the economy being created by nature-based solutions. While their share of the monies being generated in the VCM may be relatively small, it is something—although the 'something is better than nothing' argument is not justice.

Recommendations / Conclusion

My empirical findings support recommendations by Transparency International and others to improve governance and help protect REDD+ from corruption. These include i) promoting access to information (e.g., requiring project proponents to publish financial and non-financial information online to enhance transparency and accountability); ii) building

stakeholder capacity to enable effective participation; and iii) strengthening social institutions such as grievance mechanisms at local and national levels (Franks et al., 2018; Korwin, 2016; Visseren-Hamakers and Kok, 2022). In addition, I suggest a policy change, to enable funds currently flowing from the project proponent to the CFMG to be allocated to sub-accounts for each Village Action Group (in line with the Annual Work Plan). A devolution of responsibility to the lowest accountable level would enhance participation and promote a sense of local ownership. Finally, to improve oversight and accountability, there is a call for collaborative efforts, bringing together government, civil society, the Anti-Corruption Commission, donor representatives and academia (Korwin, 2016). Case studies such as this can contribute to this effort, highlighting the successes and the potential of the REDD+ mechanism in the LCFP, while exposing the weaknesses and flagging the threats.

I have argued that the potential for nature-based solutions, such as REDD+, to contribute to climate change mitigation in a manner that is ecologically just impels us to critically assess the situation on the ground, through case studies such as this one.

While there is a clear need for transformative governance in Zambia and greater transparency within LCFP, local communities' desire to retain their forests—and to benefit financially from so doing—resonates loud and strong. As local voices argue that cutting the trees benefits individuals, but forests benefit us all, efforts to enhance equity—locally as well as globally—must be strengthened.

Given the gap between pledges made at the COPs and new and additional finance actually being delivered (Hattle and Nordbo, 2023), the imperative to increase financial flows for conservation and climate action is clear. This paper delves into the question of how the commodification of nature (through REDD+) creates value and for whom. Though there is demonstrable evidence that Zambia's forests are being protected and emissions reduced, ecological justice remains elusive.

As the quality of REDD+ projects improves, the ability of project proponents to secure premium prices which reflect a value 'beyond carbon' will increase, negotiating bilaterally with buyers that are hungry for an opportunity to demonstrate genuine impact. So too must the ability to enhance distributional equity.

Tackling climate change by attempting to slow deforestation is not a 'silver bullet'. The carbon markets will not unlock a sufficient flow of funds from those most responsible for climate change to those most affected by it. But it is a start—with the concept of offsetting structurally aligned to the principle of the NCQG, in which those most responsible for climate change are held accountable. Emissions reduction projects can be complementary to carbon removals, understanding that offsetting should only be a final step after all possible emissions reductions have been made (Jones, 2024). Through a critical yet constructivist approach, this paper thus provides not only a 'hatchet' but also a 'seed' (Benjaminsen and Svarstad, 2021; Robbins, 2012); identifying systemic weaknesses and threats to sustainability in Zambia's LCFP but also suggesting ways in which the VCM and REDD+ could contribute to addressing global social challenges of climate change and ecological justice. We need to improve the imperfect mechanism that is REDD+ and the VCM - not abandon it.

Chapter 6: Article #2

The ‘Green Global Policy Assemblage’: Forging alignment in Zambia’s Luangwa Community Forests Project

Citation: Bergs, K., 2025, The ‘Green Global Policy Assemblage’: Forging alignment in Zambia’s Luangwa Community Forests Project. Submitted for review.

Abstract

The REDD+ framework was designed to help countries reduce emissions from deforestation and forest degradation, while also promoting sustainable forest management and conservation. Yet, more than a decade later, the world continues to lose its forests at a rate of 10 million hectares per year. This paper questions why it is that the assemblage that has been formed to promote communal forest management continues to re-assemble in the face of this apparent failure – asking who it is that is benefitting and thus driving the necessary alignment. Through case study research in Zambia’s Luangwa Valley, I also contribute to the debate as to whether REDD+ is just a ‘deadly distraction’, as some critics argue, or whether it can contribute to the goals of communal forest management – preserving forests, reducing poverty and empowering communities. I argue that, although there is evidence that deforestation has been slowed and some economic benefits received, communities have not been empowered. Instead, government maintains power from a distance. The cost of protecting forests has been passed down to communities, but not the capacity to do so effectively. Whether benefits adequately compensate for (opportunity) costs is questionable. Who then are the big winners in Zambia’s Luangwa Community Forests Project?

Introduction

Forests provide habitat for up to 90% of the world’s terrestrial biodiversity, supporting the livelihoods of millions living in extreme poverty (Parker et al., 2009). In addition, forests are able to absorb up to 30% of fossil fuel emissions (UNEP, 2021).

Deforestation, on the other hand, is considered a ‘double whammy’, as the world not only loses a vital carbon sink, but another 11% is added to global carbon emissions through this destruction (UNEP, 2021). In response, the UN Framework Convention on Climate Change (UNFCCC) developed REDD+ (Reducing Emissions from Deforestation and Forest Degradation). The REDD+ framework was designed to help countries reduce emissions from deforestation and forest degradation, while also promoting sustainable forest management and conservation (Angelsen et al., 2018). Yet, more than a decade later, the world continues to lose its forests at a rate of 10 million hectares per year (Ritchie, 2021; UNEP, 2021). Is REDD+ just a ‘deadly distraction’ (as argued inter alia by Asiyanbi & Lund, 2020; Buller, 2022; and Fletcher et al., 2016) in other words, worse than doing nothing, as it creates an illusion that climate change is being addressed and enables a ‘business as usual’

approach? Or can it contribute to effective and equitable community forest management – protecting forests, reducing poverty and empowering communities?

Through case study research in Zambia, home to the largest REDD+ project in Africa—the Luangwa Community Forests Project—I provide empirical evidence towards this debate. I argue that, while there has been a reduction in deforestation, and some measure of local economic benefits, communities are not being empowered. In fact, the government maintains control from a distance, utilizing the REDD+ mechanism to pass protection costs on to communities without affording them the necessary capacity to protect forests effectively.

The paper begins with review of the literature, looking at the power dynamic involved in governing from a distance—a concept Foucault (2008) referred to as ‘governmentality’—and its evolution into the making of environmental subjects in Agrawal's (2005) ‘environmentality’. It goes on to consider Fletcher's (2010) nuancing of this concept—unpacking multiple ‘environmentalities’—to enrich our analysis of the phenomenon in the Luangwa Valley. The title of this paper can be attributed to Heffernan (2022a) who contends that—rather than being apolitical and a domestic policy tool—community...[forest] management is best understood as a form of global resource governance inextricably linked to a multitude of global actors. I thus draw on Li's (2007a) analytic of the assemblage to further an understanding of who it is that is benefitting, and thus forging the necessary alignment, in Zambia's Luangwa Community Forests Project (LCFP). The review raises the question of whose values carbon finance represents, potentially crowding out intrinsic motivations of local people to conserve (Kopnina, 2019; Visseren-Hamakers & Kok, 2022), to which this research responds.

A theoretical framework of political ecology provides a focus on the power dynamic inherent in community-based natural resource management (CBNRM)—including forest carbon projects (Benjaminsen & Svarstad, 2021). It also combines critical perspectives with the insights distilled from the field (Rocheleau, 2008). As such, I chose case study methodology as the best means to link viewpoints unearthed through my literature review with empirical evidence obtained firsthand. This also responds to the call for more empirical evidence of what works under which circumstances (Angelsen, 2017), building on the work of Setyowati (2020), who notes that REDD+ outcomes are shaped by social relations and the political and ecological context in which it is implemented.

The methodology and findings section begins with an explanation of the desk research conducted to develop an understanding of the institutional and policy framework in Zambia enabling communal forest management. This is followed by a description of project documents, substantiated by third party verification, that were analyzed to determine whether deforestation is being reduced, carbon credits sold, and proceeds distributed to local communities. Finally, the mixed methods utilized during my field research – including focus group discussions, semi-structured interviews and participant observation, triangulated with survey data obtained from a third party – are combined to develop an understanding of whether or not communities perceive their involvement in the LCFP as beneficial. My engagements are mapped along a spectrum – from the local to the global (employing Blaikie & Brookfield's [1987] ‘chains of explanation’) – to enable a visualization of the assemblage that has been created in this REDD+ project.

In the discussion section I integrate my research findings into Li's (2007a) analytic of the assemblage, to further an understanding of how the logic of governmentality shapes behavior in practice, questioning who it is that is benefitting from the LCFP. This also responds to Müller's (2020) call for additional ethnographic research in her study of assemblage practices that contribute to stabilizing REDD+ regimes on the ground. I conclude that the Government of Zambia is utilizing its forest legislation to maintain power from a distance. It has succeeded in passing on the costs of forest protection on communal lands to local communities, but whether the benefits communities receive are commensurate with (opportunity) costs is questionable. The contrast between the eagerness of neighboring communities to participate in the LCFP with the frustrations of participating communities (Asiyanbi et al.'s [2019] 'economy of expectations') is a sobering reminder of the extent to which communal forest management is falling short of its potential – and offers the potential for theory building.

Literature Review

The making of environmental subjects

Heffernan (2022a, p.17) contends that the shift from fortress conservation²⁶ toward community-based forms of conservation occurred not only in order to empower communities, but also as a response to the realization that the state could not effectively govern every aspect of society. As a result, various techniques of governing at a distance emerged, including efforts to responsibilize communities to solve some of their own challenges.

It was Foucault (2008) though who introduced the term 'governmentality' and the concept of governing from a distance. He describes 'governmentality' as a pluralized form of power which uses state and non-state actors, not to enforce control from above, but to guide their subjects implicitly. The control of discourse—including the production of and access to information—is one of the instruments used in this process. Governmental power inhabits both the facilitators and the targets of its interventions, mobilizing the 'will to improve' (Li, 2005, 2007b). The sincerity of its spokespeople—from colonial administrators and missionaries to development experts and political activists—is not in question. Accordingly, one can see 'governmentality' at work in myriad domains, from agriculture and health to conservation and poverty reduction initiatives, such as REDD+ (ibid). Individuals learn to govern themselves and the role of the state is to make the population governable (Foucault, 2008).

The word 'environmentality' was subsequently coined to demonstrate the linkage between the objectives of environmental movements and manifestations of 'governmentality' (Luke, 1999). It was Agrawal (2005) though that popularized the term, as he sought to explain why, when, how, and in what measure people come to develop an environmentally oriented subject position.

²⁶ According to Ramutsindela et al. (2022), 'fortress conservation' was applied in the US and Europe as a means of managing nature reserves as wilderness areas, excluding people from those areas. The concept was introduced into Africa during the colonial era, linked to the exploitation of resources and the (often) violent treatment of people living in resource-rich areas.

Agrawal (2005) asks what the direction of the causal connection is—do people care more about the environment because they are more involved, or are they more involved because they care more? The author identifies participation as the decider, observing that when villagers participate (e.g., in monitoring and enforcement), they come to realize at a personal level the social costs generated by those who do not adhere to the practices and expectations that have been collectively established. In a process Agrawal describes as ‘intimate government’, villagers now protect forests and control illegal practices of harvesting and extraction. They use the same language of regulation and protection as state officials deploy, but they do so in pursuit of goals that they imagine as their own (ibid). For example, despite the introduction of community-based forest management in Tanzania, colonial tropes and the privileging of scientific knowledge continue to homogenize discourse (Rwelengera, 2025) – a hegemonic process Gramsci (1994) described nearly a century before, in which ordinary peoples’ ideas and world views were often in line with the interests of their rulers. This homogenization of discourse reinforces traditional checks on communities’ freedoms in village forest reserves.

Fletcher (2010) builds upon these arguments, proposing a framework which describes competing positions within the conservation debate as expressions of distinct ‘environmentalities’. These ‘environmentalities’ can either be disciplinary (based on norms), sovereign (based on rules), neoliberal (based on incentives) or truth (based on fundamental laws of nature, as found inter alia in traditional knowledge ecologies). These ‘environmentalities’ overlap, compete with and challenge each other; a microcosm of the political arena—the art of government according to the rationality of truth, of economic agents, of the sovereign state or of the governed themselves. Rather than an internalization of norms to which individuals (in theory) conform, ‘neoliberal environmentality’ creates external incentive structures, utilizing a cost-benefit ratio to encourage preservation over resource extraction (Fletcher, 2010; Foucault, 2008). Whether benefits to local communities participating in the LCFP actually compensate for costs is one of the questions my research raises.

The role of the assemblage in communal forest management

Rather than a domestic policy that is then influenced by external actors, Heffernan (2022a) sees community-based natural resource management (CBNRM) as reflecting an assemblage, with a confluence of power relations occurring at both global and local levels. Adeyanju et al. (2021) observe that CBNRM can perpetuate business-as-usual approaches by not fundamentally addressing horizontal and vertical power imbalances within the assemblage. Poor collaboration across scales of governance renders the initiative vulnerable to broader political-economic forces (ibid: 14).

Li (2007a) provides a useful analytic on practices of assemblage—the on-going labor of bringing disparate elements together and forging connections between them. She identifies these practices as forging alignment, rendering technical, authorizing knowledge, managing failure, anti-politics, and re-assembling (elaborated on below). Li then demonstrates the power of this assemblage through an extended study of community forest management in Indonesia—while I utilize her analytic in my study of community forest management in Zambia to determine who it is that is winning—and thus forging the necessary alignment to keep the assemblage functioning.

Forging alignment is the work of linking together the various objectives of the assemblage—including both those who aspire to ‘govern conduct’ and those whose conduct is to be governed. Li (2007a) reminds us that, for parties that aspire to govern, forging alignments with local communities is essential, although this alignment is tenuous and fragile. Communities need to be ‘reminded’ of their interest in sustainable forest management and educated in the mechanisms thereof. Asiyambi and Lund (2020, p.386) find the depoliticizing, win-win discourse of REDD+—with purported benefits to climate, biodiversity and communities—has had the effect of attracting and aligning a wide range of actors. This alignment not only provides the appearance of ‘success’, but also legitimacy and tentative durability—allowing the assemblage to continue re-assembling in spite of apparent failure.

Rendering technical reduces a problem (such as deforestation) to a technical challenge, glossing over the ‘messiness’ of the social situation (Li, 2005, 2007a). Forest rights are often linked to standards of community cohesion which cannot be met, revealing the ‘myth of the community’ (Agrawal & Gibson, 1999). Setyowati (2020, p.46) describes how this failure to recognize relations of power can lead to exclusion and marginalization of certain groups, such as women, and elite capture of benefits.

Authorizing knowledge builds on Foucault's (2008) concept of the control of discourse as an instrument of ‘governmentality’ and global environmental governance. Asiyambi and Lund (2020, p.390) find the “uneven geography of REDD+ knowledge production reflects and reproduces, rather than upsets, the North-South asymmetries at the heart of international development”. In their review of approximately 3,000 REDD+ academic articles indexed in Scopus from 2005 – 2019, more than half were published by scholars in the Global North. Africa, Latin America and Asia, which host nearly all REDD+ projects, account collectively for just over one-third of publications (with Africa accounting for a scant 7%).

Managing failure consists of presenting it as a rectifiable deficiency in technique; thus issues of additionality (proving what would have happened in the absence of an intervention), leakage (reducing rather than simply displacing deforestation), and permanence (with the increasing risk of wildfires potentially wiping out temporary ‘wins’ in reduced deforestation) are minimized by revising methodologies (e.g., with Verra—the owner of the world’s most widely used Greenhouse Gas [GHG] crediting scheme, the Verified Carbon Standard—releasing their new methodology on the eve of COP28) (“Verra Launches New Era of Forest Protection”, 2023).

The practices of rendering a problem as a technical challenge—to be rectified by an improvement in technique—are closely linked to anti-politics practices, in which donor agencies set their improving agendas within the limits set by their need to continue to engage with the state. Avoiding politics hampers the ability to address the underlying causes of problems and hinders the implementation of solutions that could lead to transformational change (Fletcher et al., 2016). Angelsen et al. (2017) concede that, if more attention had been given to the political economy of deforestation and governance challenges, REDD+ might have yielded better results by now.

Re-assembling is based on the belief that communities will manage forests sustainably not because it is their custom to do so but rather because experts have set the appropriate conditions and market incentives to encourage the approved behaviour—Fletcher's (2010)

‘neoliberal environmentality’. In a circular logic, this is closely linked to the ability to continue forging alignment.

Heffernan (2022a) argues that, as communities remain dependent upon the proliferating array of actors embodied in the ‘green global policy assemblage’, they are rendered less autonomous and more reliant. Adeyanju et al. (2021) observe that many CBNRM initiatives are externally driven, with the provision of financial, logistical and technical support by partner organizations failing to empower local actors. Although scholars note ways in which communities resist hegemonic practices and exercise agency (Scott, 1985; Setyowati, 2020), I believe these actions fall short of the empowerment that community-based natural resource management purports to achieve. Hobsbawm (1973, p.13) perhaps describes the situation best in his observation that weaker actors are arguably far less interested in changing the larger structures of the state and the law than in “working the system...to their minimum disadvantage”.

In a review of REDD+ readiness materials, Müller finds local actors are valued as agents of change—albeit ones that are still in a subaltern status and therefore in need of empowerment (Müller and Ziai, 2017, as cited in Müller, 2020, p.421). I apply this lens to my analysis of the Luangwa Community Forests Project to reveal the extent to which the Zambian state continues to maintain power at a distance rather than empowering its citizenry.

Methodology and Findings

My research is guided by a theoretical framework of political ecology. ‘Political’ reflects the field’s focus on various forms of power, while ‘ecology’ refers to its broad emphasis on environmental issues (Benjaminsen & Svarstad, 2021). It is the ideal framework within which to situate my research, firstly because it addresses processes through which powerful external actors may influence national governments, typically in the Global South, to restrict access to land and / or natural resources to protect the environment or the climate (ibid). Secondly, it addresses the relationship between theory and evidence, synthesizing normative and empirical analysis, comparing what REDD+ should (or could) be with what it is (see Asiyanbi and Massarella’s [2020] analysis of REDD+ models). Finally, it highlights the linkages between the local and the global, offering Blaikie and Brookfield’s (1987) ‘chains of explanation’ to demonstrate how structural factors and actors at both national and global levels also can have great influence at the local level.

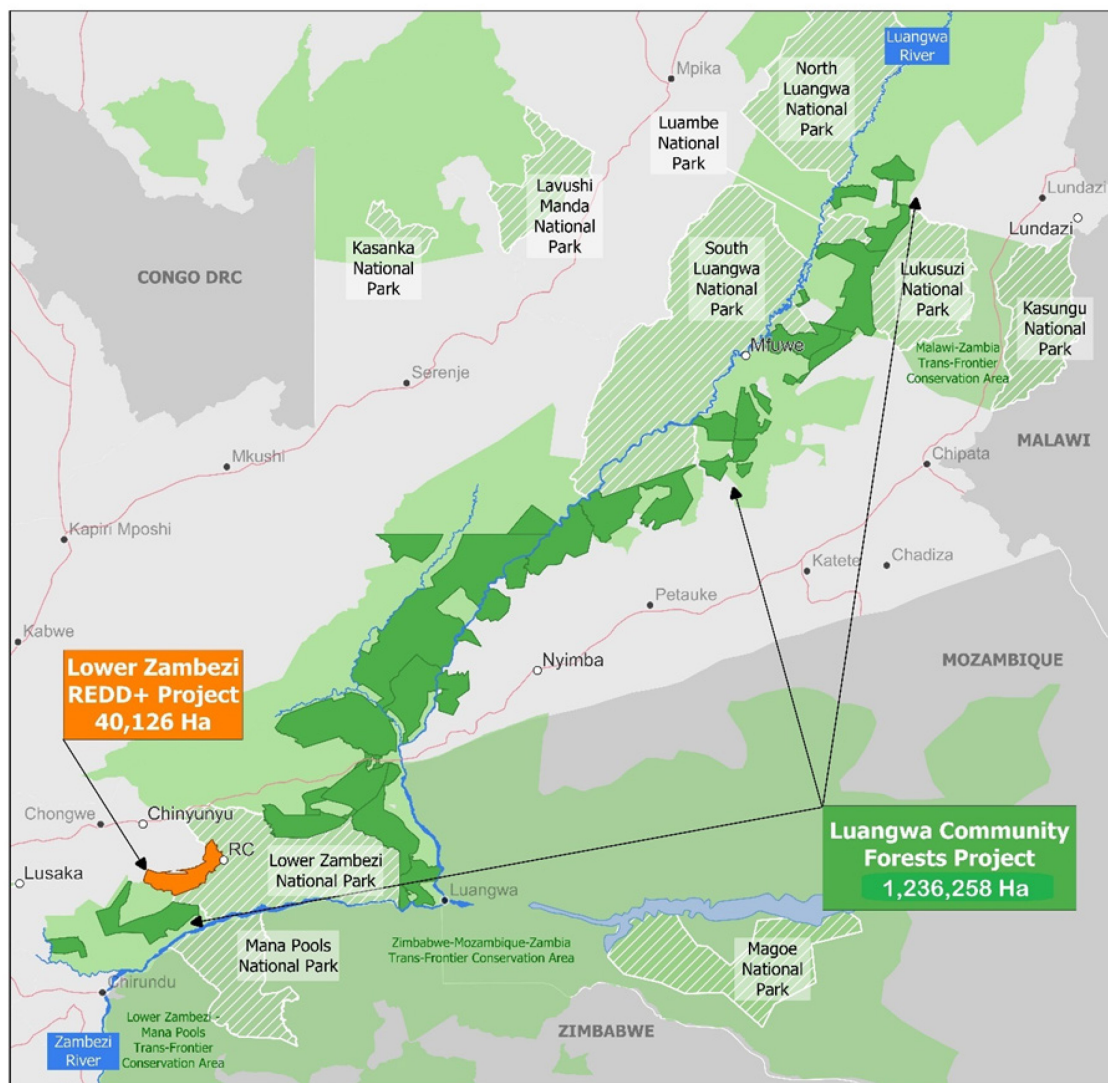
Methodology

I chose Zambia’s Luangwa Valley as the site for case study research. Not only does Zambia sit in a belt which encompasses the highest forest cover in Africa (stretching from Angola through the Democratic Republic of Congo to Tanzania), but the region also has one of the world’s highest deforestation rates, at nearly double the world average (Igini, 2022; Statista, 2023). Coupled with a populace of which 61% live below the poverty line and 48% are considered multidimensionally poor (OPHI & UNDP, 2023), Zambia was a logical choice for the introduction of REDD+.

With pre-financing from USAID in the form of a 5-year (2014 – 2019) USD14 million grant (Integra, 2019), BioCarbon Partners (BCP) was able to develop the Luangwa Community

Forests Project (LCFP) - at just over 1.2 million hectares and spanning 17 chiefdoms, touted as the largest REDD+ project in Africa (BCP, 2024a) (see Figure 14). In 2019 they were able to sell LCFP carbon credits through the Voluntary Carbon Market, signing a 20-year Emissions Reduction Purchase Agreement with Italian energy company, Eni (Eni, 2019). This steady flow of funds has also arguably enabled LCFP to become the largest REDD+ project in the world by verified social impact (BCP, 2023), with the project certified ‘triple gold’ against Verra’s standard for benefits to climate, communities and biodiversity²⁷.

Figure 14: Map – Luangwa Community Forests Project and Lower Zambezi REDD+



(BCP, 2024a)

Note: BCP began developing the Lower Zambezi REDD+ Project, Zambia’s first REDD+ project, in 2012. This project was showcased as a ‘model project’ (see Asiyanbi &

²⁷ Luangwa Project Largest CCB Triple Gold Verified REDD+ Project in the World, January 24, 2025 <https://www.linkedin.com/pulse/luangwa-project-largest-ccb-triple-gold-verified-ubmff/>

Massarella, 2020)), forming the basis upon which the much larger and more complex LCFP was developed.

Lusaka, Chinyunyu, Nyimba, Mfuwe and Lundazi are home to BCP office sites.

My research questions whether communities are being empowered as agents of change, receiving benefits commensurate with (opportunity) costs. Given the increasing array of actors involved in global environmental governance (Heffernan, 2022a), I analyze the assemblage that has emerged in the LCFP to understand this phenomenon more broadly, asking who it is that is winning, and thus driving the necessary alignment (Li, 2007a).

Desk research

I conducted a desk review of Zambia's legislative environment, focusing on the devolution of forest rights and the development of community forest management, including Zambia's National Strategy for REDD+ (Matakala et al., 2015), Forests Act (2015), and subsequent statutory instruments (2021; 2018). I also reviewed documents produced with the support of multilateral institutions, such as the World Bank, in the development of the country's jurisdictional REDD+ program (World Bank, 2017). Early Zambian experiments in CBNRM were studied (Lubilo & Child, 2010) to provide an historical background and an awareness of lessons learned. The fragmented policy environment was assessed and the challenges posed by this fragmentation analyzed. Finally, more recent policies, including the National Community Based Natural Resource Management Policy²⁸ (Ministry of Tourism, 2024), were reviewed to ascertain the degree to which they may address some of the challenges posed by the current legislative framework.

I relied on LCFP project documents, triangulated with third party verification, to identify actual project impacts. This data served to confirm the existence of forest protection, the issuance of carbon credits and the distribution of revenue from the sale of said credits. These documents do not address the equity of the distribution, which emerged during my field research.

Field research

My fieldwork in 2023 focused on two sites within the LCFP – Nyimba and Mfuwe. The former includes the largest intact forests in the project area while the latter is the site of the greatest threats, with high rates of inward migration placing significant pressure on the remaining forests. I acknowledge the fact that I worked through 'gatekeepers', as BCP facilitated not only introductions but also access to local stakeholders. They also provided an e-introduction to other key informants, such as government officials and donors. I realize this held the potential to bias the information that I received but was reassured that communities were not shy to speak their minds, understanding that they had nothing to lose by being honest. Other stakeholders interviewed (such as CBNRM associations, NGOs and tourism operators) were identified through snowball sampling. The purpose of my research was explained to all participants, their voluntary consent obtained, and anonymity ensured through the coding of all transcripts.

²⁸ The National Community Based National Resources Management Policy launched in 2024 is not yet publicly available on the Ministry of Tourism's website <https://www.mot.gov.zm/?p=3483#>.

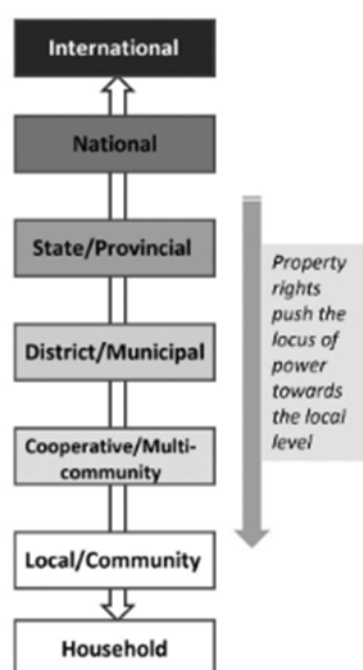
This qualitative data was triangulated by quantitative data obtained through a social monitoring survey commissioned by BCP and conducted by March Associates in June – July 2022, interviewing 400 households in the project area to assess community perceptions and household income from participation in the LCFP.

Stakeholder mapping

I mapped my engagements along a spectrum from the household to the international level, which enabled a visualization of the assemblage that has been formed in the LCFP (see Figure 15 below). Lubilo and Child (2010) contend that many of the fundamental challenges to community-based natural resource management lie in the allocation of roles and responsibilities and in the configuration of power and competition for resources between actors and across different scales.

Figure 15: Spectrum of stakeholders involved in LCFP

(Lubilo & Child, 2010, p.203)



At the **international/global** level, I interviewed USAID (a bilateral donor) and Eni (the purchaser of the carbon credits). I also engaged via e-mail with Verra, owner of the Voluntary Carbon Standard utilized by LCFP.

At the **national** level, I met with officials in the Department of Forestry and Department of National Parks and Wildlife, as well as key members of BCP's head office team. I interviewed government officials supporting the piloting of a jurisdictional REDD+ program in the Eastern **province**.

District level engagements included interviews with the District Commissioner and District Forestry Officer, as well as BCP field teams. At the **multi-community** level, I had focus group discussions with the communal forest governance structures in six chiefdoms, as well as interviews with two local Chiefs.

I interviewed a **local** village headwoman and engaged with other local stakeholders identified through snowball sampling. I triangulated my findings with data from a 2022 survey of 400 **households** in the project area by March Associates.

In total, I directly engaged with 77 stakeholders, through 33 semi-structured interviews and 6 focus group discussions during the period June – August 2023. Anonymized transcripts, containing respondents' perceptions of the strengths and weaknesses of the project, as well as potential opportunities and perceived threats, were uploaded to Nvivo to enhance security and facilitate analysis. I am solely responsible for all transcription, coding and summarization.

Findings

‘Chains of explanation’ aid in the analysis of community forest management in the LCFP, demonstrating how structural factors and actors at both national and global levels can have great influence at the local level. Blaikie and Brookfield (1987) recommend starting empirical examinations at the level of the immediate land manager (e.g., a smallholder farmer), working upwards through national and global scales. This provides a glimpse into how a smallholder uses land and natural resources, and what the reasons are for using them in a particular way. It also provides a framework within which to question what the social, economic and political conditions influencing this land use are. I have utilized this framework to report my findings, beginning at the **household** level.

In the case of LCFP, at the local level a smallholder farmer decides whether or not to cut down trees to clear new fields. This decision may be based on the historic norm of ‘shifting cultivation’, expanding their fields as soils are depleted and / or to increase the prospect of a harvest in the face of climate change. This may also be the result of an increase in population, as internal migrants flock to the relatively rich soils of the Luangwa Valley (fueled by weak land tenure, as 90% of the local population are customary landowners without title [Ministry of National Development Planning, 2017, p.28]). The cost – benefit analysis of abiding by restrictions on forest access is done at the household level.

March Associates’ household survey revealed a positive change in perceptions of wellbeing as well as attitudes towards conservation and project satisfaction. Only 16% of survey respondents cited any negative experiences with the project—and those that were mentioned focused primarily on restrictions in accessing land and forest resources. This low level of discontent may reflect spatial injustice, as those living closest to the protected forests experience the greatest (opportunity) costs, while benefits are (in theory) shared equally throughout the chiefdom. The survey also provided a number of recommendations for improvement. These included enhancing communication, expanding the potential for employment, defining the role of traditional authorities and governance structures clearly, and ensuring a fair allocation of projects amongst the villages in the project area.

The majority of respondents, both to my own qualitative research as well as to the quantitative research conducted by March Associates, see REDD+ (and specifically the LCFP) as valuable, with forests a source of carbon revenues and ecosystem services. As stated by one of the respondents “Conserving the forest is the start of development” (FGD2806_1)²⁹. During the course of the focus group discussion, others elaborated on the sense of ownership that has emerged, as the communities understand that the forest is theirs. They cite the fact that the forest provides traditional benefits to them, such as honey and herbal medicine. With poaching reduced, wildlife numbers are also increasing, with the forests providing valuable habitat.

Unsurprisingly, in a landscape in which there are few opportunities to generate cashflow, with over 76% of Eastern Province living below the poverty line (ZamStats, 2024), respondents cite carbon fees as the biggest strength of the project. The importance of intact forests is nonetheless clear, with respondents citing a number of ecosystem services provided by trees, including cooler temperatures, higher rainfall, moisture retention in the soil and

²⁹ The coding was used to anonymize the transcripts obtained from discussions with respondents.

reduced soil erosion. Community members voiced the sentiment that deforestation was a selfish act, benefiting individuals, while intact forests benefited all. Another benefit cited was the creation of jobs, largely in the form of village scouts, employed by the Community Forest Management Groups to protect the forests (although favoritism was perceived in the recruitment process, picked up on again in the discussion section).

At the **multi-community** (chiefdom) level, there is unhappiness with the accountability of the representative structures—the Community Forest Management Groups (CFMGs)—tasked to administer disbursement of the funds received. The challenges of good governance within the CFMGs were augmented by charges of elite capture and favoritism, as those villages situated closest to the Chief’s residence are perceived as benefiting more than villages lying further from the ‘center’. One CFMG member acknowledged that “The people in the villages say, [CFMG] you are eating our money” (FGD2606_1). Respondents also mention local elites—“a certain devil” (FGD2806_1)—that ‘have their cake and eat it too’, as they derive benefits from deforestation while simultaneously reaping the benefits of REDD+ (IGZ2706_1).

As the LCFP is largely based on communal lands designated as Game Management Areas (GMAs)³⁰, governance is complicated. The fragmented policy environment emerges as a key driver of deforestation, with one **district** official lamenting that “The departments don’t speak the same language...there is a tug of war” (IGZ1408_2). This results in a lack of coordination, with competing priorities and approaches, which weakens law enforcement. Additionally, the Forests Act (2015) does not empower community scouts to arrest individuals caught cutting down trees in their protected forests, rendering them powerless to curtail illegal deforestation. One respondent described this as a manifestation of neo-colonialism, with departments set up by the British for trade, and thus better at licensing than at protection (IPD2407_2).

At a **provincial** level, the Government of Zambia is piloting a jurisdictional REDD+ program (although an analysis of this program falls outside the scope of this paper). Existing REDD+ projects that fall within Eastern Province (including a number of community forests within the LCFP) will be ‘nested’ into the program. Funds will flow from the buyer (the World Bank) to the government before being distributed to the CFMGs. Communities voice some concern as to what this re-centralization of control might mean based on their history of government engagement in the management of funds from hunting in the GMAs³¹.

At a **national** level, the significance of the policy environment is revealed. In keeping with Zambian legislation, the Community Forest Management Groups assign the carbon trading

³⁰ National parks (IUCN category II) and surrounding Game Management Areas (IUCN category VI, which permit hunting and human settlement) are managed by the Department of National Parks and Wildlife (DNPW). When forests are situated in Game Management Areas, both the Department of Forestry and the Department of National Parks and Wildlife have jurisdiction (Forests Act, 2015: 31.4).

³¹ Zambia utilized a top-down approach in its development of CBNRM, creating committees to manage wildlife through the appointment of village scouts. Communities had no say in the awarding of hunting concessions, with all proceeds held by the Wildlife Department in a revolving fund. Disbursements were periodically made for community projects, but records and audits of the revolving fund were notoriously incomplete, so communities were seldom aware of how much money they were getting (Gibson, 1999, in Lubilo & Child, 2010). Bwalya Umar & Kapembwa (2020) describe the apathy that ensues due to low levels of participation in the wildlife economy and a sense of exclusion from benefits (due to elite capture at the local level).

rights to BCP and then enter into a benefit sharing agreement with them (Forests Act, 2015; Community Forest Management Regulations, 2018). These agreements allow for distribution of a 45% share of net proceeds to communities. At the time these initial agreements were negotiated, while highly opaque, they were not illegal, as there was no legislation in this regard. The situation changed in 2021, with the passage of Statutory Instrument 66. At the time of my fieldwork, BCP was not in compliance with the law, which requires that benefit sharing be derived from the gross revenue of carbon credits sold (Forest Regulations, 2021, Clause 23.2d). The majority of respondents cite the benefit-sharing agreement as problematic. While there was little consensus as to what a ‘fair share’ would look like, it was strongly linked to issues of transparency. Nobody knows exactly how much the project developer, BCP, is making, but the presumption is that there is a reason for their opacity.

At an **international** level, BCP submits Monitoring Reports to Verra, which are then verified and subjected to an accuracy review before determining the issuance of carbon credits. As at the end of 2022, LCFP spanned 1,236,033 hectares of forest, protecting an estimated 565 million trees (BCP, 2023). BCP’s 5th Monitoring Report (2024b, p.158) calculates net GHG emission reductions in 2022 at 1,946,717 tCO₂e. An independent audit team carried out the fifth verification of the LCFP, agreeing with GHG emissions calculations and finding the project compliant with Voluntary Carbon Standard criteria (AENOR, 2024). The verification was then subject to an accuracy review by Verra, the owner of the standard³², who found that, due to the inclusion of new chiefdoms in the LCFP, the reference area was no longer representative of the whole project area³³. A 30% discount was thus applied to the gross verified volume to allow for this deviation (ibid, p.4). Verra’s increased focus on improving the rigor of baseline calculations may reflect an effort to enhance confidence in the validity of the counterfactual—thus potentially growing the market for carbon credits. In the meantime, benefits to participating communities are reduced.

Based on the steady flow of funds from BCP’s 20-year Emissions Reduction Purchase Agreement with Italian energy company, Eni, an amount of \$12 million had been disbursed to communities by 2023. Of this, approximately \$10 million went into infrastructure projects, supporting education, health, and water, sanitation and hygiene (WASH), while \$2 million was directed towards livelihoods projects at household level (BCP, 2024a). It was not possible to ‘follow the money’, as financial documents (including the benefit sharing agreements) are not made public, but – as alluded to above – there is a perception that communities are not receiving their fair share.

Eni, in turn, is able to offset residual emissions as well as to play an active role in project governance. In addition, Italy may be able to count these emissions reductions towards their Nationally Determined Contribution. Ultimately the UNFCCC may be able to demonstrate progress in mitigating climate change although it is questionable as to whether this would meet the requirements of a ‘just transition’ (UNEP, 2023, p.50).

³² Details of the Monitoring Report and VCS verification can be found on the Verra registry at <https://registry.verra.org/app/projectDetail/VCS/1775>.

³³ For each carbon credit issued, a metric ton of CO₂ equivalent supposedly has not been released that would otherwise have been. This equivalence is difficult to prove as the counterfactual — what would have happened to deforestation without a REDD+ project — cannot be observed. Instead, a reference area with similar biophysical characteristics is delineated, to which the project area can be compared (Jones, 2024).

During fieldwork the question arose as to who is actually managing the forest, with the span of vertical control key. To whom are communities ultimately reporting? Is it the Community Forest Management Group? the Chief? the Forestry Department? Verra? What is clear is that the cost of managing the forest is passed down to communities (IGZ1307_1), for example paying the salaries of community scouts. What is less clear is whether benefits adequately compensate for costs.

Discussion

The above analysis, although depicted as a chain, is in fact a web of tangled relations.

Access and control are managed at the chieftdom level, with community scouts appointed by the local forest governance structure, the CFMG. When the scouts become aware of illegal deforestation, their reporting line is complex. They are bound under traditional law to report encroachment to the Chief and under civil law to report violations to statutory authorities, including the District Offices of the Forestry Department as well as the Department of National Parks and Wildlife (Forests Act, 2015, 31.4). The responses of these authorities are not necessarily aligned, which hampers effective forest management.

The institutional and policy frameworks shape land use and resource management at a national level, although Zambia's REDD+ Strategy (Matakala et al., 2015), Forests Act (2015) and subsequent statutory instruments were created with assistance from international experts and donors, such as the FAO, UNDP, UNEP and USAID. Although this legislative framework devolves control of the forests to the CFMGs, a lack of coordination between agencies operating in the same area (as highlighted above) creates challenges in implementation.

Economic, political and environmental forces at a global level shape events at the national and local levels. The reduction in carbon emissions is calculated based on Verra's standard for Avoided Unplanned Deforestation and carbon credits are issued accordingly. These credits are then sold on the Voluntary Carbon Market, in this case to the Italian energy company, Eni, with global market forces affecting the carbon price, and thus the amount paid for these credits. These funds then flow back through the coffers of the project developer to the CFMG for disbursement to projects at a village level. Ultimately, very little power is held by the villager or smallholder farmer, who may or may not receive benefits in line with (opportunity) costs.

I therefore utilize Li's analytic of the assemblage in communal forest management to assist in answering who it is that is driving alignment in the LCFP. I argue that the Zambian government maintains control from a distance, utilizing the REDD+ mechanism to pass protection costs on to communities without affording them the necessary capacity to protect forests effectively. This responds to the call for further ethnographic research into the role of REDD+ in the making of environmental subjects (Müller, 2020).

The 'Green Global Policy Assemblage'

According to Li (2007a), **forging alignment** with villagers is a critical component of an assemblage that has the word 'community' in its title. This forging is fragile though – as promised benefits are linked to attempts to govern the conduct of community members,

particularly challenging when communities do not find the benefits a suitable *quid pro quo*. My fieldwork picked up this tension, with community scouts tasked to patrol the forests, reporting any incidences of deforestation. Especially as the current fragmented legislative environment renders these scouts relatively ‘toothless’, they experience frustration in their attempts to ensure compliance with the REDD+ regulations, particularly by newer arrivals to the area.

Rendering technical reduces a problem (such as deforestation) to a technical challenge, glossing over the ‘messiness’ of the social situation (Li, 2005). My fieldwork unearthed challenges in the implementation of rigid global standards in a local context. For example, the grievance mechanism is a paper-based system, with confidentiality considered paramount. The tradition for addressing grievances in Zambia—as observed in the Luangwa Valley—is oral, with the aggrieved community calling for a meeting with the Chief (with representatives of the government and the project developer also in attendance). The range of grievances is typically not compartmentalized, and aspects of injustice are aired that may or may not have anything specifically to do with the REDD+ mechanism. For instance, in a meeting that I was privileged to attend, villagers felt strongly that they were not receiving their fair share of benefits—and that the in-kind benefits that they did receive, for example of a new classroom block, were not as meaningful as cash or livelihoods benefits at a household level would have been (POB2306_1). Many of them saw infrastructure—such as classroom blocks and clinics—as the responsibility of government, and not something that they should be responsible for financing out of carbon fees. A relatively complex system of lodging grievances in writing is ill-suited to this tradition, in which the challenge is to restore the trust relationship.

In **authorizing knowledge**, the focus is often on a few exemplary places, with the assumption that ‘if some can do it, others can too’, given the proper encouragement, training and regulatory environment—thus the plethora of REDD+ models, as discussed by Asiyanbi and Massarella (2020). As highlighted in the notes to Figure 14, BCP’s Lower Zambezi REDD+ project was developed as a model project, upon which to base future expansion—initially through the LCFP. The socio-economic context varies greatly though as, not only is the LCFP being developed on (largely) communal lands, whereas the Lower Zambezi project was developed on private land, but the scale of implementation also introduces additional complexities.

Critiques have also arisen regarding assumptions of homogeneity within a community (viz the ‘myth of the community’[Agrawal & Gibson, 1999]), as these assumptions are dangerous when communities find their rights pegged to standards of cohesion or conservation management they cannot meet. As a result, the assemblage expends considerable effort **containing** these **critiques** through community sensitization and governance training. I was able to participate as an observer in a number of training sessions co-presented by BCP and district government officials, noting a ‘will to improve’ that was palpable (e.g., POB2806_1 / POB2806_2). Particularly as governance structures are re-elected every three years though, it is questionable whether these training sessions suffice to ensure the desired standards are met and upheld.

Anti-politics can be seen as the state adopts the language of community forest management but views it as a contract between forest communities and the state, with the state dictating

the terms of the contract. This is precisely the situation in Zambia, with the 2015 Forest Act (and subsequent statutory instruments) the basis upon which communities can register a Forest Management Group. The state forestry agency retains its traditional role in producing policies and regulations, approving community forest management plans that align with these regulations (Community Forest Management Regulations, 2018), thus maintaining control from a distance.

Donors and multilateral development banks invest enormous resources into community forest management with the twin objectives of delivering community development as well as improving government institutions. This is the case in Zambia, with the World Bank and the Global Environment Facility having invested heavily in the REDD+ Readiness and implementation phases of Zambia's jurisdictional REDD+ project (World Bank, 2017). While donors can be pro good governance, they cannot be anti-state, nor can they challenge the status quo. It thus renders REDD+ as non-political, which minimizes its potential to address some of the actual drivers of deforestation and climate change more broadly (Asiyanbi & Lund, 2020; Buller, 2022; Fletcher et al., 2016) as well as maintaining the Zambian tendency towards neo-patrimonialism, with strong traditional authorities and a rural economy dominated by a relatively small elite (Lubilo & Child, 2010).

Re-assembling entails the ability to pivot to keep the assemblage alive. For example, in the 1990s, the idea emerged that community forest management could be linked to conservation and poverty reduction by making conservation pay. Communities would thus manage forests sustainably not because it was their custom to do so, but rather because experts set the appropriate conditions and market incentives to encourage the approved behavior—Fletcher's (2010) 'neoliberal environmentality'. I encountered different motives to keeping the assemblage alive, depending on the stakeholder group. To BCP, the project developer, the motivation is to continue to expand the project area (with plans to triple the hectareage of LCFP over the next three years) (BCP, 2023). The purchaser of the carbon credits, Eni, is eager not only to offset residual emissions but also to demonstrate impact, in order to fend off what they consider unfounded attacks of anti-REDD+ critics (IID1109_1). For government, the biggest opportunity lies in successful implementation of their jurisdictional program, 'nesting' existing projects within the Eastern Province, in order to 'force transparency' (IGZ1606_1) and enabling them to derive a share of the money they have seen going into private pockets (IPD2006_1). Communities voice a desire to conserve their forests—as well as to participate in the economy being created by REDD+. The challenge is to ensure communities are empowered to enable meaningful participation.

Conclusion

The REDD+ framework was designed to help countries reduce emissions from deforestation and forest degradation, while also promoting sustainable forest management and conservation (Angelsen et al., 2018). Yet, more than a decade later, the world continues to lose its forests at a rate of 10 million hectares per year (Ritchie, 2021; UNEP, 2021). This paper provides some insights as to why it is that the assemblage that has been formed to promote communal forest management continues to re-assemble in the face of this apparent failure (Li, 2007a)—considering who it is that is benefitting and thus driving the necessary alignment.

Critics argue that REDD+ is just a ‘deadly distraction’ (viz Asiyanbi & Lund, 2020; Buller, 2022; Fletcher et al., 2016). Through case study research in Zambia, home to Africa’s largest REDD+ project—the Luangwa Community Forests Project—I provide empirical evidence on the potential of REDD+ to deliver sustainable forest management, protecting forests, reducing poverty and empowering communities. I argue that, while there has been a slowing of deforestation, and some measure of local economic benefits, communities are not being empowered. In fact, the government maintains control from a distance, utilizing the REDD+ mechanism to pass protection costs on to communities without affording them the necessary capacity to protect forests effectively.

Although a study such as this cannot fully resolve the controversy over the REDD+ mechanism, it can encourage scholars to refine their theories, strengthen counterarguments, or reconsider assumptions (King et al., 1994). Rouse et al. (2025) refer to this as ‘opening the black box’—exploring the fundamental tensions that exist within the assemblage, identifying the contradictions posed within the Luangwa Community Forests Project—and in this way providing a significant contribution to theory.

I acknowledge the limitations of this study, not only in the potential of gatekeeping by the project developer (discussed in the methodology section) but also in the limited time frame within which data was collected. Given the rapid pace of change within projects, standards and approaches to REDD+ implementation, a longitudinal study would be of immense value in determining the staying power of this assemblage. A benchmarking of standards for benefit sharing would also assist in promoting an understanding of who it is that is profiting from this mechanism.

Chapter 7: Article #3

Financing Global Public Goods: ‘Green capitalism’ vs foreign aid in Zambia’s Luangwa Valley

Citation: Bergs, K., 2025, Financing Global Public Goods: ‘Green capitalism’ vs foreign aid in Zambia’s Luangwa Valley. Submitted for review.

Abstract

While most countries have agreed to targets to address climate change and biodiversity loss, national commitments fall short. Budgetary constraints in low-income countries impel governments to augment their finances with external sources. Utilising a theoretical framework of political ecology, this paper interrogates whether the form of finance matters—questioning whether there is greater evidence of financial sustainability or ecological justice in landscapes reliant on foreign aid than in those embracing ‘green capitalism’. Through a novel research design, I conducted a multi-case study in Zambia’s Luangwa Valley, comparing the donor-dependent North Luangwa landscape to South Luangwa, where nature has been ‘commodified’ for profit. Utilising mixed-methods, my research reveals significant areas of convergence, with elite capture of benefits hampering the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based. I call for institutional strengthening and a democratisation of the process of natural resource management

Introduction

Nature is the beating heart of human wellbeing and prosperity. Yet the triple planetary crisis—the crisis of climate change, nature and biodiversity loss and [degradation...]—is causing nature to atrophy, and with it our chances of ending poverty, hunger and inequity.

These are the opening words in the UN Environment Programme’s *State of Finance for Nature* report (UNEP, 2023, p.ix). The report goes on to note that, while most countries have agreed to global goals and targets to address these crises, national commitments fall short—undermining actions to achieve these targets. The report urges governments to regulate the negative and incentivise the positive, creating an enabling environment for private action (ibid). The integration of these crises is particularly acute in sub-Saharan Africa, where 89% of the poor live in rural areas, highly dependent upon natural resources for their survival (Muchero & Machethe, 2023).

While public finance has been the largest source of funds to address these challenges globally, recent shifts have caused a re-think of this modality. Although COP29 ended with an agreement to triple climate finance commitments by 2035 ("COP29...Agrees to Triple Finance, 2024), US President Donald Trump’s withdrawal from the Paris Agreement and his closure of USAID (Munro, 2025) undermine the potential to achieve this commitment.

Trump's actions also highlight the implications of the worldwide rise in right-wing populist governments. Their focus on the national—at the expense of the global—calls for a fresh look at the potential of the market to contribute to the financing of global public goods. In addition, rising geopolitical tensions have prompted leaders to sacrifice aid budgets in order to fund increases in defence spending, with UK Prime Minister Keir Starmer, for example, announcing that they would fully fund an increased investment in defence by reducing aid spending by 40% (Brien & Loft, 2025). Yet, low-income countries, constrained by limited budgetary capacity, look to foreign sources to support the financing of their climate and biodiversity goals.

Research Questions and Outline

Through this research, I interrogate the rationale for private sector financing of global public goods, such as climate or biodiversity, asking whether the form of finance matters. In the section that follows, I unpack the debates regarding the ethics as well as the efficacy of market-based approaches. Through a comparative case study in Zambia's Luangwa Valley, I question whether there is greater evidence of financial sustainability or ecological justice (understood as a pluralistic concept encompassing recognition, participation and distribution [Schlosberg, 2004]) in the donor-dependent North Luangwa landscape than in South Luangwa, where nature has been 'commodified'. The Results section reveals a surprise finding, namely convergence in several key areas, despite the difference in funding models. In the Discussion section, I unpack Zambia's 2024 community-based natural resource management policy to consider the extent to which it may address challenges identified in successful implementation. I conclude that the potential for elite capture of benefits in the current Zambian environment hampers the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based, with implications for theory, policy and practice.

'Green Capitalism' vs Foreign Aid: The Debate

The role of the market in financing for nature is hotly contested. The 1992 Rio Earth Summit opened the door to market-based approaches to nature conservation, such as debt-for-nature swaps, and promoted the concept of 'polluter pays'. It also laid the foundation for Payment for Ecosystem Services (PES) schemes, in which the beneficiaries of ecosystem services, such as clean water or carbon sequestration, would compensate those who maintained or enhanced those services (UNEP, 1992). These mechanisms sparked controversy as to the ethics and the efficacy of this approach.

While the original motivation behind PES schemes was to garner political support for conservation by demonstrating the economic value thereof, critics argue that remuneration will not necessarily ensure provision, creating what Büscher (2014) refers to as 'fictional conservation', simply circulating capital in new economic systems. Referred to as 'green capitalism', Buller (2022) argues that these solutions distract society from the systemic change required to actually slow, reverse and adapt to climate and ecological crises. She does acknowledge that, in theory, PES schemes can allow for better stewardship, internalising the cost of degradation, but cautions that this may unleash a 'cascade of new externalities', through the appropriation of land, nature and livelihoods (ibid: 247).

Others argue that, while private actions have been part of the problem in the past, we won't solve climate change in the future without the private sector. Carney (2021) contends that,

not only is the money required simply too large, but we also need the private sector's insights and innovation, while Olmsted et al. (2021) note that excluding the private sector excludes the potential to reduce the drivers of biodiversity loss. Nelson et al. (2021) believe that east and southern Africa have been a 'key laboratory' for community-based market approaches to conservation for over three decades (Murphree, 1991) finding that—despite challenges—progress has been catalysed by private enterprise and entrepreneurial local conservation organisations working in partnership with local communities.

Aside from the current uncertainty regarding the reliability of foreign aid, its track record in spurring economic development has been highly critiqued. Sjöstedt (2013) argues that aid can actually worsen things by providing a range of perverse incentives that enable the continuance of kleptocracies and institutions of poor quality, thus furthering 'rent-seeking' behaviour. Traditional forms of aid are being eclipsed by newer forms of development cooperation (Busan Partnership, 2011, p.9). In particular, China's use of debt to finance infrastructure projects creates opportunities for borrowers to achieve rapid socio-economic growth, but comes with major risks, such as corruption, elite capture, and conflict (Dreher, 2022).

How then should lower-income countries attract the necessary financing to mitigate climate change and protect their biodiversity while at the same time addressing the persistent reality of poverty? Although my research does not fully resolve this controversy, the evidence I present enables scholars to refine their theories, strengthen counterarguments, or reconsider assumptions, which is considered a contribution to the literature (King et al., 1994).

I build on the work of Janus et al. (2015) on 'beyond aid' and the transformation of development cooperation in the financing of global public goods. The authors see the growing range of public actors complemented by actors from the private sector, including not only companies but also NGOs and charities, giving governments more options to choose from. They see the fading significance of traditional aid igniting the challenge to utilise aid to increase the impact of other financial flows, crowding in rather than crowding out additional resources (ibid).

Subject and Methods

Theoretical and Methodological Frameworks

My research is guided by a theoretical framework of political ecology. 'Political' reflects the field's focus on various forms of power, while 'ecology' refers to its broad emphasis on environmental issues (Benjaminsen & Svarstad, 2021). It addresses the relationship between theory and evidence, synthesising normative and empirical analysis, comparing what should be (e.g., ecological justice) with what is (ibid). I chose case study methodology as the best means of combining critical perspectives discussed above with insights distilled from field work. I use theoretical replication to determine whether the form of finance matters, questioning whether there is greater evidence of financial sustainability or ecological justice in the donor-dependent North Luangwa landscape than in South Luangwa, where nature has been 'commodified'. Kachena and Spiegel (2023, p.95) note that few political economy writings explore the interconnectedness of conservation aid with resource governance frameworks in southern Africa. My research addresses this gap in the literature. In contrast

to their transboundary research, I confine my study to two contiguous landscapes in the same country, in this way eliminating geopolitical variables, creating a novel research design.

Cases

Particularly with the hunting ban in place during the period of data collection³⁴, the primary sources of revenue in South Luangwa included ecotourism and carbon fees. Given the abundance of existing studies on the contributions of ecotourism in general (Naidoo et al., 2019; Snyman & Bricker, 2019) and in South Luangwa in particular (Chidakel et al., 2021), I relied on secondary sources for this component and focused my empirical investigations on Luangwa Community Forests Project, touted as Africa's largest REDD+ (Reducing Emissions from Deforestation and Forest Degradation) project. Nearby, the North Luangwa Conservation Programme is successfully leveraging private philanthropy to unlock long-term multilateral support. Although the South Luangwa and North Luangwa landscapes appear contiguous on a map, I hypothesised that the differences between them potentially provide a most likely/least likely scenario.

Luangwa Community Forests Project (LCFP)

Africa's largest REDD+ project, protecting over one million hectares of forest and benefitting over two hundred thousand community members, LCFP is developed and operated by social enterprise BioCarbon Partners (BCP). Although expanding rapidly, LCFP's base lies in the communal Game Management Areas surrounding South Luangwa National Park, Zambia's most popular park in terms of tourism numbers, consistently attracting over 40% of the total visitors to Zambia's major national parks (Snyman & Mwale, 2022). The project has also been cited as the largest in the world by quantified social impact, having been certified 'triple gold' against Verra's³⁵ standard for benefits to climate, community, and biodiversity (BCP, 2024a).

North Luangwa Conservation Programme (NLCP)

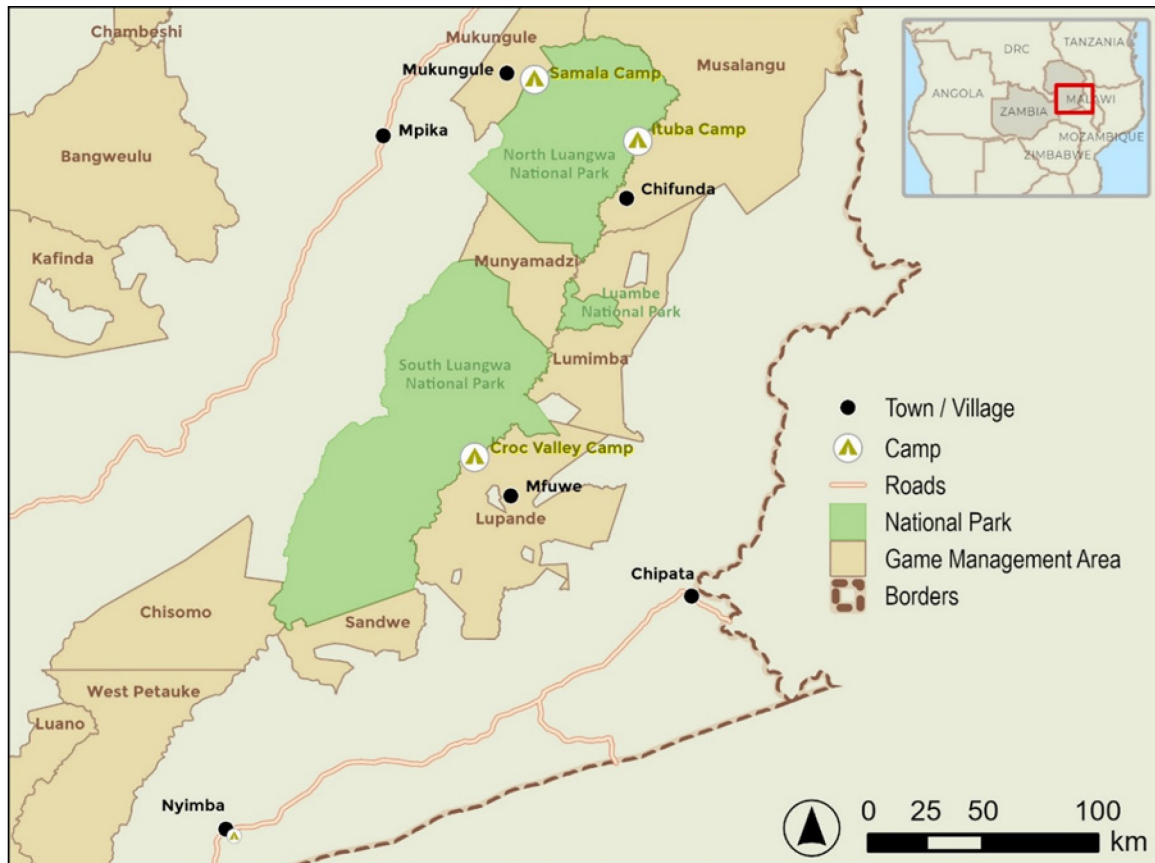
NLCP represents a Collaborative Management Partnership between the Zambian Department of National Parks and Wildlife and the Frankfurt Zoological Society (FZS), an international conservation organisation with a track record of over 35 years of support to North Luangwa. The success of the partnership in sustainably managing the remote North Luangwa National Park (and surrounding communal Game Management Areas) is evidenced by its 'green listing' by the IUCN (International Union for the Conservation of Nature) as evidence of good governance, effective management and successful conservation outcomes (IUCN, 2022). North Luangwa has also leveraged private philanthropy to unlock long-term multilateral support from the Legacy Landscape Fund (*Funding conservation for eternity*, n.d.). There are few discernible sources of revenue though, with the park described as 'pristine wilderness' and 'Zambia's best-kept secret' (n.d.) and management wary of the 'carbon cowboys' (Personal Correspondence, 4 November 2022).

³⁴ A controversial decision by Zambian President Hichilema in 2023–2024 effectively banned hunting in 19 concessions. Rumoured to be an attempt to clamp down on corruption in the tendering process, the decision was subsequently reversed by a High Court judge (ICA1309_1).

³⁵ Verra is a non-profit corporation based in Washington DC setting standards for climate action and sustainable development, including through reducing deforestation <https://verra.org/about/overview/>.

My expectation was that the different funding models would provide contrasting results in the perceptions of equity and wellbeing amongst local stakeholders. Further, I believe the unique attributes of the two cases constitute a justification for considering this a critical case study, with the two rival propositions lying at the core of a well-known debate in the literature. This mitigates the narrowness of the selection, enhancing the ability to make a meaningful contribution to theory (Yin, 2018).

Figure 16: Map of the study area



Credit: Marina Beech, cbio, 2025

Context

Zambia is one of Africa's most resource-rich countries, ranking as the second largest producer of copper on the continent (Rajkotwalla, 2024). The fourth highest forest cover on the continent is to be found here, as Zambia sits in a dense forestry belt, which stretches from Angola, through the Democratic Republic of Congo to Tanzania (Igini, 2022; Statista, 2023). The dense forestry belt in which Zambia is beneficially situated has one of the world's highest deforestation rates though, with government acknowledging its ranking among the 10 countries with the highest deforestation rates in the world (Matakala et al., 2015).

Despite this wealth in natural capital, the country is burdened with a staggering rate of poverty, with 61% of the population living below the poverty line and 48% considered multidimensionally poor (OPHI & UNDP, 2023). Excluding the provinces of Lusaka (home to the capital city) and Copperbelt (where its mines are clustered), this statistic reveals 79% of the population living below the poverty line (ZamStats, 2024).

In recent years Zambia has also faced a crisis of crippling debt, becoming the first nation in Africa to default during the COVID-19 pandemic (PMRC, 2023), with loan commitments to Chinese lenders quadruple the African average (Brautigam, 2021). The country has yo-yoed between the World Bank's low-income and lower-middle income classifications, impacting eligibility for official development assistance. Governance challenges add another level of complexity, with corruption and bureaucratic inefficiencies deterring foreign investment and slowing economic reform (Makhmatova, 2025).

The Birth of Community-based Natural Resource Management

Zambia's community-based natural resource management (CBNRM) system was 'birthed' in response to a decline in global copper prices in the mid-1970s, with copper accounting for 70% of the country's export earnings (Manchisi et al., 2021). A decrease in government revenue caused resources for wildlife protection to dwindle and a poaching crisis to ensue. A decision was taken to use more 'community friendly' forms of natural resource management (Lyons, 2000), including local communities in the management of, and sharing of benefits from, wildlife (Dalal-Clayton & Lewis, 1984). Pilot programmes essentially operated top-down though, with the perverse consequence of disenfranchising rather than empowering communities (Lubilo & Child, 2010). There was a brief window from 1996 – 2002 when the Luangwa Integrated Resources and Development Project (LIRDP) experimented with CBNRM as 'fiscal devolution and participatory democracy'. During this period, the allocation of wildlife revenues was devolved to village action groups, with procedures for democratic accountability developed and control prised away from chiefs (ibid: 213).

Methods & Data Sources

I conducted a desk review of grey literature, including relevant Zambian laws, policies and reports, to develop an understanding of the institutional and policy framework. This review revealed a fragmented policy environment, which the National CBNRM Policy (2024) aims to address. It also reveals the challenges in integrating traditional authorities into local governance structures (Committee on Local Governance, 2020).

My review also included project documents produced by implementing partners, triangulated with third party verification reports. In the case of LCFFP, these include BCP's fifth Monitoring Report (BCP, 2024b) and the Verification Report prepared by independent audit firm AENOR CONFÍA S.A.U (AENOR, 2024), which confirm that emissions from deforestation are being reduced (1.9 million tCO₂e in 2022) and carbon credits issued. In the case of NLCP, I relied on information made available by the IUCN following their review of the programme to award 'Green List' status for effective conservation, good governance and community development. I augmented this with quantifiable impacts obtained from the NLCP's Socioeconomic and Biodiversity Impact Report (FZS, 2024). The report notes that, although communities in the North Luangwa landscape have largely supported conservation initiatives, it is important to develop business models that not only support the Department of National Parks and Wildlife in its conservation efforts but also enhance socio-economic opportunities and employment for local communities (a finding borne out by my empirical research).

I utilised mixed methods during my field research to gather empirical data. Ethical approval was obtained from the appropriate ethics committees prior to entering the field and informed

consent obtained. I combined focus group discussions with semi-structured interviews and participant observation to discover participant perceptions of the strengths, weaknesses opportunities and threats of the initiatives. I engaged with a range of participants—from local community members to communal resource governance structures, traditional authorities, project developers, government officials, donors / investors and other stakeholders identified through snowball sampling. I visited four sites—Nyimba (home to the largest intact forests), Mfuwe (where forests are under the greatest threat), Chifunda (remote, with limited access) and Mukungule (verging on peri-urban)—conducting 57 interviews and 15 focus group discussions. (See Figure 16)

Although there are no competing interests to declare, I acknowledge that I worked through ‘gatekeepers’, as BCP and FZS facilitated introductions and access to key stakeholders. I realise this held the potential to bias the information that I received but was reassured that communities were not shy to speak their minds, understanding they have nothing to lose by being honest, with anonymity guaranteed to all participants. Respondents were indeed frank, and sometimes (self-)critical, indicating that working through gatekeepers did not completely bias the results.

This qualitative data was then triangulated by quantitative data obtained through a social monitoring survey conducted by March Associates in 2022 (interviewing 400 households in the LCFP area). March Associates was contracted by BCP to assess community perceptions and household income from participation in LCFP. In addition, I incorporated information from a park perception survey conducted by Chidakel et al. (2021) with 419 households living adjacent to South Luangwa National Park.

I imported the anonymized transcripts into Nvivo to facilitate data management and security. Thematic codes were determined deductively from the research questions. I used spreadsheets to summarize the responses and was solely responsible for all transcription, coding and summarisation. These findings can be summarized as follows:

Figure 17: Summary of findings

LCFP	NLCP
Strengths	
Carbon fees	Value of nature conservation
Importance of forests	Community Conservation Banks
Jobs	Jobs
Weaknesses	
Transparency in benefit sharing	Transparency / Accountability / Trust
Accountability / elite capture	Human-Wildlife Conflict
Trust	Challenges surrounding employment
Opportunities	
Address weaknesses	Income generation
Grow the project area	Capacity building
Demonstrate impact	Park perceptions*
Threats	
Encroachment / inadequate land use planning	Insufficient funding
Weak law enforcement / insufficient funding	Donor dependency
Limited opportunities to build capacity	Law enforcement constraints

*South Luangwa National Park perception survey (Chidakel et al., 2021) – mixed results

Results

Despite differences in their sources of funding, I found convergence between LCFP and NLCP in two broad areas—namely the challenge of good governance (particularly in Zambia’s fragmented and, at times, contradictory institutional and policy environment) and the need to generate sustainable revenue streams (and the apparent embrace of these opportunities by local communities). The main area of divergence is linked to the psychology of donor dependency (Asiyanbi’s [2019] ‘economy of expectations’). Differences in the park funding models have direct consequences for management effectiveness, although local communities’ perceptions of the national parks could be improved across the board.

Convergence

The challenge of good governance and the importance of sound institutions

Transparency and accountability, essential in promoting trust and thus a feeling of satisfaction with project outcomes, ranked as the greatest weakness in both cases. In the case of LCFP, this was particularly related to the opacity of benefit sharing agreements. Communal forest governance structures transfer carbon rights to the project developer (BCP), who sells them on their behalf. The benefit sharing mechanism is based on a percentage of net proceeds, with communities unable to determine whether they are receiving their fair share. “The challenge...is, we are not involved in the selling of carbon, so we don’t know how much BCP is getting from the carbon offsets, from the resources that we are conserving. We just receive the money, but we don’t know how much they make” (FGD0628_2) ³⁶. Critics contend that benefits to international traders often overshadow those to local communities, while Human Rights Watch notes that it is really only the project developers that know how much money is coming in—and how much of that is reaching the ground (Greenfield & Chingono, 2024). In the case of NLCP, trust is eroded by what communities perceive as unfulfilled promises (also linked to the finding on donor dependency). Respondents cautioned that “When a promise that has been given by the project...doesn’t happen, it will jeopardize the relationship...with the community” (FGD2307_1).

In both cases, charges of elite capture are prevalent, with internal elite capture [by communal governance structures] described as “easier to control” than that of traditional authorities and government officials (IPD2807_2). This is in line with Transparency International’s findings that key drivers of corruption include a concentration of power in the hands of traditional leaders and the subsequent weak participation of local communities (Korwin, 2016), corroborated in the study by Kachali et al. (2024). Communities’ exclusion from decision-making, with resources and opportunities seen as benefitting an elite few, fuels disengagement, resulting in what Magagula (2025) refers to as the ‘participation paradox’. One respondent lamented, “Good governance is lacking...people are sitting in air-conditioned offices making decisions on behalf of us” (ICA1907_1). There is also mistrust between local communities and the communal governance structures tasked to disburse proceeds at a village level, as reiterated by the likes of Bwalya Umar & Kapembwa (2020);

³⁶ Coding used to anonymise transcripts from fieldwork.

Lindsey et al. (2014); and Mwale (2019). As one respondent noted, “The people in the villages say, [CFMG] you are eating our money” (FGD2606_1).

My desk review of the grey literature revealed a fragmented policy environment, which thwarts the efforts of community scouts, tasked to patrol the forests to prevent illegal deforestation. When the scouts become aware of transgressions, their reporting line is complex. They are bound under traditional law to report encroachment to the Chief and under civil law to report violations to statutory authorities, including the District Offices of the Forestry Department as well as the Department of National Parks and Wildlife. The responses of these authorities are not necessarily aligned, which hampers effective forest management. This fragmentation emerges as a key driver of deforestation, with one government official lamenting that “The departments don’t speak the same language...there is a tug of war” (IGZ1408_2). This reinforces Transparency International’s findings regarding the governance challenges that ensue from political and policy contradictions between REDD+ goals and other development aims, and the difficulty in ensuring effective coordination and cooperation between sectors in Zambia (Korwin, 2016). The extent to which the new National CBNRM Policy (Ministry of Tourism, 2024) may address these challenges is picked up on in the Discussion section.

Weak land tenure is also an issue, as 90% of the local population are customary landowners without title (Ministry of National Development Planning, 2017, p.28). The inward flux of internal migrants—lured by the relatively fertile soils of the Luangwa Valley—places increasing pressure on the natural resource base, particularly its forests, with encroachment cited as the biggest threat to the LCFP.

The lure of ‘green capitalism’

Carbon fees emerge as the greatest strength of the LCFP while the ability to generate revenue streams emerges as the greatest opportunity in the NLCP. Although reluctant to detract from North Luangwa’s pristine wilderness, the need to generate sustainable revenue streams has been acknowledged, with plans to increase the number of tourism beds nearly ten-fold by 2031, from 20 to 192 (Department of National Parks and Wildlife, 2021). Although this is only a fraction of South Luangwa’s 670 beds (Chidakel et al., 2021), it represents a real boon to job creation and the potential for a growth in revenue. In addition, park-adjacent communities, desperate to participate in the carbon project from which they see chiefdoms to the south deriving benefit, tell BCP “We are ready...we are waiting for you” (IPD2808_1). Thus, despite misgivings on the part of NLCP management, BCP had already begun supporting chiefdoms in the NLCP landscape to register Community Forest Management Groups at the time of my visit (a process finalised over the following 12 months). Even NLCP’s status as a Legacy Landscape is timebound as, rather than an endowment, they have a 15-year sinking fund. This long-term flexible funding does ‘buy time’ to source appropriate partners, build local capacity and foster an agile approach to the development of alternative revenue streams (with the potential for income generation cited as the biggest opportunity of the NLCP). Donors describe their long-term support to NLCP as ‘gap funding’, confirming the need to leverage these funds to develop alternative revenue streams (IID0911_1).

Divergence

The psychology of dependency

The psychology of dependency, with a sense of entitlement rather than ownership, and the ‘economy of expectation’ (Asiyanbi et al., 2019), is evident in NLCP. Alongside insufficient funds, this dependency is considered the greatest threat to the NLCP. Dependency exists at all levels, from community members who acknowledge ‘Without FZS, this [Ituba] camp would not be’ (ICM2107_1); to traditional authorities who note ‘If donors stop, nothing would work’ (ITA2407_1); to government officials, who report that the Ministry [of Tourism] sees FZS paying for human-wildlife conflict mitigation and anti-poaching (implying there is no need for them to budget for these activities) (IGZ1707_1). This builds on a research study undertaken by Duke University to determine whether external financing influences national commitments to biodiversity conservation (Olander et al., 2020), with the ability to rely on donor financing to support North Luangwa allowing the government to divert its scarce resources elsewhere.

FZS clearly wants local communities to take ownership of projects, but this is—by and large—not happening. One example cited is the lack of ownership of the ‘chili bombs’ piloted by FZS as a means of mitigating human-wildlife conflict, chasing elephants away from farmers’ crops. FZS’ intention is that the community will adopt methods proven to be effective, in this case growing the chilis to make the ‘bombs’ and incentivising youth from the local community to patrol their fields, deploying the ‘bombs’ as required to chase elephants. FZS believes this is an affordable solution, but local communities continue to rely on the NGO for the provision of this service, questioning why they do not patrol the villages as well as the fields (particularly in the ‘season of the mangoes’) and operate year-round (as many services come to a halt during the rainy season, from December – May) (FGD1807_2).

This over-reliance on donor funding also demonstrates the weakness of the social contract. There are few opportunities for formal employment in this part of the country, with a resultant high level of poverty (79% in rural Zambia [ZamStats, 2024]) and a low tax base. The lack of infrastructure—particularly of roads and bridges—impedes not only access to markets but also to hospitals and schools. Community members described how a person trampled by an elephant or experiencing complications in childbirth could die on the way to the hospital, with the journey taking more than twice the time it should, due to the poor state of the road (FGD1707_1). The weakness of the social contract is apparent, as communities seem to have no expectation that government will provide these essential services, turning to FZS in their absence. One respondent commented ‘The better these partnerships function, the more communities rely on [...NLCP] for services that should be provided by the state’ (IID2811_1). Some communities are even refusing to speak to government, stating that FZS does more for them than government does (IPD1707_1).

By way of contrast, communities seem to understand that funds generated by tourism, hunting, or carbon fees are finite in any given season—bound by the number of tourists, hunters or carbon credits. Despite governance concerns raised above, communities are not naïve to the fact that these sources of funds do not represent ‘bottomless pits’ and trade-offs are involved (FGD2806_2).

Park dynamics

FZS's Collaborative Management Partnership with Zambia's Department of National Parks and Wildlife has enabled them to unlock funding for the formerly depleted North Luangwa on a scale unimaginable in its sister park, bearing out the findings of numerous studies in this regard (Lindsey et al., 2021). The government appears reluctant to 'give up' control over South Luangwa, its flagship park (IOS2011_1), potentially perceiving such a partnership as an admission of failure on their part. This has implications for management effectiveness, with North Luangwa 'Green Listed' by the IUCN in 2022 for its 'fair and effective conservation results' while South Luangwa is still in the application phase. As less than 10% of park entry and concession fees paid to government by South Luangwa are returned to the park to defray costs (IOS1107_1), the park is increasingly under-capitalised (Chidakel et al., 2021).

While communities in both landscapes seemed to understand and appreciate the value of conservation more broadly, their perceptions of the two national parks leave room for improvement. NLCP's historic 'inside out approach' (with a core focus on the park radiating outward to park-adjacent communities) and 'fortress conservation' mentality have largely alienated the local community (similar to the findings of Namukonde & Kachali [2015] in the Kafue landscape). Although the conservation textbook used in neighbouring schools states boldly, "This is YOUR North Luangwa National Park", most local community members have only seen the park in pictures and believe if they are found inside the park, they will be arrested (IOS1807_1). Local village headmen argue that they could become conservation ambassadors if they had an opportunity to visit the park (FGD2507_1), reminding us of the importance of 'conservation done *by* them, not *to* them' (Scanlon & Kull, 2009). Given the limited tourism in the park, there are relatively few opportunities for job creation. Those that do exist (in the form of park employees and casual workers) are highly prized, but equally contentious, as communities perceive favouritism in the recruitment process (FGD1807_1; IPD2407_1).

Local residents were roughly divided in their perceptions about the overall impact of South Luangwa National Park on their wellbeing. In the survey conducted by Chidakel et al. (2021), 39% felt it improved wellbeing, 23% were neutral, and 38% thought it reduced wellbeing. Major negative impacts included human-wildlife conflict, harassment by park staff over poaching, and restrictions on access to natural resources (ibid). The only positive impact rated highly important by a majority of respondents was the ability of girls to attend school throughout the month due to the provision of washable sanitary pads by an NGO linked to park-tourism. Employment opportunities were only recognised by 30% of respondents as highly important (ibid) – a surprising finding given the high volume of tourism and relatively large potential for job creation locally. This may be a reflection of the 'double-edged sword' of heightened expectations, which are then difficult to meet.

Discussion

I was unable to find greater evidence of ecological justice whether the form of finance was aid-based or commercial. My findings reveal the importance of good governance and strong institutions—bolstered by robust public-private partnerships—in the effort to combat climate change, stem biodiversity loss and reduce poverty, irrespective of the form of

finance. Another key finding was the unanimity with which communities, traditional authorities, government and donors seem to have embraced the need to develop sustainable revenue streams. The ‘trifecta’ of ecological justice—recognition of rights, meaningful participation and transparent benefit sharing (Schlosberg, 2004)—remain paramount in this development.

My findings support the rationale for encouraging private sector financing of global public goods, such as climate and biodiversity, in the ‘beyond aid’ era (Janus et al., 2015). The Government of Zambia has chosen to engage with a wide variety of actors in the Luangwa Valley—from multi-lateral development finance institutions like the World Bank, to bilateral support as provided by the German Ministry for Development Cooperation, to private sector companies such as BCP, to NGOs such as FZS, with whom the Department of National Parks and Wildlife has entered into a Collaborative Management Partnership. The strategy is no doubt to cast the net wide to unlock the greatest possible range of financial support—from grant financing to concessional debt to commercial revenue streams delivered from tourism, hunting and carbon. In its new CBNRM policy, government calls for the use of markets and business partnerships to maximise the value of natural resources, with benefits to be returned to producer communities (Ministry of Tourism, 2024).

It is the challenge of doing business in Zambia though that brings me back to the role of the institutional and policy framework in creating an enabling environment conducive to addressing the overlapping crises of climate change, biodiversity loss and poverty.

The new National CBNRM Policy (Ministry of Tourism, 2024) identifies many of the current challenges, such as the centralisation of wildlife management and communities’ poor understanding of the carbon trading process. Section 8.0 on the Institutional Framework begins with an aspirational call for “collaborative efforts by all stakeholders involved in CBNRM” to ensure effective implementation of the policy (ibid: 36 – 38). In addition to 12 government ministries—and all sectors of society—the framework also includes traditional leaders and local authorities, glossing over the challenges in integrating the functions of these two institutions (Committee on Local Governance, Housing & Chief’s Affairs, 2020). Ironically, the policy describes the introduction of formal institutions as the cause of the current fragmentation (and the resultant unsustainable use of natural resources). Prior to this, the control of all natural resources was centralised under the authority of the local Chief (Ministry of Tourism, 2024). The policy makes no mention of the potential abuse of this centralised control, despite well documented allegations of elite capture of benefits (Bwalya Umar & Kapembwa, 2020; Kachali et al., 2024; Korwin, 2016; Lubilo & Child, 2010). The fact that there is no localised, transparent system of land allocation in many chiefdoms is however acknowledged (Ministry of Tourism, 2024). Transparency International sees a high risk of corruption in this concentration of power, with tenure security often reliant on the word of a single person (Korwin, 2016).

North (2009) believes that the differences between impersonal and institutionally-based governance on the one hand, and personalised or neo-patrimonial rule on the other, greatly affect whether the institutional environment enables or disables the emergence of effective local governance. I contend that the potential for elite capture of benefits in the current Zambian environment hampers the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based.

Conclusion

I believe this comparative case study presents a novel research design, contrasting two adjacent landscapes in the same country to determine whether the form of finance matters. Through this research I sought to discover whether there was more evidence of financial sustainability or ecological justice in the donor-dependent North Luangwa landscape than in South Luangwa, where nature had been ‘commodified’.

My findings reveal both convergence and divergence. I found convergence in two broad areas—namely the challenge of good governance (particularly in Zambia’s fragmented and, at times, contradictory institutional and policy environment), and the need to generate sustainable revenue streams (as well as the unanimity with which these opportunities appear to have been embraced). The main areas of divergence are linked to the psychology of dependency, with the over-reliance on donor funding demonstrating the weakness of the social contract. This may also explain government willingness to enter into a Collaborative Management Partnership for North Luangwa National Park (thus unlocking additional donor funding). Despite different park funding models—and consequent management effectiveness—park perceptions by local communities leave room for improvement in both cases. I would’ve expected more positive perceptions towards South Luangwa, given the greater potential for job creation and its ripple effects on the local economy. In fact, the challenges of living with wildlife and a sense of exclusion from the park and its resources were overriding considerations in both cases.

By providing evidence in the debate regarding the role of the market in financing global public goods, this study has implications for theory (King et al., 1994). This contribution to an ongoing controversy in the literature encourages academics to reconsider assumptions.

Policy makers are reminded that the potential for elite capture of benefits in the current Zambian environment hampers the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based. A review of the lessons learned during the ‘participatory democracy’ phase of the LIRD from 1996 – 2002 (Lubilo & Child, 2010) may assist in improving transparency and accountability and democratising the process of natural resource management. Strengthening the role of Village Action Groups (VAGs)—promoting “management by community [...not] management by committee” (ICA1907_1)—could be a first step in this direction.

The UNEP (2023) *State of Finance for Nature* report urges governments to regulate the negative—in this case, opaque benefit sharing arrangements—and incentivise the positive, creating an enabling environment for private action. Governance challenges, such as corruption and bureaucratic inefficiencies, deter foreign investment and slow economic reform (Makhmatova, 2025). Thus, an ability to address the overlapping crises of climate change, biodiversity loss and persistent poverty will be dependent not only upon institutional strengthening but also upon the empowerment of local communities, building their capacity to enable meaningful participation in practice.

Chapter 8: Conclusion

Discussion

How do my findings and the three articles presented in Chapters 5, 6 and 7 address the gap in the literature and speak to my research aim?

My research delves into the fierce debates surrounding the commodification of nature, providing empirical evidence on the strengths and weaknesses of a liberal approach to financing the dual imperatives of conservation and development. Even if a study does not fully resolve a controversy, presenting strong evidence for one side or the other forces scholars to refine their theories, strengthen counterarguments, or reconsider assumptions (King et al., 1994). Such research is considered a critical contribution to the literature (ibid). Rouse et al. (2025) refer to this as ‘opening the black box’—exploring the fundamental tensions that exist within [the assemblage], identifying contradictions or paradoxes that challenge existing frameworks.

Given that environmental goals are global in scope, and economic benefits (apart from local labor) seldom remain in communities, skeptics ask to what degree CBNRM is community-based at all (Heffernan, 2022b). My research offers chains of explanation in the analysis of CBNRM, understanding that structural factors and actors at both national and global levels can have great influence at the local level.

I provide empirical evidence in the debate regarding the role of the private sector in financing for nature by examining what has arguably become one of the most contentious emerging markets—the Voluntary Carbon Market (VCM). My research also tackles head-on the question of opacity in the VCM and the need for institutional change, providing the ‘hatchet’ and the ‘seed’ of political ecology (Alhojärvi & Sirviö, 2018; Robbins, 2012).

Acemoglu and Robinson (2012) argue that, in spite of the frequent ‘path dependence’ of institutions, ‘critical junctures’ can trigger institutional change. Climate change can arguably be seen as another such critical juncture and my research builds upon the ways in which institutions are changing in response, for example with the rise of REDD+.

My institutional analysis of CBNRM (Figure 3) incorporates the pluralistic notion of ecological justice, with formal institutions affording recognition to communities, informal institutions enabling participation and the market providing a platform for distribution of benefits (Schlosberg, 2004). By synthesizing normative and empirical analyses, this research thus addresses the relationship between theory and evidence.

Two key questions for ecological justice revolve around how the global effort of mobilizing resources should be shared among state and non-state actors and how resources should be allocated among countries and communities (Pickering et al, 2022). Through case study research, I contribute empirical evidence to these two critical questions, seeking to determine whether market mechanisms can deliver ecological justice to the communities that are nature’s stewards—as well as to nature itself.

Finally, my conceptual model of CBNRM (Figure 3) depicts the duality of agency and structure (Giddens, 1984). I am sensitive to existing power asymmetries and—mindful of my own positionality—careful not to reinforce or exacerbate these. Through my research, I am able to contribute ‘hidden transcripts’ (Scott, 1985) to enrich our understanding of the power dynamic at play in the ‘environmentality’ (Agrawal, 2005) of community-based forest management.

My aim is to interrogate whether market mechanisms (specifically Payments for Ecosystem Services, such as carbon finance) can deliver not only sustainability but also ecological justice, seeking to balance intrinsic values of nature with social equity (Kopnina, 2019). I have attempted to answer this overarching question through case study research in Zambia’s Luangwa Valley. This site is home not only to Africa’s largest REDD+ project, but also to one of the continent’s first ‘Legacy Landscapes’, having leveraged private philanthropy to unlock long-term multilateral support. The two adjacent yet contrasting landscapes provide what I considered to be a most likely / least likely scenario if the form of finance is a determinant of ecological justice.

Specifically, I seek to answer the following questions:

- How does the commodification of nature in Zambia’s Luangwa Valley create value – and for whom?
- In what ways does the institutional environment promote (in)justice in community-based natural resource management?
- What is the rationale for private sector financing of global public goods, such as climate and biodiversity?

My research is guided by a theoretical framework of political ecology. ‘Political’ reflects the field’s focus on various forms of power, while ‘ecology’ refers to its broad emphasis on environmental issues (Benjaminsen & Svarstad, 2021). Political ecology combines critical perspectives with the hard-won insights distilled from field work (Rocheleau, 2008). Consistent with this theoretical approach, I opted for case study methodology as an appropriate means to link perspectives unearthed through my literature review with evidence obtained firsthand. This methodology can create a bridge between the normative and the empirical, i.e. between social constructions of ‘green capitalism’ and observations of nature-based solutions at work. Understanding though that observations are oftentimes merely the ‘tip of the iceberg’, I apply a philosophy of critical realism to my research. This approach provides a rich analytic, also incorporating the unseen (contextual factors and verified occurrences) obtained through desk research (Bhaskar, 1998).

I utilized mixed methods during my field research to develop an understanding of the empirical. I combined focus group discussions with semi-structured interviews and participant observation. This allowed not only for triangulation of a wider breadth of data but also mitigation of the limitations of any one approach. I imported the anonymized transcripts into Nvivo to facilitate data management and security. Thematic codes were determined deductively from the research questions; namely Enabling Environment, Value Creation, Ecological Justice and Sustainability. I used spreadsheets to summarize the responses and was solely responsible for all transcription, coding and summarization.

This qualitative data was then triangulated by quantitative data obtained through two third-party surveys. The first was a community perception survey conducted by March Associates in 2022 with 400 households participating in the Luangwa Community Forests Project. The second was a park perception survey conducted by Chidakel et al. (2021) with 419 households living adjacent to South Luangwa National Park.

On the journey to crafting my three journal articles, I took advantage of opportunities to share my findings via a number of platforms, beginning to articulate my thoughts and engage in dialogue. I delivered a guest lecture to the University of Ottawa's EVD8100 class, Theory and Practice in Environmental Sustainability, participated in the University of Zambia's Doctoral Webinar series twice (in November 2023 and May 2025), submitted a blog to the Centre for International Policy Studies in advance of COP28 (Bergs & Munro, 2023); contributed a case study on the Luangwa Community Forests Project to African Leadership University for their School of Wildlife Conservation's *Lessons Learned* series (Bergs, 2024); shared preliminary findings with colleagues through the School of International Development and Global Studies' Brown Bag speaker series; and participated in two conferences, Canadian Association for the Study of International Development 2024 in Montreal, and International Studies Association 2025 in Chicago, IL, USA. I found these opportunities immensely valuable in helping to hone my argument.

Following are a summary of the three articles and the answers they provide:

Article #1: The Role of the Voluntary Carbon Market in Addressing Global Social Challenges: Ecological (in)justice in Africa's largest REDD+ project?

Given the gap between pledges made at the COPs and new and additional finance actually being delivered (Hattle & Nordbo, 2023), the imperative to increase financial flows for conservation and climate action is clear. A rationale for private sector financing of global public goods, such as climate and biodiversity, thus exists. In this article, I argue that the carbon markets will not unlock a sufficient flow of funds from those most responsible for climate change to those most affected by it. But it is a start—with the concept of offsetting structurally aligned to the principle of the New Collective Quantified Goal ("COP28 Agreement", 2023, December 13), in which those most responsible for climate change are held accountable. My first article further asks whether nature-based solutions, such as REDD+, have the potential to contribute not only to climate change mitigation but also to the delivery of ecological justice.

This paper delves into the question of how the commodification of nature (through REDD+) creates value and for whom. Though there is demonstrable evidence that Zambia's forests are being protected and emissions reduced, ecological justice remains elusive. In this first article, I assess the strengths, weaknesses, opportunities and threats of the Luangwa Community Forests Project from a variety of perspectives.

In a landscape where livelihood options are limited, and provision of infrastructure and social services by government practically non-existent, REDD+ has been embraced. The majority of respondents, both to my own qualitative research as well as to the quantitative research conducted by March Associates, see REDD+ (and specifically the LCFP) as valuable, with forests a source of carbon revenue and ecosystem services. As word of the benefits spreads, so too does interest in joining the project, with BCP being told "We are

ready...we are waiting for you” (IPD2808_1). The greatest opportunity for BCP thus lies in an expansion of the project area (with plans to triple the hectareage of LCFP over the next three years) (BCP, 2023).

Perceptions of ecological (in)justice emerged as the greatest weaknesses of the project. The majority of respondents cite the opaque benefit-sharing mechanisms as problematic. This is mirrored by unhappiness with the accountability of the representative structures—the Community Forest Management Groups (CFMGs)—tasked to administer disbursement of the funds received. The challenges of good governance within the CFMGs were augmented by charges of elite capture, with the importance of building strong trust-based relationships clear. The greatest opportunity for community members thus lies in addressing these weaknesses.

While the fragmented—and at times contradictory—policy environment emerges as a key driver of deforestation, I speak more fully to the potential of Zambia’s 2024 National CBNRM Policy to address this threat in Article #3. The policy also notes the weak land tenure system, with no localised, transparent system of land allocation in many chiefdoms (Ministry of Tourism, 2024), identified as a driver of encroachment into REDD+ forests. Article #3 fleshes out the implications of this concentration of power and the role of the institutional and policy environment in creating an enabling environment for CBNRM.

Given the overwhelming desire for participation observed, I adopt political ecology’s critical constructivist approach – offering both a ‘hatchet’ and a ‘seed’ (Benjaminsen and Svarstad, 2021; Robbins, 2012). I wield the hatchet by identifying systemic weaknesses and threats to sustainability in Zambia’s LCFP but plant a seed by also suggesting ways in which the VCM and REDD+ could contribute to addressing global social challenges of climate change and ecological justice. The paper offers a set of recommendations for policy makers (detailed in the section below on Implications for Theory, Policy and Practice), one of which I was able to include in Zambia’s draft Wildlife Bill being circulated for comment in January 2025. I conclude with the assertion that we need to improve the imperfect mechanism that is REDD+ and the VCM - not abandon it.

Article #2: The ‘Green Global Policy Assemblage’: Forging alignment in Zambia’s Luangwa Community Forests Project

The International Studies Association Call for Proposals in May 2024 was the inspiration for my second article. The conference themes looked at the relationship between evidence and theory as well as how a focus on small Global South states could inform our understanding of events happening at a global level. I thus developed my second analysis of the Luangwa Community Forests Project as a contribution to theory, employing political ecology’s ‘chains of explanation’ to demonstrate the linkages from the local to the global.

Given that the world continues to lose its forests at a rate of 10 million hectares per year (Ritchie, 2021; UNEP, 2021), this paper questions why it is that the assemblage that has been formed to promote communal forest management continues to re-assemble in the face of REDD+’s apparent failure—asking who it is that is benefitting and thus driving the necessary alignment (Li, 2007a). The analysis centers on the power dynamic between the actors in the assemblage, drawing on concepts of ‘governmentality’ and ‘environmentality’ articulated by Foucault, Agrawal and Fletcher. I argue that, while there has been a reduction

in deforestation, and some economic benefits at the local level, communities are not being empowered. In fact, the government maintains control from a distance, utilizing the REDD+ mechanism to pass protection costs on to communities without affording them the necessary capacity to protect forests effectively. Whether the benefits communities receive are commensurate with (opportunity) costs is questionable. The contrast between the eagerness of neighboring communities to participate in the LCFP with the frustrations of participating communities (Asiyanbi et al.'s [2019] 'economy of expectations') is a sobering reminder of the extent to which communal forest management is falling short of its potential—and offers the potential for theory building.

Article #2 also illustrates the influence of international and global actors, in what Heffernan (2022a) refers to as a 'green global policy assemblage'. The institutional and policy frameworks shape land use and resource management at a national level, although Zambia's REDD+ Strategy (Matakala et al., 2015), Forests Act (2015) and subsequent statutory instruments were created with assistance from international experts and donors, such as the FAO, UNDP, UNEP and USAID. Although this legislative framework devolves control of the forests to the CFMGs, a lack of coordination between agencies operating in the same area creates challenges in implementation. The reduction in carbon emissions is calculated based on Verra's standard for Avoided Unplanned Deforestation and carbon credits are issued accordingly. These credits are then sold on the Voluntary Carbon Market, in the case of LCFP to Italian energy company, Eni, with global market forces affecting the carbon price, and thus the amount paid for these credits. These funds then flow back through the coffers of the project proponent to the Community Forest Management Group for disbursement to projects at a village level. Ultimately, very little power is held by the villager or smallholder farmer, who may or may not receive benefits in line with (opportunity) costs.

The motivation of the actors is seen from a multitude of perspectives as we consider who is forging alignment in this assemblage and thus allowing it to continue to re-assemble. For BCP, the project proponent, the motivation is to continue to expand the project area (with plans to triple the hectareage of LCFP over the next three years) (BCP, 2023). The purchaser of the carbon credits, Eni, is eager not only to offset residual emissions (which Italy may count towards their Nationally Determined Contributions) but also to demonstrate impact, in order to fend off what they consider unfounded attacks of anti-REDD+ critics (IID1109_1). For government, the biggest opportunity lies in successful implementation of their jurisdictional program, 'nesting' existing projects within the Eastern Province, in order to 'force transparency' (IGZ1606_1) and providing them a share of the monies they have seen flowing into private pockets (IPD2006_1). Communities voice a desire to conserve their forests—as well as to participate in the economy being created by REDD+. The challenge is to ensure communities are empowered to enable meaningful participation.

Given the rapid pace of change within projects, standards and approaches to REDD+ implementation, a longitudinal study would be of immense value in determining the staying power of this assemblage. A benchmarking of standards for benefit sharing would also be beneficial in promoting an understanding of who it is that is profiting from this mechanism and thus forging the necessary alignment.

Article #3: Financing Global Public Goods: ‘Green capitalism’ vs foreign aid in Zambia’s Luangwa Valley

In this article I use theoretical replication to determine whether the form of finance matters, questioning whether there is greater evidence of financial sustainability and / or ecological justice in the donor-dependent North Luangwa landscape than in South Luangwa, where nature has been ‘commodified’ (primarily through ecotourism and a REDD+ scheme). Prior to conducting my research, I predicted contrasting results for anticipatable reasons (Yin, 2018). Although the South Luangwa and North Luangwa landscapes appear contiguous on a map, in fact the differences between them provide what I considered to be a most likely / least likely scenario if the form of finance is a determinant of ecological justice.

My findings reveal both convergence and divergence. I found convergence in two broad areas—namely the challenge of good governance (particularly in Zambia’s fragmented and, at times, contradictory institutional and policy environment), and the need to generate sustainable revenue streams (and the unanimity with which these opportunities appear to have been embraced, by communities, traditional authorities, government and donors alike). The main area of divergence is linked to the psychology of dependency, with the over-reliance on donor funding also demonstrating the weakness of the social contract. By way of contrast, communities seem to understand that funds generated by tourism, hunting, or carbon fees are finite in any given season—bound by the number of tourists, hunters or carbon credits. Despite governance concerns (inter alia transparency and accountability), communities are not naïve to the fact that these sources of funds do not represent ‘bottomless pits’, and trade-offs are involved. Despite different park funding models—and consequent management effectiveness—park perceptions by local communities leave room for improvement in both cases. I would’ve expected more positive perceptions towards South Luangwa, given the greater potential for job creation and its ripple effects on the local economy. In fact, the challenges of living with wildlife and a sense of exclusion from the park and its resources were overriding considerations in both cases.

Linking back to my first question regarding the rationale for private sector financing of global public goods, the Government of Zambia has chosen to engage with a wide variety of actors in the Luangwa Valley—from multilateral development finance institutions, to bilateral donors, to private sector companies such as BCP, to NGOs such as FZS, with whom the Department of National Parks and Wildlife has entered into a Collaborative Management Partnership. The strategy is no doubt to cast the net wide to unlock the greatest possible range of financial support—from grant financing to concessional debt to commercial revenue streams delivered from tourism, hunting and carbon. Their new National CBNRM Policy states, “The value of natural resources should be maximized through markets and business partnerships and returned to the producer community for benefit sharing at household level” (Ministry of Tourism, 2024, p.18).

It is the challenge of doing business in Zambia though that brings me back to my second question as regards the role of the institutional and policy framework in creating an enabling environment conducive to addressing the overlapping crises of climate change, biodiversity loss and poverty. The National CBNRM Policy (ibid) identifies many of the current challenges, such as the fragmentation of natural resource legislation and the centralisation of control over wildlife management. Political will is necessary to enable not only

harmonization but also a genuine devolution of power to the lowest accountable level—but it is not sufficient. Removing structural obstacles and achieving the correct balance between formal and informal institutions to counteract power asymmetries will also play a vital role.

North (2009) believes that the differences between impersonal and institutionally-based governance on the one hand, and personalised or neo-patrimonial rule on the other, greatly affect whether the institutional environment enables or disables the emergence of effective local governance. I contend that the potential for elite capture of benefits in the current Zambian environment hampers the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based. My surprise finding not only provides another opportunity for theory building (Rouse et al., 2025) but also emphasizes the role of the institutional environment in promoting (in)justice in community-based natural resource management.

How the arguments put forth in these three articles address my research questions is summarized in Table 7 below.

Table 7: Results summary

Q1: How does the commodification of nature in Zambia’s Luangwa Valley create value – and for whom?		
Article 1:	Article 2:	Article 3:
Independently verified monitoring reports confirm that carbon emissions are being reduced through the LCFP, thus contributing to global climate change mitigation targets. These reports also confirm that proceeds from the sale of carbon credits have been disbursed to communities. However, the opacity in the benefit sharing mechanism—and lack of accountability on the part of local governance structures—undermine trust. Communities voice concern that they are not receiving their fair share. Nonetheless, they assert that <i>cutting trees benefits individuals, but forests benefit us all</i>.	Through ‘chains of explanation’ this article looks into the value that each actor in the chain is receiving. Communities cite carbon fees as well as the ecosystem services received from intact forests as the biggest benefits of the project; the project proponent values the growth potential of the project; the government-led jurisdictional emissions reduction program sees the potential to ‘force transparency’ by nesting existing sites, as well as the opportunity to begin receiving a share of carbon proceeds; the buyer is able to offset residual emissions (which the government of Italy may count towards its Nationally Determined Contributions) as well as to demonstrate impact; while the owner of the standard is able to grow the carbon market. Ultimately the UNFCCC may be able to demonstrate progress towards achieving climate targets.	While this was not the focus of this article, participants in both landscapes seemed to understand and appreciate the value of conservation more broadly. I discovered an anomaly though in perceptions of the national parks. Given the ‘fortress conservation’ approach in North Luangwa, most local people have only seen the park in pictures and believe if there are found inside the park they will be arrested. I expected stronger support for South Luangwa, given the high volume of tourists and relatively large potential for job creation locally. In fact, employment opportunities were only recognized by 30% of respondents as highly important (Chidakel et al., 2021), perhaps indicative of the ‘double-edged sword’ of heightened expectations, which are then difficult to meet. In terms of carbon fees, communities in the North Luangwa landscape (seeing the benefits derived by their neighbours to the south) tell BCP “We are ready...we are waiting for you” (IPD2808_1)

Q2: In what ways does the institutional environment promote (in)justice in CBNRM?		
Article 1:	Article 2:	Article 3:
Zambia's institutional and policy environment is fragmented, with competing priorities and approaches, which hampers effective forest management. There is a lack of accountability in local governance structures and opacity in benefit sharing mechanisms.	Assemblage theory describes the process by which the state adopts the language of community forest management but views it as a contract between communities and the state, with the state dictating the terms of the contract. This is precisely the situation in Zambia, with the 2015 Forest Act (and subsequent statutory instruments) the basis upon which communities can register a CFMG. The state forestry agency retains its traditional role in producing policies and regulations, approving community forest management plans that align with these regulations, thus maintaining control from a distance. I argue that the costs of managing the forests are passed down to communities, but not the capacity to do so effectively.	I unpack Zambia's 2024 National CBNRM Policy to consider the extent to which it will address the fragmentation and contradictions within existing natural resource legislation. The risk of a continued concentration of power (e.g., in the hands of traditional authorities) is discussed. I recommend policy makers apply lessons learned from early experiments in CBNRM, namely the Luangwa Integrated Resources and Development Project from 1996 – 2002, when 'participatory democracy' was pioneered.

Q3: What is the rationale for private sector financing of global public goods, such as climate and biodiversity?		
Article 1:	Article 2:	Article 3:
The concept of offsetting is structurally aligned to the principle of the New Collective Quantified Goal ("COP28 Agreement", 2023), in which those most responsible for climate change are held accountable. After the signing of the Paris Agreement in 2015, the VCM doubled in size in five years, with the largest demand coming from private companies and the largest supply from REDD+. The majority of these companies are reportedly leading the way in reducing their carbon footprint, with Eni's net zero target to be achieved 95% by decarbonizing operations and 5% by offsetting.	This is not the focus of Article #2, although the rationale may be described as a 'neoliberal environmentality' (Fletcher, 2010), reliant on external incentive structures to promote conservation.	Understanding that global public goods cannot be financed solely by increasing aid (particularly with countries such as the US and UK slashing aid budgets), the 'beyond aid' era considers a wider range of actors in the transformation of development cooperation. Zambia provides a complex and dynamic context within which to center my research, given the contrast between the richness of its natural capital and the poverty of its people. In assessing whether there is greater evidence of financial sustainability or ecological justice in the donor-dependent North Luangwa landscape than in South Luangwa, where nature has been 'commodified', I uncovered a surprise finding—namely key areas of convergence. I was unable to find greater evidence of ecological justice in one landscape over the other, contending that the potential for elite capture of benefits in the current Zambian environment hampers the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based. In its 2024 National CBNRM Policy, the Zambian government calls for the use of markets and business partnerships to maximize the value of natural resources, with benefits to be returned to producer communities. Institutional strengthening will be a prerequisite to ensure transparent and equitable sharing of these benefits.

My overall aim is to interrogate whether market mechanisms (specifically Payments for Ecosystem Services, such as carbon finance) can deliver not only sustainability but also ecological justice, seeking to balance intrinsic values of nature with social equity. I believe my research reveals that they can. The question is whether they do—and this is strongly linked to institutional quality. Achieving the correct balance between formal and informal institutions, to counteract power asymmetries and a tendency towards neo-patrimonialism and elite capture of benefits, is the challenge facing Zambia and the peoples of the Luangwa Valley.

‘Chains of explanation’ demonstrate the linkages—as well as the power asymmetries—from the local to the global. During fieldwork the question arose as to who is actually managing the forest, with the vertical span of control key. What is clear is that the cost of managing the forest is passed down to communities (IGZ1307_1). What is less clear is whether benefits adequately compensate for costs. Ultimately though, ecological justice requires that local voices clamouring for participation are listened to. As imperfect as the REDD+ mechanism is, it does provide communities with some level of participation in the economy being created by nature-based solutions. We need to improve an imperfect mechanism—not abandon it.

Strengths and Limitations

One of the strengths of this research is its **relevance and timeliness**. According to the latest Global Risks Report (WEF, 2025, p.433) five of the top ten risks ranked by severity are environmental. The first four global risks are extreme weather events; biodiversity loss and ecosystem collapse; critical changes to Earth systems; and natural resource shortages. Technology-related risks come in at fifth and sixth, with inequality ranking as the seventh greatest global risk. Research that interrogates the potential to address climate change and stem biodiversity loss in a manner that is ecologically just is thus critical.

Another strength is the robustness of the **research design**. I believe the Luangwa Community Forests Project (LCFP)—touted as the largest REDD+ project in Africa by hectareage and the largest in the world by quantified social impact (BCP, 2023) and recently voted twice as ‘Best Individual Offsetting Project’ in the Environmental Finance rankings—can be considered a critical case. This mitigates the narrowness of the selection and offers the potential to make a meaningful contribution to theory (Yin, 2018). Through this research, I assess whether a REDD+ project credited as being the ‘biggest’ and the ‘best’ is able to deliver sustainable forest management, empowering communities as agents of change to reduce deforestation sustainably, receiving benefits commensurate with costs.

The comparative study between the donor-dependent North Luangwa landscape and the South Luangwa landscape, where nature has been ‘commodified’ (primarily by means of ecotourism and forest carbon) provides a novel research design. Through this comparison, I am able to ask whether the form of finance matters i.e., whether there is greater evidence of financial sustainability and / or ecological justice in one landscape over the other. Although the South Luangwa and North Luangwa landscapes appear contiguous on a map, I hypothesized that the differences between them potentially provide a most likely / least likely scenario. Most likely / least likely cases demonstrate the advantage of selecting on the

dependent variable—in this case assessing ecological justice and sustainability to determine whether the form of finance matters (George and Bennett, 2005), with replication logic enhancing external validity and the potential for generalizability (Yin, 2018).

This research contributes to an **increased knowledge base**, responding to the call for more research to explain how and why community-led conservation could help protect biodiversity in socially sustainable and ecologically just ways (Kopnina, 2019).

My research **contributes to the debate** surrounding the commodification of nature, providing empirical evidence on the strengths and weaknesses of a liberal approach to financing the dual imperatives of conservation and development. Even if a study does not fully resolve a controversy, presenting strong evidence for one side or the other forces scholars to refine their theories, strengthen counterarguments, or reconsider assumptions (King et al., 1994).

Finally, and perhaps most importantly, to ensure local relevance and the embeddedness of results, I affiliated as a visiting researcher with the University of Zambia. I had the privilege of working under the local supervision of Dr Bridget Bwalya Umar, Senior Lecturer in the Department of Geography and Environmental Studies. I believe this **local affiliation** provided a measure of credibility during my field work, as I was able to speak of an institution with which many were familiar (and a supervisor under whom some had studied). I acknowledge my positionality as a researcher representing an institution based in the Global North but believe my local affiliation ‘bridged the gap’ somewhat. In addition, this affiliation allowed me to engage with other doctoral candidates in the Department of Geography and Environmental Studies (through their monthly webinar series). It also provides an opportunity for research findings to be taken forward on a longitudinal basis and for questions uncovered for further research to be explored.

I speak of potential biases in the Limitations sub-section in Chapter 3, in particular **project bias** (Chambers, 1981, 1994), as the majority of respondents were either a participant in LCFP or NLCP (although I was able to interview members of a community that had decided not to participate in the project). I also acknowledge the fact that I worked through **gatekeepers**, as BCP and FZS facilitated not only introductions and access but also opportunities for participant observation. I realize that this held the potential to bias the information that I received but was reassured that communities were not shy to speak their minds, understanding that they had nothing to lose by being honest (and potentially something to gain, considering the potential for ‘discursive resistance’ alluded to in the Literature Review). I found respondents were frank and critical, able to highlight both strengths and weaknesses of the respective initiatives, indicating that working through gatekeepers did not completely bias the results.

A significant limitation was a **lack of access to financial information**. I had hoped to ‘follow the money’ in order to further an understanding of who the big winners are in these projects / programs, but this proved impossible. Neither BCP nor FZS make audited financial statements publicly available. BCP was unwilling to share an actual benefit sharing agreement with me while FZS would not (or could not) share a copy of the co-management agreement with Zambia’s Department of National Parks and Wildlife and their fundraising team refused to meet with me. These facts did, however, serve to substantiate the finding regarding opacity and low levels of trust amongst participants.

Although the replication logic of a most likely / least likely comparative study enhances external validity and the potential for **generalizability**, there are nonetheless limitations here too. First of all, this study refers to only one country, and even then it does not cover all of that country. Second, Zambia is unusual in certain respects, namely that it is a country that recognizes all 73 of its ethnic groups as indigenous, rendering the legal category inapplicable, and referring instead to ‘local communities’ (Anaya, 2011); it has a neo-colonial legacy, which manifests itself in the country’s natural resource management legislation (with departments set up by the British for trade, and thus better at licencing than at protection [IPD2407_2]) and it has a tendency towards neo-patrimonialism, with strong traditional authorities and a rural economy dominated by a relatively small elite (Kachali et al., 2024; Lubilo & Child, 2010; Mwale, 2019). In the context of LCFP, it is important to note that no peoples were forcibly displaced; exclusions are thus linked to a reduction in access to land (for clear cutting of forests to open new agricultural fields) and / or forest resources (e.g., fuel wood) as opposed to ‘green grabbing’.

Finally, I return to the need to balance the scope and the quality of my research with the time and the resources available. Given the limitation of time available for a PhD program of study, I have identified a number of topics which I recommend for **further research**. These include:

While land tenure is discussed as a driver of deforestation (Ministry of National Development Planning, 2017, p.28-29), the securing of land rights is beyond the scope of this research. As much of the land in the Eastern Province is under customary land tenure, permission to settle and use land is at the discretion of the local Chief (ibid). I suggest that the challenges for forest management posed by this traditional form of local governance could be a topic for further research. This could contribute to the work of researchers such as Honig (2022) on the concentrated benefits and collective costs of land titling.

A benchmarking of benefit sharing models for REDD+ is called for (IPD2609_1), as the lack of a benchmark is considered a stumbling block in determining what constitutes a ‘fair share’. This should begin with detailed resource mapping and ownership assessments. As villages with fewer trees (or, if extended to wildlife, fewer animals) would receive fewer benefits, this links to debates on whether a universal benefit sharing across landscapes would be more just.

Big projects create big expectations, and the introduction of an investment opportunity into a community can change the social dynamic (IPD0108_01). A divide can potentially arise between those who prize the ‘use’ value over the ‘trade’ value of natural resources (Personal Correspondence, 11 April 2024), a key argument of Marx (1867) in his critique of capitalism. In addition, projects can have the perverse effect of aggravating a situation as they ‘lure’ outsiders into the project area, for example, by the sinking of a borehole, providing access to clean water (IPD0507_01). A longitudinal study would be of value in following this changing social dynamic over time (see also Asiyanbi et al., 2019), embedding a holistic contingency valuation that includes social, environmental, and economic attributes.

A longitudinal study would also be of benefit in assessing the staying power of the assemblage that has been developed in the LCFP (see also Li, 2007a). Given the permanence risk in REDD+ projects (as GHG emissions remain in the atmosphere for centuries, while a forest can be lost tomorrow), there would be value in determining the degree to which this

assemblage demonstrates progress towards sustainable forest management in the medium to long-term. A discussion of the choice of indicator(s) would also enrich the study—ecologists often argue that forest cover is the best indicator of a sustainable socio-ecological system, while social scientists advocate for habitability assessed through the One Health lens as a more appropriate transformative indicator.

A study on the linkages between political ecology and adaptive co-management may reveal the extent to which their shared focus on multi-level linkages in governance can mitigate power asymmetries and enhance collaboration. It would also be useful to include an examination of the social networks that maintain hegemony and disenfranchisement at global, national, district and community levels.

Finally, there would be merit in further research into the potential to reduce gender-based violence in the conservation sector (Malasha & Duncan, 2020). Despite efforts to increase the participation of women in community governance structures, (Malasha, 2020). their representation remains negligible. In those instances where they are present (such as the village general meeting that I was privileged to attend), they are largely silent or tend to echo comments made by the men. The hierarchy remains apparent, with the men seated on benches while women sit on the ground.

Implications for Theory, Policy and Practice

As qualitative research generates its theoretical insights gradually through detailed data collection and analysis of a particular context, it can be challenging to articulate a succinct, generalizable contribution. Theory building tends to occur iteratively, with flexibility required as insights may occur unexpectedly (Rouse et al., 2025). One of the ways qualitative research may contribute to **theory** is through the use of critical (‘extreme’) cases—such as the situation described in the South and North Luangwa landscapes (ibid). While I expected that there may be greater evidence of ecological justice in a landscape in which there was no profit motive involved (although perhaps less sustainability, given the risks of donor dependency), this was not my finding. Instead, I found no evidence that ecological justice was linked to the source of funding, contingent instead upon the strength of the institutional environment. This reinforces North’s (2009) findings on the potential of neo-patrimonial rule to affect whether the institutional environment enables or disables the emergence of effective local governance, as discussed in Article #3.

This research makes a further contribution to theory by ‘opening the black box’—identifying a paradox that challenges existing frameworks (Rouse et al., 2025)—namely the demand for participation in LCFP despite low levels of trust. A logic that essentializes standing forests as only holding value for the planet in reducing global warming (thus enabling the fossil fuel industry to externalize the true costs of production or the wealthy to assuage the guilt engendered by their profligate lifestyles, buying carbon credits to offset their emissions) denies the instrumental as well as the intrinsic value of forests to local communities. At the very least, what is required is a nuancing of political ecology’s stance on the issue—namely that “forest-related climate interventions in the Global South cannot be seen as a just alternative” (Benjaminsen & Svarstad, 2021, p.151)—especially given the critical constructivism that it purports to embrace. Benjaminsen and Svarstad (2021, p.142) do

acknowledge the value of case studies though in providing knowledge that is useful in understanding larger topics. My analysis of REDD+ reveals the ‘double-edged sword’ of enhanced expectations that are then hard to fulfill. As local voices argue that *cutting the trees benefits individuals, but forests benefit us all*, efforts to enhance equity—locally as well as globally—must be strengthened. In that vein, in Article #1 I identify systemic weaknesses and threats to sustainability in Zambia’s LCFP but also suggest ways in which the VCM and REDD+ could contribute to addressing global social challenges of climate change and ecological justice.

My research delves into the fierce debates surrounding the potential of the market to mitigate climate change and stem biodiversity loss, providing empirical evidence on the strengths and weaknesses of a ‘neoliberal’ approach to financing the dual imperatives of conservation and development. My research reveals the perverse incentives that development (made possible from carbon revenues), puts on forests—with, for example, access to clean water through the sinking of a borehole increasing inward migration into the area. The findings of my comparative case study reveal that the potential for elite capture of benefits in the current Zambian environment hampers the potential to finance global public goods sustainably and equitably—whether the source of finance is commercial or aid-based. An ability to address the overlapping crises of climate change, biodiversity loss and persistent poverty will be dependent upon institutional strengthening and a democratisation of the process of natural resource management. My finding makes a critical contribution to this ongoing controversy in the literature, compelling academics to reconsider assumptions (King et al., 1994), particularly as society is called to deliver a ‘just transition’.

My empirical findings support **policy** recommendations by Transparency International and others to improve governance and help protect REDD+ from corruption. These include promoting access to information (e.g., requiring project proponents to publish financial and non-financial information online to enhance transparency and accountability). This is in line with UNEP’s *State of Finance for Nature* report (2023), which calls on governments to regulate the negative – in this case, the opacity in benefit sharing agreements. As noted in the Limitations section above, an inability to access financial information constrained my analysis of who it is that is benefiting most from the LCFP.

While acknowledging efforts on the part of the project proponent, building stakeholder capacity to enable effective participation remains an ongoing challenge. Zambia’s National CBNRM Policy (Ministry of Tourism, 2024) notes that local communities’ understanding of the carbon trading process is poor. Visseren-Hamakers and Kok (2022) remind us that ensuring inclusivity also requires a recognition that the identification of a problem and the setting of an agenda (which typically occur before local communities are engaged) reflect power asymmetries which should not be exacerbated or re-enforced.

Strengthening social institutions such as grievance mechanisms at local and national levels is called for (Franks et al., 2018; Korwin, 2016; Visseren-Hamakers & Kok, 2022). My research suggests the need for flexibility in these institutions, as my fieldwork unearthed challenges in the implementation of rigid global standards in a local context. For example, the grievance mechanism is a paper-based system, with confidentiality considered paramount. The tradition for addressing grievances in Zambia—as observed in the Luangwa Valley—is oral, with the aggrieved community calling for a meeting with the

Chief (with representatives of the government and the project proponent also in attendance). How to escalate a grievance from the chieftdom level—in the event of an unsatisfactory resolution—reveals the ongoing tension in the integration of traditional authorities into local government. In addition, the range of grievances is typically not compartmentalized, and aspects of injustice are aired that may or may not have anything specifically to do with the REDD+ mechanism. (POB2306_1). A relatively complex system of lodging grievances in writing is ill-suited to this tradition, in which the challenge is to restore the trust relationship.

In addition, I suggest a policy change, to enable funds currently flowing from the project proponent to the CFMG to be allocated to sub-accounts for each Village Action Group (in line with the Annual Work Plan). A devolution of responsibility to the lowest accountable level would enhance participation and promote a sense of local ownership. Lessons can be learned from Zambia's Luangwa Integrated Resources and Development Project, which, for a brief window from 1996 – 2002, allowed 80% of hunting revenues to be controlled by Village Action Groups (Lubilo & Child, 2010). The authors contend that this phase clearly demonstrated the advantages of participatory democracy over more remote and largescale representational governance structures (ibid, p.218), to which the project reverted after 2002. The authors go on to argue that this recentralization eroded accountability and facilitated greater elite capture of benefits (ibid, p.221).

Finally, to improve oversight and accountability, there is a call for collaborative efforts, bringing together government, civil society, the Anti-Corruption Commission, donor representatives and academia (Korwin, 2016). Case studies such as this can contribute to this effort, highlighting the successes and the potential of the REDD+ mechanism in the LCFP, while exposing the weaknesses and flagging the threats.

Franks et al. (2018, p.27) note that what looks like equitable governance often fails to deliver equity or justice in **practice**. Firstly, appearances can be deceptive e.g., what looks like reasonably equitable governance—such as inclusive participation—is not always the case, at times due to manipulation by certain influential individuals or groups. Secondly, decisions made through an equitable process may not be equitably implemented, i.e. there may be a disconnect between governance and management. (See also Pressman and Wildavsky [1984] who argue that implementation is the crucial stage in which the success or failure of policies is decided, describing it as a complex process involving long chains of interaction. My research explores this complexity and maps the chains of interaction.) Thirdly, sometimes benefits that are equitably allocated don't deliver the expected results, possibly due to a poor understanding of contextual factors. Fourthly, some activities designed to strengthen governance bring unexpected negative social impacts, for example high transaction costs that undermine the value of benefits—for example, the (opportunity) costs of protecting forests outweighing the benefits received. Finally, equity can mean different things to different people, so the social impacts of decisions are not always in line with what people thought they had agreed to (viz Agrawal and Gibson's [1999] 'myth of the community').

Li's (2007b) belief that 'governmentality' mobilizes the will to improve highlights the need for reflexivity. She goes on to argue that its spokespeople—from colonial administrators and missionaries to development experts and political activists in domains as diverse as agriculture, health, conservation and poverty reduction—are overwhelmingly sincere. An

acknowledgement of positionality, requiring critical self-reflection and reflexivity, is thus imperative (Sultana, 2019).

Sultana goes on to argue that, as development curricula are largely drawn from academic research findings and publications, a critical analysis of knowledge production and research methodologies is essential. I believe the care I have taken in examining and discussing my own positionality—as well as my approach to developing a sound research design—can be beneficial. As Sultana reminds us, today’s students become tomorrow’s development practitioners, policy makers and implementers (ibid).

The lessons from successful examples of community-based natural resource management—as well as from failures or shortcomings—provide starting points for addressing future challenges. In the end, as Ostrom et al. (1999, p.282) reminds us, “building from the lessons of [the] past...will require forms of communication, information and trust that are broad and deep beyond precedent, but not beyond possibility”. I believe research such as mine nudges us a bit closer towards that possibility.

References

- Acemoglu, D., & Robinson, J. A. (2012). Ch 15: Understanding Prosperity and Poverty. In *Why nations fail: The origins of power, prosperity, and poverty*. (First edition). 428–463. Crown Business.
- Adeyanju, S., O'Connor, A., Addoah, T., et al. (2021). Learning from Community-Based Natural Resource Management (CBNRM) in Ghana and Zambia: Lessons for integrated landscape approaches. *International Forestry Review*, 23(3), 273–297. <https://doi.org/10.1505/146554821833992776>
- AENOR CONFÍA S.A.U. (2024). *VCS Verification Report—Luangwa Community Forests Project* (Version 4.2). Verra. <https://registry.verra.org/app/projectDetail/VCS/1775>
- APAC. (Africa Protected Areas Congress). (2022). *Kigali Call to Action for People and Nature*. <https://apacongress.africa/download/english-version-of-apac-kigali-call-to-action/>
- Agrawal, A. (2005). Environmentality: Community, intimate government, and the making of environmental subjects in Kumaon, India. *Current Anthropology*, 46(2), 161–190. <https://doi.org/10.1086/427122>
- Agrawal, A., Brandhorst, S., Jain, M., et al. (2022). From Environmental Governance to Governance for Sustainability. *One Earth*, 5(6), 615–621. <https://doi.org/10.1016/j.oneear.2022.05.014>
- Agrawal, A., & Gibson, C.C. (1999). Enchantment and Disenchantment: The role of community in natural resource conservation. *World Development*, 27(4), 629–649. [https://doi.org/10.1016/S0305-750X\(98\)00161-2](https://doi.org/10.1016/S0305-750X(98)00161-2)
- Alhassan, S. I., Shaibu, M.T., & Kuwornu, J.K.M. (2018). Is Land Grabbing an Opportunity or a Menace to Development in Developing Countries? Evidence from Ghana. *Local Environment*, 23(12), 1121–1140. <https://doi.org/10.1080/13549839.2018.1531839>
- Alhojärvi, T., & Sirviö, H. (2018). Affirming Political Ecology: Seeds, hatchets and situated entanglements. *Nordia Geographical Publications*, 47(5), 1–6.
- Anaya, J. (2011). *Report of the Special Rapporteur on the Rights of Indigenous Peoples: Addendum – The situation of indigenous peoples in Zambia* (UN Doc. A/HRC/18/35/Add.3). UN Human Rights Council.
- Angelsen, A. (2017). REDD+ as Result-based Aid: General lessons and bilateral agreements of Norway. *Review of Development Economics*, 21(2), 237–264. <https://doi.org/10.1111/rode.12271>
- Angelsen, A., Brockhaus, M., & Kanninen, M. (Eds.). (2009). *Realising REDD+: National strategy and policy options*. Center for International Forestry Research. https://www.cifor-icraf.org/publications/pdf_files/Books/BAngelsen0902.pdf
- Angelsen, A., Martius, C., De Sy, V., et al (Eds.). (2018). *Transforming REDD+: Lessons and new directions*. Center for International Forestry Research.

Angula, H. N., Stuart-Hill, G., Ward, D., et al. (2018). Local Perceptions of Trophy Hunting on Communal Lands in Namibia. *Biological Conservation*, 218, 26–31. <https://doi.org/10.1016/j.biocon.2017.11.033>

Angus, I. (2023). The Meaning of ‘So-Called Primitive Accumulation.’ *Monthly Review*, 74(11). <https://monthlyreview.org/2023/04/01/the-meaning-of-so-called-primitive-accumulation/>

Aongola, L., Bass, S., Chileshe, J., et al. (2009). Creating and Protecting Zambia’s Wealth: Experience and next steps in environmental mainstreaming. *Natural Resource Issues*, No. 14. International Institute for Environment and Development.

Aristotle. (1926). *Nicomachean Ethics* (Rackham, L. Trans). Loeb Classical Library 73. Harvard University Press. <https://www.loebclassics.com/view/LCL073/1926/volume.xml>

Armitage, D., Plummer, R., Berkes, F., et al. (2008). Adaptive Co-management for Social-Ecological Complexity. *Frontiers in Ecology and the Environment*, 7(2), 95–102. <https://onlinelibrary.wiley.com/doi/abs/10.1890/070089>

Asiyanbi, A., & Lund, J. F. (2020). Policy Persistence: REDD+ between stabilization and contestation. *Journal of Political Ecology*, 27(1), 378–400. <https://doi.org/10.2458/v27i1.23493>

Asiyanbi, A., & Massarella, K. (2020). Transformation is What You Expect, Models are What You Get: REDD+ and models in conservation and development. *Journal of Political Ecology*, 27(1), 476–495. <https://doi.org/10.2458/v27i1.23540>

Asiyanbi, A.P., Ogar, E., & Akintoye, O.A. (2019). Complexities and Surprises in Local Resistance to Neoliberal Conservation: Multiple environmentalities, technologies of the self and the poststructural geography of local engagement with REDD+. *Political Geography*, 69, 128–138. <https://doi.org/10.1016/j.polgeo.2018.12.008>

Baralon, J., Marks, D., Dieterich, U., et al. (2021). *Conservation Finance 2021: An unfolding opportunity*. Coalition for Private Investment in Conservation.

Barnes, J. I., Macgregor, J., & Weaver, L.C. (2002). Economic Efficiency and Incentives for Change within Namibia’s Community Wildlife Use Initiatives. *World Development*, 30(4), 667–681. [https://doi.org/10.1016/S0305-750X\(01\)00134-6](https://doi.org/10.1016/S0305-750X(01)00134-6)

Barrett, G., Brooks, S., Josefsson, J., & Zulu, N. (2013). Starting the Conversation: Land issues and critical conservation studies in post-colonial Africa. *Journal of Contemporary African Studies*, 31(3), 336–344. <https://doi.org/10.1080/02589001.2013.802440>

Bayon, R. (2023, November 9). *Punish the Leaders, Reward the Laggards?* Ecosystem Marketplace. <https://www.ecosystemmarketplace.com/articles/punish-the-leaders-reward-the-laggards/>

Benda-Beckmann, F.v. & Benda-Beckmann, K.v. (1999). Community Based Tenorial Rights: Emancipation or indirect rule? In *Papers of the XIth International Congress “Folk Law and Legal Pluralism: Societies in Transformation” of the Commission on Folk Law and Legal Pluralism, Moscow, 1997, August 18-22.* 169–187.

<https://research.wur.nl/en/publications/community-based-tenurial-rights-emancipation-or-indirect-rule>

Benjaminsen, T. A., & Svarstad, H. (2021). *Political Ecology: A Critical Engagement with Global Environmental Issues*. Springer Nature Publishing AG. <https://doi.org/10.1007/978-3-030-56036-2>

Bergs, K. (2024). Carbon Finance: Luangwa Community Forests Project. ALU SOWC *Wildlife Economy Lessons Learned Series*, Case study #2. African Leadership University. <https://app.box.com/s/2l8ccl0hunpj4p2bnp94i4rn1suleiot>

Bergs, K., & Munro, L. T. (2023, November 21). Making Money Out of Thin Air? Or Should We Axe the Voluntary Carbon Market? *CIPS Blog*. <https://www.cips-cepi.ca/2023/11/21/making-money-out-of-thin-air-or-should-we-axe-the-voluntary-carbon-market/>

Besliu, R. (2024, November 5). COP29 in Azerbaijan: A compromised climate conference. *Green European Journal*. <https://www.greeneuropeanjournal.eu/cop29-in-azerbaijan-a-compromised-climate-conference/>

Bevir, M. (2012). *Governance: A Very Short Introduction*. OUP Oxford.

Bhaskar, R. (1998). *Critical Realism: A Brief Introduction*. Routledge. http://markfoster.net/struc/critical_realism_brief_intro.pdf

BCP. (BioCarbon Partners). (2019). *Luangwa Community Forests Project: CCB & VCS project description*. [https://assets-global.website-files.com/5e542c8526e59228f61c0bfa/62b49ae716cafla57d73e711_20190715_LCFP_PD%20\(4\)-compressed.pdf](https://assets-global.website-files.com/5e542c8526e59228f61c0bfa/62b49ae716cafla57d73e711_20190715_LCFP_PD%20(4)-compressed.pdf)

BCP. (BioCarbon Partners). (2023). *BCP Impact Report 2022: Making conservation of wildlife habitat valuable to people*. <https://bcp.earth/news-and-press/2022-impact-report/>

BCP. (BioCarbon Partners). (2024a). *2023 Impact Report*. <https://view.publitas.com/bcp/bcp-impact-report-2023/page/1>

BCP. (BioCarbon Partners). (2024b). *Luangwa Community Forests Project (Monitoring Report 5: VCS Version 4.2)*. Verra. <https://registry.terra.org/app/projectDetail/VCS/1775>

Blaikie, P. M., & Brookfield, H. C. (1987). *Land Degradation and Society* (Second edition). Routledge.

Borrini-Feyerabend, G., & Hill, R. (2015). Ch 7: Governance for the Conservation of Nature. In Worboys, G.L., Lockwood, M., Kothari, A., et al. (Eds.), *Protected Area Governance and Management*. 169–206. ANU Press. <https://www.jstor.org/stable/j.ctt1657v5d.14>

Brautigam, D. (2021). *How Zambia and China Co-Created a Debt “Tragedy of the Commons”*. Policy Brief 61, China Africa Research Initiative. Johns Hopkins School of Advanced International Studies.

Brien, P., & Loft, P. (2025, February 28). UK to Reduce Aid to 0.3% of Gross National Income from 2027. UK Parliament. *House of Commons Library*.

<https://commonslibrary.parliament.uk/uk-to-reduce-aid-to-0-3-of-gross-national-income-from-2027/>

Brundtland, G. (1987). *Report of the World Commission on Environment and Development: Our common future*. UN General Assembly document A/42/427.

Buller, A. (2022). *The Value of a Whale: On the illusions of green capitalism*. Manchester University Press. <https://manchesteruniversitypress.co.uk/9781526162632>

Busan Partnership for Effective Development Cooperation. (2011). *Fourth High Level Forum on Aid Effectiveness*. <https://www.oecd-ilibrary.org/docserver/54de7baa-en.pdf?expires=1659561385&id=id&accname=guest&checksum=38883A9174E6101422E0BE0A58EA4A0A>

Büscher, B. (2014). Nature on the Move I: The value and circulation of liquid nature and the creation of fictitious conservation. *Journal of Marxism and Interdisciplinary Inquiry*, 6(1–2), 20–36. <https://doi.org/10.2307/j.ctt183pdh2>

Büscher, B., & Fletcher, R. (2019). Towards Convivial Conservation. *Conservation and Society*, 17(3), 1–14. https://doi.org/10.4103/cs.cs_19_75

Büscher, B., & Fletcher, R. (2020). *The Conservation Revolution: Radical ideas for saving nature beyond the anthropocene*. Verso Books.

Bwalya Umar, B., & Kapembwa, J. (2020). Economic Benefits, Local Participation, and Conservation Ethic in a Game Management Area: Evidence from Mambwe, Zambia. *Tropical Conservation Science*, 13, 1–16. <https://doi.org/10.1177/1940082920971754>

Cabral, S., Mahoney, J. T., McGahan, A. M., & Potoski, M. (2019). Value Creation and Value Appropriation in Public and Nonprofit Organizations. *Strategic Management Journal*, 40(4), 465–475. <https://doi.org/10.1002/smj.3008>

Carney, M. (2021). *Value(s): Building a better world for all* (First US edition.). Public Affairs.

Cavanagh, C. J., & Benjaminsen, T. A. (2015). Guerrilla Agriculture? A biopolitical guide to illicit cultivation within an IUCN Category II protected area. *The Journal of Peasant Studies*, 42(3–4), 725–745. <https://doi.org/10.1080/03066150.2014.993623>

Chambers, R. (1981). Rural Poverty Unperceived: Problems and remedies. *World Development*, 9(1), 1–19. [https://doi.org/10.1016/0305-750X\(81\)90073-5](https://doi.org/10.1016/0305-750X(81)90073-5)

Chambers, R. (1983). *Rural Development: Putting the last first* (1st edition e-book). Routledge. <https://doi.org/10.4324/9781315835815>

Chambers, R. (1994). The Origins and Practice of Participatory Rural Appraisal. *World Development*, 22(7), 953–969. [https://doi.org/10.1016/0305-750X\(94\)90141-4](https://doi.org/10.1016/0305-750X(94)90141-4)

Chandrasekhar, A., Dunne, D., & Dwyer, O. (2023, December 13). *COP28: Key outcomes agreed at the UN climate talks in Dubai*. Carbon Brief. <https://www.carbonbrief.org/cop28-key-outcomes-agreed-at-the-un-climate-talks-in-dubai/>

Chidakel, A., & Child, B. (2022). Convergence and Divergence in the Economic Performance of Wildlife Tourism within Multi-reserve Landscapes. *Land Use Policy*, 120, 106252. <https://doi.org/10.1016/j.landusepol.2022.106252>

Chidakel, A., Child, B., & Muyengwa, S. (2021). Evaluating the Economics of Park-tourism from the Ground-up: Leakage, multiplier effects, and the enabling environment at South Luangwa National Park, Zambia. *Ecological Economics*, 182, 106960. <https://doi.org/10.1016/j.ecolecon.2021.106960>

Chiefs Act. (1965). Chapter 287 of the Laws of Zambia.

Child, B. (1996). The Practice and Principles of Community-based Wildlife Management in Zimbabwe: The CAMPFIRE programme. *Biodiversity and Conservation*. https://www.academia.edu/54286108/The_practice_and_principles_of_community_based_wildlife_management_in_Zimbabwe_the_CAMPFIRE_programme

Child, B., Musengezi, J., Parent, G.D., & Child, G.F.T. (2012). The Economics and Institutional Economics of Wildlife on Private Land in Africa. *Pastoralism: Research, Policy and Practice*, 2(18). <https://doi.org/10.1186/2041-7136-2-18>

Chin, M. (2021). What are Global Public Goods? *Finance & Development*, 62-63. <https://www.imf.org/en/Publications/fandd/issues/2021/12/Global-Public-Goods-Chin-basics>

Coates, T., Nelson, R., & Fitzpatrick, K. (2018). Ch 10: Development Colonialism in a Canadian Context. In Masaeli, M. & Munro, L.T. (Eds.), *Canada and the Challenges of International Development and Globalization*. 189–213. University of Ottawa Press. <https://doi.org/10.2307/j.ctv8j6b1>

Committee on Local Governance, Housing & Chief's Affairs. (2020). *Report of the Committee on Local Governance, Housing and Chiefs' Affairs for the 5th session of the Twelfth National Assembly*. National Assembly of Zambia.

"COP28 Agreement Signals 'Beginning of the End' of the Fossil Fuel Era". (2023, December 13). United Nations Climate Change. <https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era>

"COP29 UN Climate Conference Agrees to Triple Finance to Developing Countries". (2024, November 24). United Nations Climate Change. <https://unfccc.int/news/cop29-un-climate-conference-agrees-to-triple-finance-to-developing-countries-protecting-lives-and>

Cox, T., Butler, J., Webber, A., & Young, J. (2020). The Ebb and Flow of Adaptive Co-management: A longitudinal evaluation of a conservation conflict. *Environmental Science & Policy*, 114, 453-460. <https://linkinghub.elsevier.com/retrieve/pii/S1462901120313368>

Dalal-Clayton, B., & Lewis, D. (1984). *An Integrated Approach to Land Use Management in the Luangwa Valley: Proceedings of the Lupande Development Workshop held at Nyamaluma Wildlife Conservation Camp, Lupande Game Management Area, 19-22 September 1983*. Government Printer, South Africa.

Davis, A.L., Blomley, T., Homer, G., et al. (2020). *Community-based Natural Resource Management in Zambia: A review of institutional reforms and lessons from the field*.

Maliasili, USAID Integrated Land and Resource Governance Task Order and The Nature Conservancy. https://tenuresecurity.org/wp-content/uploads/2020/06/Zambia-CBNRM-Review-Report_Final-1.pdf

Day, R. (2017). A Capabilities Approach to Environmental Justice. In Holifield, R., Chakraborty, J. & Walker, G. (Eds.), *The Routledge Handbook of Environmental Justice* (First edition). Routledge. <https://doi-org.proxy.bib.uottawa.ca/10.4324/9781315678986>

Department of National Parks and Wildlife. (2021). *General Management Plan: North Luangwa National Park 2021-2031*. https://panorama.solutions/sites/default/files/north_luangwa_np_gmp_final_2.pdf

Deutz, A., Heal, G., Niu, R., et al. (2020). *Financing Nature: Closing the global biodiversity financing gap*. The Paulson Institute, The Nature Conservancy and the Cornell Atkinson Center for Sustainability.

Donofrio, S., & Procton, A. (2023). *Paying for Quality: State of the Voluntary Carbon Markets 2023*. Ecosystem Marketplace. <https://www.ecosystemmarketplace.com/articles/new-state-of-the-voluntary-carbon-markets-2023-finds-vcm-demand-concentrating-around-pricier-high-integrity-credits/>

Dreher, A., Fuchs, A., Parks, B.C., et al. (2022). *Banking on Beijing: The aims and impacts of China's overseas development program*. Cambridge University Press.

Dressler, W., Büscher, B., Schoon, M., et al. (2010). From Hope to Crisis and Back Again? A critical history of the global CBNRM narrative. *Environmental Conservation*, 37(1), 5–15. <https://doi.org/10.1017/S0376892910000044>

Duchelle, A., de Sassi, C., Sills, E., & Wunde, S. (2018). Ch 11: People and Communities—Well-being impacts of REDD+ on the ground. In Anglsen, A. et al (Eds.), *Transforming REDD+: Lessons and new directions*. 131–144. CIFOR.

Duus-Otterström, G. (2016). Allocating Climate Adaptation Finance: Examining three ethical arguments for recipient control. *International Environmental Agreements: Politics, Law and Economics*, 16(5), 655–670. <https://doi.org/10.1007/s10784-015-9288-3>

Dyck, M. (2022, February 7). *So, what is the voluntary carbon market exactly?* Climate Focus. <https://climatefocus.com/so-what-voluntary-carbon-market-exactly/>

Dyck, M., Streck, C., & Trouwloon, D. (2023). *The Voluntary Carbon Market Explained*. Climate Focus. vcmprimer.org

Eni. (2019, November 21). *Eni has become an active member of the governance of the forest conservation REDD+ Luangwa Community Forests Project (LCFP) in Zambia*. <https://www.eni.com/en-IT/media/press-release/2019/11/eni-has-become-an-active-member-of-the-governance-of-the-forest-conservation-redd-luangwa-community-forests-project-lcfp-in-zambia.html>

Eni. (n.d.). *Our decarbonization process*. <https://www.eni.com/en-IT/sustainability/environment/decarbonisation.html>

- Fairhead, J., Leach, M., & Scoones, I. (2012). Green Grabbing: A new appropriation of nature? *Journal of Peasant Studies*, 39(2), 237–261.
<https://doi.org/10.1080/03066150.2012.671770>
- FAO. (Food & Agriculture Organization). (2020). *Global Forest Resources Assessment 2020*. <https://openknowledge.fao.org/handle/20.500.14283/ca8753en>
- Filewod, B., & McCarney, G. (2023). *Avoiding Leakage from Nature-based Offsets by Design*. Smart Prosperity Institute.
<https://institute.smartprosperity.ca/publications/avoiding-leakage-by-design>
- Fisheries Act. (2011). Act No. 22 of 2011. Government of Zambia.
- Fletcher, R. (2010). Neoliberal Environmentalism: Towards a poststructuralist political ecology of the conservation debate. *Conservation and Society*, 8(3).
- Fletcher, R., Dressler, W., Büscher, B., & Anderson, Z. R. (2016). Questioning REDD+ and the Future of Market-based Conservation. *Conservation Biology*, 30(3), 673–675.
<https://doi.org/10.1111/cobi.12680>
- Forest (Carbon Stock Management) Regulations. (2021). Statutory Instrument No. 66 of 2021. Government of Zambia. <https://zambialii.org/akn/zm/act/si/2021/66/eng@2021-06-25>
- Forests Act. (2015). Act No. 4 of 2015. Government of Zambia.
<https://www.parliament.gov.zm/sites/default/files/documents/acts/The%20Forest%20Act%202015.pdf>
- Forests (Community Forest Management) Regulations. (2018). Statutory Instrument No. 11 of 2018. Government of Zambia. <http://extwprlegs1.fao.org/docs/pdf/zam174187.pdf>
- Foucault, M. (2008). *The Birth of Biopolitics: Lectures at the Collège de France 1978-1979*. (Senellart, M., Ed.; Burchell, G., Trans.). Palgrave Macmillan. <https://books-scholarsportal-info.proxy.bib.uottawa.ca/en/read?id=/ebooks/ebooks2/pda/2011-12-01/1/12975.9780230594180#page=12>
- Franks, P., Booker, F., & Roe, D. (2018). *Understanding and Assessing Equity in Protected Area Conservation: A matter of governance, rights, social impacts and human wellbeing*. International Institute for Environment and Development.
<https://www.jstor.org/stable/resrep16640>
- Fraser, N. (2000). Rethinking Recognition. *New Left Review*, 3, 107–120.
- Fukuyama, F. (2013). *What is Governance?* Center for Global Development. Working Paper No. 314. <https://www.cgdev.org/publication/what-governance-working-paper-314>
- FZS. (Frankfurt Zoological Society). (2023). *FZS Zambia Annual Report*. https://northluangwa.org/documents/2023_FZS_ANNUAL_REPORT.pdf
- FZS. (Frankfurt Zoological Society). (2024). *North Luangwa Conservation Programme's Socio-economic and Biodiversity Impact Report, October 2023—September 2024*. https://drive.google.com/file/d/18ba9Ww_yqrHpPqe4GDybnmTZ7drQr_Dw/view

Garmendia, E., & Pascual, U. (2013). Ch 8: A Justice Critique of Environmental Valuation for Ecosystem Governance. In Sikor, T. (Ed.), *The Justices and Injustices of Ecosystem Services*. 161–186. Routledge, Taylor & Francis Group.

Geertz, C. (1973). *The Interpretation of Cultures: Selected Essays*. Basic Books, Inc.

George, A. L., & Bennett, A. (2005). *Case Studies and Theory Development in the Social Sciences*. MIT Press.

<http://ebookcentral.proquest.com/lib/ottawa/detail.action?docID=6401866>

Gibson, C.C., & Marks, S.A. (1995). Transforming Rural Hunters into Conservationists: An assessment of community-based wildlife management programs in Africa. *World Development*, 23(6), 941–957. [https://doi.org/10.1016/0305-750X\(95\)00025-8](https://doi.org/10.1016/0305-750X(95)00025-8)

Giddens, A. (1984). *The Constitution of Society: Outline of the theory of structuration*. Polity Press.

GlobeScan. (2020). *Radar Report 2019*.

Gramsci, A. (1994). *Letters from prison* (Rosengarten, F., Ed.; Rosenthal, R., Trans.). Columbia University Press.

Greenfield, P. (2023, January 18). Revealed: More than 90% of Rainforest Carbon Offsets by Biggest Certifier are Worthless, Analysis Shows. *The Guardian*. <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>

Greenfield, P., & Chingono, N. (2024, March 15). We Don't Know Where the Money is Going: The “carbon cowboys” making millions from credit schemes. *The Guardian*. <https://amp-theguardian-com.cdn.ampproject.org/c/s/amp.theguardian.com/environment/2024/mar/15/money-carbon-credits-zimbabwe-conservation-aoe>

Griscom, B. (2023, October 13). *Most Companies Buying Carbon Credits Are Not Greenwashing*. TIME. <https://time.com/6323461/carbon-credits-greenwashing/>

Hamouchene, H., & Sandwell, K. (Eds.). (2023). *Dismantling green colonialism: Energy and Climate Justice in the Arab Region*. Pluto Press.

Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162(3859), 1243–1248.

Harvey, D. (2003). *The New Imperialism*. Oxford University Press. <https://doi.org/10.1093/oso/9780199264315.001.0001>

Hattle, A., & Nordbo, J. (2023). *Seeing Double: Decoding the “Additionality” of Climate Finance*. CARE. <https://careclimatechange.org/seeing-double-decoding-the-additionality-of-climate-finance/>

Heffernan, A. (2022a). *Green Global Policy Assemblages: The evolution of community-based natural resource management in response to climate change in Namibia*. Doctoral dissertation, University of Ottawa.

- Heffernan, A. (2022b). Panaceans, Utilitarians, and Skeptics. *Journal of Namibian Studies*, 31, 55–77.
- Hewitt, D. & Cowling, P. (2012). *Keeping REDD+ Clean: A step-by-step guide to preventing corruption*. Transparency International.
<https://www.transparency.org/en/publications/keeping-redd-clean>
- Hickel, J. (2019). Is it Possible to Achieve a Good Life for All within Planetary Boundaries? *Third World Quarterly*, 40(1), 18–35. <https://doi.org/10.1080/01436597.2018.1535895>
- Hobsbawm, E. (1973). Peasants and Politics. *Journal of Peasant Studies*, 1(1), 3–22.
- Honig, L. (2022). *Land Politics: How Customary Institutions Shape State Building in Zambia and Senegal*. Cambridge University Press.
- IFC. (International Finance Corporation). (2022). *Biodiversity Finance Reference Guide*.
<https://www.ifc.org/content/dam/ifc/doc/mgrt/biodiversity-finance-reference-guide.pdf>
- Igini, M. (2022, March 24). *Deforestation in Africa: Causes, effects, and solutions*. Earth.Org. <https://earth.org/deforestation-in-africa/>
- Integra. (Integra Government Services International LLC). (2019). *Performance Evaluation of USAID/Zambia's Community Forests Program*. USAID.
- IPCC. (Intergovernmental Panel on Climate Change). (2022). *Climate Change 2022 - Mitigation of Climate Change: Working Group III contribution to the sixth assessment report of the Intergovernmental Panel on Climate Change*. Cambridge University Press.
<https://doi.org/10.1017/9781009157926>
- IUCN. (International Union for Conservation of Nature). (2022, December 13). *16 protected and conserved areas in China, France, Mexico, Peru and Zambia achieve IUCN Green List Status*. [Press release] <https://www.iucn.org/press-release/202212/16-protected-and-conserved-areas-china-france-mexico-peru-and-zambia-achieve>
- Jackson, K., & Bazeley, P. (2019). *Qualitative Data Analysis with NVivo* (Third edition). Sage Publications.
- Janus, H., Klingebiel, S., & Paulo, S. (2015). Beyond Aid: A conceptual perspective on the transformation of development cooperation. *Journal of International Development*, 27(2), 155–169. <https://doi.org/10.1002/jid.3045>
- Jarwar, M. A., Dumontet, S., & Pasquale, V. (2024). The Natural World in Western Thought. *Challenges*, 15, 17. <https://doi.org/10.3390/challe15010017>
- Jones, J.P.G. (2024). Scandal in the Voluntary Carbon Market Must Not Impede Tropical Forest Conservation. *Nature Ecology & Evolution*, 8. 1203-1204.
<https://doi.org/10.1038/s41559-024-02442-4>
- Kachali, R. N., Dawson, N. M., & Loos, J. (2024). Institutional Rearrangements in the North Luangwa Ecosystem: Implications of a shift to community based natural resource management for equity in protected area governance. *Heliyon*, 10. e33549.
<https://doi.org/10.1016/j.heliyon.2024.e33549>

- Kachena, L., & Spiegel, S.J. (2023). Uneven Donor Engagement and Fraught Transboundary Conservation Approaches. *Conservation and Society*, 21(2), 87–98. https://doi.org/10.4103/cs.cs_59_22
- Kamal, N. (2023, October 5). Voluntary Carbon Market is Not Benefitting People or Planet, Might in fact be Leading to More Emissions: CSE investigation. *The Times of India*. <https://timesofindia.indiatimes.com/india/voluntary-carbon-market-is-not-benefitting-people-or-planet-might-in-fact-be-leading-to-more-emissions-cse-investigation/articleshow/104192871.cms?from=mdr>
- Kang, S. (2017). What the Documents Can't Tell You: Participant observation in international relations. *PS: Political Science & Politics*, 50(1), 121–125. <https://doi.org/10.1017/S1049096516002274>
- Kansky, R., Kidd, M., & Fischer, J. (2020). Does Money 'Buy' Tolerance Toward Damage-causing Wildlife? *Conservation Science and Practice*, 3(3), 1–16. <https://doi.org/10.1111/csp2.262>
- Kansky, R., Kidd, M., & Fischer, J. (2021). Understanding Drivers of Human Tolerance Towards Mammals in a Mixed-use Transfrontier Conservation Area in Southern Africa. *Biological Conservation*, 254, 108947. <https://doi.org/10.1016/j.biocon.2020.108947>
- "Kasigau, Kenya". (n.d.). Wildlife Works. <https://www.wildlifeworks.com/redd-projects/kasigau-kenya>
- Katz-Rosene, R. (2023, December 5). Make COPs Sane Again: Towards a more climate-conscious climate conference. *CIPS Blog*. <https://www.cips-cepi.ca/2023/12/05/make-cops-sane-again-towards-a-more-climate-conscious-climate-conference/>
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2009). *Governance Matters VIII: Aggregate and individual governance indicators 1996-2008*. The World Bank. <https://doi.org/10.1596/1813-9450-4978>
- King, G., Keohane, R. O., & Verba, S. (1994). *Designing Social Inquiry: Scientific inference in qualitative research*. Princeton University Press.
- Kitzinger, J. (1994). The Methodology of Focus Groups: The importance of interaction between research participants. *Sociology of Health & Illness*, 16(1), 103–121. <https://doi.org/10.1111/1467-9566.ep11347023>
- Kopnina, H. (2019). Indigenous Rights and Ecological Justice in Amazonia: Exploring ethics of wilderness conservation. *International Journal of Wilderness*, 25(1), 76–90.
- Korwin, S. (2016). *REDD+ and Corruption Risks for Africa's Forests: Case studies from Cameroon, Ghana, Zambia and Zimbabwe*. Transparency International.
- Lakhani, N. (2023, December 6). \$700m Pledged to Loss and Damage Fund at COP28 Covers Less Than 0.2% Needed. *The Guardian*. <https://www.theguardian.com/environment/2023/dec/06/700m-pledged-to-loss-and-damage-fund-cop28-covers-less-than-02-percent-needed>

- Lands Act. (1995). Act No. 29 of 1995; Act No. 20 of 1996, Chapter 184 of the Laws of Zambia (2010). <https://zambialii.org/akn/zm/act/1995/29/eng@2010-11-19>
- Lewis, D., Bell, S.D., Fay, J., et al. (2011). Community Markets for Conservation (COMACO) Links Biodiversity Conservation with Sustainable Improvements in Livelihoods and Food Production. *Proceedings of the National Academy of Sciences*, 108(34), 13957–13962. <https://doi.org/10.1073/pnas.1011538108>
- Li, T.M. (2005). Beyond "the State" and Failed Schemes. *American Anthropologist*, 107(3), 383–394. <https://doi.org/10.1525/aa.2005.107.3.383>
- Li, T. M. (2007a). Practices of Assemblage and Community Forest Management. *Economy and Society*, 36(2), 263–293. <https://doi.org/10.1080/03085140701254308>
- Li, T. M. (2007b). *The Will to Improve*. Duke University Press. <https://doi.org/10.1215/9780822389781>
- Li, T. M. (2010). To Make Live or Let Die? Rural dispossession and the protection of surplus Populations. *Antipode*, 41(s1), 66–93. <https://doi.org/10.1111/j.1467-8330.2009.00717.x>
- Lindsey, P.A., Anderson, S.H., Dickman, A., et al. (2022). Shepherding Sub-Saharan Africa's Wildlife Through Peak Anthropogenic Pressure Toward a Green Anthropocene. *Annual Review of Environment and Resources*, 47(1), 91–121. <https://doi.org/10.1146/annurev-environ-120920-125536>
- Lindsey, P. A., Nyirenda, V. R., Barnes, J.I. et al. (2014). Underperformance of African Protected Area Networks and the Case for New Conservation Models: Insights from Zambia. *PLOS ONE*, 9(5), e94109. <https://doi.org/10.1371/journal.pone.0094109>
- Lindsey, P., Baghai, M., Bigurube, G., et al. (2021). Attracting Investment for Africa's Protected Areas by Creating Enabling Environments for Collaborative Management Partnerships. *Biological Conservation*, 255, 108979. <https://doi.org/10.1016/j.biocon.2021.108979>
- Local Government Act. (2019). Act No. 2 of 2019. Government of Zambia.
- Lubilo, R., & Child, B. (2010). The Rise and Fall of Community-based Natural Resource Management in Zambia's Luangwa Valley: An illustration of micro- and macro-governance issues. In Nelson, F. (Ed.), *Community Rights, Conservation and Contested Land*. 214–238. Routledge. <https://doi.org/10.4324/9781849775052-19>
- Luke, T.W. (1999). Ch 6: Environmentality as Green Governmentality. In É. Darier, *Discourses of the Environment*. Blackwell.
- Lyons, A. (2000). *An Effective Monitoring Framework for CBNRM: A Case Study of the ADMADE Program in Zambia*. Master's thesis, University of Florida.
- Makhmatova, S. (2025, January 28). Zambia's debt turnaround. *ISS African Futures*. <https://futures.issafrica.org/blog/2025/Zambias-debt-turnaround>
- Malasha, P. (2020). *Increasing Women's Participation in Community Resources Boards in Zambia: Outcomes and lessons learned from the election process*. Washington, DC: USAID

Integrated Land and Resource Governance Task Order under the Strengthening Tenure and Resource Rights II (STARR II) IDIQ.

Malasha, P. & Duncan, J. (2020). *Gender Assessment of the Wildlife Sector in Zambia*. Washington, DC: USAID Integrated Land and Resource Governance Task Order under the Strengthening Tenure and Resource Rights II (STARR II) IDIQ.

Manchisi, S., Kalikeka, M., Sihubwa, S., et al. (2021). *Copper for Development Report*. Part of a series to support the Government of Zambia to put pro-citizen governance systems in place. Oxfam International.

Marx, K. (1852). Ch 1: The Eighteenth Brumaire of Louis Bonaparte. In *The Eighteenth Brumaire of Louis Bonaparte*. eBook Collection, EBSCO Publishing.

Marx, K. (1867). *Capital: A Critique of Political Economy* (First edition, Vol. 1). <https://www.marxists.org/archive/marx/works/1867-c1/p1.htm>

Matakala, P.W., Kokwe, M., & Statz, J. (2015). *Zambia National Strategy to Reduce Emissions from Deforestation and Forest Degradation (REDD+)*. UN REDD Programme. <https://faolex.fao.org/docs/pdf/zam181907.pdf>

Matthews, S. (2017). Colonised Minds? Post-development theory and the desirability of development in Africa. *Third World Quarterly*, 38(12), 2650–2663. <https://doi.org/10.1080/01436597.2017.1279540>

McGahan, A. M. (2021). Integrating Insights from the Resource-based View of the Firm into the New Stakeholder Theory. *Journal of Management*, 47(7), 1734–1756. <https://doi.org/10.1177/0149206320987282>

McMichael, P. (2012). Ch 9: The Sustainability Project. In *Development and Social Change: A global perspective* (Fifth edition). 251–284. SAGE Publications, Inc.

Merk, C., Grunau, J., Riekhof, M.C., & Rickels, W. (2022). The Need for Local Governance of Global Commons: The example of blue carbon ecosystems. *Ecological Economics*, 201, 107581. <https://doi.org/10.1016/j.ecolecon.2022.107581>

Ministry of Green Economy & Environment. (n.d.). *Zambia Eastern Province Jurisdictional Sustainable Landscape Programme: Tackling climate change together*. World Bank BioCarbon Fund. https://ziflp.org.zm/wp-content/uploads/2024/02/Zambia_Eastern_Province_ISFL_ERPD.pdf

Ministry of National Development Planning. (2017). *Zambia Integrated Forest Landscape Project: Environmental and Social Management Framework*. https://ziflp.org.zm/download/SFG3033-ESMF_ZIFLP.pdf

Ministry of Tourism. (2024). *National Community Based Natural Resources Management Policy*. Government of Zambia.

Misachi, J. (2021, October 31). *Zambezi River*. WorldAtlas: Bodies of Water. <https://www.worldatlas.com/rivers/zambezi-river.html>

"Move to Dissolve of the Ministry of Chiefs and Traditional Affairs". (2021, September 25). *Lusaka Times*. <https://www.lusakatimes.com/2021/09/25/decentralisation-to-favour-chiefs-chilundika/>

Muchero, M.T., & Machethe, C.L. (2023). Sound and Cohesively Implemented Rural Development Strategies: A missing link in Africa's fight against poverty? *Development Southern Africa*, 40(3), 485–506. <https://doi.org/10.1080/0376835X.2021.2014785>

Müller, F. (2020). Can the Subaltern Protect Forests? REDD+ compliance, depoliticization and Indigenous subjectivities. *Journal of Political Ecology*, 27(1), 419-435. <https://doi.org/10.2458/v27i1.23198>

Mulungu, K. (2021). *The Luangwa Community Forests Project (LCFP) in Zambia: A review of the biggest REDD+ project in Africa financed by the Italian oil and gas company ENI*. Greenpeace. https://www.greenpeace.org/static/planet4-italy-stateless/2021/06/719f406b-gp-lcfp_scientific-report_english-version-1.pdf

Munro, L.T. (2025, February 4). Shutting down USAID: Five things to watch. *McLeod Group Blog*. <https://www.mcleodgroup.ca/2025/02/shutting-down-usaid-five-things-to-watch/>

Murphree, M. W. (1991). Communities as Resource Management Institutions. *Gatekeeper Series*, No. 36. International Institute for Environment & Development.

Murphree, M. W. (2000, May 31-June 4). *Boundaries and Borders: The question of scale in the theory and practice of common property management*. Paper presented at the Eighth Biennial Conference of the International Association for the Study of Common Property. www.ohchr.org/sites/default/files/Documents/Issues/Environment/SREnvironment/Call/Academics/MichaelMurphreeInputs3.pdf

Musonda, J. (2023). He Who Laughs Last Laughs the Loudest: The 2021 donchi-kubeba (don't tell) elections in Zambia. *Review of African Political Economy*, 50(175), 71–89. <https://doi.org/10.1080/03056244.2023.2190452>

Mwale, G. (2019). *The Elite Choice – 'Unpacking the elite' in Mukungule Chieftdom, Zambia*. Master's thesis, Swedish University of Agricultural Sciences.

Naidoo, R., Gerkey, D., Hole, D., et al. (2019). Evaluating the Impacts of Protected Areas on Human Well-being Across the Developing World. *Science Advances*, 5(4), 1–7. <https://doi.org/10.1126/sciadv.aav3006>

Naidoo, R., Weaver, L.C., De Longcamp, M., & Du Plessis, P. (2011). Namibia's Community-based Natural Resource Management Programme: An unrecognized payments for ecosystem services scheme. *Environmental Conservation*, 38(4), 445–453. <https://doi.org/10.1017/S0376892911000476>

Namukonde, N., & Kachali, R.N. (2015). Perceptions and Attitudes of Local Communities Towards Kafue National Park, Zambia. *Parks*, 21(2). <https://doi.org/10.2305/IUCN.CH.2014.PARKS-21-2NN.en>

Nelson, F. (Ed.). (2010). *Community rights, conservation and contested land: The politics of natural resource governance in Africa*. Routledge. eBook ISBN 9781849775052.

- Nelson, F., & Agrawal, A. (2008). Patronage or Participation? Community-based natural resource management reform in sub-Saharan Africa. *Development and Change*, 39(4), 557–585. <https://doi.org/10.1111/j.1467-7660.2008.00496.x>
- Nelson, F., Muyamwa-Mupeta, P., Muyengwa, S., et al. (2021). Progress or Regression? Institutional evolutions of community-based conservation in eastern and southern Africa. *Conservation Science and Practice*, 3(1). <https://doi.org/10.1111/csp2.302>
- North, D. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press. <https://doi-org.proxy.bib.uottawa.ca/10.1017/CBO9780511808678>.
- North, D. (2005). *Understanding the Process of Economic Change*. Princeton University Press.
- North, D.C. (2009). *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge University Press.
<http://ebookcentral.proquest.com/lib/ottawa/detail.action?docID=4949784>
- "North Luangwa, Zambia". (n.d.) *Legacy Landscapes Fund: Funding Conservation for Eternity*. <https://legacylandscapes.org/map/north-luangwa/>
- Oberlack, C., Tejada, L., Messerli, P., et al. (2016). Sustainable Livelihoods in the Global Land Rush? Archetypes of livelihood vulnerability and sustainability potentials. *Global Environmental Change*, 41, 153–171. <https://doi.org/10.1016/j.gloenvcha.2016.10.001>
- Olander, L., Mason, S., Patel, J., & Vedoveto, M. (2020). *Does external financing influence national commitments to biodiversity conservation?* Duke University, Conservation Measures Partnership, Wildlife Conservation Society, Gordon & Betty Moore Foundation. https://www.researchgate.net/publication/350020824_Does_External_Financing_Influence_National_Commitments_to_Biodiversity_Conservation
- Olmsted, P., Elgie, S., & Sushan. (2021). *Invest in Nature: Scaling conservation finance in Canada for a nature-smart economy*. Smart Prosperity Institute.
- OPHI & UNDP. (Oxford Poverty & Human Development Initiative; UN Development Programme). (2023). *Global Multidimensional Poverty Index 2023: Unstacking global poverty—Data for high-impact action*. <https://hdr.undp.org/content/2023-global-multidimensional-poverty-index-mpi#/indicies/MPI>
- Osborne, T., & Shapiro-Garza, E. (2018). Embedding Carbon Markets: Complicating commodification of ecosystem services in Mexico's forests. *Annals of the American Association of Geographers*, 108(1), 88–105. <https://doi.org/10.1080/24694452.2017.1343657>
- Ostrom, E. (2010). Beyond Markets and States: Polycentric governance of complex economic systems. *American Economic Review*, 100(3), 641–672.
- Ostrom, E., Burger, J., Field, C.B., & Norgaard, R.B. (1999). Revisiting the Commons: Local lessons, global challenges. *Science*, 284(5412), 278–287.
- Ostrom, E., Schroeder, L., & Wynne, S. (1993). *Institutional Incentives and Sustainable Development: Infrastructure policies in perspective*. Avalon Publishing.

- O'Sullivan, R., Pearson, T., Estrada, M., et al. (2024, January 2). *REDD can be High Quality: Here's how*. Ecosystem Marketplace. <https://www.ecosystemmarketplace.com/>
- Overy, N., & Sibeko, T. (2023, October 2). Carbon offsets are a disaster in the making for Africa. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2023-10-02-licence-to-pollute-carbon-offsets-are-a-disaster-in-the-making-for-africa/>
- Parker, C., Mitchell, A., Trivedi, M., et al. (2009). *The Little REDD+ Book*. Global Canopy.
- Pickering, J., Coolsaet, B., Dawson, N., et al. (2022). Ch 8: Rethinking and upholding justice and equity in transformative biodiversity governance. In Visseren-Hamakers, I. & Kok, M. (Eds.), *Transforming Biodiversity Governance*. 155–178. Cambridge University Press.
- Plummer, R., Crona, B., Armitage, D., et al. (2012). Adaptive Comanagement: A systematic review and analysis. *Ecology & Society*, 17(3). <http://dx.doi.org/10.5751/ES-04952-170311>
- PMRC. (Policy Monitoring & Research Centre). (2023, October 17). *Zambia's Path to Debt Recovery: A crucial milestone*. <https://pmrczambia.com/wp-content/uploads-2023-10-pmrc-press-statement-zambias-path-to-debt-recovery-a-crucial-milestone-pdf/>
- Pressman, J.L., & Wildavsky, A.B. (1984). *Implementation: How great expectations in Washington are dashed in Oakland: or, why it's amazing that federal programs work at all, this being a saga of the Economic Development Administration as told by two sympathetic observers who seek to build morals on a foundation of ruined hopes* (Third edition). University of California Press.
- Rajkotwalla, M. (2024, February 22). The Value Chain Curse in Zambia: Why a copper powerhouse struggles to prosper. *Mining Magazine*. <https://www.miningmagazine.com/africa/news/4177226/value-chain-curse-zambia-copper-powerhouse-struggles-prosper>
- Ramalingam, B., Laric, M., & Primrose, J. (2014). *From Best Practice to Best Fit: Understanding and navigating wicked problems in international development*. Overseas Development Institute.
- Ramutsindela, M., Matose, F., & Mushonga, T. (Eds.). (2022). *The Violence of Conservation in Africa: State, Militarization and Alternatives*. Edward Elgar Publishing. <https://www.elgaronline.com/edcollbook/edcoll/9781800885608/9781800885608.xml>
- Rawls, J. (1971). *A Theory of Justice: Original Edition*. Harvard University Press. <https://doi.org/10.2307/j.ctvjf9z6v>
- Rendlen, B., & Uzsoki, D. (2021). *Mapping the Landscape for a Nature Economy*. Luc Hoffmann Institute. <https://www.iisd.org/publications/report/mapping-landscape-nature-economy>
- Richards, J.A., Ghosal, R., Mwale, B., et al. (2023). *Standing in Solidarity with Those on the Frontlines of the Climate Crisis: A loss and damage package for COP28*. UUSC. <https://www.lossanddamagecollaboration.org/publication/standing-in-solidarity-with-those-on-the-frontlines-of-the-climate-crisis-a-loss-and-damage-package-for-cop-28>

- Ritchie, H. (2021). *Deforestation and Forest Loss*. OurWorldinData.Org. <https://ourworldindata.org/deforestation>
- Robbins, P. (2012). *Political Ecology: A critical introduction*. (Second edition). J. Wiley & Sons, Ltd.
- Robbins, P., Hintz, J., & Moore, S.A. (2014). *Environment and Society: A critical introduction*. John Wiley & Sons, Ltd.
- Rocheleau, D. E. (2008). Political Ecology in the Key of Policy: From chains of explanation to webs of relation. *Geoforum*, 39(2), 716–727. <https://doi.org/10.1016/j.geoforum.2007.02.005>
- Rouse, E., Reinecke, J., Ravasi, D., et al. (2025). Making a Theoretical Contribution with Qualitative Research. *Academy of Management Journal*, 68(2), 257–266. <https://doi.org/10.5465/amj.2025.4002>
- Rwelengera, B. M. (2025). Rendering Homogenous and Incompatible: Pastoral grazing in Tanzania's village land forest reserves. *Journal of Political Ecology*, 32(1). 5948. <https://doi.org/10.2458/jpe.5948>
- Scanlon, L.J., & Kull, C.A. (2009). Untangling the Links between Wildlife Benefits and Community-based Conservation at Torra Conservancy, Namibia. *Development Southern Africa*, 26(1), 75–93. <https://doi.org/10.1080/03768350802640107>
- Schlosberg, D. (2004). Reconceiving Environmental Justice: Global movements and political theories. *Environmental Politics*, 13(3), 517–540. <https://doi.org/10.1080/0964401042000229025>
- Scott, J. C. (1985). *Weapons of the Weak: Everyday Forms of Peasant Resistance*. Yale University Press. <https://www.jstor.org/stable/j.ctt1nq836>
- Setyowati, A.B. (2020). Governing the Ungovernable: Contesting and reworking REDD+ in Indonesia. *Journal of Political Ecology*, 27(1), 456–475. <https://doi.org/10.2458/v27i1.23185>
- Sikor, T. (Ed.). (2013). *The Justices and Injustices of Ecosystem Services*. Routledge. <https://doi.org/10.4324/9780203395288>
- Simon, D., Gómez, O.A., Gasper, D., et al. (2023). Global Social Challenges for Development Studies in the Crisis in the Anthropocene. *Global Social Challenges Journal*, 2(2), 229–246. <https://doi.org/10.1332/27523349Y2023D000000004>
- Simon, J. (2024, May 2). *On Today's ICVCM Approval of Verra's Landmark Verified Carbon Standard Program*. Verra. <https://verra.org/on-todays-icvcm-approval-of-verras-landmark-verified-carbon-standard-program/>
- Simonet, G., Bos, A., Duchelle, A., et al. (2018). Ch 10: Forests and Carbon—The impacts of local REDD+ initiatives. In Angelsen, A., et al (Eds.), *Transforming REDD+: Lessons and new directions*. 117–130. Center for International Forestry Research.

- Sjöstedt, M. (2013). Aid Effectiveness and the Paris Declaration: A mismatch between ownership and results-based management. *Public Administration and Development*, 33(2), 143–155. <https://doi.org/10.1002/pad.1645>
- Smith, N. (2007). Nature as Accumulation Strategy. *Socialist Register*, 43. <https://socialistregister.com/index.php/srv/article/view/5856>
- Snyman, S., & Bricker, K. S. (2019). Living on the Edge: Benefit-sharing from protected area tourism. *Journal of Sustainable Tourism*, 27(6), 705–719. <https://doi.org/10.1080/09669582.2019.1615496>
- Snyman, S., & Mwale, C. (2022). *State of the Wildlife Economy in Zambia*. African Leadership University. https://drive.google.com/file/d/1cOYd7rhBEF_TBifJIG9b7vj9bNWZzAzB/view
- Snyman, S., Sumba, D., Vorhies, F., et al. (2021). *State of the Wildlife Economy in Africa*. African Leadership University. https://drive.google.com/file/d/1p3MwZpUNJuQEuRPt3IM9wOFA_8Jwamwp/view
- "Social-Ecological Justice". (2025, March 25). *Sustainability Directory*. <https://pollution.sustainability-directory.com/term/social-ecological-justice/>
- "Statement to Voluntary Carbon Market Stakeholders". (2023, September 19). Verra. <https://verra.org/statement-vcn-stakeholders-latest-guardian-attack/>
- Statista. (2023, June 27). *Ten countries with the largest forest area in Africa as of 2020*. <https://www.statista.com/statistics/1286758/countries-with-largest-forest-area-in-africa/>
- Störmer, N., Weaver, L.C., Stuart-Hill, G., et al. (2019). Investigating the Effects of Community-based Conservation on Attitudes towards Wildlife in Namibia. *Biological Conservation*, 233, 193–200. <https://doi.org/10.1016/j.biocon.2019.02.033>
- Sultana, F. (2019). Decolonizing Development Education and the Pursuit of Social Justice. *Human Geography*, 12(3), 31–46. <https://doi.org/10.1177/194277861901200305>
- Swanson, D., & Bhadwal, S. (Eds.). (2009). *Creating Adaptive Policies: A guide for policymaking in an uncertain world*. SAGE Publications India Pvt. Ltd. <https://doi.org/10.4135/9788132108245>
- "Utilities: Antidote for a Smokestack". (1988, October 24). *Time Magazine*. <https://content.time.com/time/subscriber/article/0,33009,968736,00.html>
- Tobin-de la Puente, J., & Mitchell, A. (Eds.). (2021). *The Little Book of Investing in Nature—A simple guide to financing life on Earth*. (First edition). Global Canopy.
- UN. (United Nations). (1998). *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. <https://unfccc.int/resource/docs/convkp/kpeng.pdf>
- UN Environment Assembly. (2022). *Nature-based Solutions for Supporting Sustainable Development*. <https://wedocs.unep.org/bitstream/handle/20.500.11822/39864/NATURE-BASED%20SOLUTIONS%20FOR%20SUPPORTING%20SUSTAINABLE%20DEVELOPMENT.%20English.pdf?sequence=1&isAllowed=y>

"UN Conference on Environment and Development". (1992). United Nations | Conferences. <https://www.un.org/en/conferences/environment/rio1992>

UNEP. (UN Environment Programme). (1992). *Convention on Biodiversity*. <https://www.cbd.int/doc/legal/cbd-en.pdf>

UNEP. (UN Environment Programme). (2011). *Strategic Plan for Biodiversity 2011—2020 and the Aichi Targets*. Secretariat of the Convention on Biological Diversity. <https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf>

UNEP. (UN Environment Programme). (2021, April 20). *Deforestation | UNEP*. <https://www.unep.org/resources/factsheet/deforestation>

UNEP. (UN Environment Programme). (2023). *State of Finance for Nature 2023: The big nature turnaround - repurposing \$7 trillion to combat nature loss*. <https://doi.org/10.59117/20.500.11822/44278>

UNFCCC. (UN Framework Convention on Climate Change). (2010). *Report of the 15th session of the COP held in Copenhagen 7-19 December 2009*.

UNFCCC. (UN Framework Convention on Climate Change). (2016). *Report of the Conference of the Parties on its 21st session, held in Paris 30/11—13/12/2015*.

"Verra Launches New Era of Forest Protection." (2023, November 27). Verra. <https://verra.org/verra-launches-new-era-of-forest-protection-with-transformative-redd-methodology/>

"Verified Carbon Standard". (n.d.). Verra. <https://verra.org/programs/verified-carbon-standard/>

Vincent, S., & O'Mahoney, J. (2018). Critical Realism and Qualitative Research: An Introductory Overview. In Cassell, C., Cunliffe, A., & Grandy, G. *The SAGE Handbook of Qualitative Business and Management Research Methods: History and traditions*. 201-216. SAGE Publications Ltd. <https://doi.org/10.4135/9781526430212.n13>

Visseren-Hamakers, I.J., & Kok, M.T.J. (Eds.). (2022). *Transforming Biodiversity Governance*. Cambridge University Press.

Weaver, P. (2007, April 15-18). *The Origins of Modern Project Management*. Presented at Fourth Annual PMI College of Scheduling Conferences, Vancouver, Canada. https://mosaicprojects.com.au/PDF_Papers/P050_Origins_of_Modern_PM.pdf

Weller, S.C., Vickers, B., Bernard, H. R., et al. (2018). Open-ended interview questions and saturation. *PLOS ONE*, 13(6), e0198606. <https://doi.org/10.1371/journal.pone.0198606>

Williamson, J. (2004, September 24-25). *A Short History of the Washington Consensus*. Conference paper for 'From the Washington Consensus towards a New Global Governance'. <https://doi.org/10.1093/acprof:oso/9780199534081.001.0001>

Williamson, O. E. (2000). The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature*, 38(3), 595–613. <https://doi.org/10.1257/jel.38.3.595>

World Bank. (2017). *Zambia Integrated Forest Landscape Project*. World Bank Group. <https://documents1.worldbank.org/curated/en/951451492698919112/pdf/Zambia-Forest-PAD-04182017.pdf>

World Bank. (2023). *State and Trends of Carbon Pricing 2023*. doi: 10.1596/978-1-4648-2006-9

World Economic Forum. (2025). *Global Risks Report 2025* (Twentieth edition). https://reports.weforum.org/docs/WEF_Global_Risks_Report_2025.pdf

Yin, R.K. (2018). *Case Study Research and Applications: Design and methods* (Sixth edition). SAGE Publications, Inc.

"Zambia Deforestation Rates & Statistics". (n.d.). Global Forest Watch. <https://www.globalforestwatch.org/dashboards/country/ZMB?category=undefined>

"Zambia's Best-kept Secret". (n.d.). North Luangwa Conservation Programme. Linking Livelihoods & Landscape. <https://northluangwa.org/>

ZamStats. (Zambia Statistics Agency). (2024). *2022 Living Conditions Monitoring Survey*. www.zamstats.gov.zm/publications/

Zambia Wildlife Act. (2015). Act No. 14 of 2015. Government of Zambia.

Annexures

Annexure A: Research affiliation



THE UNIVERSITY OF ZAMBIA DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road Campus | P.O. Box 32379 | Lusaka 10101 | Tel: +260-211-290 258/291 777
Fax: (+260)-211-290 258/253 952 | E-mail: director.dr@unza.zm | Website: www.unza.zm

Nationality- AMERICAN- Passport Number: 673759187- Expiry Date: 28th March, 2031

, Valid Until 28.03.2031

31st March, 2023,

Dr. Kathleen Marie Bergs,

Permanent Address:

2Morton Cottage,
Stanford, 7210,
SOUTH AFRICA.

Current Address:

Mann Avenue,
Unit 213,
Ottawa,
ONKIN6Y8,
CANADA.

APPLICATION FOR RESEARCH AFFILIATION: DR. KATHLEEN MARIE BERGS,

I am pleased to inform you that the University of Zambia, through the Directorate of Research and Graduate Studies (UNZA DRGS) has approved your application for research affiliation. You have been affiliated to the School of Natural Sciences in the Geography and Environmental Studies Department from 2nd February, 2023 to 31st May, 2025. This will enable you to conduct research entitled "*Bridging the Conservation Finance Gap: In search of market mechanisms that deliver sustainability and ecological justice*".

As a Research Affiliate at the University of Zambia you are obliged to contribute by participating in research seminars and conferences, depositing copies of research notes (including tapes, photos, etc.) in the University Library. You are also required to submit periodic reports on the work being carried out.

Note that you are expected to deposit in the University Library one copy of any publication arising from work carried out during the period of affiliation and to acknowledge the assistance of the University in every such publication.

You are also required to apply for ethical clearance with the University of Zambia Research Ethics Committee before you proceed with your research here in Zambia.

I wish you every success in your research.

Yours sincerely,

Mrs. Wilma S. Nchito (PhD)

DIRECTOR – DIRECTORATE OF RESEARCH AND GRADUATE STUDIES (DRGS)

Cc Assistant Director – Directorate of Research and Graduate Studies
 Dean – School of Education
 Head – Department of Primary Education
 Assistant Registrar – Directorate of Research and Graduate Studies (Research)
 Senior Administrative Officer – Directorate of Research and Graduate Studies (Research Affiliation)

Annexure B: Ethics clearance – University of Ottawa

Université d'Ottawa

University of Ottawa

Office of Research Ethics and Integrity

]

CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number

S-02-23-8757

Titre du projet / Project Title

Bridging the Conservation Finance Gap: In search of market mechanisms that deliver sustainability and ecological justice

Type de projet / Project Type

Thèse de doctorat / Doctoral thesis

Statut du projet / Project Status

Renouvelé / Renewed

Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)

27/03/2023

Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)

26/03/2026

Équipe de recherche / Research Team

Chercheur /

Researcher	Affiliation	Role
Kathleen BERGS	Ecole de développement international et mondialisation / School of International Development and Global Studies	Chercheur Principal / Principal Investigator
Lauchlan MUNRO	Ecole de développement international et mondialisation / School of International Development and Global Studies	Superviseur / Supervisor

Conditions spéciales ou commentaires / Special conditions or comments 50, rue Cumberland, pièce 154 550 Cumberland Street, Room 154 Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada 613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

Université d'Ottawa

Bureau d'éthique et d'intégrité de la recherche
19/02/2025

University of Ottawa

Office of Research Ethics and Integrity

Le Comité d'éthique de la recherche (CER) de l'Université d'Ottawa, opérant conformément à l'Énoncé de politique des Trois conseils (2014) et toutes autres lois et tous règlements applicables, a examiné et approuvé la demande d'éthique du projet de recherche ci-nommé.

L'approbation est valide pour la durée indiquée plus haut et est sujette aux conditions énumérées dans la section intitulée "Conditions Spéciales ou Commentaires". Le formulaire « Renouvellement ou Fermeture de Projet » doit être complété quatre semaines avant la date d'échéance indiquée ci-haut afin de demander un renouvellement de cette approbation éthique ou afin de fermer le dossier.

Toutes modifications apportées au projet doivent être approuvées par le CER avant leur mise en place, sauf si le participant doit être retiré en raison d'un danger immédiat ou s'il s'agit d'un changement ayant trait à des éléments administratifs ou logistiques du projet. Les chercheurs doivent aviser le CER dans les plus brefs délais de tout changement pouvant augmenter le niveau de risque aux participants ou pouvant affecter considérablement le déroulement du projet, rapporter tout événement inattendu ou indésirable et soumettre toute nouvelle information pouvant nuire à la conduite du projet ou à la sécurité des participants.

Coordonnateur / COORDINATOR

Coordonnateur de l'éthique / Ethics Coordinator

The University of Ottawa Research Ethics Board, which operates in accordance with the Tri-Council Policy Statement (2014) and other applicable laws and regulations, has examined and approved the ethics application for the above-named research project.

Ethics approval is valid for the period indicated above and is subject to the conditions listed in the section entitled "Special Conditions or Comments". The "Renewal/Project Closure" form must be completed four weeks before the above-referenced expiry date to request a renewal of this ethics approval or closure of the file.

Any changes made to the project must be approved by the REB before being implemented, except when necessary to remove participants from immediate endangerment or when the modification(s) only pertain to administrative or logistical components of the project. Investigators must also promptly alert the REB of any changes that increase the risk to participant(s), any changes that considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project or the safety of the participant(s).

Pour/For Barbara GRAVES Président(e) du/ Chair of the Comité d'éthique de la recherche en sciences sociales et humanités /
Social Sciences and Humanities Research Ethics Board 550, rue Cumberland, pièce 154 550 Cumberland Street, Room 154
Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada 613-562-5387 • 613-562-5338 • ethique@uOttawa.ca
/ ethics@uOttawa.ca www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

Annexure C: Ethics clearance – University of Zambia



THE UNIVERSITY OF ZAMBIA DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road Campus | P.O. Box 32379 | Lusaka 10101 | Tel: +260-211-290 258/291 777 Fax:
(+260)-211-290 258/253 952 | E-mail: director.drgs@unza.zm | Website: www.unza.zm

APPROVAL OF STUDY

IORG No. 0005376
HSSREC IRB No. 00006464
REF NO. HSSREC-2023-MAR-018

19th April, 2024

Ms. Kathy Bergs
School of International Development and Global Studies
Faculty of Social Sciences (8036)
University of Ottawa
120 University Private, Ottawa, ON K1N 6N5,
CANADA

Dear Ms. Kathy Bergs

RE: “BRIDGING THE CONSERVATION FINANCE GAP: IN SEARCH OF MARKET MECHANISMS THAT DELIVER SUSTAINABILITY AND ECOLOGICAL JUSTICE”.

Reference is made to your submission of the protocol captioned above. The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.



REVIEW TYPE	ORDINARY REVIEW	APPROVAL NO. HSSREC:2024- APR – 018
Approval and Expiry Date	Approval Date: 26 th May, 2024	Expiry Date: 25 th May, 2025
Protocol Version and Date	Version - Nil.	25 th May, 2025
Information Sheet, Consent Forms and Dates	☐ English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

CONDITIONS OF APPROVAL

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.
- All protocol modifications must be approved by HSSREC prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.
- All protocol deviations must be reported to HSSREC within 5 working days.
- All recruitment materials must be approved by HSSREC prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. HSSREC will only approve a study for a period of 12 months.
- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.
- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSREC at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Documents received within 30 days after expiry will be labelled "late submissions" and will incur a penalty fee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO), both HSSREC and the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.
- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.
- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSREC in efficiently tracking and reporting on projects. Note that some

funding agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.

- A reprint of this letter shall be done at a fee.
- All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site addresses or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,

DR. J.I. Ziwa

**CHAIRPERSON THE UNIVERSITY OF ZAMBIA HUMANITIES AND SOCIAL SCIENCES
RESEARCH ETHICS COMMITTEE – IRB**

CC: Director, Directorate of Research and Graduate Studies

Assistant Director (Research), Directorate of Research and Graduate Studies

Assistant Registrar (Research), Directorate of Research and Graduate Studies

Annexure D: Participant information sheet



HSSREC FORM 1a

THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

Telephone: +260-211-290258/293937

P O Box 32379

Fax: +260-211-290258/293937 E-mail

Lusaka, Zambia

drgs@unza.zm

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

PARTICIPANT INFORMATION SHEET: COMMUNITIES

INTRODUCTION: Kathleen Bergs, Visiting Researcher from University of Ottawa, affiliated with University of Zambia

TITLE OF RESEARCH:

Bridging the Conservation Finance Gap: in search of market mechanisms that deliver sustainability and ecological justice

PURPOSE OF THE STUDY: Through my research I want to discover a wide range of stakeholder perspectives regarding

some of the conservation projects underway in the Luangwa Valley, such as the Luangwa Community Forests Project and the North Luangwa Conservation Program. My understanding will be developed by asking you to describe the strengths, weaknesses, opportunities and threats of the respective projects in your own words - what works well and what could perhaps be improved.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT: Key informants (project developer staff, government officials, donors/investors and traditional authorities) will be invited to participate. Communities that fall within affected chiefdoms will be selected for participation in one of two ways. Focus Group Discussions will be held with democratically elected governance structures, such as Community Resource Boards and Community Forest Management Groups. Individual households residing in villages represented by these structures will be randomly selected for interviews. Interviews will take approximately one hour and focus group discussions two hours.

CONFIDENTIALITY: We will not be sharing information about you to anyone outside the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and that information will be securely stored. We will not share your information with anyone although, if you have participated as part of a group, other group members may possibly do so.

VOLUNTARY PARTICIPATION AND WITHDRAWAL: Your participation in this research is entirely voluntary. It is your choice whether to participate or not. The choice you make will have no bearing on your job or any work-related evaluations or reports. You may change your mind later and stop participating, even if you agreed earlier. You may also choose not to answer certain questions and are free to say so if there is anything you would prefer not to discuss.

RISKS AND BENEFITS: If any of the questions are too personal or make you uncomfortable, you do not have to answer them. You will not personally benefit from this research but will be compensated for any travel costs you may incur. The knowledge that we get from this research will be shared with you as well as with participating communities (through the representative structures) and may enable future projects to involve communities more meaningfully.

Annexure E: Consent form – Focus group discussions

UNZAREC FORM 1b



THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

Telephone: +260-211-290258/293937
Fax: +260-211-290258/293937
E-mail: drgs@unza.zm

P. O. Box 32379
Lusaka, Zambia

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

CONSENT FORM: Focus Groups
(Translated into vernacular if necessary)

Bridging the Conservation Finance Gap:

TITLE OF RESEARCH: in search of market mechanisms that deliver sustainability and ecological justice

REFERENCE TO PARTICIPANT INFORMATION SHEET:

1. Make sure that you read the Information Sheet carefully, or that it has been explained to you to your satisfaction.
2. Your participation in this research is entirely voluntary, i.e. you do not have to participate if you do not wish to.
3. Should you agree to participate, you will also be asked whether you give permission for the discussion to be recorded. In addition, permission will be sought before taking any photos.
4. Refusal to take part in this discussion will involve no penalty or loss of services to which you are otherwise entitled.
5. If you decide to take part, you are still free to withdraw at any time without penalty or loss of services and without giving a reason for your withdrawal.
6. You may choose not to answer particular questions that are asked in the study. If there is anything that you would prefer not to discuss, please feel free to say so.
7. The information collected in this discussion will be anonymised and kept strictly confidential by the researcher and the translators, although it is understood that confidentiality within a discussion group is limited by its very nature.
8. If you choose to participate in this research study, your signed consent is required below before I proceed with the discussion group. Alternatively, you may provide verbal consent, which will be noted below.

VOLUNTARY CONSENT

I have read (or have had explained to me) the information about this research as contained in the Participant Information Sheet. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I now consent voluntarily to be a participant in this project and understand that I have the right to end the interview at any time, and to choose not to answer particular questions that are asked in the study.

My signature below says that I am willing to participate in this research:

Participant's name (Printed):

Participant's signature: Consent Date:

Researcher Conducting Informed Consent (Printed)

Signature of Researcher: Date:

If illiterate, participant to place thumb print in the box below and have the document witnessed by a literate witness of their choice.

Witness' name (Printed): Date:

Witness signature: Participant Thumbprint:

Annexure F: Focus group discussion guide

Focus group participants will be asked a similar set of questions to interviewees in order to develop a 360° perspective – a ‘chain of (polyphonic / unmerged) voices’ - which will reveal what the various stakeholders consider the strengths, weaknesses, opportunities and threats of the project or program.

SWOT Matrix	Helpful	Harmful
Internal	Strengths	Weaknesses
External	Opportunities	Threats

To guide discussion, the following questions / prompts may be utilized:

1. Strengths
 - 1.1 Describe in your own words what the benefits of this project are (noting that benefits can be monetary or non-monetary);
 - 1.2 How does this compare to other projects you may be involved with?
 - 1.3 What, if anything, sets this project apart?
 - 1.4 If communities support this project, why do they do so?
 2. Weaknesses
 - 2.1 Are there any aspects of the project you think could be improved?
 - 2.2 Were the communities’ needs taken into account in the design of the project?
 - 2.3 Was the process transparent?
 - 2.4 Are benefits being fairly shared?
- NB: The answers to these questions could obviously be strengths or weaknesses;
3. Opportunities
 - 3.1 How could the project be enhanced?
 - 3.2 Do you see opportunities to increase participation (perhaps by community members not yet involved)?
 - 3.3 Would additional training / skills development be helpful and, if so, in what way?
 - 3.4 Could increased opportunities to share lessons learned improve the project?
 4. Threats
 - 4.1 What are the biggest risks to the ongoing viability of the project?
 - 4.2 How might pressures from community members not currently receiving benefits affect the project?
 - 4.3 How are the effects of climate change being experienced (for example, protracted droughts, leading to increased risk of fire)?
 - 4.4 Do you see this as a long-term initiative? If so, for how long could it continue?

Embedded within this analysis will be a calculation of the degree of gender representation, as well as a discussion of its implications in each of the three domains of recognition, procedure and distribution.

The subsequent analysis will be able to contrast and compare these varied perspectives, to identify scope for improved communication, broadened participation, enhanced transparency and/or more equitable sharing of benefits.

Annexure G: Consent form – Interviews

UNZAREC FORM 1b



THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF RESEARCH AND GRADUATE STUDIES
HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

Telephone: +260-211-290258/293937
Fax: +260-211-290258/293937
E-mail: dres@unza.zm

P. O. Box 32379
Lusaka, Zambia

HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE

CONSENT FORM: Interviews

(Translated into vernacular if necessary)

Bridging the Conservation Finance Gap:

TITLE OF RESEARCH: in search of market mechanisms that deliver sustainability and ecological justice

REFERENCE TO PARTICIPANT INFORMATION SHEET:

1. Make sure that you read the Information Sheet carefully, or that it has been explained to you to your satisfaction.
2. Your participation in this research is entirely voluntary, i.e. you do not have to participate if you do not wish to.
3. Should you agree to participate, you may be asked whether you give permission for the interview to be recorded. In addition, permission will be sought before taking any photos.
4. Refusal to take part in the interview will involve no penalty or loss of services to which you are otherwise entitled.
5. If you decide to take part, you are still free to withdraw at any time without penalty or loss of services and without giving a reason for your withdrawal.
6. You may choose not to answer particular questions that are asked in the study. If there is anything that you would prefer not to discuss, please feel free to say so. Additionally, you are free to withdraw the data after the interview is complete.
7. The information collected in this interview will be kept strictly confidential and in an anonymised form.
8. If you choose to participate in this research study, your signed consent is required below before I proceed with the interview with you. Alternatively you may provide verbal consent for the interview, which will be noted below.

VOLUNTARY CONSENT

I have read (or have had explained to me) the information about this research as contained in the Participant Information Sheet. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I now consent voluntarily to be a participant in this project and understand that I have the right to end the interview at any time, and to choose not to answer particular questions that are asked in the study.

My signature below says that I am willing to participate in this research:

Participant's name (Printed):

Participant's signature: Consent Date:

Researcher Conducting Informed Consent (Printed)

Signature of Researcher: Date:

If illiterate, participant to place thumb print in the box below and have the document witnessed by a literate witness of their choice:

Witness' name (Printed)..... Date

Witness' signature Participant Thumbprint

Annexure H: Interview guide

All interviewees will be asked a similar set of questions in order to develop a 360° perspective – a ‘chain of (polyphonic / unmerged) voices’ - which will reveal what the various stakeholders consider the strengths, weaknesses, opportunities and threats of the respective mechanisms.

SWOT Matrix	Helpful	Harmful
Internal	Strengths	Weaknesses
External	Opportunities	Threats

To guide discussion, the following questions / prompts may be utilized:

1. Strengths – Describe the benefits (monetary or non-monetary) of the project / program.
 - 1.1 Project developers: Are you proud of this initiative? Why or why not?
 - 1.2 Government officials: In what way(s) do you feel legislation has enabled this initiative?
 - 1.3 Donors / Investors: Are you proud to be a supporter of this initiative? Why or why not?
 - 1.4 Traditional authorities: How do these benefits compare to other / previous initiatives?
 - 1.5 Community members: Do you receive benefits from this project and, if so, what are they?
2. Weaknesses – In what ways could the project / program be improved?
 - 2.1 Project developers: What do you know now that you wish you had known from the start? Is there anything you can do now to improve upon any aspects of this project?
 - 2.2 Government officials: Are there ways of bettering the enabling environment to improve upon project delivery? Are there other ways in which this initiative could be bettered?
 - 2.3 Donors / Investors: Would it be through improvements in implementation or in reporting?
 - 2.4 Traditional authorities: Do you feel community members are satisfied as a whole? Why?
 - 2.5 Community members: Were you consulted? Do you understand how benefits are shared? Do you feel the process and / or the distribution have been fair?

NB: The answers to these questions could obviously be strengths or weaknesses.

3. Opportunities – How could the project / program be enhanced?
 - 3.1 Project developers: Do you aspire to increase scale? Revenue? Benefits? If so, how?
 - 3.2 Government officials: How do you see the development of a jurisdictional approach affecting this project?
 - 3.3 Donors / Investors: What do you see as opportunities for scaling this initiative?
 - 3.4 Traditional authorities: Would there be ways to derive greater benefits for your people?
 - 3.5 Community members: Would you recommend this project to others? Why or why not?
4. Threats – What are the biggest risks to the ongoing viability of the project?
 - 4.1 Project developers: What would the development of a jurisdictional approach in Eastern Province mean for LCFP? Are there other risks (such as the studies questioning VERRA's methodology) that could undermine sustainability?
 - 4.2 Government officials: Do you see regional developments, such as the Community Leaders Network of Southern Africa, as complementary / synergistic or as fuelling competition?
 - 4.3 Donors / Investors: Is there anything that could cause you to reduce / withdraw support?
 - 4.4 Traditional authorities: Do you see this as a long-term initiative? If not, why not?
 - 4.5 Community members: Do the benefits you receive, if any, make this project worthwhile? If not, what would you consider a better use of the land?

The format of the interview will be semi-structured, in that initial responses will guide follow-up questions / prompts.