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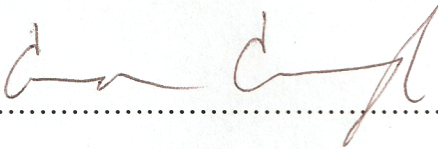
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*For Wilfred Felteau (1927-2010),
and all those who struggle to carve a livelihood from Mount Elgon's slopes.*

Declaration

I, Connor J. Cavanagh, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature: 

Date: 13 AUGUST 2012

Acknowledgements

I have immensely enjoyed the opportunity to write this thesis, and, as such, I am indebted to many people that have assisted me along the way.

First and foremost, I extend sincere thanks to my supervisor, Professor Pål Olav Vedeld, for his invaluable practical and intellectual guidance throughout the course of planning, researching, and drafting this thesis. Professor Vedeld's remarkable commitment to true interdisciplinarity, dialogue between distinct epistemologies, and academic rigour will influence this student for years to come.

In Norway, I especially thank all those involved with both the Protected Areas and Poverty in Africa (PAPIA) project and the wider Environmental Governance (ENGOV) research cluster for their support, guidance, and encouragement. Indeed, my experience in the country was greatly enriched through interaction with Tor Arve Benjaminsen, Espen Sjaastad, Hanne Svarstad, Ingrid Nyborg, David Tumusiime, Charlotte Nakakaawa, and Jón Geir Petursson. I am particularly thankful to Dr. Hanne Svarstad, for whom I feel enormously privileged to have worked as a research assistant at the Norwegian Institute for Nature Research (NINA). Similarly, I thank Dr. Charlotte Nakakaawa for her kind assistance in analysing quantitative data on benefit sharing distributions at Mount Elgon, and for her openness to collaboration with someone of my relative inexperience. To Hans Petter Wiken, Anja Sletten, Mukundi Mutasa, Liv Ellingsen, Ingunn Bohmann, Kenneth Lia Solberg, Tendai Chella, Ricarda Moll, and many others, I further say *tusen takk* for your friendship, good humour, and stimulating conversation.

In Uganda, I must first extend a resounding *weebale ssebo* to Mr. Bukenya Mohammed, the PAPIA project coordinator at Makerere University, who excellently facilitated my fieldwork for this thesis. I also thank Sarah Nadunga for her superb research assistance,

and Siraje Bogere for keeping us safe on Mount Elgon's infamously treacherous roads. In Mbale, I likewise send a warm *wan yala nabe* to the staff at the Uganda Wildlife Authority's Mount Elgon headquarters, who were enormously helpful and receptive of this project. I also thank my contacts in communities, CBOs, and NGOs throughout the Mount Elgon region – who will remain unnamed here for reasons of anonymity and security – but to whom I unreservedly express my gratitude for sharing their lives and struggles with me.

In Canada, Sweden, and around the world, I likewise wish to thank a number of others for their friendship, encouragement, information sharing, and intellectual engagement. First and foremost, I especially thank my parents, Brian and Charlene Cavanagh, for their enduring and unfailing support of my endeavours, as well as for understanding my need for solitude while completing this project. Further, in what is inevitably a partial list, I also extend my thanks to Dr. Terje Østigaard, Dr. David Himmelfarb, Ajak Ajang, the staff of the Nordic Africa Institute in Uppsala, Chris Lang, Tiffany Tong, Inga-Britt Isaksson Faris, Pal Kvaran, and Nikolaj Dreyer.

Finally, I would like to acknowledge generous financial and practical support from the Fritt Ord Foundation, the Nordic Africa Institute, the Protected Areas and Poverty in Africa (PAPIA) project, and the Department of International Environment and Development Studies (Noragric). Scholarships and research grants from all of the above enabled fieldwork for this thesis, but also – and perhaps even more importantly – provided invaluable encouragement and academic guidance. For both, I am deeply grateful.

Abstract

This thesis examines the manner in which the global context of anthropogenic environmental change influences the nature of conservation governance at one specific protected area: Mount Elgon National Park (MENP) in Uganda. In doing so, it presents three academic papers, each of which tests a widely held assumption in the literature on conservation and development. Utilized methods include semi-structured interviews, focus group discussions, ethnographic observation, content analyses, and archival research. Fieldwork was conducted between July and December 2011 at sites in both Kampala and throughout the Mount Elgon region.

Paper I finds that the ‘triple-win’ policy rhetoric of an integrated conservation and carbon offset project at MENP contradicted management realities both during its tenure and after its collapse. Although external auditors expected the project to sequester 3.73 million tons of CO₂ equivalent between 1994 and 2034, conflicts forced the scheme to cease reforestation in 2003. Examining the efficacy of attempts to avoid such conflicts, Paper II discovers enormous inequalities in both the spatial and the temporal distribution of shared revenue and other ‘benefits’ redistributed from biodiversity conservation. To highlight a salient example, the worst-off park neighbours received assistance equivalent to only 0.0085 USD per district resident over a nine-year period. Consequently, through the lens of ‘guerrilla agriculture’, Paper III examines the strategies that local people employ to protest the perceived illegitimacy of the policy arrangements that uphold these inequities. It reconstructs nonviolent-symbolic, militant, discursive-representational, and formal-legal types of resistance, which enable local people to raise monetary incomes, when necessary, and also to withdraw into subsistence cultivation when terms of trade become exploitative or undesirable.

Transitioning from diagnosis to prescription, the thesis concludes by offering a set of recommendations for addressing the problems outlined in the above papers. Collectively, these recommendations constitute an *enforced sustainability* approach to conservation at MENP. The model seeks to minimize arbitrary divisions between ‘human’ and ‘nonhuman’ territory, and instead emphasizes restricted and sustainable use. Collaborative Resource Management Agreements (CRMAs) form the core of this approach, albeit in substantively revised form. These will grant local residents inalienable rights to noncommercial resource access, which are linked to existing customary land tenure, and greater ownership over enforcement processes. Carbon finance and alternative funding mechanisms are also considered, although only in ways that synergize with customary land tenure and economies. By implementing these measures, it is maintained that all stakeholders will have achieved progress toward developing a more equitable model for conservation in the Anthropocene.

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Abbreviations and Acronyms

ANT	Actor-Network Theory
AoSIS	Alliance of Small Island States
BCU	Bugisu Cooperative Union
BRICS	Brazil, Russia, India, China, South Africa
BSA	Benefit-Sharing Arrangement
CBC	Community Based Conservation
CBD	Convention on Biological Diversity
CBNRM	Community Based Natural Resource Management
CBO	Community Based Organization
CDM	Clean Development Mechanism
CFC	Chlorofluorocarbon
CI	Conservation International
COP	Conference of the Parties
CPR	Common-Pool Resource
CRMA	Collaborative Resource Management Agreement
D-M	Deductive-Nomological Method
DDT	Dichlorodiphenyltrichloroethane
DfID	Department for International Development (UK)
ENGO	Environmental Nongovernmental Organization
FACE	Forest Absorbing Carbon Emissions Foundation
FAO	Food and Agriculture Organization
FPCF	Forest Carbon Partnership Facility
FPIC	Free, Prior, and Informed Consent
FSC	Forest Stewardship Council
G-20	Group of Twenty
G-8	Group of Eight
GEF	Global Environment Facility
GoU	Government of Uganda
GTZ	German Technical Cooperation
H-D	Hypothetico-Deductive Method
ICS	International Commission on Stratigraphy
ILO	International Labour Organization
IO	International Organization
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature
LC	Local Council
LDC	Least Developed Country
LRD	Land Reform Decree
LVBC	Lake Victoria Basin Commission

MECDP	Mount Elgon Conservation and Development Project
MENP	Mount Elgon National Park
MERECp	Mount Elgon Regional Ecosystem Conservation Programme
NAPE	National Action Plan for the Environment
NEMA	National Environmental Management Authority (Uganda)
NFA	National Forestry Authority (Uganda)
NGO	Nongovernmental Organization
NORAD	Norwegian Agency for Development Cooperation
NRA	National Resistance Army
NRM	National Resistance Movement
NSM	New Social Movement
PA	Protected Area
PAPIA	Protected Areas and Poverty in Africa Project
PES	Payment for Ecosystem Services
RDC	Resident District Commissioner
REDD	Reducing Emissions from Deforestation and Forest Degradation
RS	Revenue Sharing
SES	Socio-Ecological System
SGS	Société Général de Surveillance
Sida	Swedish International Development Agency
SIS	Small Island State
STS	Science and Technology Studies
TBNRM	Transboundary Natural Resource Management
TBPAM	Transboundary Protected Area Management
TNC	The Nature Conservancy
UN-	United Nations Office for the Least Developed Countries, Landlocked Developing
OHRLLS	Countries, and Small Island Developing States
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNP	Uganda National Parks
UPDF	Uganda People's Defence Forces
USAID	United States Agency for International Development
UWA	Uganda Wildlife Authority
VCM	Voluntary Carbon Market
WCED	World Commission on Environment and Development
WCMC	World Conservation Monitoring Centre
WCS	World Conservation Society
WTO	World Trade Organization
WWF	World Wide Fund for Nature

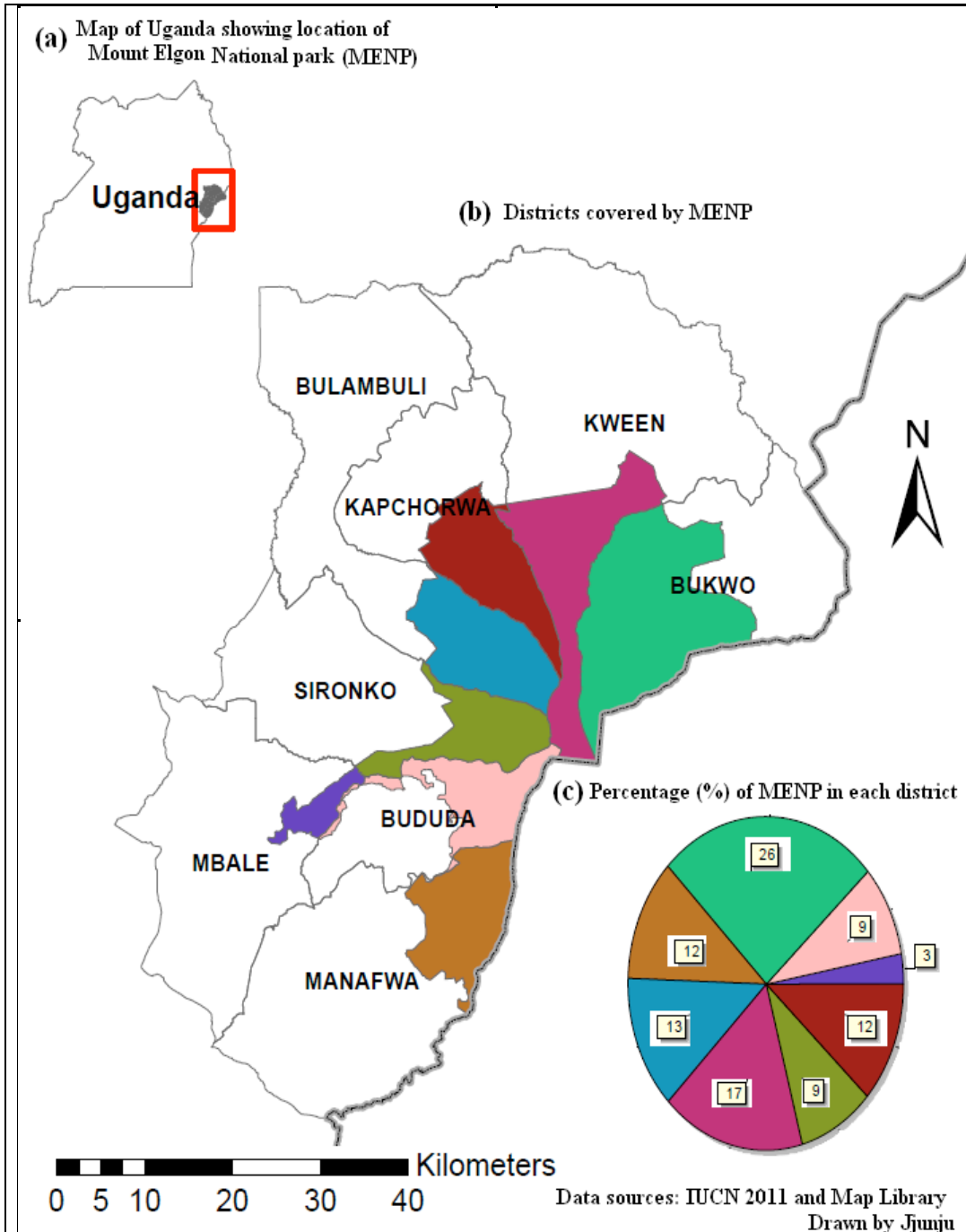


Figure 0-1: Location of Mount Elgon National park (a) in Uganda, (b) district coverage and (c) proportion of park area in each district as of 2010.

Source: Nakakaawa (forthcoming 2012). © Charlotte Nakakaawa, reprinted with permission.

Preface: Dark Ecology

“Destroying Nature Unleashes Infectious Diseases,” declares Jim Robbins’ (2012) recent headline in *The New York Times*. “AIDS, Ebola, West Nile, SARS, Lyme disease and hundreds more don’t just happen,” he asserts, “[t]hey are the result of things people do to nature.” Recent decades have seen a number of such diseases cross the purported divide between ‘Nature’ and ‘Society’ from primates (Ebola and HIV/AIDS), livestock (e.g. ‘Swine Flu’), and via more conventional vectors like mosquitoes (e.g. West Nile virus). At the time of writing, yet another outbreak of Ebola ravages Uganda, sowing fear amongst millions and disrupting economies on a scale vastly disproportionate to the microbial reach of the virus itself.

Yet, one cannot help but notice the tone of Robbins’ prose, delivered almost in a conspiratorial hush, as though he shares a hitherto undisclosed secret with the reader. For many of us, the secret he offers does not concern epidemiology, but rather the character of ecology itself. Decades ago, Arne Næss (1973) published an article in the Norwegian journal *Inquiry*, in which he famously argues that we should draw a distinction between ‘shallow’ and ‘deep’ forms of ecology. Whereas shallow ecologists merely “fight against pollution and resource depletion”, Næss (1973: 95-96) contends, deep ecologists hold the principle of “biospherical egalitarianism,” where – ostensibly like academic ecologists themselves – one acquires a “deep-seated respect, or even veneration, for ways and forms of life.”

In developing an argument about the changing ‘nature’ of biodiversity conservation, this thesis concurs with Timothy Morton (2007: 181-197, 2010: 59-97) that emerging forms of human-nonhuman relations now challenge both ‘shallow’ and ‘deep’ forms of ecology. Differently put, the awareness that one’s hemorrhagic fever arises from a profound interrelation with primates, bats, and Ebola, as Robbins (2012) alludes, is not one of “veneration”, but rather one of abject *horror*. The ‘depth’ of the connection is perfectly clear; only the mysticism, the idealism, and the romanticism are absent. This is not a shallow ecology; this is a *dark* ecology, an *uncanny* ecology – one well suited for the Anthropocene, as the ensuing chapters will propose.

**PART A:
PROTECTED AREAS AND THE GLOBALIZATION OF
ECOLOGICAL RISK**



Manafwa District, Mount Elgon region, Uganda: Three men emerge from their mud-brick home after watching the BBC news on satellite television. Increasingly, local struggles both for- and against biodiversity conservation at Mount Elgon are situated in relation to global environmental change processes (Photo: Connor Cavanagh).

1.0 Introduction

Talk about climate change is not an ideological luxury but a reality. All of the industrialized countries, especially the big ones, bear responsibility for the global warming crisis.

- Osama bin Laden, via *Al Jazeera*, cited in Boykoff (2011: 147).

1.1 Conservation in the Anthropocene

“How fleeting are the wishes and efforts of man!” Once exclaimed Charles Darwin (2006 [1859]: 53), writing *On the Origin of Species* in the mid-nineteenth century. “[H]ow short his time! [A]nd consequently how poor his products be, compared with those accumulated by nature during whole geological periods.” Reading these words in 2012, I am struck by a deep sense of unease. And I am not alone. More broadly, this uncanny sense of ecological malaise pervades the onset of the Anthropocene, our nascent geological epoch.¹ Rich and poor, young and old, cosmopolitan and indigenous: Most now lament both global climatic change and its concomitant processes of extreme weather volatility, ecosystem service degradation, and biodiversity decline. In the words of the Nobel chemistry laureate Paul J. Crutzen (2002: 23), who coined the title of the likely successor to our current geological epoch, it thus,

“seems appropriate to assign the term ‘Anthropocene’ to the present, in many ways human-dominated, geological epoch, supplementing the Holocene - the warm period of the past 10-12 millennia. The Anthropocene could be said to have started in the latter part of the eighteenth century, when analyses of air trapped in polar ice showed the beginning of growing global concentrations of carbon dioxide and methane. This date also happens to coincide with James Watt’s design of the steam engine in 1784.”

¹ For readers interested in the concept of ‘dark’ or ‘uncanny’ ecology, please see Morton’s *Ecology without Nature* (2007: 181-197) and *The Ecological Thought* (2010: 59-97). To be clear, Morton (2007: 204) asserts that this line of argument is not intended as a critique of Næss (1973), *per se*, but rather a reformulation or revision of certain aspects of his thought.

While the International Commission on Stratigraphy – the ultimate overseer of the Earth’s geological timescale – deliberates on whether to formally announce a transition to the Anthropocene (Jones 2011), isolated pockets of scepticism admittedly still exist regarding the influence of humans on the Earth’s bio-geophysical systems. Conversely, both their exclusion from high-level fora and failure to recruit widespread support speak volumes about the overall credibility of environmental change denial. In an era where even notorious figures such as the late Osama bin Laden express apprehension about environmental problems, most debates now centre on the exact nature of these processes and on the formulation of appropriate responses to them. Indeed, few seriously dispute that anthropogenic environmental change increasingly poses a grave – albeit asymmetrically experienced – range of threats to our world’s economic, political, and social institutions (Bulkeley 2001; Roberts and Parks 2006; IPCC 2011; Sayre 2012).

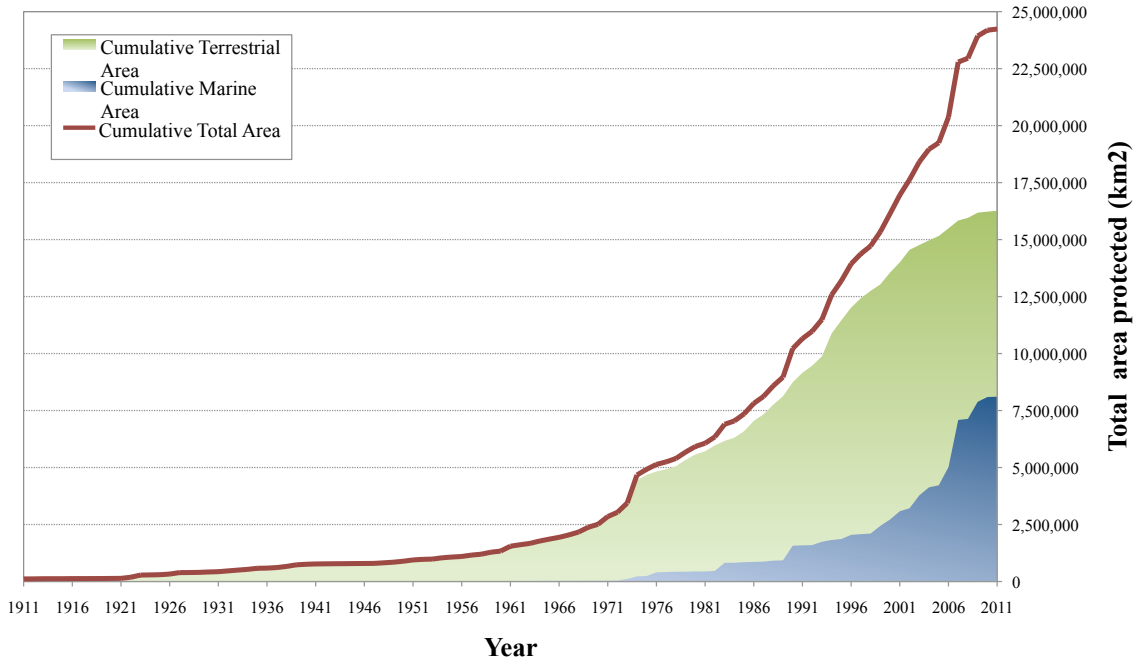
As such, while some geologists might contest its “epochal status” (Lorimer 2012), the Anthropocene provides us with a useful concept for explicating the ways in which the boundary between “environmental studies” and “development studies” has perhaps become more blurred than ever before. Within the social sciences, for example, a notable research programme asserts that recent trends in international development constitute processes of “reflexive modernization” (Beck et al. 1994; Beck 2009) – or more specifically – “ecological modernization” (Buttel 2000; Seippel 2000; Mol 2001; Bailey et al. 2011). These researchers contend that, instead of being driven by their own innate logic, changes in human institutions now frequently occur as unavoidable responses to the social and ecological risks that we have ourselves created (cf. Ehlers and Krafft 2006; Steffen et al. 2011a; Glaser et al. 2012). Arguably, where the impetus behind industrial development was once implicit and driven by both the creation and (limited) distribution of wealth, the economic, ecological, and social externalities of the resulting world system now challenge its own functioning (Rockström et al. 2009; Biermann et al. 2012). Literally, the *by-products* of industrial production – chiefly methane and carbon dioxide – have catalysed many of the disastrous changes in climate and ecosystems that continue to

unfold. As a consequence, the capacity for human governments and organizations to pursue objectives based upon freely chosen values is limited by the material nature of these emerging forms of risk.

Crucially, as this new ecological consciousness grows, so too does the realization that protected areas (PAs) must constitute an integral part of the international community's response to both global climate and environmental change. In some ways, this is not a new phenomenon – policymakers have long framed ecosystem conservation as an essential component in the pursuit of 'sustainable development' (WCED 1987: para. 55). Increasingly though, governments, NGOs, and IOs situate conservation not in relation to sustainable development, *per se*, but in relation to the mitigation of- and adaptation to different forms of ecological *risk* – be they local, regional, or global (IUCN 2006; Giddens 2009; IPCC 2011; UNDP 2011). This is especially true in regions like Sub-Saharan Africa, which houses 33 of the world's 48 least developed countries (LDCs), and whose populations are thus most vulnerable to fluctuations in both the availability and quality of crucial ecosystem services (UNDP 2011: 50; UN-OHRLLS 2012). In such circumstances, many policymakers increasingly perceive PAs as a form of biophysical insurance against various disasters, hazards, and crises, rather than as a potential source of 'development' from some pre-existing socioeconomic baseline (Agrawal et al. 2008; Dudley et al. 2010). Consequently, the Anthropocene context denotes that the effective governance of human populations, particularly in the developing world, is now more than ever tied to the conservation and sustainable management of their physical environment.

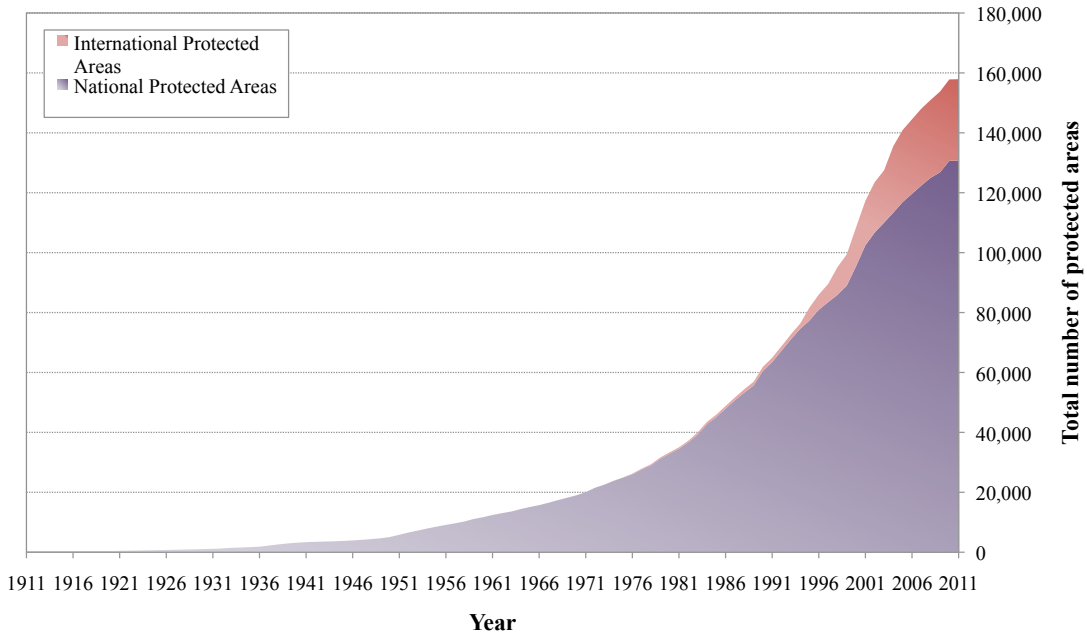
And yet, the current state of global biodiversity conservation presents us with a glaring paradox. Since the early twentieth century, both the number and scale of protected areas (PAs) have grown exponentially. In 1911, a mere 154 protected reserves dotted the landscape of the United States, the British Empire, and the other European colonies (IUCN and UNEP-WCMC 2012). One hundred years later, PAs encompass approximately 12.3 percent of the Earth's terrestrial surface (World Bank 2012) – an area roughly equivalent in aggregate size to the continent of South America (Kareiva et al. 2011; IUCN and UNEP-WCMC 2012).

Figure 1-1: Growth in nationally designated protected areas (1911 - 2011)



Source: IUCN and UNEP-WCMC (2012) The World Database on Protected Areas (WDPA): February 2012. Cambridge, UK: UNEP-WCMC.

Figure 1-2: Growth in number of nationally and internationally designated protected areas (1911-2011)



Source: IUCN and UNEP-WCMC (2012) The World Database on Protected Areas (WDPA): February 2012. Cambridge, UK: UNEP-WCMC.

The explosion of PA establishment is particularly visible after 1970, when the number of reserves mushroomed from approximately 20,000 to the current total of nearly 160,000. In addition, PAs have grown dramatically in relative size, as well as in number. Encouraged by large NGOs such as the Worldwide Fund for Nature (WWF), agreements such as the Convention on Biological Diversity (CBD), and multilateral institutions such as the Global Environment Facility (GEF), developing countries in particular have set aside ever-larger portions of their respective territories for strictly preservationist land uses. A few examples of the percentage of protected area extent relative to total land area in sub-Saharan African countries will illustrate this point: Botswana (30.93), Côte d'Ivoire (21.8), Guinea-Bissau (26.9), Tanzania (26.8), Uganda (10.3), Zambia (36), and Zimbabwe (28) (IUCN and UNEP-WCMC 2012).

Herein lies the paradox: Despite vast increases in the number and scale of protected areas since 1970, global biological diversity has steadily declined during this same period (Butchart et al. 2010). Doubtlessly, conservationists will argue that biodiversity decline *necessitates* an expansion of the global network of protected areas. Yet, evidence also highlights biodiversity losses *within* national parks and reserves in countries as diverse as Indonesia, Uganda, and Ecuador (Naughton-Treves et al. 2005; Robbins et al. 2006; Petursson 2011: 39; Kareiva et al. 2011). As noted by Laurance and 220 co-authors (2012), in a study recently published in *Nature*, the fate of biodiversity both within and immediately without protected areas is therefore inextricably linked. Indeed, these authors conclude that only approximately half of the world's protected areas effectively uphold their mandates, whereas "the rest are experiencing an erosion of biodiversity that is often alarmingly widespread taxonomically and functionally" (*ibid*). As such, Laurance et al. (2012) startlingly conclude that even the most well fortified protected areas appear to suffer declines in biodiversity when their wider social and natural habitat succumbs to thoroughly unsustainable use. Often, such patterns arise from conflicts with rapidly growing local populations, who depend upon the intensive use of agricultural land and other natural resources for the maintenance of their livelihoods (cf. Vedeld et al. 2007).

Accordingly, though often similar in name and location, PAs now fulfil a radically different set of functions than they did in the late nineteenth and early twentieth centuries. When the US government gazetted Yellowstone as the world's first national park in 1872, aesthetics, recreation, and cultural values featured much more prominently in conservation discourse than they do in the contemporary policy landscape. Indeed, Yellowstone's original 'Act of Dedication', signed by then-President Ulysses S. Grant, explains the area's importance primarily in light of its value as a "public park or pleasuring ground for the benefit and enjoyment of the people" (cited in Langford 2004: 26). Likewise, within the 19th century British Empire, conservation was inextricably tied to the recreational pursuits of white settlers in Africa and elsewhere (MacKenzie 1988). Colonial officials conserved wildlife from allegedly irresponsible 'natives', but access was unproblematic for white trophy hunters and wildlife enthusiasts (Neumann 1995). By contrast, such frivolity would look startlingly out of place in any of the recent annual reports from the IUCN (2010), UNEP (2010), or WWF (2010), whose focus currently remains fixated on the potentially disastrous ecological impacts of global environmental change.

Indeed, the interest of (inter-)national conservation agencies in the socioeconomic consequences of environmental degradation – as opposed to the straightforward preservation of specific landscapes or species – is a relatively recent phenomenon. As noted by both Dowie (1996: 23-28) and Brockington *et al.* (2008: 8), the convergence of conservation interests and typical socio-environmental risks – such as pollution, damage to water sources, and the impacts of dangerous industrial chemicals – began in earnest only after the 1950s. The movement surrounding the publication of Rachael Carson's (1962) *Silent Spring* largely typifies this convergence, and constitutes a prelude to the ongoing synthesis of conservation and ecological risk mitigation. As noted by Dempsey (2012: 54-56), the word 'biodiversity' itself is a neologism that arose during this period, making its first appearances as 'biological diversity' in the disciplines of biology and ecology as recently as 1965. Subsequently, these and similar concerns regarding ecological risk were formally internationalized through a series of high-level 'discursive events' from the 1970s onward: the Stockholm

Conference on the Human Environment (1972), the IUCN's World Conservation Strategy (1980), the establishment of the World Commission on Environment and Development (1987), and the Rio Earth Summit (1992) are chief among these. Recently, the Rio +20 conference further reinforced this trend, with its widespread focus on the (re)negotiation of sustainable development *vis-à-vis* nascent ecological risks and the need to sustain economic growth (Drexhage and Murphy 2010).

As such, in 2012, the sentiment that marked President Grant's 1872 'Act of Dedication' for Yellowstone National Park could not be more redundant for contemporary biodiversity conservation. Although PAs still clearly provide recreational opportunities for ecotourists and assist in the aesthetic preservation of landscapes, policymakers increasingly frame their importance in relation to the mitigation of climate change, the prevention of the biophysical hazards that characterize its intensification, and the provision of vital ecosystem services for growing populations (Agrawal et al. 2008; Dudley et al. 2010). Whereas previous generations of conservationists perhaps saw their role primarily as a normative one – in, for example, nobly protecting vulnerable species of flora and fauna from the callous and incessant expansion of human economies – today's conservation professionals increasingly see their role as one of material exigency. To put it differently, conservationists previously argued that we *should* maintain a broad network of protected areas, so as to uphold certain magnanimous values. In the context of the Anthropocene, however, they now argue that we *must* do so, as a necessary precondition for the effective governance of both human populations and the ecosystems that we depend upon. In subsequent portions of this chapter, I outline how the present thesis will examine these phenomena through a case study of one specific protected area: Mount Elgon National Park in Uganda.

1.2 Back to the Barriers? Protected Areas and Poverty in Africa (PAPIA), Environmental Change, and Conservation Governance

Research for this M.Sc. thesis was undertaken in conjunction with the Protected Areas and Poverty in Africa (PAPIA) project, a Research Council of Norway-funded

initiative that operated between 2007 and 2011. In many ways, PAPIA has contributed to a growing body of empirical research that demonstrates – with increasing clarity – the exact nature of the socioeconomic consequences and benefits of conservation for PA-adjacent communities. For example, recent PAPIA-associated outputs have examined the salience and distribution of benefits from ecotourism revenues around protected areas (Tumusiime and Vedeld 2012), perceptions of conservation engagement among park neighbours (Tumusiime and Svarstad 2011), transboundary protected area management (Petursson *et al.* 2011), and the role of discourses and narratives in justifying conservation practices in Africa (Benjaminsen and Svarstad 2010).

These outputs highlight PAPIA's focus on themes that are central to the conservation and development literature more broadly. Indeed, since the 1980s, researchers have debated the costs and benefits of PAs, with various parties using substantially different methodologies to argue for the prioritization of either biophysical or social goals. Here, the extant literature clusters around two primary themes: First, quantitative, large-N economic studies tend to suggest that the benefits of PA-adjacent residency – such as access to common-pool resources, ecosystem services, tourism-related employment, and shared conservation revenues – outweigh the costs of exclusion from access to PA land and resources (cf. Wittemeyer *et al.* 2008; Ferraro *et al.* 2011; Naughton-Treves *et al.* 2011; Turner *et al.* 2012). By contrast, small-N, qualitative, and historical work tends to emphasize the ways in which conservation marginalizes vulnerable groups, often by capitalizing on pre-existing, exploitative relations of culture and power (cf. Agrawal 2005; Tsing 2005; West 2006; Adams and Hutton 2007; Li 2007; Holmes 2009). Although one could perhaps explain this divergence in findings through reference to epistemological and methodological differences, I would like to suggest that *both* sets of findings are, in principle, possible to attain.

Indeed, these conclusions need not be mutually exclusive, given that an emerging theme in the literature concerns the ways in which previous analyses have largely overlooked the presence of socioeconomic inequality *within* communities in favour of

generating conclusions about the net costs and benefits of conservation. While it may be true that the economic significance of ecosystem services often outweighs the costs of exclusion from land and resources in an aggregate sense (Turner et al. 2012), such findings ignore the ways that intra-community power relations affect the distribution of benefits from natural resources. Arguably, this lack of analytical clarity arises from the manner in which the term ‘community’ is frequently employed by conservation and development researchers (Agrawal and Gibson 1999). Too often, analysts portray PA-adjacent communities as homogenous, amorphous, un-stratified populations that simply and voraciously consume land and natural resources. Rather, ongoing struggles both within and among different groups – along lines of class, ethnicity, gender, political affiliation, and age – can foster the salience of *structural* or *institutional* scarcity (cf. Homer-Dixon 1994: 8-9), even when surpluses of benefits exist. By focusing on the plight of such marginalized groups, ethnographers and case study researchers can generate authentic descriptions of dispossession and immiseration, even while economists simultaneously conclude that the net benefits of conservation outweigh its costs.² In attempting to evade such ambiguities, this study proceeds with a keen eye for possible inequalities in the distribution of both costs and benefits from conservation.

Further, the present thesis engages with these debates by seeking to examine the ways in which an emerging preoccupation with globalized environmental risk entails substantive implications for the manner in which public agencies manage protected areas. Indeed, environmental-change induced policy alterations to existing conservation regimes retain the potential to greatly impact the lives and livelihoods of PA-adjacent individuals. For example, a “back to the barriers” (Wilshusen et al. 2002; Hutton et al. 2005) conservation movement has begun to emerge,³ which commonly references the salience of environmental change-associated risks (McCarty 2001;

² For a clear example of such divergent findings, please see the special issue of *Conservation and Society* (Vol. 9[1]) in which a variety of researchers dispute Wittemeyer *et al.*'s (2008) large-N conclusions in *Science* through reference to a slew of case study research (cf. Davis 2011; Hoffman 2011; Hoffman et al. 2011).

³ Quintessential examples of “back to the barriers” discourse can be found in Brandon et al.'s (1998) *Parks in Peril*, Kramer et al.'s (1997) *Last Stand*, and Terborgh's (1999) *Requiem for Nature*.

Hannah et al. 2002; Dawson et al. 2011; Ervin 2011; Hole et al. 2011; Bellard et al. 2012). As a case-in-point, Saxon (2008) notably utilizes the Biblical metaphor of “Noah’s parks” to elucidate the ways in which he feels that protected areas are increasingly beset by a tide of both growing humanity and anthropogenic environmental change.

In Hajer’s (1995: 58) terms, this movement constitutes a “discourse coalition” of actors that perhaps remain organizationally and professionally distinct, but which collectively promulgate a similar narrative or “storyline” about the relationship between biodiversity conservation and environmental change. Here, notable proponents include natural science-trained conservationists, along with their allies in public agencies, payments for ecosystem services (PES) firms, environmental NGOs, relevant IOs such as the UNEP and GEF, private philanthropists, and even celebrities (Chapin 2004; Brockington 2009; Dowie 2009; Holmes 2010, 2011). In short, their goal is a renewed focus on ‘fortress conservation’ (Brockington 2002), in which state authorities strictly enforce PA boundaries, and wherein conservation is pursued with a greater degree of autonomy from its socioeconomic consequences. Though ‘discursive,’ this new coalescence of professional support around hard conservation objectives denotes very material implications for the allocation of scarce finances, and for the enactment of regulations that affect the resource consumption patterns of often poverty-stricken communities.

For many of these actors, previously employed approaches to community-based conservation (CBC) do not sufficiently mitigate the ecological risks associated with climate and environmental change (cf. Terborgh 1999; Wilshusen et al. 2002; Hutton et al. 2005). Indeed, while CBC and related perspectives on community-based natural resource management (CBNRM) gained widespread support in the 1980s and 1990s (Barrow and Murphree 2001; Dressler et al. 2010), the momentum of efforts to devolve control over resources and PAs to local communities has arguably now begun to fade. For example, key bilateral donors such as the US Agency for International Development (USAID) and the UK’s Department for International Development (DfID) have begun to favour ‘trans-boundary protected area management’ (TBPAM)

schemes over CBC and CBNRM (Hutton et al. 2005: 349; Petursson 2011; Petursson et al. 2011), which are thought to more effectively mitigate environmental change-related risks (Duffy 2006: 94). Although references to the wellbeing of local communities still permeate the literature of both conservation and development organizations (cf. Dudley et al. 2010; UNEP 2011b), the extent to which such actors actually seek to redistribute power and resources to local and indigenous groups is debateable (Chapin 2004; Adams and Hutton 2007; Holmes 2007). With a renewed focus on strict conservation, and with often-considerable natural scientific justification for the need to return to such a model, PA neighbours may stand to be further marginalized by conservation activities.

1.3 Knowledge Gap, Objective, and Research Questions

In examining the managerial implications of new attempts to govern the aforementioned nexus of local, regional, and global ecological risk, this thesis advances a case study of one specific protected area: Mount Elgon National Park (MENP), Uganda. Conservationists assert that forested protected areas like MENP aid in the mitigation of environmental risk by preventing biophysical hazards such as landslides and floods, by providing water catchment services, and by producing other resources that ensure both energy- and food security for adjacent communities (Webster 1954; NEMA 1996; P. Scott 1998; UWA 2009). More recently, these actors have also specifically highlighted the role that the mountain's forests play as an important part of the world's carbon-sequestering, climate change-mitigating commons, and have attempted to economically value them as such (FACE Foundation 2001; SGS Agrocontrol 2001; UWA 2010; Mwayafu and Kimbowa 2011a; LVBC 2012). These latter efforts, primarily conducted through the emerging Voluntary Carbon Market (VCM), entail salient implications for the livelihoods of communities at Mount Elgon.

Yet, virtually no academic research has been conducted on the socioeconomic and political implications of these schemes in the region. To date, peer-reviewed outputs have mainly focused on resistance to conservation-as-usual (Norgrove and Hulme

2006), the institutional aspects of transboundary protected area management (Petursson et al. 2011), and the biophysical impacts of land use change on the mountain's slopes (Knapen et al. 2006; Kitutu et al. 2011; Muggaga et al. 2011). However, market valuation of the ecosystem services provided by forests retains the potential to dramatically alter cost-benefit calculations about conservation versus alternative land uses, and may provide MENP managers with financial incentives for excluding local people from forests. As such, a knowledge gap exists not just in relation to these phenomena at Mount Elgon, but also in relation to the conservation and development literature more broadly. Indeed, there is an emerging need for studies that examine the ways in which climate and environmental change-mitigation strategies become integrated into PA management practices, and the implications of this for both conservation governance and local livelihoods more broadly. Likely, such inquiries will constitute a salient component of the next generation of contributions to debates about the social and economic effects of conservation itself (cf. Brockington and Schmidt-Soltau 2004). Accordingly, in seeking to address this knowledge deficit, the present study proposes one primary research objective, and three research questions regarding the manner in which its phenomena of interest interact in practice.

Research Objective:

To examine how new protected area governance strategies for the mitigation of environmental change affect the legitimacy and effectiveness of conservation at Mount Elgon National Park, Uganda.

Research Question 1: How well does the prevailing rhetoric of 'triple-win' outcomes accurately describe the effects of carbon offsetting projects for local communities, forest conservation, and climate change mitigation at Mount Elgon?

The first research question arises in response to claims made in both the academic and NGO literatures on the ecological and socioeconomic consequences of carbon sequestration schemes (Bachram 2004; Bäckstrand and Lövbrand 2006; Lang and

Byakola 2006; Lovell et al. 2009; Grainger and Geary 2011; Bumpus and Liverman 2011), and the ways in which these claims have been received in studies of conservation and development (e.g. Adams 2008; Brockington et al. 2008: 176). Proponents of these schemes assert that they precipitate “triple win” outcomes for climate change mitigation, forest conservation, and local livelihoods, usually in the form of redistributed revenue from the sale of carbon credits or employment opportunities (Smith and Scherr 2003; Ebeling and Yasué 2008; Paquette and Messler 2010; Springate-Baginski and Wollenberg 2010; Agrawal et al. 2011).⁴ By contrast, critics maintain that such projects constitute a form of “carbon colonialism”, in which local and indigenous populations may be displaced to make way for large, carbon credit-producing plantations - often at the expense of local livelihood security (Bachram 2004; Lang and Byakola 2006; Bumpus and Liverman 2011; Fairhead et al. 2012). Both of these literatures are now expansive, and often produce divergent conclusions about the same study area.⁵ As such, the first research question engages with both of these positions by taking into account the growing body of evidence regarding carbon offset-related displacement, but also by remaining open to possible falsifications of this assertion based on extensive fieldwork conducted with the Uganda Wildlife Authority – Forest Absorbing Carbon Emissions (UWA-FACE) project at MENP.

Research Question 2: How does the current spatial and temporal distribution of shared benefits affect the perceived legitimacy, and thus the effectiveness, of conservation at Mount Elgon National Park?

The second research question engages with a growing body of research on the efficacy of conservation-based revenue and benefit sharing programmes (Archabald and Naughton-Treves 2001; Emerton 2001; Adams and Infield 2003; Siebenhüner et al. 2005; Tumusiime and Vedeld 2012). The question builds upon previous findings

⁴ Perhaps the three clearest manifestations of ‘triple-win’ reasoning in relation to carbon-offset forestry can be found in Campbell *et al.* (2008), Ebeling and Yasué (2008), and Paquette and Messler (2010).

⁵ For an example of such divergent findings on carbon forestry schemes, please see the account offered by Lang and Byakola (2006) versus a description of a similar project by Mwayafu and Kimbowa (2011) at Mount Elgon.

from Mount Elgon, both from the Protected Areas and Poverty in Africa (PAPIA) project and other researchers, which suggest that redistributed revenues and benefits remain marginal, while local dependency on natural resources remains high (Katto 2004; Sletten 2004; Luzinda 2008; Norgrove and Hulme 2006; Vangen 2009; Petursson 2011; Himmelfarb 2012). To date, these studies have primarily focused on the distribution of shared benefits in relatively small sub-sets of the adjacent population. In focusing on the overall spatial and temporal distribution of these benefits, however, this question seeks to contribute to the understanding of these schemes at the PA scale. Further, it seeks to unpack the implications of these benefit distributions for the perceived legitimacy of conservation at Mount Elgon *vis-à-vis* local communities. The efficacy of these schemes is crucial, as conservationists purport that they legitimate restrictions of access to land and other natural resources for both biodiversity protection and the generation of carbon offsets (UWA 2009, 2010). If local populations perceive revenue and benefit sharing schemes as being legitimate, however, resulting conflicts retain the potential to dramatically reduce the effectiveness of conservation at MENP, as historical examples demonstrate (Norgrove 2002; White 2002; Lang and Byakola 2006; Himmelfarb 2012).

Research Question Three: (a) How do local communities resist the perceived inadequacy and illegitimacy of existing benefit and revenue-sharing schemes? Further, (b) do these resistance strategies pose an existential threat to conservation at MENP itself?

Lastly, the third research question addresses the implications of the efficacy of revenue and benefit sharing schemes by examining social resistance to conservation and climate change-mitigation strategies at MENP. This final question arises in relation to work done on social movements at Mount Elgon by Bunker (1991), Heald (1998), Norgrove (2002), and White (2002), as well as on grassroots resistance strategies more broadly (Scott 1987, 1992; Norgrove and Hulme 2006; Holmes 2007, 2009). In so doing, it aims to test widely held assumptions about the power of communities to pose an existential threat to the management of protected areas (Terborgh 1999: 40; Adams et al. 2004: 1147; Brockington 2004: 412). Although

many analysts have approached the problematic of resistance to conservation by examining the quasi-militant tactics of anti-conservation groups, this study advances debates on the issue by also closely analysing discursive and collective legal challenges to park authorities.

1.4 Justification and Thesis Structure

By examining these questions, this study offers three overall contributions to the literature on conservation and development. First, it documents the emerging policy synthesis of public conservation with global environmental change-mitigation within the broader context of the Anthropocene, and illuminates the impacts of these strategies on the livelihoods of PA-adjacent individuals. Second, it empirically tests the rhetoric surrounding revenue- and benefit-sharing schemes, and ascertains whether these programmes actually succeed in offsetting the costs associated with forest conservation and carbon offsetting at MENP. Third, this study advances the literature on resistance to biodiversity conservation by ascertaining whether or not anti-conservation groups pose an existential threat to MENP, as radical critics of conservation often claim, and updates discussions about the nature of resistance tactics (cf. Brockington 2004; Norgrove and Hulme 2006; Holmes 2007).

Accordingly, this study will address this research objective and questions in the following manner: **Part A** establishes the theoretical, methodological, and historical context within which this thesis is located. In doing so, **Chapter Two** proceeds to outline the overarching theoretical framework for this research by discussing the implications of the Anthropocene context for environmental governance in Least Developed Countries (LDCs). **Chapter Three** provides an exposition of the critical realist philosophy of science that informed the nature of this study, and describes the methods that were used to collect both historical and empirical data. Further, in seeking to contextualize and enrich the ensuing presentation of the empirical findings of these methods, **Chapter Four** delves into the historical geography of the Mount Elgon region, and illuminates how broader political and economic forces have influenced both land use trends and forms of resistance in the area over time.

Part B presents this thesis’ empirical findings in the form of three full-length academic papers, each of which addresses one of the study’s research questions. This approach was adopted in order to facilitate the eventual presentation of the thesis’ findings in other media, such as future conference papers or journal articles. **Paper I** addresses the first research question, and presents findings regarding the gap between ‘triple-win’ PES rhetoric and actual management practice through an analysis of the UWA-FACE carbon offset project at Mount Elgon. **Paper II** explores the second research question, and presents data on both the spatial and temporal distribution of benefits from conservation at MENP, relative to the nature of the costs that accrue to communities through human-wildlife conflicts. **Paper III** examines the final research question, illuminates the political impacts of resistance to conservation at MENP, and determines whether or not such resistance poses a threat to the existence of the PA itself. **Chapter Eight** concludes the study, summarizes its key findings, and discusses conservation in the Anthropocene from the perspective of a ‘biopolitical analytic’ (Foucault 1978; Dempsey 2012) – one that seeks to understand these phenomena in relation to both the changing nature of global capitalism and the exigencies associated with sustaining life within it.⁶

⁶ I have designed *Chapter Eight* as an executive summary, so as to facilitate “readers in a hurry” (cf. Latour 2005: 231).

2.0 The Biopolitics of the Anthropocene: Implications for Environmental Governance in Least Developed Countries

The global character of ecological questions leads to a perversion of ‘nature conservation’ into its opposite, a kind of global world-management.

- Ulrich Beck, *World at Risk*, (2009: 87).

Nature’s government [. . .] is equally closely tied to the government of humans – visible in the changing forms of regulation and subject formation [...] and equally identifiable in global discussions about changing climate and declining biodiversity.

- Arun Agrawal, *Environmentality: Technologies of Government and the Making of Subjects*, (2005: 230).

2.1 Introduction

Towards the end of his voluminous *Living in the End Times*, the illustrious Slovenian philosopher Slavoj Žižek (2012) broaches the topic of a geological era defined by the actions of humans. “The limitation of our freedom that becomes palpable with global warming,” Žižek (2012: 333) writes, “is the paradoxical outcome of the very exponential growth of our freedom and power, that is, of our growing ability to transform nature around us, up to and including destabilizing the very framework for life.” For an analysis of the problems currently facing the field of environmental governance, Žižek’s observation is prescient. Indeed, it is precisely this increasing destabilization of the “framework for life” – in other words, of our “planetary support systems” (Rockström *et al.* 2009; Young and Steffen 2009) – that gives rise to what this chapter will term *biopolitics*. Our collective empirical context is now replete with salient examples: the predicted submersion of small-island states (SIS); the increasing volatility of agro-ecological conditions in water-stressed regions; the heightened prevalence of “extreme weather events”; and the emerging stressors faced by pastoralist groups in least-developed countries (LDCs) constitute but a few of these (cf. AoSIS 2011; Government of the Gambia 2011; IPCC 2011). Drawing from – but also seeking to extend beyond – Foucault’s (1978, 2004, 2008) conception of bio-

power, this chapter therefore seeks to understand how attempts to manipulate these shifting ecological conditions give rise to new forms of politics, political economy, and resistance.

In the first instance, though, three observations inform the nature of the theoretical framework within which this thesis is located. First, I follow Lemos and Agrawal (2006: 298) in broadly defining ‘environmental governance’ as a field of study principally concerned with “the set of regulatory processes, mechanisms, and organizations through which political actors influence environmental actions and outcomes.” So broadly defined, the field encompasses a wide range of disciplines and sub-disciplines that admittedly differ in their epistemology and methodology, but which share a common empirical interest in the relationship between the interactions between human communities, natural resources, and the wider biophysical environment. These include, but are not limited to-, the fields of common property studies; human, cultural, and political ecology; environmental anthropology; resource geographies; environment and development studies; and so on. In avoiding the problem of diminishing returns that results from the fractionalization of these fields, I simply use the term ‘environmental governance’ to refer to their common phenomena of interest. That said, I clarify the relationship between this approach and political ecology, in particular, in *Section 2.4*.

Second, in response to recent debates about the proper status and function of ‘theory’ in environmental governance (Khagram et al. 2010; Poteete et al. 2010), I begin by clearly stating that this chapter harnesses theory₃ and theory₄ in Abend’s (2008: Table 2-1) sense. Differently put, this chapter engages in a hermeneutic analysis of global environmental change processes, in dialogue with the foundational work of Marx and Foucault, and discusses resulting implications for environmental governance in Least Developed Countries (LDCs). I have explicitly chosen to focus on Marx and Foucault in order to foster a *rapprochement* of sorts between these two thinkers in relation to the politics of environmental governance. Arguably, Foucault’s aversion to classical Marxist language stems more from the academic politics of time in which he wrote, and less from a dearth of fruitful points of synergy between these two research

programmes (cf. Lemke 2002: 49).⁷ By focusing on a theme at the periphery of both of these canons – that of the relationship between humans the biophysical environment – it is hoped that new insights can be extracted from both.

Table 2-1: Semantic typology of 'theory' in social scientific research.

Theory Type	Definition
Theory ₁	A general proposition, or logically-connected system of general propositions, which establishes a relationship between two or more variables.
Theory ₂	An explanation of a particular phenomenon. Should identify testable 'factors' or 'conditions.'
Theory ₃	An interpretive or hermeneutic theory. Asks, 'what does it mean that P?'
Theory ₄	An exegesis or critical interpretation of a foundational thinker such as Marx, Weber, or Durkheim.
Theory ₅	A <i>weltanschauung</i> or largely self-contained theoretical worldview. Examples: 'Marxist theory', 'rational choice theory'.
Theory ₆	A normative theory; imposes value judgements on empirical phenomena.
Theory ₇	A substantive or methodologically-oriented theory. Example: A response to the 'micro-macro' problem, or the 'structure-agency' debate.

Source: Assembled from Abend (2008: 177-181).

Third, I find it necessary to clarify the scope and objectives of this theoretical approach because, largely due to the rapidly shifting nature of empirical problems within environmental governance, Merton's (1967) once-apt dichotomy between 'grand theory' and 'theories of the middle range' has arguably begun to lose its descriptive power. Indeed, unlike Merton's post-war context, the emergence of truly global socio-environmental problems necessitates engagement with theory at both local/concrete and global/abstract scales. In relation to a "wicked problem" such as climate change or global biodiversity decline, for example, even the most pragmatic, empirically-driven theories₁₋₂ must engage to some extent with abstract and diffuse consequences at the global level (Brown *et al.* 2010; Poteete *et al.* 2010: 215).⁸

⁷ As Foucault (1980: 52) notes, "I often quote concepts, texts, and phrases from Marx, but without feeling obliged to add the authenticating label of a footnote with a laudatory phrase to accompany the quotation. As long as one does that, one is regarded as someone who knows and reveres Marx, and will be suitably honoured in the so-called Marxist journals." On this point, see also Lemke (2002).

⁸ As a caveat, Papers I, II, and III in *Part B* of this thesis operationalize different manifestations of theory₁ and theory₂ in ways that are more suited to guiding empirical analysis.

Certainly, this thesis must engage with this predicament, as it interrogates the relationship between conservation governance at the scale of an individual PA, and the overarching nature of global environmental change. As such, the purpose of this chapter is not to develop a conceptual model for guiding empirical analysis, *per se*, but rather to theoretically contextualize the management of protected areas within broader political trends in global environmental governance.

Thus, having reviewed new developments specifically facing conservation governance in *Chapter One*, this chapter will proceed as follows: First, I elaborate upon the notion of ‘the Anthropocene’ as it pertains to environmental governance in the world’s Least Developed Countries (LDCs), and explain why this context demands analysis from a ‘biopolitical’ perspective (cf. Foucault 1978; Li 2010; Dempsey 2012). Second, I draw upon a range of perspectives from Marxist theory in demonstrating how the trend in environmental governance toward the commodification of ecosystem services, in particular, is biopolitically contentious (cf. Kosoy and Corbera 2010; Fairhead et al. 2012; MacDonald and Corson 2012). Third, I examine how these discussions present new opportunities for rethinking the relationship between environmental governance and political ecology (Lemos and Agrawal 2006; Peet *et al.* 2011). Fourth, as an extension of this latter point, I provide an exegesis of four competing discourses of environmental governance in relation to global change processes, each of which presents us with a model for managing the environment within the Anthropocene. Throughout, I seek to demonstrate how the biopolitics of the Anthropocene are increasingly visible in the ways in which the lifestyles and livelihoods of certain elite populations are enhanced, or even subsidized, by policies that imply deleterious consequences for certain marginalized groups in LDCs.

2.2 The Biopolitics of the Anthropocene

In 2016, the International Commission on Stratigraphy’s (ICS) Sub-commission on Quaternary Stratigraphy expects to deliver the recommendations of its ‘Anthropocene working group’ at the 35th International Geological Congress (International

Commission on Stratigraphy 2012). These findings could persuade the ICS, which is the ultimate overseer of the Earth's geological timescale (Jones 2011; Sayre 2012), to either sub-divide the Earth's current geological epoch – the Holocene – or to end it entirely in favour of the Anthropocene as a successor. In the meantime, as Zalasiewicz *et al.* (2011: 835) put it, “[a]nthropogenic changes to the Earth's climate, land, oceans, and biosphere are now so great and so rapid that the concept of a new geological epoch defined by the actions of humans [...] is widely and seriously debated.” Consequently, whether the ICS formally acknowledges it or not, the concept of the Anthropocene raises a wide range of questions and opportunities for rethinking the nature-society relationship, and for debating the most appropriate means of supporting both human populations and economies within it.

Originally, the ecologist Eugene Stoermer and atmospheric chemist Paul Crutzen first proposed the term ‘Anthropocene’ to encompass the geological impact of humans on the Earth's planetary systems (Crutzen and Stoermer 2000). In support of this notion, many leading geologists and Earth system scientists now assert that the Holocene epoch no longer accurately describes our planet's geological and biophysical conditions (Crutzen 2002; Steffen *et al.* 2007; Rockström *et al.* 2009; Steffen *et al.* 2011a; Zalasiewicz *et al.* 2011; Biermann *et al.* 2012). Rather, they argue, the externalities and consequences of human civilization have become perhaps the single greatest factor in influencing ecological outcomes. The rationale for highlighting this shift encompasses our rapidly growing population, our increasingly advanced (but increasingly uncontrollable) technology, and our capacity to exploit both fossil fuels and other resources for our own purposes, all with great consequence for our physical environment (Ehlers and Krafft 2006; Steffen *et al.* 2011a; Glaser *et al.* 2012). Climate change and its attendant hazards rank highly among these concerns, but so do massive alterations in land use, the disturbance of nitrogen and phosphorus cycles, the acidification of the oceans, the decline of biodiversity, and the depletion of the stratospheric ozone layer, among other concerns (Rockström *et al.* 2009; Steffen *et al.* 2011b).⁹

⁹ At first glance, these propositions might appear similar to the Club of Rome's (1974) thinking on the *Limits to Growth* and planetary carrying capacity. However, most researchers associated with the

For radical environmentalists, these deliberations might seem like the apotheosis of (wo)mankind's hubris. After all, from the perspective of a largely biocentric (and, arguably, sometimes misanthropic) position like that of 'deep ecology' (Næss 1973; Sessions 1995), humans retain the tendency to overestimate their own centrality to biophysical processes. Conversely, though, it is somewhat ironic that much social scientific discourse appears to lag behind geology in conceptualizing the rapidly changing nature of the interaction between humans and our purportedly 'natural' environment. Truly, as the Earth's own processes become increasingly shaped by the externalities of human activity, the adjective 'natural' begins to lose its very meaning, at least in the sense that our 18th and 19th century forebears used the term (Neumann 1995; Cronon 1996; Sayre 2012).

As Lorimer (2012: 2) succinctly puts it, the "recognition of the Anthropocene challenges prevalent and powerful understandings of biodiversity as Nature – a pure and timeless collection of objects, best removed from Society." Instead, what remains is a 'dark ecology' (Morton 2010: 59-97), or an "ecology without Nature" (Morton 2007: 181), wherein the deeply interconnected relationship between humans and nonhumans becomes ironically 'denaturalized' and extricated from its romantic, mystic, and quasi-religious overtones. As Morton (2007: 187) writes, "[d]ark ecology undermines the naturalness of the stories we tell about how we are involved in nature [...] Instead of whistling in the dark, insisting that we're part of Gaia, why not stay with the darkness?" As a result, and in abandoning the European Enlightenment's ontologically bipolar division between 'Society' and 'Nature,' dark ecology suggests the need for a new "constitution" to govern the politics and interaction between humans, non-humans, and the dynamic character of our collective environment (cf. Latour 2005: 37).

Anthropocene concept emphasise the role of technology and new institutional arrangements in averting environmental crises (cf. Lövbrand *et al.* 2009; Biermann *et al.* 2012).

Yet, the substance of such a ‘constitution’ is far from uncontroversial. Indeed, the concept of *biopolitics* encompasses many of the ways in which its content is continuously being negotiated and re-negotiated. For the purposes of this discussion, biopolitics simply refers to the politics and political economy of supporting both human and nonhuman life within rapidly shifting ecological conditions (cf. Lövbrand *et al.* 2009; Rockström *et al.* 2009; Young and Steffen 2009).¹⁰ While it constitutes more of a reformulation than a direct application, this perspective draws inspiration from the later work of Michel Foucault (1978, 2004, 2008), as well as from a range of scholars that have applied similar conceptual approaches to a variety of empirical phenomena (cf. Agamben 1998; Hardt and Negri 2000; Duffield 2010). Although Foucault did not develop the notion of biopolitics explicitly with the governance of socio-ecological phenomena in mind, his original definition clearly remains open to such an extension. In his lectures at the Collège de France in 1978-79, for instance, Foucault (2004) clearly defines “bio-power” as,

“the set of mechanisms through which the basic biological features of the human species became the object of a political strategy, of a general strategy of power, or, in other words, how, starting from the eighteenth century, modern Western societies took on board the fundamental biological fact that human beings are a species.”

Truly, as noted by Rutherford (2007: 294-295), any analysis that seeks to examine the “fact that human beings are a species” must also examine the ecological and biological preconditions that allow such communities to subsist, as well as the implications of these activities for non-human life. Although several researchers have drawn upon Foucault’s (1978) original notion of biopolitics to analyse primarily *social* phenomena – such as concentration and refugee camps in the notable case of Giorgio Agamben (1998, 2005), or humanitarian aid and civil wars in the case of Mark Duffield (2007, 2010) – fewer researchers have extended this type of analysis to

¹⁰ As such, the manner in which this chapter uses the biopolitical concept incorporates elements of *both* Foucault’s (1978, 2004, 2008) original definition, and Latour’s (2005) notion of “political ecology.” My task, in other words, is to synthesize and reformulate these concepts *vis-à-vis* the overarching context of anthropogenic environmental change.

the natural resources and ecological preconditions that determine whether both human and nonhuman communities flourish or decline (cf. Rockström *et al.* 2009; Young and Steffen 2009).

Yet, again, Foucault's original formulation of bio-power clearly leaves space for such an analysis. For example, in an essay entitled *Right of Death and Power Over Life*, Foucault (1978: 143, emphasis added) alludes to these ecological preconditions when he defines "bio-power" as,

“what brought life and its mechanisms into the realm of explicit calculations [...] It is not that life has been totally integrated into techniques that govern and administer it; it constantly escapes them. Outside of the Western world, famine exists, on a greater scale than ever; and the biological risks confronting the species are perhaps greater, and certainly more serious, than before the birth of microbiology [...] *modern man is an animal whose politics places his existence as a living being in question.*”

Increasingly, the conditions that characterize both global climate and environmental change – extreme weather events, deforestation, rainfall and agro-ecological variability, raising sea levels, and so on (IPCC 2011) – will force the administrators of states and international organizations to bring the “life” of certain vulnerable populations “into the realm of explicit calculations.” Already, climate change-related rising sea levels force the governments of small island states to prepare contingency plans for the indefinite evacuation of their populations (Alliance of Small Island States 2011). Likewise, across the world's Least Developed Countries (LDCs), governments lament the added stressors that climate change places upon their respective populations, large portions of which are heavily dependent on both subsistence agriculture, pastoralism, and livelihood-supporting ecosystem services (Government of the Gambia 2011; UNDP 2011; Government of the Republic of South Sudan 2012). In these cases, the politics of governing environmental change are synonymous with the politics of supporting life itself – in other words – with ‘biopolitics.’

As such, in the context of the Anthropocene, the populations of the world's Least Developed Countries (LDCs) arguably constitute the most 'biopolitically exposed' segment of humanity. If we accept the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States' (UN-OHRLLS 2012) definition, LDCs "represent the poorest and weakest segment of the international community [...] They comprise more than 880 million people (about 12 per cent of world population), but account for less than 2 percent of world GDP and about 1 percent of global trade in goods." Typically, LDCs derive large portions of their respective GDPs from both agriculture and natural resource extraction, ensuring that they remain simultaneously vulnerable to both market-induced shocks (for example, volatility in the price of staple commodities) and biophysical stressors (which impede the production or extraction of such commodities.) Additionally, poor governance and insecurity frequently also afflict many LDCs, creating a nexus of social, political, and economic insecurity, which both intersects with- and is exacerbated by- environmental change processes (cf. Roberts and Parks 2006; Peet *et al.* 2011). Geographically, then, these processes asymmetrically affect both Sub-Saharan Africa and small island states (SIS), which together comprise 40 of the world's 48 LDCs (UN-OHRLLS 2012).

By implication, these discussions also call into question conventional approaches to the conceptualization of power in the context of global environmental change. As noted by Foucault (1978: 138-139, emphasis original) in his original formulation of the biopolitical concept,

“[o]ne might say that the ancient right to *take* life or *let* live was replaced by a power to *foster* life or *disallow* it to the point of death. [...] This] focused on the species body, the body imbued with the mechanisms of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary [...] Such] attention to the processes of life characterized a

power whose highest function was perhaps no longer to kill, but to invest life through and through.”

Interestingly, critical research from political ecology and environmental governance reinforces this assertion about the changing nature of power (cf. Agrawal 2005; Tsing 2005; West 2006; Li 2007, 2010; Nixon 2011). Indeed, scholars in these fields increasingly generate accounts of how, in relation to environmental phenomena, actors exercise power not just overtly (for example, in violently evicting certain populations in order to conserve certain species of wildlife), but also implicitly (for example, by supporting deleterious policies that benefit elites while depriving specific groups of the necessary environmental preconditions for prosperous livelihoods.) In the context of global climate and environmental change, biopolitics thus provides a useful lens for illuminating how the livelihoods and standards of living for certain populations are supported – or even subsidized - at the expense of others.

To be clear, in summary, I conceive of biopolitics as operating across two primary axes: i) between different populations of humans, and ii) between populations of humans and non-humans. For example, one can observe biopower in governmental programmes to encourage sedentary agriculture at the expense of pastoral communities (Benjaminsen and Ba 2009), or, alternatively, to ensure the conservation of *Gorilla beringei beringei* (‘mountain gorillas’) at the expense of communities of Batwa (economically-marginal, Ugandan hunter-gatherers) (Tumusiime 2012). One might further add that the tendency of international conservation NGOs to advocate for the preservation of certain “charismatic megafauna” such as *Ailuropoda melanoleuca* (‘Giant panda’) and *Loxodonta africana* (‘African bush elephant’), perhaps to the detriment of their humbler counterparts elsewhere, as a third axis of human-nonhuman-nonhuman biopolitics (cf. Marris 2011). Each of these sets of interventions involves a governmental vision for the *forms of life* that states and organizations can and should support, while implicitly approving that others may be ‘let die’ (cf. Li 2010). However, I do consider the third axis of biopower to be tangential to the aims of this thesis, although it doubtlessly constitutes a pressing area of inquiry for future studies in this field.

In the following section, I specifically examine one particular set of biopolitically controversial issues within environmental governance – that is, the economic valuation of ecosystem services (Arsel and Büscher 2012). These schemes – which include the sale of carbon credits, biodiversity offsets, payments for water catchment, and so on – foreground biopower insofar as they subsidize the lifestyles and livelihoods of certain human populations and selected ecosystems at the expense of others. For example, various analysts have argued that carbon offset forestry schemes provide landowners with economic incentives to maintain tree plantations at the expense of sustainable agriculture, while simultaneously allowing carbon credit buyers to continue polluting as usual (Bachram 2004; Lang and Byakola 2006; Grainger and Geary 2011; Beymer-Farris and Bassett 2012). In this sense, a critical observer could argue that emerging schemes to ‘Reduce Emissions from Deforestation and Forest Degradation’ (cf. Agrawal *et al.* 2011), for example, might be better described as ‘Reducing Emissions from Sustainable Agriculture,’ in that they retain the potential to drive rural populations from land that would otherwise be used for subsistence purposes (Fairhead *et al.* 2012; McAfee 2012). In discussing the biopolitical aspects of these schemes, I draw upon a variety of perspectives from Marxist theory, which fruitfully problematize the subtle micro-politics of producing ‘fictitious commodities’ (Polanyi 2001 [1944]; Brockington 2011) from the services naturally provided by ecosystems.

2.3 Commodity Fetishism, Primitive Accumulation, and the Commodification of Ecosystem Services

Indeed, a useful framework for problematizing the commodification of ecosystem services arises in first chapter of *Capital, Volume One*, in which Marx (1995 [1867]) advances a much-discussed argument about the relationship between labour, commodities, and economic value. Today, this argument is frequently overlooked, perhaps due to the currently unfashionable nature of Marxian analyses, but it is nonetheless highly relevant to a discussion of the biopolitics of the Anthropocene. Indeed, in a famous section entitled “The Fetishism of Commodities and the Secret

Thereof,” Marx specifically develops the notion of “commodity fetishism” to encompass the ways in which the conventional perception of commodities disguises the social and political relations involved in their production. Here, Marx uses the word ‘fetish’ not in its contemporary psycho-sexual sense, but in the context of the 19th century bourgeois vernacular, in which it referred to religious practices that attribute supernatural properties to inanimate objects. As Marx observes (1995 [1867]: 46-47, emphasis added),

“A commodity appears, at first sight, a very trivial thing, and easily understood. Its analysis shows that it is, in reality, a very queer thing, abounding in metaphysical subtleties and theological niceties [...] simply because in it the social character of men’s labour appears to them as an objective character stamped upon the product of that labour; because the relation of the producers to the sum total of their own labour is presented to them as a social relation, *existing not between themselves, but between the products of their labour.*”

With this observation, Marx brilliantly identifies an ontological paradox inherent to the human perception of commodities. With the adjective ‘ontological’, here, I refer to the sense in which a commodity exists or to the nature of its existence. Indeed, to most consumers, the existence of a commodity appears to be self-evident, in the sense that an object like a mobile phone is easily identifiable by the human senses. Yet, that which constitutes an object as a commodity, as opposed to a physical non-commodity (such as a rock), stems from the labour that was required to produce it, rather than from the physical characteristics of the object itself. In other words, for Marx, a commodity’s value arises from the labour that was required for its production, rather than from its physical characteristics (Kosoy and Corbera 2010: 1229).¹¹

¹¹ For the purposes of this discussion, I define ‘value’ (in Marxian-economic terms) as “the labour time socially necessary to produce commodities” (Marx 1995 [1867]: 28), which is embodied in its “universal equivalent form” by money (Marx 1995 [1867]: 45). In particular, “exchange value” refers to that which arises when commodities are bought and sold over markets, and are appropriated by individuals who were not directly involved with their production. One can distinguish this from mere “use value”, which is the utility that an individual spontaneously gains from a commodity, “such as dozens of watches, yards of linen, or tons of iron” (Marx 1995 [1867]: 26). Collectively, these insights

As such, a commodity's "metaphysical subtleties and theological niceties" arise from the manner in which people inaccurately conceive of the purchase and sale of items as a relationship between themselves and objects. For Marx, this truly constitutes a dangerous misperception. Indeed, he contends, this relationship is more accurately perceived as one between people and the socio-political-economic conditions (or "relations of production") that distribute the value that ultimately arises from labour, and which is only superficially mediated by representations of value like money and commodities. As Marx (1995 [1867]: 47, emphasis added) reminds us,

"the labour of the individual asserts itself as a part of the labour of society, only by means of the relations which the act of exchange establishes directly between the products, and indirectly, through them, between the producers. To the latter, therefore, the relations connecting the labour of one individual with that of the rest appear, not as direct social relations between individuals at work, but as what they really are, *material relations between persons and social relations between things.*"

Translated into more austere prose, Marx argues that commodity fetishism occurs when people perceive commodities as spontaneously retaining value in a manner that is disconnected from the labour that workers invest in their production (cf. Cohen 1978: 119). By implication, the fetishism of commodities also conceals the highly exploitative and asymmetrical distribution of the value that results from their eventual sale. In Marxian terms, such exploitation arises because the value that results from the sale of a commodity accrues primarily to those who own the means of production

comprise Marx's 'labour theory of value', in which the latter arises solely because of the quantities of the former that workers invest through productive processes (Cohen 1978: 115-120; Wood 2004: 233; Wolff 2011). As a caveat, I do not claim that Marx's labour theory of value is flawless, nor do I contend that it is ultimately superior to alternative classical theories of value, such as those advanced by Adam Smith and David Ricardo, or by sociologists like Georg Simmel (cf. Appadurai 1986). Indeed, many of Marx's economic and philosophical peers fervently opposed his labour theory of value even in his own lifetime, not to mention that contemporary neoclassical economists largely ignore this argument altogether (Wood 2004: 239). I do assert, however, that kernels of utility remain in Marx's thinking on the relationship between exploitation, profit, and the fetishism of commodities, even if we reject the principle that labour is the sole determinant of value.

under which labour occurs, rather than to those who actually contribute labour to productive processes (Cohen 1978: 120; Elster 1985: 99; Peet and Hartwick 2009: 148).

Consequently, in this style of analysis, the only means of de-fetishizing a commodity is to illuminate the manner in which the relations of its production create and (asymmetrically) distribute value. In other words, one must chart the uneven distribution of value from those who originally produce a commodity, in comparison and contrast with those to whom such value ultimately accrues (Cohen 1978: 115-120; Wood 2004: 233; Wolff 2011). Further, one must also identify the variables and mechanisms that mediate this process, and which affect the distribution of value among and between different populations. Here, of particular interest are the ways in which actors can structure relations of exchange in such a way to obscure the *actual* determinants of value, and the distribution thereof, in favour of upholding the illusion of the commodity as a freestanding and autonomous embodiment of economic worth.

Accordingly, as the antecedent discussion alludes, Marx's notion of commodity fetishism highlights a variety of innovative methods for analyzing the commodification of environmental services (Kosoy and Corbera 2010; McAfee 2012). That said, in applying this style of analysis to PES schemes, one must carefully think through a variety of conceptual puzzles that are perhaps unique to this context. First, in his exposition of commodity fetishism, Marx pays a limited amount of attention to the distinction between commodified goods and commodified services. Further, it remains somewhat ambiguous whether all environmental services actually meet the definition of a 'service' in a strictly economic sense. For example, conventional economics normally conceptualizes 'goods' as existing in a dichotomous relationship with 'services' (Jansson 2006: 4), in which the latter is usually conceived of as an "intangible good" (Arnold 2001: 1).

Moreover, as Karl Polanyi (2001 [1944]: 76) observes in a footnote to his well-known discussion of the "fictitious commodities" of labour, land, and money, "Marx's assertion of the fetish character of the value of commodities refers to the exchange

value of genuine commodities and has nothing in common with the fictitious commodities mentioned in this text.” Here, Polanyi appears to suggest that only “genuine commodities,” which he defines as tangible goods (Polanyi 2001 [1944]: 76), retain fetishized properties. Yet, some forms of ecosystem services blur the distinction between tangible and intangible goods, as they often serve as distribution mechanisms for very tangible entities, such as water, non-timber forest products, and energy (in the form of fuel wood). In some cases, such as that of water catchment, the distribution mechanism is inseparable from the good itself, as consumers access water directly from the same biophysical infrastructure (ie. rivers, streams, lakes) that delivers it. Nonetheless, I would assert that the problem of fetishism still applies if a commodified service is presented to prospective consumers in a way that obscures the relations and context of its own provision.

Second, unlike the 19th century-industrial setting in which Marx wrote, the degree to which the commodification of environmental services involves human labour is debatable. This is a truly unique aspect of commodified environmental services; indeed, few other commodities spontaneously accrue to consumers without intervention by a service provider or monitoring agency that enforces scarcity in the absence of payment. As a result, actors such as the GEF (2010a, 2010b) and UNEP (2008, 2011b) regularly construe PES schemes as a straightforward means of using market tools to value naturally-occurring phenomena, in order to make their unsustainable exploitation more costly, and to reward those who succeed in conserving their supply.¹² In other words, the discourses of international bureaucrats and consultants often portray ecosystem service commodities as if they are produced solely by ‘nature’, in isolation from society, rather than by human labour (MEA 2005; GEF 2010b). In such a perspective, the only role of humans is to assign a price to the services that occur naturally in ecosystems, and to ensure that prospective consumers pay said price in exchange for access thereto.

¹² To be clear, I refer to the GEF’s (2010b: 1) five-point definition of ‘payment for ecosystem service’ schemes as “(i) voluntary, (ii) contingent transactions between (iii) at least one seller and (iv) one buyer (v) over a well-defined ES, or a land use likely to secure that service.”

Upon a closer examination of the ‘production’ of ecosystem services, however, one can identify a crucial role played by humans in the legitimation and enforcement of certain land uses over others, such as strict conservation over subsistence agriculture or pastoral grazing. Indeed, in the context of densely populated, low-income countries like Uganda, little or no land exists as ‘wilderness,’ or as space unclaimed or uncategorized under the existing property rights regime. In this sense, at one remove from the ‘natural’ production of ecosystem services lies the human production and enforcement of the ‘nature’ that makes such services possible. To put it differently, the state, private firms, or civil society organizations, which enforce the use of land for conservationist purposes, actively produce the ‘natural’ spaces that provide ecosystem services (such as national parks, forest reserves, or privately run tree plantations). Accordingly, the converse implication of the production of ecosystem services is the exclusion of subsistence farmers, pastoralists, and the wide array of alternative land uses that would otherwise occur.

Hence, the appropriation of these spaces for the ‘production of nature’ closely resembles Marx’s (1995 [1867]: 500) notion of “primitive accumulation”, or the violent accrual of land and capital necessary for the establishment of new markets. For example, in *Capital*, Marx follows Adam Smith in conceiving of primitive accumulation in a grand-historical sense; that is, as the actions that preceded the formal establishment of capitalist economies in European countries and their colonies. As he eloquently observes,

“[t]his primitive accumulation plays in [classical] Political Economy about the same part as original sin in theology. Adam bit the apple, and thereupon sin fell on the human race. Its origin is supposed to be explained when it is told as an anecdote of the past. In times long gone by there were two sorts of people; one, the diligent, intelligent, and, above all, frugal elite; the other, lazy rascals, spending their substance, and more, in riotous living. [...] *In actual history it is notorious that conquest, enslavement, robbery, murder, briefly force, play the great part.* In the tender annals of Political Economy, the idyllic reigns from time immemorial. Right and labour were from all time the sole means of

enrichment, the present year of course always excepted. As a matter of fact, the methods of primitive accumulation are anything but idyllic” (Marx 1995 [1867]: 500, emphasis added).

Thus, in reformulating the notion of primitive accumulation, Marx sought to critique the classical political economists’ rather naïve account, in which intelligent and hardworking individuals amass wealth simply as a result of their own diligence, while others fail to do so as a result of relative laziness (Marx 1995 [1867]: 500-502). Instead, Marx highlights the violence and brutality inherent to the primitive accumulation of land and resources in both feudal England and later in its colonies as empirical refutations of such *naïveté*.

Again, one should note that Marx originally frames primitive accumulation as a violent, historically-specific process. Yet, as Perelman (2000), Harvey (2005), Glassman (2006), and Büscher (2009) note, these processes largely proceed unfettered in much of the developing world, as evidenced by the massive displacement of farmers and pastoralists for extractive industry, for large-scale development projects (such as hydroelectric dams), and now, for biodiversity conservation and the commodification of ecosystem services. If we take another of Marx’s (1995 [1867]: 501, emphasis added) definitions from *Capital*,

“[t]he process, therefore, that clears the way for the capitalist system, can be none other than the process which takes away from the labourer the possession of his means of production; a process that transforms, on the one hand, the social means of subsistence and of production into capital, on the other, the immediate producers into wage labourers. *The so-called primitive accumulation, therefore, is nothing else than the historical process of divorcing the producer from the means of production.*”

Seen in this light, primitive accumulation takes two forms: i) in physically removing producers from land itself, as in cases of eviction for conservation (cf. Cernea and Schmidt-Soltau 2006), and ii) in allowing producers to remain in place, but forcing

them to produce for markets instead of merely for subsistence (cf. Hyden 1980; Bunker 1987). In the former case, rural farmers must then search for alternative means of subsistence, such as laboring for a wage on larger farms, or by travelling to urban centers in search of work. In the latter case, restricted access to common-pool resources denotes that producers must acquire such goods over markets, which further increases their dependence on cash-based production. By extension, these processes thus directly benefit capitalist development, by ensuring the availability of a large “industrial reserve army”, and by optimizing the production of commodities for export and consumption (cf. Mamdani 1975; Kelly 2011: 697).

For example, in her analysis of “conservation practice as primitive accumulation”, Kelly (2011: 683) observes that “acts of enclosure, dispossession, [and] dissolution of the commons” are largely characteristic of biodiversity conservation in developing countries. That said, she also notes possible counterarguments to the application of Marx’s concept of primitive accumulation, as conservation is usually implemented in the interest of producing public, as opposed to private-, property (Kelly 2011: 687). Indeed, Kelly (2011: 687) describes how,

“in the case of national parks and other protected areas that limit extraction, these areas are not being commodified, as they would be in classic cases of primitive accumulation, but are instead being taken out of the market as production and use of the land is banned or heavily curtailed. As Tania Li [...] points out, advocates of conservation see national parks as ‘the ultimate noncommodity.’”

When conservation practice also involves the sale of ecosystem services, however, the picture becomes more complex. In such cases, dispossession can indeed support the accumulation of private property and profit through the sale of carbon offsets and other commodified environmental services, depending on the particular institutional regime for governing these sales. Further, even if we bracket the sale of ecosystem services, various actors commodify protected areas in an ecotouristic sense, where forest and wildlife reserves are sold to wealthy tourists in the form of a consumptive

recreational experience (cf. West and Carrier 2004; Carrier and Macleod 2005; West *et al.* 2006; Brockington *et al.* 2008). In the latter case, private sector actors and individuals collect at least substantial portions of the revenues from ecotourism, even if the state remains the primary beneficiary. Finally, as both Kelly (2011) and a range of other scholars note, protected areas can also be linked to global markets through the sale of “bioprospecting” rights to pharmaceutical companies, and through the incomes that may accrue through potential royalties (cf. Shiva 1997; Adger *et al.* 2001; Svarstad 2002).

Based on these insights from Marxian theory, therefore, consumers fetishize the provision of ecosystem services – including biodiversity conservation itself – when they ignore the relationship between primitive accumulation and the ‘production of nature’ entailed in the establishment of national parks, forest reserves, and other enclosures. Thus, far from protecting ‘nature’ from exposure to market forces, processes of primitive accumulation often violently appropriate land and resources from largely *subsistence* economies, and instead link them more firmly to *global* markets and economies, albeit ones that value its resources in new, mostly immaterial ways. In particular, one can observe primitive accumulation - or “accumulation by dispossession” as Harvey (2005), Glassman (2006) and Neves and Igoe (2012) refer to it - in evictions for the establishment or expansion of protected areas, and in the chronic violence that accompanies restrictions on access to protected common-pool resources. In the literature on conservation and development, such evictions, displacements, and abuses have been thoroughly and exhaustively documented across sub-Saharan Africa, South America, and Asia (e.g. Geisler and de Sousa 2001; Geisler 2003; Schmidt-Soltau 2003; Neumann 2004; Brockington and Igoe 2006; Cernea and Schmidt-Soltau 2006; Adams and Hutton 2007).

Hence, in relation to the ‘production of nature’, these observations suggest a fruitful point of synergy between Marx and Foucault. Recalling the previous section, Foucault argues that power increasingly operates through mechanisms that “*foster* life or *disallow* it to the point of death” (Foucault 1978: 138-139). In relation to both global

environmental politics and international development more broadly, such dynamics are clear and present. As Li (2010: 66) observes in her analysis of this topic,

“[l]etting die, I want to stress, is not a counterfactual. Abysmal life expectancy, below 55 in much of sub-Saharan Africa and in parts of Asia is a sad testament to the fact that letting die is here [...] Letting die is also signalled by the presence of a billion people in the global South who must try to survive on less than a dollar a day, a sum that leaves them chronically short of food, shelter, and health care.”

In relation to environmental governance, these phenomena are even more clear. As processes of primitive accumulation clear land and restrict access to resources in order to uphold land use policies that subsidize the lifestyles of élite populations, the spectre of biopower increasingly raises its head (cf. Fairhead 2012; Sullivan 2012). Similarly, as the externalities of global capitalist production – such as climactic change and its attendant extreme weather events (IPCC 2011) – give rise to increasingly volatile environmental conditions in LDCs, the citizens of such regions are ‘let die’ in ever-greater numbers (cf. Alliance of Small Island States 2011; Government of the Gambia 2011; Government of Nepal 2012).

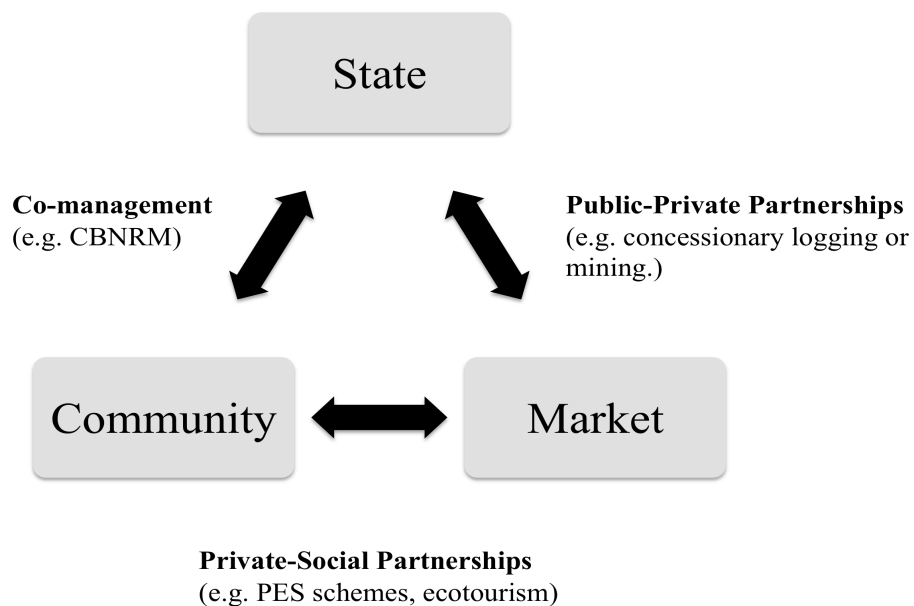
In the following section, I continue to address these observations by unpacking the implications of the Anthropocene’s biopolitics for the relationship between the fields of political ecology and environmental governance. As I endeavour to show, the nature of global environmental change fosters unique opportunities for reconciliation between these two fields, although perhaps in unexpected ways.

2.4 Global Environmental Governance, or: The Institutionalization of Analytical Political Ecology

In pointing to emerging points of synthesis between these two fields, I must first define them in relation to environmental change processes. First, I define ‘governance’ as the use of a spectrum of available “instruments and mechanisms [...]

to collectively steer a society” (Bäckstrand *et al.* 2010: 8). In contrast with mere ‘government’, which refers to the actions taken by the state and its agents, governance may involve networks of state, civil society, and private sector actors that cooperate to achieve mutually desirable goals. Indeed, in a system of governance, “state actors are not necessarily the only or most significant participants” (Bulkeley 2005: 877). Instead, the notion of governance articulates the manner in which the interests of these three categories of actors intermingle, and the ways that their actions can often mutually influence each other (Biermann and Pattberg 2008). For example, although a conventional view of the state would highlight its ability to constrain the actions of non-state actors by setting relevant legislation and policy, a more nuanced perspective on governance acknowledges the ways that corporations, civil society groups, and even powerful individuals can influence both the formulation processes and content of these institutions. Examples of resulting governance strategies include co-management, public-private partnerships, and private-social partnerships between firms and communities (cf. Figure 2-1).

Figure 2-1: Examples of hybridized environmental governance strategies.



Source: Modified from Lemos and Agrawal (2006: 310).

Further, and specifically in relation to the governance of environmental phenomena, it is increasingly necessary for the state to engage in such partnerships. Here, ‘environmental governance’ is understood as “the set of regulatory processes, mechanisms, and organizations through which political actors influence environmental actions and outcomes” (Lemos and Agrawal 2006: 298). Indeed, by their very nature, global environmental problems are complex, multi-jurisdictional, and problematic for arguably outdated – but strongly institutionalized – conceptions of private property and Westphalian sovereignty. Truly, nascent phenomena like global climate change, stratospheric ozone depletion, and ocean acidification – to take just a few disparate examples – are inherently *systemic* in the sense that both their causes and consequences circulate through international networks in ways that are perhaps historically unprecedented (Biermann *et al.* 2012). This complexity arises from the manner in which the drivers of such problems are largely external to the administration of the state itself, and visible, for example, in the manner in which the greenhouse gas emissions of a specific group of industrialized countries have largely given rise to climate change on a global scale (Steffen *et al.* 2011b: 849-850). Accordingly, networks of cooperation and collaboration across the state/non-state divide constitute a necessary condition for the mitigation the risks that arise from both climate change and other global environmental problems.

Second, I initially adopt Blaikie and Brookfield’s (1987: 17) definition of “political ecology” as a field that “combines the concerns of ecology with a broadly defined political economy ... [and] encompasses the constantly shifting dialectic between society and land-based resources.” Blaikie and Brookfield’s (1987) definition reflects the field’s early materialist, Marxian focus on the political economy of environmental phenomena. Reinforcing the field’s status as a ‘settler discipline’ (Wolford 2005: 717-718), however, several researchers have since complimented this perspective with approaches from discourse analysis, gender studies, urban studies, post-structuralism, science and technology studies (STS), and actor-network theory (ANT), among other perspectives (cf. Escobar 1996; Rocheleau *et al.* 1996; Adger *et al.* 2001; Heynen *et al.* 2006; Bennett 2010; Forsyth 2011). Notably, the rise of discourse analysis in both

political ecology and environmental studies more broadly displaced the straightforward focus of early Marxian political ecology on cost- and benefit distributions in productive and consumptive processes (cf. Hajer 1995; Dryzek 1997; Adger *et al.* 2001). Instead, this ‘discursive turn’ highlighted the role of cognition in relation to environmental phenomena, or the manner in which environmental knowledge and policies were themselves socially constructed – and frequently in ways that benefit elite groups at the expense of others. Further, and more recently, perspectives from ANT and STS have achieved some success in readjusting political ecology’s sometimes myopic focus on humans as actors (Bennett 2010; Goldman and Turner 2011; Sundberg 2011), in favour of approaches that take seriously the agency of non-humans (whether sentient or otherwise) (Robbins 2011: 231).

In light of this recent proliferation of different conceptual perspectives, Robbins’ (2004: 12-13) metaphor of “the hatchet and the seed” now perhaps provides the most accurate overview of the field of political ecology as a whole. Indeed, for Robbins (2004), research in political ecology seeks to both deconstruct dominant narratives about the environment (with ‘the hatchet’), albeit from a variety of different analytical perspectives, and to subsequently plant the motivational ‘seed’ for more equitable and sustainable forms of human-environment interaction. Usefully, one can interpret this latter approach as dividing political ecology along the lines of two (sometimes mutually exclusive) components: i) analytical political ecology, and ii) normative political ecology. In wielding ‘the hatchet’, analytical political ecology,

“seeks to expose flaws in dominant approaches to the environment favoured by corporate, state, and international authorities, working to demonstrate the undesirable impacts of policies and market conditions, especially from the point of view of local people, marginal groups, and vulnerable populations. It works to ‘denaturalize’ certain social and environmental conditions, showing them to be the contingent outcomes of power, and not inevitable” (Robbins 2004: 12).

Political ecologists have approached this task from a variety of angles. Some, like

Watts and Peet (2004), have sought to highlight the struggles of social movements in resistance to the dominance of Western governments and corporations in the Global South. Others, like Fairhead and Leach (2003), Forsyth (2003) and Goldman and Turner (2011), have instead focused on the processes through which knowledge about the environment is produced, and the numerous political interests that can influence the translation of this knowledge into environmental policy. Still others have underscored the politics of specific environmental phenomena – for example, with regard to biodiversity conservation (Adams and Hutton 2007), environmental or resource-based conflicts (Fairhead 2001, Benjaminsen *et al.* 2012), and climate change mitigation (Bumpus and Liverman 2011), to take but a few examples.

Further, in ‘planting the seed’, the normative component of political ecology seeks to offer value-laden recommendations for the actualization of more sustainable and equitable constellations of interaction between humans and the environment (Robbins 2004: 13). Often, this takes the form of a call for radical political reform, which perceives the politico-economic structure of the capitalist world-system as producing many unjust patterns of human-nonhuman relations (cf. Watts and Peet 2004; Watts 2010). In its place, normative political ecology often seeks to conceive of alternative systems of production and consumption, which would be more capable of achieving environmentally and socially just outcomes.

Yet, although this latter component leads Robbins (2004: 5) to famously claim that political ecology is “explicitly normative”, this is arguably untrue with regard to much recent scholarship in the field. In particular, emerging forms of political ecology that draw on post-structural and/or actor-network approaches deliberately eschew normative questions at the level of the diagnosis of socio-ecological problems. This is done in order to generate rich descriptions of both the manner in which power relations operate between humans and institutions (in the case of the post-structural literature), or between humans and non-humans (in the case of the actor-network literature.) For example, analyses of genealogy and governmentality in the purely Foucauldian tradition begin by “bracketing”, or setting aside-, “normative questions”

or concerns regarding legitimacy, equity, or justice (Sterne 2003: 106).¹³ At the outset of her Foucauldian-influenced approach to the analysis of conservation and development initiatives, for example, Li (2007: 2) clearly states that “the positions of critic and programmer are properly distinct,” alluding to the fundamental disconnect between conducting a Foucauldian analysis of power relations, and offering pragmatic recommendations for more equitable policy solutions. To be clear, I do not assert that analytical and normative approaches to political ecology cannot be combined; rather, I suggest that the aforementioned examples of analytical political ecology prioritize ‘the hatchet’ far in advance – or even wholly separately from – ‘the seed’.

Interestingly, in the context of new approaches to the governance of global environmental problems, international organizations have arguably begun to institutionalize many of the principal tenets of analytical, if not normative-, political ecology. Truly, the most recent Conferences of the Parties (COPs) to the UNFCCC have highlighted, above all else, “the concerns of ecology with a broadly defined political economy” (Blaikie and Brookfield 1987: 17). Notably, when Blaikie and Brookfield advanced this definition in 1987, their assertion likely provided a revelatory corrective to corporations, governments, and citizens whose default worldview conceptualized human societies and economies as existing in relative isolation from the ‘natural’ world. In the nascent context of the Anthropocene, however, this could not be further from the truth – indeed, the deleterious and asymmetrically distributed nature of the environmental consequences of global political economy are increasingly now taken as ‘given’, and hotly debated by the parties to the UNFCCC.

For example, at the 2011 COP-17 in Durban, South Africa, various parties explicitly advanced concerns about the geographically asymmetric distribution of the negative consequences of climate change, in particular. Especially critical were small-island states, for whom the risk of climate change-induced sea level rise and other “extreme weather events” constitute clear and present dangers (Alliance of Small Island States

¹³ On the initial bracketing of normative questions in Foucauldian methodology, please also see Foucault (1978) and Fraser (1981).

2011). Illustratively, and only three months after the Durban conference, the small island state of Kiribati has now entered into large-scale land lease negotiations with Fiji, should it need a contingency plan to relocate large numbers of its citizens (BBC 2012). Similarly, an alliance of the world's Least Developed Countries (LDCs) was also outspoken, and argued that climate change should not be mitigated at the expense of the development of their own economies – not to mention the reduction of poverty in their respective societies (Government of the Gambia 2011). Certainly, these concerns reflect the early materialist foundations of political ecology, which sought to diagnose environmental problems not as 'natural' phenomena, but as processes that are inextricably connected to local and global political economies.

Indeed, the highly uneven distribution of costs and benefits from environmental change processes are increasingly taken as given by the organizations whose mandate it is to address these phenomena. In particular, the Kyoto Protocol institutionalizes these concerns through its principle of "common but differentiated responsibility" (UNFCCC 1998), wherein the historically unequal responsibility for greenhouse gas emissions is at least symbolically recognized. Seen from this perspective, the UNFCCC's decision to create the Clean Development Mechanism (CDM) was an inherently political one – without it, the cooperation of developing and emerging economies in the pursuit of climate change mitigation would not be easily forthcoming. At Rio +20 in June 2012, moreover, the newfound resistance of G-8 countries such as the United States and Canada to the "common but differentiated responsibilities" principle foregrounds the inherently contentious, political nature of these processes. Differently put, while radical political ecology must still rely on grassroots methods to pursue its aims, the principles that constituted the heart of the field at its outset are increasingly institutionalized within systems of global environmental governance. In some ways, this is a measure of success.

However, different "discourse coalitions" of actors propose vastly divergent, explicitly normative prescriptions for the solving the above-mentioned environmental problems (cf. Hajer 1995: 13). Indeed, Bruno Latour (2011) aptly summarizes the resulting predicament, rhetorically asking,

“[w]hat, then, should be the work of political ecology? It is, I believe, to *modernize modernization*, to borrow an expression proposed by Ulrich Beck. This challenge demands more of us than simply embracing technology and innovation. It requires exchanging the modernist notion of modernity for what I have called a "compositionist" one that sees the process of human development as neither liberation from Nature nor as a fall from it, but rather as a process of becoming ever-more attached to, and intimate with, a panoply of nonhuman natures.”¹⁴

In the following section, I examine four discourses that each propose a distinct means of “modernizing modernization”, and of addressing the increasingly unstable relationship between ‘society’ and ‘nature’ resulting from our emerging awareness of the implications of the Anthropocene. Each of these arises in large part from the ‘institutionalization of analytical political ecology’ discussed above, but offers a distinct set of normative recommendations for how human societies should respond to these insights.

2.5 Competing Discourses of Environmental Governance: Ecological Modernization and Its Discontents

In June 2012, the United Nations Conference on Sustainable Development in Rio de Janeiro celebrated the 20th anniversary of the 1992 United Nations Conference on Environment and Development. Officially, the purpose of this gathering was to achieve a renewed, high-level commitment to the idea of ‘sustainable development’ among the world’s leaders in government, business, and civil society. Informally, the conference also provided a rare opportunity for debate and contestation regarding the precise manner in which the international community should reconceptualise its

¹⁴ One should note that Latour (2005, 2011) uses the term ‘political ecology’ in a rather different sense than that adopted by either Blaikie and Brookfield (1987) or Robbins (2004). Instead, his usage directly refers to the politics of his proposed “Collective Without Outside Recourse”, or proposed means of reformulating the Nature-Society dualism characteristic of Western thought since the European Enlightenment (cf. Latour 2005: 37).

approach to sustainable development amidst a context of potentially catastrophic environmental and climactic change. Engaging with such debates, this section provides an exegesis of four approaches to this problematic that scholars and development practitioners have advanced in the field of environmental governance.

First, in comparison and contrast with Hajer (1995), Dryzek (1997), and Adger *et al.* (2001), I understand the term ‘discourse’ to denote, broadly speaking, “a shared meaning of phenomena” (Adger *et al.* 2001: 683). Yet, the term also retains more complex referents in the work of Michel Foucault and other critical social theorists. These latter scholars frame the notion of discourse in relation to historically emerging *epistemes*¹⁵ (Smart 2002: 23), which delimit the forms of information that powerful actors support as being constitutive of ‘knowledge’ in different historical and institutional contexts (Bäckstrand and Lövbrand 2006: 52). To take but a few examples, Foucault demonstrates how these processes (re)produce asymmetric power relations in the fields of penology, sexuality, and government, respectively (Foucault 1975, 1978, 2008). Following in this tradition, other scholars have offered similar analyses in the fields of international development (Ferguson 1994), forest management (Agrawal 2005), and biodiversity conservation (Li 2007). Although it is well beyond the scope of this thesis to provide a comprehensive overview of Foucauldian social theory, I draw on such scholarship by defining the concept of ‘discourse’ as not just a ‘shared meaning of phenomena’, but as a shared meaning of phenomena that is deliberately produced and reproduced in a way that serves the social, political, or economic interests of those who actively construct it.

In the field of environmental governance, further, discourses can be more specifically defined as encompassing a normative assertion about the proper distribution of power between the state, private sector, and civil society in the management of environmental phenomena (cf. Lemos and Agrawal 2006: 310). Moreover, such assertions often directly support the interests of the actors involved in promulgating each respective discourse. This can be true in an economic sense, especially when the

¹⁵ In English: “knowledge formations”. Foucault (2011 [1969]: 211) defines these as “the total set of relations that unite, at a given period, the discursive practices that give rise to epistemological figures, sciences, and possibly formalized systems.”

private sector is central to the discourse in question, or in a social or political sense, when civil society or the state acts as the primary ‘discourse architect’. Here, examples of contentious issues include the responsibility for costs arising from the environmental externalities of production (such as paying for the damage caused by industrial pollutants or greenhouse gas emissions), and whether environmental issues should be addressed through state-centric mechanisms, or privately, through transactions over markets.

Accordingly, in the following sub-sections, I provide an exegesis of four such discourses of environmental governance. Three of these – *ecological modernization*, *green governmentality*, and *civic environmentalism* - are reconstructed following the influential work of Bäckstrand and Lövbrand (2006, 2007). Further, in updating the work of these scholars, I add the ‘*green economy*’ approach that UNEP has recently and controversially proposed in the lead-up to the Rio +20 conference (T. Vedeld 2011; Brockington 2012). I assert that this addition is justified on the grounds that Bäckstrand and Lövbrand’s (2006: 52-53) original formulation of “ecological modernization” is somewhat overly broad in its inclusion of both “weak” and “strong and reflexive” versions of the concept. Indeed, the authors argue that “the weak version is a technocratic and neo-liberal economic discourse that does not involve any fundamental rethinking of societal institutions” (Bäckstrand and Lövbrand 2006: 53). However, this definition exists rather disharmoniously alongside the “strong and reflexive” form of ecological modernization, which, they assert, “adopts a critical approach to the limits of dominant policy paradigms and modern institutions in addressing environmental threats ... [and further] originates from the debate on risk society and the limits of state-centric and top-down environmental regulation” (*ibid*). As such, I separate these two rather distinct accounts of ecological modernization, and synthesize the former, “weak” version with UNEP’s (2011b) emerging notion of “green economy.”

Further, I do not frame the concept of “sustainable development” as an environmental governance discourse (cf. WCED 1987). Rather, I assert that sustainable development is better conceptualized as the end goal or objective of *each* of the discourses that will be presented in the following sections. In other words, the differences between these

discourses arise not from their divergent objectives, as such, but from their proposed means of meeting the ultimate goal of global sustainable development. Indeed, it has been argued that the notions of ‘ecological modernization’ and ‘sustainable development’ are frequently conflated (Langhelle 2000). In avoiding such a pitfall, I concentrate on how these strategies differ mainly in their proposed balance of power between the state, market, and civil society (Table 2-2), each in the pursuit of indefinitely sustaining economic production within ecological constraints.

Finally, I do not suggest that these discourses constitute alternatives to those identified by Adger *et al.* (2001). Rather, the above-mentioned four discourses specifically concern the field of environmental governance in particular, whereas Adger *et al.* (2001) address global environmental discourses more broadly. Additionally, other researchers would perhaps advance alternatives or additions to this typology, such as the sub-fields of political ecology, deep ecology, ecological Marxism (cf. Schnaiberg *et al.* 2002), institutional analysis (cf. Vatn 2005), or socio-ecological resilience theory (cf. Berkes and Folke 1998). However, I would assert that these entities are not environmental governance discourses, *per se*, if the latter is defined as a normative assertion about the proper distribution of power between the state, market, and civil society in the management of environmental phenomena. Rather, they are perhaps more accurately construed as frameworks for analysis that seek to diagnose causal factors for the generation of different socio-environmental outcomes. As such, I will provide an exegesis only of the four chosen environmental governance discourses, in the following order: i) green governmentality, ii) civic environmentalism, iii) green economy, and iv) ecological modernization.

2.5.1 Green Governmentality

First, the discourse of green governmentality prioritizes the role of the state and intergovernmental organizations (IOs) in responding to global environmental phenomena. However, this approach to environmental governance differs from the state-centric discourse of ecological modernization in that it is largely anti-democratic, and based upon expert forms of knowledge rather than the democratizing claims of social movements. Indeed, the notion of positivist, objective science is central to this discourse, which its proponents perceive as existing in opposition to

“irrationalist” forms of indigenous and activist knowledge (Bäckstrand and Lövbrand 2006: 54).

Table 2-2: Competing Discourses of Environmental Governance

<i>Discourse</i>	Green Governmentality	Civic Environmentalism	Green Economy	Ecological Modernization
<i>Governance Focus</i>	State, IOs, Universities, Scientific bodies, Legislatures.	Social movements, NGOs, CBOs, activist networks, individual citizens.	Corporations, Multilateral and Bilateral Donors, Private philanthropy	State, Democratic institutions, Public administration.
<i>Key Mechanisms</i>	Translate findings of elite science into legislation and policy.	Lobby governments, advocate for sustainable development and environmental justice.	Internalize costs and externalities; Create new PES markets; End state subsidies for fossil fuels.	Internalize social movements; Innovate for green development.
<i>Main Actors (Examples)</i>	IPCC, UNFCCC, UNEP, GEF, CBD.	Greenpeace, Forest People’s Programme, Cultural Survival, Earth First!, La Via Campesina	World Bank, USAID, FCPF, UNEP Finance Initiative, Fortune 500, Bill and Melinda Gates Foundation.	G-8, G-20, BRICS, Civil society, social movements.

Source: Modified from Bäckstrand and Lövbrand (2006, 2007) and UNEP (2011b).

Likewise, advocates for green governmentality are largely contemptuous of democratic public opinion, and conceptualize the findings of elite scientists as an objectively correct description of biophysical realities, which states must subsequently translate into legislation and policy, regardless of the preferences of their respective citizens. In other words, the green governmentality discourse privileges both the “eco-knowledges” generated by experts and scientific elites (Luke 1995; Lövbrand *et al.* 2009), as well as the public environmental agencies that absorb and implement their findings.

Further, in highlighting the need to identify and manage the biophysical conditions under which human societies prosper, this discourse places ‘biopolitics’ at its very core. As Bäckstrand and Lövbrand (2006: 54, emphasis added) assert:

“[t]he current green twist to governmentality is manifested through a notion of stewardship of nature and an all-encompassing management of its resources. In the name of sustainable development and environmental risk management a new set of administrative truths have emerged that *expand biopolitics to all conditions under which humans live*. These new eco-knowledges and practices organize and legitimize common understandings of the environmental reality and enforce ‘the right disposition of things’ between humans and nature.”

Accordingly, both the state and research institutions (whether public or private) are central to the green governmentality discourse, ensuring that it remains well described as ‘technocratic.’ Here, contemporary examples of key actors include the Intergovernmental Panel on Climate Change (IPCC), as well as the advisory and consultancy staff associated with the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Environment Programme (UNEP), and Global Environment Facility (GEF), as well as their counterparts in national environmental agencies such as the US EPA. Additionally, in the lead-up to the “Rio +20” Conference on Sustainable Development, these sentiments were particularly salient in discussions around the proposal to “create an environmental WTO”, similar

in mandate and authority to the World Trade Organization (WTO) and International Labour Organization (ILO) (UNCSD 2012).

Further, although the label of green ‘governmentality’ clearly alludes to the same concept in the canon of Michel Foucault (2004), Bäckstrand and Lövbrand (2006: 54) do not employ the term in a strictly Foucauldian sense. As noted by Rutherford (2007: 292), these authors arguably commit a hermeneutic *faux pas* by deploying the notion of governmentality

“in ways that belie its original formulation, generating analyses under the banner of Foucault that are decidedly ‘un-Foucauldian’. In select parts of the governmentality literature, rule appears as a completed project, simply applied to a passive populace [...] the [misguided] research on governmentality often focuses on state regulation and its impacts and effects on the population, and yet neoliberal governance has made it clear that there are multiple sites of governing.”

Indeed, in this sense, Bäckstrand and Lövbrand (2006) employ the concept of green governmentality in a manner that is nearly synonymous with that of simple “green government” or “green technocracy.” Although the authors briefly allude to it (Bäckstrand and Lövbrand 2006: 54), notably absent from their discussion is serious engagement with the manner in which Foucault’s conceptualization of governmentality operates both *on* and *through* individuals (cf. Mosse 2005: 6). That is, how governmental rationalities operate through not just coercion and decree, but also through the production of consent, and by encouraging the voluntary formation of certain ‘green subjectivities’ or “environmentalities” (cf. Agrawal 2005). As such, for the purpose of this analysis, Bäckstrand and Lövbrand’s (2006) discourse of green governmentality should not be conflated with a strictly Foucauldian position or critique. Conversely, however, the authors’ original formulation of the concept is arguably more relevant to discussions of environmental governance without such a deeper grounding in Foucault’s canon.

2.5.2 Civic Environmentalism

Unlike the discourse of green governmentality, civic environmentalism highlights the role of both social movements and civil society organizations in pursuing the objectives of sustainable development. For Bäckstrand and Lövbrand (2006: 55), this discourse originates from the 1992 Rio Earth Summit, after which the language of “stakeholding”, “bottom-up development”, and “democratic efficiency” gained considerable support. Essentially, this approach sees associations of youth, women, indigenous groups, and other historically marginalized populations as playing a vital role in bringing environmental issues to the forefront of the international agenda. Here, advocacy plays a central role, as does lobbying key politicians, corporations, and government agencies for environmental reform.

As such, ‘environmental justice’ constitutes a key concept within the discourse of civic environmentalism (cf. Svarstad *et al.* 2011). In most cases, this discourse asserts that sustainable development is unrealized or incompletely realized because of a lack of either i) procedural-, or ii) distributive justice in relation to environmental phenomena. The invocation of procedural justice notably involves concerns regarding the participation of minority groups in environmental processes – for example, in conservation or natural resource extraction – and the tendency of powerful actors to implement decisions that impact these groups without first obtaining free, prior, and informed consent (FPIC) (cf. Pretty 1995). Conversely, issues in distributive justice typically concern the distribution of costs and benefits from environmental phenomena, and the ways that costs tend to asymmetrically accrue to vulnerable groups, whereas benefits often disproportionately accrue to elites (cf. Ikeme 2003). Here, examples of ‘costs’ might include exposure to the damaging externalities from productive or extractive processes (such as water and air contamination), or the expropriation of land for development or environmental protection (such as for hydroelectric dams or carbon credit-generating forest reserves). Likewise, ‘benefits’ comprise the revenues that are generated through these processes, such as the rents accrued through natural resource extraction, ecotourism services rendered, or the sale of carbon offsets.

Yet, as noted by Bäckstrand and Lövbrand (2006: 56), this discourse is “neither homogenous nor uncontested”, in the sense that it remains divided over the most appropriate means of pursuing both environmental justice and sustainable development. In the words of Paul Kingsnorth (2003), this observation fits with the nature of many contemporary social movements more generally, which tend to form around a mantra of “one no, but many yeses.” In this sense, the discourse of civic environmentalism offers a collective ‘no’ to environmental *injustice* and attempts to uphold the environmentally damaging *status quo* of liberal capitalism, while offering a broad spectrum of prospective ‘yeses’ in its stead. Further, these alternatives revolve around the polemically opposed options of incremental reform and revolutionary change. Indeed, the reformist version of civic environmentalism highlights “participatory multilateralism”, “public accountability and legitimacy” of institutions, and heightened inclusion of civil society groups in multilateral policymaking processes. By contrast, the radical version of civic environmentalism is anti-capitalist, and advocates for the overthrow of the existing politico-economic structure of the global economy in favour of more just and equitable alternatives. Today, notable proponents of this discourse can be found in the civil society forums associated with global environment and development conferences. Classic examples of relevant NGOs and social movements include Greenpeace, La Via Campesina, Earth First, Cultural Survival, Friends of the Earth, and the Forest People’s Programme.

2.5.3 *Green Economy*

In contrast with the discourses of green governmentality and civic environmentalism, the *green economy* approach stresses the power of market forces to rectify global environmental problems (UNEP 2011b; Brockington 2012). Interestingly, UNEP selected this perspective as the main theme for the Rio +20 Conference on Sustainable Development, where the central focus was on “internalizing environmental costs in economic analysis and macroeconomic policy” and enhancing “investment in natural capital, low energy, and low emission societies” (T. Vedeld 2011). Among proponents of this discourse, these concerns are collectively referred to under the banner of ‘The Economics of Ecosystems and Biodiversity’ or TEEB (Arsel and Büscher 2012), and

can be traced to the economic thinking that arose from the Millennium Ecosystem Assessment (MEA) conducted in 2005 (Dempsey 2012). Accordingly, for the purposes of this discussion, I perceive this approach as being synonymous with Bäckstrand and Lövbrand's (2006: 53) "weak version" of ecological modernization, which essentially is a "neo-liberal economic discourse that does not involve any fundamental rethinking of societal institutions." Indeed, the discourse of green economy concomitantly sees liberal capitalism as the cause of-, but also the solution to-, global environmental problems (McAfee 1999). Further, its position is not just that such problems can be rectified through the functioning of the global capitalist economy, but also that new commodities and profits can be created in the process (cf. Brockington 2011, 2012; MacDonald and Corson 2012).

Here, prominent examples of the green economy discourse in practice are visible in the construction of new markets for carbon credits and other environmental services. In its purest form, an example of these schemes involves the private production and sale of carbon credits over largely unregulated voluntary carbon markets (VCMs). In recent years, a variety of private companies have emerged to engage in this trade, and notably so in the forest carbon offset sector (Lovell *et al.* 2009; Bumpus and Liverman 2008; Bumpus 2011). Examples of these latter actors include the Norwegian company Green Resources AS, the UK-based New Forests Company, and the Netherlands-based Climate Neutral Group. Also influential are multilateral and bilateral donors whose mandate it is to enhance or encourage growth in markets for carbon offsets and environmental services: these include the Forest Carbon Partnership Facility (FCPF), the UNEP Finance Initiative, and the World Bank's Carbon Finance Unit, along with USAID and the Norwegian International Forest and Climate Initiative, among many others.

Somewhat predictably, critical researchers, academics, and activists have already heavily criticised the green economy discourse as representing a thinly 'greenwashed' version of corporate and Western interests (Arsel and Büscher 2012; Brockington 2012; McAfee 2012; Peluso 2012). Indeed, many of these concerns constitute main components of the civic environmentalist discourse, as outlined in the previous section. That said, the green economy discourse is arguably the most powerful of the

four approaches presented here, as it receives substantial backing across most actors in environmental governance, including multilateral and bilateral donors, G-8 governments, and international NGOs such as the WWF.

2.5.4 Ecological Modernization

Finally, the state-centric discourse of ecological modernization recognizes many past and present failures of modern institutions to effectively deal with environmental problems. However, this perspective takes a reformative approach to these obstacles, and contends that the current international system can modernize its political and economic institutions in order to more effectively mitigate the emerging problems associated with ecological degradation, as well as with climate and environmental change (Spaargaren and Mol 1992; Mol and Sonnenfeld 2000; Mol 2001). Indeed, in Hajer's (1995: 25) words, ecological modernization "recognizes the structural character of environmental problems but none the less assumes that existing political, economic, and social institutions can internalize the care for the environment." In particular, Beck (1999, 2001) refers to this process as one of "ecological enlightenment" or "enforced enlightenment", where societies are largely coerced - as a result of the consequences observed through social and ecological feedback loops - to implement environmental reforms. As such, a key feature of this approach is the state's *internalization* of environmental challenges and objections; that is, the selective incorporation - rather than the repression - of environmental movements and their normative claims into the structure of the state itself.

Accordingly, for ecological modernizationists, both technology and innovation play a central role in the ability of contemporary states to address these environmental challenges (Fisher and Freudenburg 2001: 702). In Buttel's (2000: 62) words, these scholars generally argue that the "solutions to the problems caused by modernization, industrialization, and science can only be solved through more modernization, industrialization, and science." Or, to put it differently, technology here constitutes the mechanism through which capitalist forms of production and consumption are able to react to increasingly inhospitable ecological conditions. Thus, the ecological modernization discourse highlights the adaptive, chameleonic nature of liberal

capitalism, albeit with a caveat about the importance of monitoring ecological and social externalities, and innovating to avoid their detrimental consequences. Clearly, this distinguishes ecological modernization from perspectives that see capitalism as the ultimate cause of environmental crises, and which view a post-capitalist economic system as the only solution to ecological degradation (cf. O'Connor 1991; Schnaiberg *et al.* 2002). In this sense, the very core of ecological modernization involves a belief that radical structural change is *unnecessary* for the achievement of sustainable development.

However, this focus on technological innovation also precipitates a reflexive concern with risk and bounded human rationality (Bäckstrand and Lövbrand 2006: 53). Indeed, ecological modernization theorists note the manner in which technological 'fixes' for the problems arising from capitalist modernity can spawn their own unintended by-products and side effects. These sentiments link the ecological modernization discourse, at least in part, both to Theodor Adorno and Max Horkheimer's (1944) thesis in *Dialectic of Enlightenment*, as well as to more recent German sociology in the same vein, such as that arising from the 'risk society' writing of Ulrich Beck (1999, 2009). Indeed, examples abound of such problematic technological fixes, including: the consequences of the use of the insecticide DDT to increase food production (Carson 1962); ozone layer depletion arising from the release of human-made chlorofluorocarbon (CFC) compounds; and the unforeseen linkages between natural disasters and nuclear fallout that were foregrounded by recent events in Japan (Beck 2009). In each of these cases, solutions to one socio-environmental problem – in food, refrigeration/logistics, and energy, respectively – unexpectedly spawned new problems and crises when they intersected with other social or biophysical processes.

Admittedly, some accounts of ecological modernization remain pessimistic regarding the ability of humans to overcome the unforeseen risks of their own boundedly rational technological innovations (cf. Hajer 1995: 30). However, others react by highlighting the potential of a form of democratic, state-led governance in regulating and mitigating these risks (cf. Dryzek 2000). For example, as Buttel (2000: 58) notes,

“a full-blown theory of ecological modernization must ultimately be a theory of politics and the state; that is, a theory of the changes in the state and political practices (and a theory of the antecedents of these changes) which tend to give rise to private eco-efficiencies and overall environmental reforms.”

As such, ecological modernization is certainly a state-centric discourse of environmental governance, albeit one that is distinguished by its openness to ‘democratization’ through external challenges to its own legitimacy. Indeed, although these theorists note the environmental and development challenges raised by civil society and private sector actors, this perspective calls for these claims to be incorporated into state regulatory practices, rather than externalized through privatization or delegation. Specifically, Beck (2009: 93-94) increasingly notes the salient role of environmental ‘new social movements’ (NSMs) and other forms of “sub-politics” in altering the state’s legislative and policy formulation processes, which occur outside of institutionalized parliamentary or congressional political processes. Thus, to summarize, ecological modernization is a discourse of environmental governance that is inherently reformative, predicated on the ability of the state to internalize the claims of environmental social movements, and dependent on the possibility of satisfying these claims through technological and policy innovation.

2.6 Conclusion

“What confronts us today,” writes Giorgio Agamben (1998: 114) in *Homo Sacer*, “is a life that as such is exposed to a violence without precedent precisely in the most profane and banal ways.” While numerous scholars rightfully examine the most profane incarnations of violence in our world – wars, genocide, torture, ethnic cleansing, and the like – we must increasingly also confront the often banal ways in which violence operates by “letting die” (Li 2010). As this chapter has suggested,

such a biopolitics is central to processes of anthropogenic climate and environmental change – in other words, to the emerging context of ‘the Anthropocene’ (Crutzen 2002).

By their very nature, these processes will place a number of stressors on the ecological conditions that support both human and nonhuman populations, and will in turn likely exacerbate existing forms of social, political, and economic inequality. Least Developed Countries (LDCs), the majority of which are located in Sub-Saharan Africa, and Small Island States (SIS) will be most asymmetrically impacted (Alliance of Small Island States 2011; Government of the Gambia 2011). In this context, exploitative relations both between and within states become apparent in policies and legislation that either “*foster* life or *disallow* it to the point of death” (Foucault 1978: 138). In elucidating the manner in which such processes manifest themselves in relation to the ‘production of nature’, in particular, I drew upon Marx’s (1995 [1867]) notions of ‘commodity fetishism’ and ‘primitive accumulation’ to reveal the violence often implicated therein. Amongst other examples, such processes are visible in initiatives to secure land in LDCs for biodiversity conservation or the sequestration of carbon dioxide emissions that emanate from developed countries – a trend that subsequent chapters of this thesis will address in detail.

In exploring the implications of these insights, this chapter has also explored the possibilities for rethinking the relationship between environmental governance and political ecology. In doing so, I asserted that the complex, multi-jurisdictional nature of nascent environmental phenomena reinforces ongoing trends away from state-centric environmental ‘government’, toward networked approaches to ‘governance’ that involve cooperation between state, market, and civil society actors. Further, I considered the implications of the Anthropocene context for political ecology, and noted the manner in which several of the field’s main precepts regarding the asymmetrically experienced costs and benefits of environmental phenomena are increasingly institutionalized within multilateral organizations, even if the field’s normative (and often radical) prescriptions continue to be ignored by powerful actors.

Finally, in expanding upon this ‘institutionalization of analytical political ecology,’ I provided an exegesis of four notable discourses of environmental governance, each of which provides a different set of normative recommendations for how sustainable development should be achieved within the above-described context of the Anthropocene. These include state-centric approaches (such as the discourses of *green governmentality* and *ecological modernization*) as well as market-centric (*green economy*) and civil society-centric (*civic environmentalism*) discourses. In doing so, I noted the dominance of the green economy discourse at the recent Rio +20 conference on sustainable development (UNEP 2011; UNGA 2012), and addressed some of the divergent perspectives advanced by the competing discourses. Recent years have seen both ‘green economy’ and ‘ecological modernization’ discourses rise to prominence among environmental professionals in Uganda, and concrete examples of such trends for conservation practices at Mount Elgon will be addressed in *Part B-Paper I*, in particular.

Subsequent chapters of this thesis will examine the ‘biopolitics’ inherent to both an integrated conservation and climate change-mitigation strategies at Mount Elgon National Park in Uganda (Lang and Byakola 2006; Norgrove and Hulme 2006), and to the conservation of biodiversity more broadly (cf. Dempsey 2012). The Mount Elgon case foregrounds many of the conceptual issues discussed in this chapter, as multilateral, bilateral, and nongovernmental donors have arguably sought to enhance the global public goods of biodiversity and atmospheric health at the expense of the lives and livelihoods of local populations. Before turning to the empirical material collected for this thesis, however, the following chapter outlines the critical realist philosophy of science that guides this study, and provides an overview of the data collection techniques that were employed in the field.

3. Methodology: Linking Global Environmental Change and Local Resource Governance

“Whereas the natural and cultural or hermeneutic sciences are capable of living in mutually indifferent, albeit more hostile than peaceful, coexistence, the social sciences must bear the tension of divergent approaches under one roof, for in them the very practice of research compels reflection on the relationship between analytic and hermeneutic methodologies.”

-- Jürgen Habermas, *On the Logic of the Social Sciences*, (1988).

“I am here, sitting by the fire, wearing a dressing gown, holding this page in my hand.”¹⁶

-- René Descartes, *Meditations on First Philosophy*, (1996 [1641]: 13)

3.1. Environmental Governance and the Philosophy of the Social Sciences

How does ‘social science’ enhance our understanding of the ways in which humans govern their environment? Disciplinary convictions notwithstanding, answers to this question typically generate little in the way of consensus. Regardless of discipline, all researchers in environmental governance develop a position on the philosophy of social science – whether implicitly or explicitly – which moulds their individual stance on issues of both ontology and epistemology. When research is conducted and disseminated within the confines of a single discipline, it might suffice to let such considerations remain implicit. In an interdisciplinary field such as environmental governance, however, scholars must consider these issues more explicitly, as individual researchers will often hold vastly different philosophies of science (cf. Khagram et al. 2010; Ostrom and Cox 2010; Poteete et al. 2010). In order to avoid miscommunications with researchers who subscribe to epistemological and

¹⁶ Also cited in Morton (2007: 140). Descartes’ famous adage, *cogito ergo sum* – ‘I think therefore I am’ – forms the basis for the philosophical ontology known as dualism, as discussed in *Section 3.1.1*.

ontological positions that differ from my own, this chapter clearly outlines both my position on the philosophy of social science, and on the ways in which these principles have influenced my approach to empirical fieldwork at Mount Elgon, Uganda.

In doing so, I begin by acknowledging Sartori's (1970) seminal observation that students in the social sciences often fail to distinguish between the concepts of method and methodology. Where 'method' simply refers to the techniques used to collect and analyze data, 'methodology' refers to a more holistic concern with both these techniques, and the broader "logical structure and procedure of scientific inquiry" that the researcher (too often implicitly) adopts (Sartori 1970: 1033; Jackson 2008: 131). Without distinguishing between these concepts, and without explaining the overarching methodology used in a particular inquiry, researchers may risk marginalizing readers who do not share their own ontological and epistemic assumptions. Thus, in noting this distinction, the objective of this chapter is two-fold: i) to describe the methods used during empirical fieldwork for this thesis; but also – and perhaps more importantly – ii) to offer a contribution to methodological debates surrounding ontological and epistemological issues in the field of environmental governance. In seeking to achieve this latter objective, I expound upon the relevance of critical realism as a suitable philosophy of social science for examining the governance of "socio-ecological systems" (cf. Berkes and Folke 1998; Young et al. 2006; Ostrom 2009).

Thus, this chapter will proceed in four parts. I first review debates in the philosophy of social science as they relate to empirical research in environmental governance, and argue for the relevance of critical realism as being both ontologically and epistemologically suited for use in this field. Second, I outline the implications of a critical realist philosophy of science for this thesis' research strategy and design. Third, I provide a description of the methods that were chosen for fieldwork as a result of this approach. Finally, I conclude by suggesting relevant criteria for the evaluation of this methodology, discussing its limitations, and noting the ethical

safeguards that guided its implementation in the field.

3.1.1 Of Clocks, Clouds, and Socio-Ecological Systems: The ‘Matter of Ontology’ in Environmental Governance

Simply put, an ontology is “a theory of what there is” (Hofweber 2012), or, in relation to the social sciences in particular, “a theory of the nature of social entities” (Bryman 2012: 714). Accounts of the philosophy of social science typically begin with the issue of ontology, as the assumptions that one makes about *the nature* of the objects of research clearly influence the selection of relevant methods for claiming *to know* these entities. Indeed, as Jackson (2008: 133, emphasis original) notes, the choice of ontology “*precedes* empirical study and *structures* that study in profound ways.”

That said, from the outset, one should distinguish between scientific and philosophical ontologies. Whereas scientific ontology tells us about the “matter of nature” (Bakker and Bridge 2006; Lorimer 2012) – that is, about the nature of the components that together constitute social and natural reality – philosophical ontology tells us about the relationship between thinking subjects and the objects of their thought. Differently put, a philosophical ontology is a “wager” about the “hook up” between the mind and the world that precedes the selection of scientific ontology, the main types of which are mind-world dualism (or Cartesian dualism) and mind-world monism (Jackson 2010: 28). Generally, dualists conceive of an actually existing world that is external to the thinking subject, whereas monists assert that the subject’s perception of the world is inextricable from the linguistic and cognitive processes intrinsic to both social interaction and observation itself (Schaffer 2008; Robinson 2011). Since debates about the latter are largely unsolvable through empirical means, I am primarily concerned, here, with scientific ontology as it relates to the nature of socio-ecological systems. In other words, this discussion proceeds with an implicitly dualist philosophical ontology.

To illuminate the relevance of scientific ontology to the governance of such systems, however, it is perhaps useful to draw upon a famous lecture delivered by the

philosopher of science Karl Popper (1972). In this lecture, Popper (1972: 207) asks his audience to consider the variable nature of ontology in relation to natural phenomena, inviting them to imagine that,

“we have before us a schema or arrangement in which a very disturbed or disorderly cloud is placed on the left. On the other extreme of our arrangement, on its right, we may place a very reliable pendulum clock, a precision clock, intended to represent physical systems which are regular, orderly, and highly predictable in their behaviour.”

On the far right of this spectrum, near the clock, Popper places highly concrete and predictable entities such as luxury automobiles and the solar system. To the left, near the cloud, he places entities like a “swarm of gnats”, the individual trajectories of which are unpredictable except in their tendency to not stray very far from the rest of the swarm.

The ontological pitfall that both social and natural scientists face, Popper argues, is to treat clocks like clouds and clouds like clocks. Especially dangerous and pervasive, though, at least since the advent of Newtonian physics, is the tendency to act as if “*all clouds are clocks* – even the most cloudy of clouds” (Popper 1972: 210, emphasis original). If human societies operate like clocks, and if human actions can be predictably subsumed under general laws, the ability to deduce such explanations confers great authority upon the explainer. Yet, as Popper (1972: 228-229, emphasis original) asserts,

“[w]hat we need for understanding rational human behaviour – and indeed animal behaviour – is something *intermediate* in character, between perfect chance and perfect determinism – something intermediate between perfect clouds and perfect clocks ... For obviously what we want is to understand how such non-physical things as *purposes, deliberations, plans, decisions, theories, intentions, and values*, can play a part in bringing about physical changes in the physical world.”

Popper answers this conundrum by suggesting a “plastic” ontology of the social world – one in which human action is weakly and impermanently constrained by institutions such as laws, norms, theories, and conventions – as opposed to the “cast-iron” constraints suggested by clock-like models of society (Almond and Genco 1977: 491). Interestingly, this position shares much in common with what Vatn (2005: 53) refers to as “methodological institutionalism”, which highlights the dialectical relationship between human action, the structure provided by prevailing institutions, and the capacity of humans to alter these institutions (cf. Divon 2009: 10). As Popper (1972: 240-241, emphasis original) articulates this relationship,

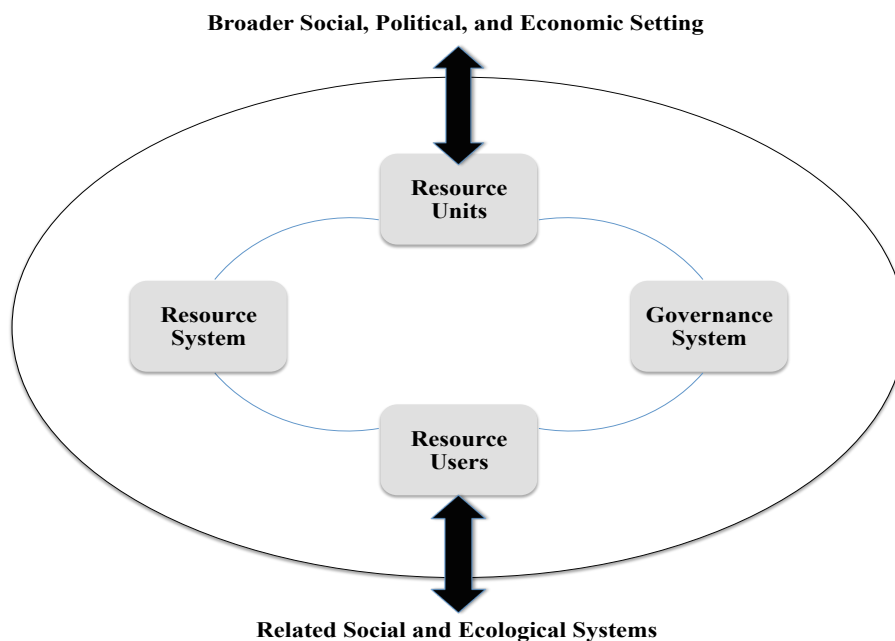
“[f]or the control of ourselves and of our actions by our theories and purposes is *plastic* control. We are not *forced* to submit ourselves to the control of our theories, for we can discuss them critically, and we can reject them freely if we think that they fall short of our regulative standards. Not only do our theories control us, but we can control our theories (and even our standards): there is a kind of *feedback* here.”

Hence, Popper’s resulting insight for ontology in the social sciences – and more specifically for the relationship between ‘structure’ and ‘agency’ in social systems - is that the social world is an ‘open system’, subject to dynamic change and consisting of a plurality of ontologically different categories of components (Popper 1980: 143). Indeed, his account stands in stark contrast to the clock-like model of Newtonian physics, which proposes an ontologically homogenous, hermetically closed system (Popper 1972: 254-255).

In relation to environmental governance, however, we encounter an additional ontological problem. Here, we engage not just with the interactions between humans and institutions, but with interactions between human systems, institutions, and nonhuman systems. Indeed, recent work in the field has encompassed this scenario with the concept of a “social-ecological system” (SES) (Young et al. 2006; Ostrom 2009; Ostrom and Cox 2010). For Ostrom (2009: 420), a SES is comprised of four

“core subsystems”: i) human resource users, ii) the institutions that govern their use, iii) the nature of the resource units that they use, iv) and the nature of the biophysical systems that govern the supply of resource units.¹⁷ Simultaneously, the model notes that these components are nested within a broader social, economic, and political setting, and that the SES also influences the functioning of other social and ecological systems. As I see it, this conceptualization provides a suitable ‘common language’ for articulating the basic ontological characteristics of the relationship between global environmental, political, and economic change processes and local resource governance.

Figure 3-1: Core Subsystems in a Framework for Analyzing Socio-Ecological Systems



Source: Modified from Ostrom (2009: 420).

Yet, we are still left with the following question: Is the ontology of a socio-ecological system better conceived as a clock, or as a cloud? The two most widely held ontological positions in the social sciences – objectivism and constructivism (Bryman

¹⁷ Ostrom (2009: 421) further notes that these “core subsystems” are each comprised of 7-9 “second-level” variables, which further add to the complexity of their interaction.

2012: 32-33) - broadly correspond to these two conceptual poles. If we accept the clock model, the ontology of the SES is merely the sum of its objectively verifiable parts, which collectively function in ways that are largely measurable and predictable. For the most part, Ostrom's (2009) implicit ontological assertion seems to be an objectivist one. For example, using a biological analogy, she proposes that,

“SESs are composed of multiple subsystems and internal variables within these subsystems at multiple levels analogous to organisms composed of organs, organs of tissues, tissues of cells, cells of proteins, etc. In a complex SES, subsystems such as a resource system (e.g. a coastal fishery), resource units (lobsters), users (fishers), and governance systems (organizations and rules that govern fishing on the coast) are relatively separable but interact to produce outcomes at the SES level” (Ostrom 2009: 419).

If we extend Popper's (1972) 'cloud' metaphor to this context, however, the nature of some of the components of the SES seem inherently subjective, and contingent on a number of very difficult to predict, socially-constructed factors. Fitting with the constructivist tradition, the latter might include some of the following: differing cultural understandings of resources and resource systems; differing (and perhaps multivalent) conceptions of utility, rationality, and optimization; power struggles between and among groups of users; patterns of exploitation based on race, class, ethnicity, gender, or religion; corruption and patronage in governance systems; and so on (cf. Escobar 1996; Agrawal 2003, 2005; Tsing 2005; West 2006).

For the purposes of this thesis, the relationship between the broader social, economic, and political setting and the interactions between the core components of the SES is particularly salient. While governance-system responses to global environmental change at the scale of an individual protected area are 'real', they nonetheless constitute a kind of *interpretation* of biophysical processes that operate on timescales that are largely irrelevant to the lives of individual resource users. Hence, Popper's (1972: 254-255) metaphor of “plastic control” was again prescient. I would like to stress this assertion: Changes in the content of governance systems are not clock-like

responses to biophysical exigencies in the broader Earth-system. Likewise, the reactions of resource users to changes in a governance system are similarly not clock-like and perfectly regular. Rather, these interactions are perhaps better conceived of as the outcome of a negotiated relationship between such exigencies, interests, values, and power relations.

Differently put, ecological warrants for an institutional change made within a governance system – for example, a transition from a collaborative to a more protectionist model of conservation (cf. Wilshusen et al. 2002; Hutton et al. 2005) – may indeed exist. However, the nature of its implementation – that is, the way in which institutional change translates into meaningful lived experience for those affected – may vary greatly according to power, status, gender, class, and a variety of other social characteristics (Agrawal 2003: 257). Whereas a biophysical warrant may objectively exist, in other words, the governance system response – and the ways in which its costs and benefits are actually distributed among resource users – is inherently constructed through social interaction.

Another crucial point, inherently related to this, is that Ostrom's (2009) model does not appear to adequately distinguish between *formal* and *informal* governance systems. That is, it does not distinguish between formal institutions (such as laws and official policies), and the principles that may *actually* guide resource consumption and the distribution of costs and benefits that result. Indeed, as “second-level variables” for the governance system element of an SES, Ostrom (2009: 421) lists the following: government organizations; nongovernment organizations; network structure; property-rights systems; operational rules; collective-choice rules; constitutional rules; and monitoring and sanctioning processes. As recent evidence from Uganda has suggested, however, conservation governance at the national level often proceeds in accordance with informal logics of patronage and clientelism, in blatant contradiction of existing formal institutions (Cavanagh 2012). This is a crucial ontological point, as one could argue that Ostrom's (2009) objectivist approach to formal institutions completely obscures the existence of discrete, informal, and illicit ‘rules’ that are perhaps more influential in determining actual patterns of resource distribution. From

this perspective, corruption – for example – is not an aberration from the governance system, but rather an *alternative form of governance* based on illicit payment for access to resource units (cf. Robbins 2000b; Ali and Nyborg 2010).

Moreover, on this topic, one should further note that the existing, formal governance system often exists in a way that is layered on top of – rather than simply replacing – previous systems (Robbins et al. 2006; West et al. 2006).¹⁸ In the case of Ugandan protected areas, publicly owned reserves are layered on top of their predecessors; that is, on top of community-governed common property systems. In areas where state authority is particularly weak, or when formal governance systems succumb to pressure or incentives to revert to informal practices (cf. Robbins 2000b; Brockington 2008), common property or open access thus constitutes the *de facto* governance system - even though state ownership might be *de jure* (Banana and Gombya-Ssembajjwe 2000; Turyahabwe and Banana 2008). This latter observation again speaks to the salience of Popper’s ‘cloud’ metaphor in relation to conservation SESs, as the interaction between formal and informal systems is only observable through an approach that takes power, culture, and other subjectively experienced social forces seriously.

At this point, however, we must transition to a discussion of epistemology, as the idiosyncratic ontological characteristics of SESs, identified above, will necessarily influence how one comes to know or to study these entities. For instance, in the example of a conservation-related SES (B. Miller et al. 2012), one might employ bivariate regression analysis to determine the strength of a relationship between a household’s proximity to a protected forest and its dependence on environmental income. However, such a method does not tell us about the subjective and value-laden factors that give rise to such dependence. Indeed, regression analysis tells us nothing about the interactions that the members of this same household engage in to attribute symbolic meaning to their natural environment, and the ways in which such processes influence overall resource consumption patterns. Since the latter is “socially

¹⁸ This point is developed in depth with respect to an historical analysis of conservation regimes at Mount Elgon in *Chapter Four*.

constructed” in an ontological sense (Bryman 2012: 33), it can only be adequately understood through the use of interpretive epistemology and method, such as ethnography or discourse analysis. Accordingly, I now turn to an exposition of the relevance of these ontological concerns for the selection of a suitable epistemology for empirical inquiries in environmental governance.

3.1.2 Whose Knowledge? Whose Nature? Power, Epistemology, and the Biophysical Environment

The basic subject matter of environmental governance discussed above – that is, patterns of interaction between people, institutions, and the biophysical environment – also denote special considerations for the selection of a relevant epistemology. Simply put, *an* epistemology is a theory “of knowledge or justified belief” (Steup 2012), or, of the necessary requirements that a claim must meet before one can accept it as knowledge. As noted by Fumerton (2006: 1), such requirements involve the interrelated concepts of “evidence, reasons for believing, justification, probability ... and any other concepts that can only be understood through one or more of the above.” Yet, one cannot say that the selection of an epistemology is truly value-free. Indeed, in any given field of inquiry, debates over the validity of different theories of knowledge are intensely political, as they retain implications for the distribution of resources, the attribution of responsibility, and the cultivation of authority. For example, as Forsyth (2003: 14) observes in relation to a central topic in environmental governance,

“[t]he debate concerning what sort of information is meaningful, who is recognized as speaking with accuracy, and who decides both of these questions, are central epistemological questions relating to the debate concerning anthropogenic climate change.”

These concerns echo Michel Foucault’s (1975, 1980) classic observation about the relationship between power and knowledge, which he famously thought was close enough to warrant the use of a single term: “power/knowledge.” In other words, the

Foucauldian argument goes, power enables those who hold it to define what constitutes legitimate knowledge, and to exclude types of information and ways of knowing that challenge the prevailing distribution of both authority and resources.¹⁹ This theme has permeated much recent literature in environmental governance; for instance, in relation to conflicts between scientific and indigenous knowledge (Agrawal 2005; Berkes 2008); between men and women's knowledge of natural resources (Agrawal 2001, 2009); between centralized (state) and decentralized (local) knowledge of resource management (Robbins 2000a; Ribot et al. 2006); and in the stubborn institutionalization of disproven or falsified science as 'fact' in environmental policy discourses (Fairhead and Leach 2003; Benjaminsen 2008; Forsyth 2011; Goldman and Turner 2011).²⁰

Given this political context, every knowledge claim – whether scholarly or otherwise – implicitly or explicitly employs some form of *epistemic warrant* (cf. Jackson 2010: 173). Essentially, an epistemic warrant is a justification for why a given claim should retain privileged status in relation to both mere opinion and allegedly lesser forms of knowledge.²¹ In the philosophy of the social sciences, scholars have typically framed the struggle to legitimize such warrants in relation to two polar opposite camps: positivism and interpretivism. Simply put, the positivist tradition holds that one can attain epistemic privilege by applying the methods of the natural sciences to the study of social phenomena. As noted by Paley (2008: 646, emphasis original), positivism is thus characterized by,

“a distrust for abstraction, a preference for observation unencumbered by too

¹⁹ For an excellent application of the power/knowledge concept within environmental governance, please see Agrawal's (2005: 27-31) discussion of the relationship between colonialism, scientific forestry, community forest use in Kumaon, India.

²⁰ A notable example, here, is the manner in which 'scientific' narratives concerning desertification in the Sahel persist within the UN system despite a large body of evidence which demonstrates that empirical realities are far more complex (Benjaminsen 2008; Forsyth 2011). The use of this desertification narrative and associated climate change narratives as an explanation for violent conflict in the Sahel is likewise suspect (Benjaminsen et al. 2012).

²¹ For example, a justification for as to why scientific knowledge should be privileged over indigenous knowledge (Berkes 2008) – or why women's knowledge of forest resources is insufficient (Agrawal 2001) – would constitute an epistemic warrant.

much theory, a commitment to the idea of a social *science* that is not vastly different from natural science, and a profound respect for quantification.”

In the social sciences, therefore, positivism seeks to study people, their actions, and their institutions - what Émile Durkheim referred to as ‘social facts’ - in much the same way that a natural scientist would examine components of an ecosystem. That is, by formulating testable hypotheses, selecting statistically representative samples, and evaluating the strength of the relationships between different variables to determine the validity of the hypothesis. In the philosophy of science, this procedure is known as the hypothetico-deductive (H-D) method of investigation, which provides the foundation for the deductive-nomological (D-M) model of explanation. Differently put, this approach is ‘hypothetico-deductive’, because it empirically tests hypotheses generated from existing knowledge, and is thus also ‘deductive-nomological’, because its ultimate goal is to explain empirical phenomena as the outcome of the functioning of universal, law-like generalizations (Hempel 1965; Kincaid 1998; Fetzer 2012).^{22 23}

In practice, however, most social scientists – even those with positivist leanings – will shy away from using the term ‘law’ in reference to the objectives of their work. However, some scholars in environmental governance speak of the development of “design principles”, “necessary conditions”, and softer law-like constructs, albeit with a variety of caveats (Ostrom 1990; Ostrom et al. 1994). For example, as Ostrom (1990: 90) notes in relation to her well-known design principles for sustainable common-pool resource management,

“I am not yet willing to argue that these design principles are necessary conditions for achieving institutional robustness in CPR [common pool

²² This hybridization of both the hypothetico-deductive and deductive-nomological models is often referred to as the “Hempel-Popper blend”, as it combines the verification of law-like generalizations (Hempel’s [1965] primary contribution to the philosophy of science) with attempts to falsify law-like generalizations (Popper’s [1972] lasting contribution.)

²³ Perhaps the clearest means of explaining deductive logic is to use a mathematical example. Deduction occurs when conclusions are drawn from verifiably true premises. For example, if $x=4$ and $y=2$, we can deduce that $2x + y = 10$. Differently put, the conclusion can be accepted as valid, so long as the premises hold.

resource] settings [...] I am willing to speculate, however, that after further scholarly work is completed, it will be possible to identify a set of necessary design principles and that such a set will contain the core of what has been identified here.”

Such reluctance to engage with strong, law-like language also increasingly prevents many social scientific researchers from consciously self-identifying with the ‘positivist’ label. For this reason, Jackson (2010: 41), for instance, utilizes the term ‘neopositivist’ to refer to scholars who formulate and empirically test hypotheses, but who do not seek to identify universal laws that govern the behaviour of social entities. Other philosophers of social science often utilize the term ‘post-positivist’ to make similar assertions (cf. Patomäki and Wight 2000; Groff 2004), although this term is often misunderstood as being implicated in postmodern or post-structural theory. In many social scientific fields, it thus now common to see the adjective ‘positivist’ – without prefixes or qualifications – used as a pejorative term, as its unaccompanied usage is sometimes thought to connote philosophical *naïveté*.

Thus, positivism’s epistemological antithesis – interpretivism – often begins from the following criticism: In nearly one hundred years of use in the social sciences, positivists have failed to identify *any* universal laws that govern social life (cf. Longino 2011). Instead, interpretivists reject the tenets of positivism by privileging knowledge of the inherently subjective *meaning* that people derive from their interaction with both each other and the environment. Although one can trace the roots of this approach to the disciplined interpretation of passages from the Christian Bible in the 18th century, German philosopher Wilhelm Dilthey is credited with developing an interpretivist epistemology for the study of both history and contemporary social life (Inwood 1998). Similar to the theologian’s task of interpreting what scripture *really means* in contemporary settings, epistemological interpretivists seek to understand the ways in which a social actor’s experience of her ‘lifeworld’ may influence future patterns of action with both humans and nonhumans.

Early scholars in this tradition were inspired by Max Weber's understanding of sociology as a discipline not of objective measurement, but of *verstehen* or the "interpretive understanding of social action" (Weber 1947; 1978 [1922]). Related approaches have since been developed under the labels of phenomenology (Schutz 1967), symbolic-interactionism (Blumer 1986), ethnomethodology (Garfinkel 1984), and hermeneutics (Gadamer 1989). In field of environmental governance, broadly defined, recent studies by interpretivists have examined the ways in which upland Indonesian agriculturalists experience both globalization and conservation-as-development interventions (Tsing 2005; Li 2007); the political ecology of globalized coffee production and consumption (West 2012); and the ways in which forest adjacent populations in Kumaon, India, were led to cultivate conservationist values by both governments and NGOs (Agrawal 2005).

To again invoke the spirit of Foucault, one should note that even within academia itself the choice of epistemological tradition is not free from the domain of politics and political economy. As Poteete et al. (2010: 11) astutely note,

"[s]ometimes, methodological and theoretical debates take on existential overtones. When a particular theory and associated methods become extremely widespread, for example, proponents of alternative approaches may worry about their own academic survival ... The degree of (perceived) existential threat depends on the extent to which fellowships, job opportunities, publishing outlets, and research grants are open (or closed) to diverse theories and methods."

Following Ostrom and Cox (2010), the resultant challenge is to find ways of uniting researchers from different epistemological traditions, so as to prioritize the generation of knowledge about problems of environmental governance over the interests of individual careers and academic disciplines. Engaging with these debates, the following sub-section outlines the position that I adopt on issues of both ontology and epistemology for empirical research on conservation governance, which perhaps

identifies a ‘middle ground’ for researchers of divergent methodological persuasions.

3.1.3 Interpreting the “Brute Facts”: Critical Realism in Environmental Governance

This thesis asserts that such common ground can be found in the philosophy of social science known as *critical realism* (Bhaskar 1975: 13; Forsyth 2003: 71-72). Critical realism is a “full blown” philosophy of science (Brown et al. 2002: 3), as it explicitly addresses issues of both epistemology and ontology, and can be employed within both the natural and social sciences. Indeed, the approach tells us both about the *nature* of the existence of things (or about their ontology), as well as the potential ways in which one can claim *to know* those things (or about proper epistemological requirements).

First, following the foundational work of Roy Bhaskar (1975: 26),²⁴ critical realism commences by rejecting the “epistemic fallacy” that human knowledge about reality can perfectly correspond to reality.²⁵ Hence, its approach to science is often described with the metaphor of “peeling the onion”, to elucidate the ways in which humans gradually obtain *more accurate* knowledge of the world, but ultimately fall short of what one might term perfect knowledge (Forsyth 2001: 147). In attempting to avoid this pitfall, critical realism draws an ontological distinction between three levels of phenomena: ‘the actual’, ‘the real’, and ‘the empirical’. Each domain is best studied with a different approach to science, and can be described as follows:

“The *actual* domain refers to events and outcomes that occur in the world. The *real* domain refers to underlying relations, structures, and tendencies that have

²⁴ Initially, Bhaskar (1975) referred to his philosophy of science as “transcendental realism.” Later, he formulated a branch more suited for use in the social sciences, which he termed “critical naturalism” (Bhaskar 1979). Subsequent philosophers of science and social scientists have united the two terms under the banner of “critical realism” – a term that Bhaskar later indicated that he accepts (Bhaskar and Hartwig 2010).

²⁵ At great length, Bhaskar (1975: 20-35) explains that the epistemic fallacy arises when researchers conflate epistemology with ontology. That is, when they mistake their knowledge of the world, even that which is gained through the use of the most sophisticated methods, for the actual nature of the world. With its emphasis on certainty, precision, and verification, positivism is thus prone to committing the epistemic fallacy (Bhaskar 1975: 27).

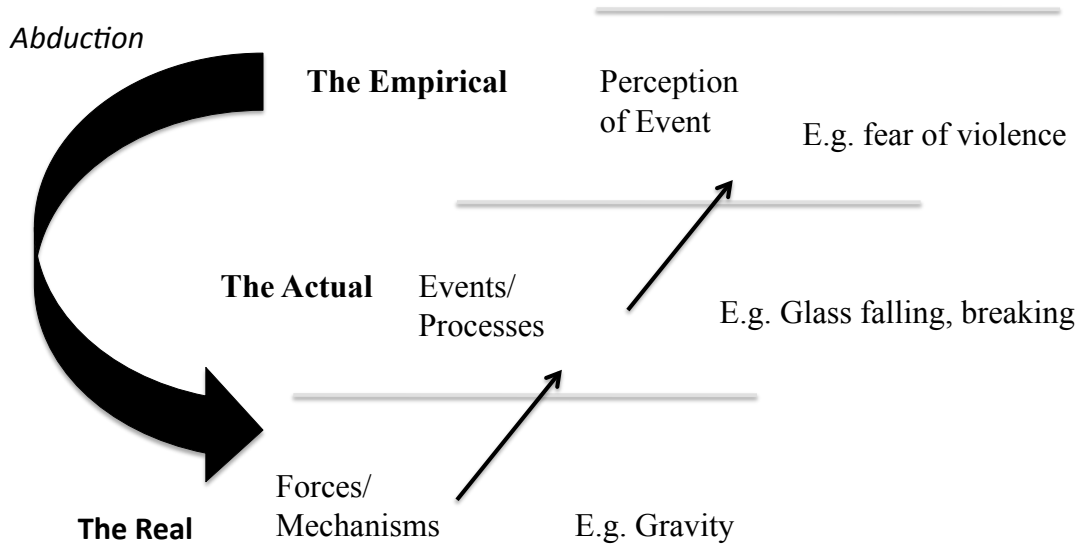
the power to cause changes in the actual realm . . . The *empirical* dimension refers to human perspectives on the world (i.e., of the actual and real domains)” (Clark 2008: 167).

For Bhaskar (1975: 14), ‘the real’ is “intransitive” in the sense that it exists in a way that is independent of human perceptions of it, while the empirical is “transitive”, in the sense that it is socially constructed, subjective, and prone to change (see also Forsyth 2003: 16). In most cases, researchers have taken this to mean that one can generally study ‘the actual’ and ‘the real’ through conventional forms of epistemological (neo)positivism and ontological objectivism, while ‘the empirical’ must be approached by way of epistemological interpretivism and ontological constructivism (Forsyth 2001: 147; Demeritt 2002: 780; Zimmerer and Bassett 2003: 3). This interpretation is the most commonly held, and one might say most intuitive, view of critical realism.

In a parallel tradition of critical realist thought, however, another group of researchers contend that ‘the real’ may also refer to the intangible structures that produce social reality (Proctor 1998: 360-361; Jackson 2008: 138-139). Perhaps the most commonly invoked example of this concerns the way in which the ‘base’ or ‘mode of production’ is said to produce the societal ‘superstructure’ in Marxist theory (cf. Brown et al. 2002; Ehrbar 2002). Similarly, empirical observations of widespread gender-based violence cause critical realists in the feminist tradition to infer the existence of ‘real’, yet otherwise intangible, structures of patriarchal domination (Jackson 2010: 184-185). Hence, purportedly like quantum physicists use empirical observations to infer the existence of individual “quarks”, even though they are only observable to humans in combinations (Jackson 2010: 82-83), critical realists in the Marxist and feminist traditions claim to “abduce” or “retroduce” the ‘real’ structure of society from empirical observations. As noted by Danermark et al. (2002: 93), other notable examples of this process include Darwin’s (2006 [1859]) inference to the existence of an evolutionary process in *On the Origin of Species*, Goffman’s (1959) dramaturgical thesis on the ‘presentation of self in everyday life’, and Freud’s (2004 [1899]) notion of the unconscious. Differently put, critical realism is an inherently “transfactual”

philosophy of science, because it uses empirical observations to generate knowledge about entities which, in principle, humans cannot directly perceive (Danermark et al. 2002: 77; Jackson 2010: 76).

Figure 3-2: The ‘emergence’ of phenomena through ontological domains in critical realism



Source: Modified from Bhaskar (1975: 47), Sayer (2000: 15) and Isaksen (2012: 17).

In relation to environmental governance, I argue that both of these interpretations of Bhaskar’s work are relevant. In the first tradition, intuitive examples of ‘the real’ include the laws of gravity and thermodynamics, which in turn affect processes such as photosynthesis and carbon sequestration, that produce ‘actual’ ecosystem functions in the world. Likewise, examples of ‘the empirical’ include the manner in which people attach meaning to these processes, and subsequently integrate such meaning into social institutions, such as resource use laws and policies (Proctor 1998: 361; Forsyth 2001: 147). In light of the second tradition, however, critical realists in environmental governance should also explore the ways in which empirical observations allow them to make inferences about the nature of ‘real’ social structures, such as the broader social, economic, and political drivers of environmental phenomena. In some ways, this is not dissimilar from the strategies already employed by many political ecologists, who often attempt to explain environmental phenomena such as ‘land degradation’ (Blaikie and Brookfield 1987),

deforestation (Bryant 1997), or soil erosion (Forsyth 2011) as the outcome of global imbalances of political and economic power.

That said, it is important to note that while critical realists perceive ‘the empirical’ as largely being socially constructed, it nonetheless possesses a very real degree of influence on tangible social outcomes in the world. As famously put by Searle (1997: 1) in his introduction to *The Construction of Social Reality*,

“there are portions of the real world, objective facts in the world, that are only facts by human agreement. In a sense there are things that exist only because we believe them to exist. I am thinking of things like money, property, governments, and marriages. Yet many facts regarding these things are ‘objective’ facts in the sense that they are not a matter of your or my preferences, evaluations, or moral attitudes. I am thinking of such facts as that I am a citizen of the United States, that the piece of paper in my pocket is a five dollar bill, that my younger sister got married on December 14 [...] These contrast with such facts as that Mount Everest has snow and ice near the summit or that atoms have one electron, which are facts totally independent of human opinions.”

Developing a terminology for critical realism that is decidedly more evocative than Bhaskar’s, Searle (1997, 2010) speaks of “brute facts”, “institutional facts”, and “mental facts.” Whereas brute facts encompass the given nature of the physical world, such as the example of the atom in the above passage, institutional facts refer to phenomena that are created through what Searle (2010: 42) calls “collective intentionality”, or the collective social construction and reconstruction of an institution like money or private property. These contrast with “mental facts”, which are subjective, impressionistic reactions to the above, but which still retain the potential to influence the formulation of institutional facts.

Hence, in contrast with the (likely biophysical) processes that ‘actually’ or ‘really’ occur in Bhaskar’s sense - or the ‘brute facts’ in Searle’s sense - ‘the empirical’ is

visible for the most part in discourse and observable interaction between actors. In attempting to understand it, therefore, one must also employ interpretive methods in order to gain a deeper understanding of the meaning that particular actors attach to certain ‘real’ phenomena (Sayer 2000: 17-18; Danermark *et al.* 2002: 36). For example, as Forsyth (2001: 146) notes in arguing for a critical realist approach to studying the ‘actual’ phenomenon of environmental degradation,

“[t]he aim of critical realist research on environmental degradation is to highlight how scientific explanations of environmental change provide only partial insights into complex biophysical processes, and that existing models of explanation reflect the agendas of the societies that created them. Such explanations are problematic as they may only address certain aspects of biophysical change. Moreover, they may not represent the interests of social groups not included in the science process, particularly in developing countries.”

As such, critical realism offers a means of ‘taking interpretation seriously’, while also accepting the reality of physical entities and processes that are external to the human subject. Both hard-line neopositivists and radical constructivists will likely take issue with this approach, but I maintain that it is appropriate for the study of the phenomena in question. In the context of ecosystem service provision and management of biodiversity conservation, there are clearly non-social factors that impact the patterns of behaviour of human subjects. In essence, therefore, this perspective was adopted to strike a balance between instrumental epistemological (neo)positivism on one hand, and relativistic epistemological interpretivism on the other. The empirical focus on conservation governance requires that a certain degree of realism be accepted about the biophysical processes that affect the populations being studied; and as such, radical social constructivism was largely inappropriate for this research project.

3.2 Research Strategy and Design

Fitting with the above-described, critical realist philosophy of social science, this project's approach consists of three components: i) a logically abductive strategy, ii) a critical case study design, and iii) the use of a mixed methods.

First, research methodologists generally trace the abductive logical tradition to the work of the American pragmatist philosopher Charles Peirce, who famously claimed that abduction operates as follows:

“Some event, X, is surprising to us. But if some explanation, Y, were in place, then X would be ordinary. Therefore, it is plausible that X is actually a case of Y” (cited in Shank 2008: 1).

As noted by Jackson (2010: 77-78), abduction is the most common form of logical strategy in critical realist research, as it allows the researcher to make inferences about the deeper structures or ‘real’ forces that influence empirical phenomena. Since these are often in principle unobservable – for instance, the ‘base’ that produces the ‘superstructure’ in Marxist theory – one cannot deduce their existence through empirical observation. Inductive logical strategies are likewise unhelpful, as there is no confidence threshold that one could surpass, based on a study of a sub-set of a population, that would comfortably allow one to inductively conclude that structures of patriarchal domination – for example – universally exist (cf. Danermark *et al.* 2002: 88). By contrast, abduction proceeds by “generating plausible explanations”, about phenomena that are in principle unobservable, “from available data” (Jackson 2010: 83). Indeed, critical realist studies of environmental governance are inherently ‘messy’ – the ontology of their subject matter is, by definition, caught up in what one might ironically call the ‘real world’ of social practice, politics, and political economy. Thus, I contend, it is not possible to isolate variables, test hypotheses, and replicate the conditions of these tests in the same way that regularly occurs in the natural sciences (cf. Agrawal 2003; Jackson 2008; Khagram *et al.* 2010).

A brief thought experiment might serve to illustrate this point. Let us assume that, operating under the conceptual apparatus of Ostrom's (2009) model for analyzing socio-ecological systems (SES), Researcher A travels to Mount Elgon, Uganda. There, he or she administers a semi-structured questionnaire to ten randomly selected individuals in Village X, concerning the ways in which changes in a governance system affected their consumption of resource units, and the implications thereof. One year later, Researcher B travels to Village X, and administers not just the same questionnaire to a similar sample, but to *the very same respondents*. Given the nature of the subject, it is perfectly reasonable to assume – due to no particular fault of either Researcher A or Researcher B – that Researcher B could receive an entirely different dataset than the one received by Researcher A, though the materials and methods were precisely the same.

This state of affairs likely does not arise because the respondents lied to either researcher (though this could have occurred in one or both cases for strategic or political reasons), but because the SES is an excellent example of what Popper (1972: 254-255) and Sayer (2000: 15) both refer to as an 'open system.' That is, the SES is in a state of constant flux, perhaps because of the introduction of new components, or perhaps because the interactions between old components begin to assume new meanings for the actors involved. A variety of factors could catalyze this latter scenario: local or national elections and accompanying political campaigns; new conflicts between resource users and the governance system; extreme events such as a landslide or drought; the sudden allocation of redistributed rents from ecotourism, the sale of ecosystem services or other benefits; spurious formal or informal alterations to the prevailing governance system; and so on. Under these conditions, the very point of replication breaks down because of the inherently unstable relationship between the methods employed and types of results attained.

My point, here, is that while it may indeed be possible to precisely replicate the conditions of data collection for research on SES governance, the relationship between the use of particular data collection methods and the stability of the received results is vastly different from that which exists in the natural sciences. Further,

although the above thought experiment is purely hypothetical, it closely resembles my own experience with key informants at Mount Elgon between stints of fieldwork in 2009 (see Cavanagh 2009) and 2011. Although I interviewed many of the same individuals on my second visit to the area, several of these had completely changed their perceptions of conservation at Mount Elgon. In some cases, this was due to the failure of a carbon offset forestry scheme to generate tangible benefits for local people (see *Part B-Paper I*); the Uganda Wildlife Authority's (UWA) suspension of an ecotourism revenue sharing initiative (*Part B-Paper II*); and/or the prolongation of land rights claims at the Mbale High Court (*Part B-Paper III*). In other cases, respondents simply confessed that they had previously lied to me, out of fear that I secretly worked for UWA, and would use their responses as a justification to curtail existing benefits or access to common-pool resources.

In other words, the nature of the data routinely collected in mixed methods SES research often undermines a deductive hypothesis testing approach, which presumes the inherent ability of the data to potentially falsify the hypothesis in a way that is not merely situational or immediately provisional. Rather than formulating and testing hypotheses based on an existing body of theory, then, I instead sought out three existing management assumptions or 'policy narratives' within the literature on conservation and development (cf. Roe 1991, 1994). Each of these three narratives was then used as the basis for a research question (see *Chapter One* for a list of these), which was intended to examine its empirical validity in relation to the case of conservation governance at Mount Elgon. In this approach, following Khagram et al. (2010: 391-392), a "widely accepted category, understanding, or 'myth' is approached as a research puzzle in and of itself; in other words, a norm of thought or practice is turned into a 'problem' or analytical puzzle [...] the goal is not necessarily to generate objective truths, but to revisit and critique existing interpretations, often to conceptually emancipate people or ideas that are oppressed or manipulated." For the purposes of this thesis, the selected policy narratives can be summarized as follows:

i) Market-based carbon offset forestry projects result in 'triple-win' outcomes for climate change mitigation, forest conservation, and local livelihoods (cf. Angelsen

2008; Ebeling and Yasué 2008; UNEP 2008; Paquette and Messler 2010; UWA 2010; Mwayafu and Kimbowa 2011a; PROFOR 2011; UN-REDD 2011).

ii) Revenue and benefit sharing programmes foster mutually complimentary outcomes for both biodiversity conservation and socioeconomic development (cf. Hinchley 1998; Scott 1998; WWF 2006; Wittemeyer *et al.* 2008; UWA 2009; IUCN 2010, 2011).

iii) Where conservation is perceived to be illegitimate and population growth is high, local people pose an existential threat to protected areas (cf. van Shaik *et al.* 1997; Brandon *et al.* 1998; Terborgh 1999; Wilshusen *et al.* 2002; Brockington 2004; Hutton *et al.* 2005; Newmark 2008).

Each of these narratives are examined in *Part B - Papers I, II, and III*, respectively. Hence, in its avoidance of hypothesis testing, this approach thus constitutes a post-positivist form of research strategy – specifically of the critical realist variety, as described in the previous section. Thus, the goal is not to universally falsify²⁶ these policy narratives, but to demonstrate their applicability or lack thereof with regard to the Mount Elgon case. In the event that these policy narratives are ‘falsified’ by the empirical findings of this thesis, one can then attempt to advance a suitable abductive explanation.

Second, and in fitting with this research strategy, this project utilizes a “critical case study” research design. For Bryman (2012: 70), a critical case study design is adopted when “the researcher has a well developed theory, and a case is chosen on the grounds that it will allow a better understanding of the circumstances in which the hypothesis will and will not hold.” As noted above, I take a post-positivist approach in avoiding the use of conventional hypotheses. However, the critical case study still provides a means of testing influential policy narratives within the field of environmental

²⁶ Although the term “falsification” is not being used here in Popper’s (1963: 43) original sense, I contend that the post-positivist falsification of policy narratives retains the potential to generate ‘more accurate’ knowledge of environmental phenomena in the critical realist sense (Sayer 2000: 10-11).

governance, and generating insights into the conditions under which such narratives do or do not actually describe the empirical functioning of conservation-related socio-ecological systems. While the idiosyncratic nature of case study research denotes that one cannot easily generalize its conclusions, the findings can still be used as the basis for analytical models that researchers can empirically test in other cases.

Third, a mixed methods approach was selected to examine these policy narratives in the Mount Elgon case. Due to my perspective as a critical realist, I first collected quantitative data to examine the ‘real’ and ‘actual’ domains of phenomena in the study area. Conversely, a qualitative research strategy was implemented to examine ‘the empirical’ or the ways in which actors express their interpretation of the real and the actual through discourse and social interaction. This mixed methods approach was helpful in illuminating what Bryman (2008: 609) refers to as the manner in which “quantitative research provides an account of structures in social life but qualitative research provides a sense of process.” In other words, the approach helped to distinguish between the actual/real, the various ways in which different actors interpret the actual/real into meaningful experience, and the manner in which they choose to act upon these interpretations. Qualitative methods were also useful in conducting content analyses on archival and secondary sources of data, and in taking a grounded theory approach to saturating field experiences with conceptual discussions in academic literature.

As described in the following section, quantitative data included national park budgets, project records, employment records, visitation statistics, and forestry-based evidence of conservation effectiveness. Conversely, qualitative data concerned governance objectives, attitudes, values, and norms among both park managers and local residents. Further, this resulted in a valuable degree of triangulation between the qualitative data collected through interviews, and the quantitative data collected in the form of official statistics, forestry evaluation reports, GIS databases, and so on.

3.3 Sampling, Data Collection, and Data Analysis

3.3.1 Fieldwork Duration and Context

Fieldwork for this project was conducted between July and December 2011. However, I also undertook field research at Mount Elgon for a similar project, while a B.A. student on exchange from the University of British Columbia in 2009, likewise in conjunction with the Protected Areas and Poverty in Africa initiative (see Cavanagh 2009). Due to this previous experience, I possessed some familiarity with the study area, and had retained contact with several key informants both within UWA and local civil society organisations. The positive rapport that was previously established with these contacts allowed me to gain access into a broader cross-section of key informants in government, NGOs, international organizations, and conservation organizations than would have otherwise been possible.

Indeed, difficulties in accessing reliable information related to the political aspects of conservation at Mount Elgon are inextricably connected to the area's broader economic, social, and ecological context. One should note that the Mount Elgon case constitutes perhaps one of the most controversial instances of conservation governance in Uganda (Hurinet-Uganda 2011) – both in the contemporary setting, and historically (P. Scott 1998; Webster and Osmaston 2003). At present, UWA faces three large, land rights-based lawsuits from some 15,000 residents in Manafwa and Sironko districts alone. The regional High Court resolved a fourth case, in Kapchorwa and Kween districts, in favour of communities in 2005, which resulted in the excision of a portion of Mount Elgon National Park (Cultural Survival 2005). Simultaneously, conflicts between local communities, conservation authorities, and the military have descended into violence in a number of occasions, with all parties facing accusations of criminal misconduct and human rights violations (Himmelfarb 2006; Norgrove and Hulme 2006). Here, existing allegations extend across the full spectrum of human depravity: killings, beatings, torture, rape, expropriation of land and property, and so on (cf. Lang and Byakola 2006; Checker 2010; Hurinet-Uganda 2011). Consequently, respondents were generally aware of the potential risk of formal or informal consequences as a result of sharing sensitive information with indiscrete parties,

despite my exhortations of respect for privacy, informed consent, and other ethical principles, as discussed in *Section 3.4.3*.

3.3.2 Theoretical Sampling

As a result of the sensitive nature of this study's subject matter, it was necessary to pursue a non-probability sampling method to select most respondents. Although it is possible, in principle, to randomly or systematically select informants to discuss the politics of conservation and resource conflicts at the village or parish level, this style of approach would likely have compromised the quality of the information received. A previous M.Sc. student at Noragric, Marte Sletten (2004: 52), made a similar observation about conducting fieldwork at Mount Elgon, noting that,

“[r]espondents were sometimes afraid or suspicious, and hence reluctant of giving information. They could also give false data, trying to give a ‘better’ impression of the situation or occasionally hiding information.”

Likewise, another M.Sc. student with experience from Mount Elgon, Carina Vangen (2009: 46), additionally observes that,

“the areas I visited were characterized by distrust between park staff and local people, as well as discontent with the restrictions to the park among some of the households. This seems to have affected the way I was received as a researcher.”

Indeed, many community members, for example, regularly suspected that I was a consultant working for the Uganda Wildlife Authority (UWA), and were often seemingly unconvinced by my repeated insistence that I was a mere graduate student conducting field research for a thesis. Cultural expectations regarding my physical appearance and age appeared to cause part of this confusion. Although I am twenty-three years old, local adults from different communities frequently estimated my age at thirty-five, forty, or higher. While I am unsure of the precise reason for this, Bagisu

respondents in particular tended to over-estimate my age, and this apparently decreased the local believability of my occupation as a graduate student.

Conversely, UWA personnel unfamiliar with the PAPIA project worried that I was a “radical” or “activist”, interested in publishing a highly critical account of their organization, such as those authored by Lang and Byakola (2006), Faris (2007), and Checker (2010) about Mount Elgon. Consequently, when I attempted to gain informed consent before conducting an interview, and duly informed the prospective respondent about the subject matter of the study, many people otherwise unacquainted with my role as a student researcher simply declined to participate. In some cases, I was told that such refusal was a result of scepticism about my ability to truly guarantee the respondent’s anonymity; in other words, that factors beyond my control could inadvertently reveal their identity. Concerns regarding anonymity are further developed in *Section 3.4.3*.

As a result of these experiences, I employed a technique known as *theoretical sampling*. First developed as part of Glaser and Strauss’ (1967) “grounded theory” approach to qualitative research and analysis, this type of sampling method is characterized by,

“the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges” (Bryman 2012: 419).

Crucially, this method allowed for the utilization of contacts with whom I had already established positive rapport to ‘bridge the gap’ with new respondents. In certain exceptionally hard-to-access cases – involving High Court judges, lawyers, or higher-ranking politicians, for example – the contact would also arrange an introduction and testify to my authenticity as a graduate student. Incidentally, this also helped to identify highly knowledgeable individuals, who possessed a much more intimate understanding of the relevant issues. These individuals were also more likely to

possess access to important documents and data than their subordinates. Due to this study's need for PA-scale data about redistributed benefits from conservation (*Part B-Paper II*), this latter point is particularly salient in relation to interviews with UWA staff. Further, theoretical sampling was also especially helpful in obtaining information at the village level related to the 'carbon-offsetting' and 'resistance to conservation' sub-cases (*Papers I and III*, respectively), as many individuals were particularly hesitant to discuss such matters both candidly and openly.

Fitting with the theoretical sampling approach, I first selected ideal-type categories of respondents that I then sought to "theoretically saturate." In other words, I selected informants from each category until " (a) no new or relevant data [were] emerging regarding a category, (b) the category [was] well developed in terms of its properties and dimensions demonstrating variation, and[/or] (c) the relationships among categories [were] well established and validated" (Strauss and Corbin 1998: 212; Bryman 2012: 421). For example, throughout the course of fieldwork, I sought to facilitate this process by maintaining an online weblog, where I regularly posted reflections about my ongoing research.²⁷ I conceived of this as an updated, modern-day version of what Glaser and Strauss (1967: 107-108) once described as a "memo" – that is, an artefact of the field research as it existed at a particular instance before completion. This forced me to think critically about my experiences on a regular basis, and to search for gaps in my data that were insufficiently saturated by the information that I had collected up until that point. The weblog's "memos" further proved useful in eliciting responses from other researchers, students, and even practitioners, who provided commentary about the nature and content of the fieldwork.

At the early stages of this process, I initially settled on the following sampling categories for selecting key informants: local government, UWA, civil society, and the private sector. After conducting the first week of fieldwork, however, it became clear that these categories were insufficient. I realized that I had assumed, wrongly,

²⁷ One can access the weblog at <http://redd-earth.org>.

that local government leaders at the village or parish level would serve as legitimate spokespeople for their constituents. Given the relationship between political office and rent-seeking behaviour documented by other researchers at Mount Elgon (Bunker 1991; Norgrove 2002), such an asymmetry was decidedly insufficient. As such, I sought to also conduct a minimum of five gender-balanced focus groups as part of each sub-case study, wherein participants were purposively selected based on their status of *not* holding political office or a leadership position in local NGOs or CBOs. Additionally, as a less serious revision, I was also forced to abandon the private sector as a theoretical category. This revision arose from the isolated nature of many communities adjacent to Mount Elgon National Park, where the ‘private sector’ is largely comprised of only household enterprises. Further, as most market-based initiatives regarding ecotourism and payments for ecosystem services (PES) were mainly governed by UWA itself, albeit in conjunction with partners based in Kampala, this category was deemed to be redundant.

Although quantitative researchers have criticized theoretical sampling and grounded theory approaches as potentially being inclined to bias (Bryman 2012: 574), I contend that my practice of saturating these different categories of respondents, and subsequently triangulating between them (as outlined below in *Section 3.3.7*), upheld the credibility of this process. Further, the relatively long duration of fieldwork (5 months) was likewise helpful in ensuring both that the necessary degree of rapport was generated with various categories of informants, and that I was able to delve into these topics with a level of critical analysis that would have been impossible for a short-term researcher. In order to elucidate the manner in which I obtained information from my theoretically sampled respondents, I now turn to an exposition of the specific data collection techniques used in this study.

3.3.3 Archival Research, New Historicism, and Historiography

First, due to this project’s critical case study design, a significant amount of archival research was unavoidable. Indeed, case study researchers in particular must cultivate a thorough understanding of the background to their field site, in order to conceptualize

how past events influence the current perceptions and attitudes of respondents. In order to accomplish this, I first cultivated an understanding of relevant types of historical methods, so as to ensure that these elements of my research prioritized analysis over description. In terms of historical methodology, I thus draw on two broad approaches: i) new historicism and ii) historiography. The results of these methods are presented in *Chapter Four*, where I undertake an historical-geographical analysis of land use trends in the Mount Elgon region.

Indeed, I initially distinguish between presentism and new historicism in the interpretation of archival material. Often, presentist histories combine the re-narration of events and processes with value-judgements that stem from contemporary norms. Related to the field of environmental governance, a typical example of presentist history is perhaps Mark Dowie's (2009) *Conservation Refugees*, in which he focuses on the highly exploitative, imperialistic nature of the global conservation project as it spread from North America throughout the former European colonies. While his account is both riveting and factually accurate, Dowie engages in the questionable practice of overtly judging the actions of colonial conservation managers by the moral standards of contemporary civil society. Though it may be comforting, such an approach does little to contribute to our understanding of the behaviour of those who wielded power in previous historical eras. By contrast, then, 'new historicist' accounts seek to reconstruct the past from the perspective of the actors themselves, to understand how particular sets of norms, values, and knowledge-regimes arose, and how these same variables influenced what was considered rational behaviour for individual actors (cf. Gallagher and Greenblatt 2000). While I certainly engage with critical issues of power and exploitation involved in both the colonial and post-colonial regimes in Uganda, I aim to holistically *understand* these phenomena, rather than to overtly *denounce* them. Thus, one way of conceptualizing new historicism is to view it as a temporal approach to Max Weber's doctrine of *verstehen* or interpretive understanding, which also guides the empirical research methods in this study.

Further, I utilize historiographic methods to analyze texts and documents as narratives. One can define historiography as an approach to history that “is concerned with historical interpretations of the past ... the writing of history as opposed to history itself” (Andrews 2008: 399). In this case, I utilize historiography to study the ways in which interpretations of ‘nature’, ‘conservation’, and ‘forestry’ change over time. Specifically, I examine policy documents (such as management plans), national legislation, correspondences, and academic literature that discuss forest management practices both at Mount Elgon and in Uganda more generally. In addition, I similarly analyze other sources of data such as maps and censuses (where applicable), in an attempt to ascertain the extent to which prevailing values are also observable in these media. Further, in all cases, archival data was selected purposively, due to its perceived relevance to the research project, and its ability to enhance my understanding of the above factors. Main sources of archival data were gathered from the Makerere University library in Kampala, the Faculty of Forestry and Nature Conservation library (also at Makerere University), and the Uganda National Archives in Entebbe. I also made use of the archives at the Nordic Africa Institute in Uppsala, Sweden, while holding a study scholarship there in February-March 2012. The ‘OpenDocs’ database, hosted by the Institute for Development Studies (IDS), also yielded a number of highly useful documents (e.g. Wrigley 1959; O’Connor 1965; Aluma *et al.* 1989).

3.3.4 Initial Key Informant Interviews

Second, I initially conducted semi-structured key informant interviews with knowledgeable actors in Kampala, Entebbe, and the Mount Elgon area, which were likewise theoretically selected, as described above. In Kampala and Entebbe, respondents included staff at the Faculty of Forestry and Nature Conservation (FFNC) at Makerere University, the Uganda National Archives, relevant NGOs and IOs like Amnesty International and UNDP, and payments for ecosystem services firms. Similarly positioned individuals were also interviewed in Mbale, although more priority was given to Uganda Wildlife Authority (UWA) staff, community-based organization (CBO) members, local politicians, and government officials, who were

far more knowledgeable about the nuanced politics of the Mount Elgon region. Through this process, I familiarized myself with a variety of perspectives on what then constituted the most contentious issues in the region. This was an important first step, as the political context at Mount Elgon often changes quickly, and is sometimes under-reported in the national media.

3.3.5 Multi-Round UWA-MENP Interviews

Third, I conducted several rounds of semi-structured interviews with all permanent staff members at UWA-Mount Elgon National Park (MENP) in Mbale, as well as the other park entrances (Budadiri, Kapkwai, Kapkwata, and Suam). Additionally, I interviewed UWA and Uganda People's Defence Forces (UPDF) staff at ranger posts in Manafwa, Bududa, and Sironko districts, due to the intensity of land use conflicts in these regions of the park. One round of semi-structured interviews was conducted with each staff member in a management position (ie. at the rank of 'Warden'), as well as three follow-up rounds of unstructured interviews. This strategy was adopted in order to retain a degree of flexibility, to allow me to develop each of the themes that emerged in the interviews, and to triangulate these responses in comparison and contrast to data received at the local, park-adjacent level.

Further, each round of UWA-MENP interviews were interspersed with one sub-case study corresponding to each of this study's research questions, as outlined above (e.g. carbon offset forestry, benefit sharing, and local resistance). This approach was chosen so that, as new issues came to my attention, I could maximize the relevance of each interview with park staff. Further, through the establishment of a degree of familiarity and rapport with UWA personnel, I was able to conduct a type of participant observation, in which I sought to monitor how the attitudes, beliefs, values, and norms of staff members fluctuate in response to different stimuli. For example, I was able to 'shadow' UWA-MENP staff on park-related operations like boundary patrolling and the monitoring of carbon offset agroforestry plantations. Additionally, quantitative data (such as visitation statistics, budget information, benefit sharing records) and secondary data (such as management plans, policy

literature, monitoring and evaluation reports, and other literature) were collected from park staff during these interactions.

3.3.6 Sub-Case Studies

As noted above, one ‘sub-case’ was chosen as a means of examining each of thesis’ research questions, and thus of examining the ‘policy narratives’ identified in *Section 3.2*. In each, and in addition to methods appropriately tailored for the individual phenomena at hand, key informant interviews were held with relevant elders and leaders, local politicians, and CBO members. Similarly, a minimum of five focus group discussions were conducted in conjunction with each sub-case. In addition to these methods, I also briefly outline the unique data collection and sampling techniques chosen for each of these. Further exposition of the methods used is provided in a section for this purpose in each of the papers themselves.

Paper I: Carbon Offsetting and the UWA-FACE Project. In the first sub-case, I examined “triple win” logic as it pertains to the establishment of the UWA-FACE project’s carbon offset forestry plantations at Mount Elgon. Here, I first re-assembled the project’s history through management plans, monitoring and evaluation reports, and external auditing reports. I then conducted systematically-selected household interviews and theoretically-selected focus groups in five parishes neighbouring the project’s current incarnation, from which I primarily gathered qualitative data. In the analysis of these data, I adopted a political ecology perspective in triangulating narratives received from local stakeholders in relation to both official reports, and statements about the project delivered by UWA officials.

Paper II: Environmental Justice and Benefit Sharing. Second, I expanded my focus from the UWA-FACE project to the governance of biodiversity conservation at Mount Elgon more broadly. Taking an environmental justice perspective, I analyzed ‘benefit sharing schemes’, or attempts to compensate local communities for both the direct and opportunity costs of conservation (UWA 2009). In doing so, I focused in particular on the spatial and temporal distribution of shared benefits in the form of

redistributed ecotourism revenue and different types of resource access agreements. Specifically chosen methods included the analysis of quantitative data from national park records and visitor statistics, as well as structured interviews with local farmers that had suffered the economic consequences of crop raiding from protected wildlife. In addition, key informants in UWA and local government were asked to provide narratives to explain fluctuations in these data over time. Further, these results were then also triangulated with qualitative semi-structured and focus group interviews with local stakeholders in park-adjacent parishes.

Paper III: Resistance to Conservation. The third and final sub-case examines a frequently reproduced assumption in conservation policy, which holds that where rapid population growth and the perceived illegitimacy of conservation coincide, local communities may pose an existential threat to protected areas (cf. Wilshusen *et al.* 2002; Hutton *et al.* 2005). Here, engaging with a large literature on “everyday resistance” (Scott 1987; Holmes 2007), I purposively selected three ‘resistance groups’ of farmers that are currently suing both UWA and the Ugandan government over a land rights dispute. In doing so, I used ethnographic and qualitative techniques to understand both how and why they oppose conservation in the region, and the nature of the legal and illegal tactics that they use. These data were then analyzed to produce a typology of resistance strategies that can be used to inform empirical research on resistance in other cases.

3.3.7 Data Analysis

In analyzing the data attained through the above-described methods, I employ one overarching technique, grounded theory, which contributes to the thesis’ broader abductive logic and critical realist philosophy of science. Complimenting this approach at the level of the individual sub-cases, as described above, are the techniques of descriptive statistical analysis, narrative analysis, and triangulation.

First and foremost, I utilize a type of data analysis known as “grounded theory” (Glaser and Strauss 1967; Charmaz and Bryant 2008). For Bryman (2012: 712),

grounded theory is an “iterative approach to the analysis of qualitative data that aims to generate theory out of research data by achieving a close fit between the two.” Confusingly, though, various researchers have employed this strategy in vastly different forms, and often in ways that exhibit little or no resemblance to Glaser and Strauss’ (1967) original description of the process. So much so, that Charmaz (2009: 128) observes that the method is now best conceived as “an umbrella covering several different variants, emphases, and directions— and ways to think about data.”

Fitting with this trend, Oliver (2012) has recently developed a “critical realist grounded theory” approach, to which this thesis subscribes. For Oliver (2012: 379), the main objective of a grounded theory analysis must be to answer the following logically abductive question, based on a set of empirical observations: “what must be true for this to be the case?” In other words, the purpose of the analysis is to code data in ways that enable the generation of an empirically grounded, yet theoretically rich explanation for the manner in which phenomena unfold in practice. In relation to the conservation and development policy narratives examined by each of the sub-cases in this study, therefore, I sought to answer the questions: What must be true if this narrative is falsified? Or, alternatively, what must be true if this narrative is verified? Thus, the contribution of this style of analysis is two-fold: i) the verification or falsification of the original policy narratives themselves, and ii) the subsequent formulation of concepts, models, or explanations that can be adopted for use in other empirical contexts.

Further, at the level of individual sub-cases, methods of data analysis included descriptive statistics, narrative analysis, and triangulation. Descriptive statistics were used, for example, in tracing management successes and failures in reforestation over time (Paper I), or in ascertaining the spatial and temporal distributions of benefits from conservation (Paper II). Univariate “measures of central tendency” were used, and appropriate tables and figures were constructed to display these data (Bryman 2008: 324-325).

Throughout all cases, narrative analysis was used to critically examine the content of qualitative data received from respondents. Following Bryman (2008: 553), I distinguish between four types of narrative analysis: thematic-, structural-, interactional-, and performative. Where thematic analysis merely concentrates on the content of what is said, structural analysis examines the manner in which a storyline is delivered, and notes the inclusion or omission of various elements and “narrative mechanisms” (Bryman 2008: 553). Moreover, interactional analysis addresses the “dialogue” created between the storyteller and his or her audience, and the ways in which interpersonal dynamics influence how a certain narrative is delivered. Finally, performative analysis draws on “dramaturgical theory” (cf. Goffman 1959), and locates connections between the content of a particular narrative, and the micro-political goals of its narrator within a given context. Each of these methods was useful in situating particular narratives in relation to the broader context of struggles over power, livelihoods, and resources at Mount Elgon, as well as in identifying particular vested interests within the delivery of a given narrative.

Finally, fitting with the theoretical sampling approach outlined in *Section 3.3.2*, the method of triangulation was used to analyze individual narratives in relation to: i) narratives delivered by other respondents, ii) quantitative data, and iii) archival material and/or other secondary data sources. As defined by Bryman (2012: 717), triangulation is “[t]he use of more than one method or source of data in the study of a social phenomenon so that findings may be cross-checked.” Likewise, the oscillation between these three categories of data allowed for a degree of control over bias to be established, so that individual narratives could be placed in the context of interests, values, and power relations.

I now turn to the final section of this chapter, where I suggest appropriate evaluative standards for the above-described approach, reflect upon the study’s potential limitations, and outline the ethical considerations that guided the implementation of this project in the field.

3.4 Evaluative Criteria, Limitations, and Ethical Considerations

3.4.1 Evaluative Criteria

In quantitative research, standard criteria for evaluation include reliability, replicability, and validity (of the measurement-, internal-, external-, and ecological varieties) (Bryman 2012: 46-47). Generally speaking, these criteria concern the extent to which measurements accurately describe chosen concepts; whether it is feasible to replicate the approach and findings of a study; whether the conclusions drawn by a study proceed logically from the premises suggested by its findings; and whether these findings are generalizable to other cases.

However, since the present critical case study utilizes mixed methods - with a qualitative emphasis on the ways in which human actors interpret ‘actual’, quantitatively measurable facts about their environment – these criteria are largely unsuited for this approach. Indeed, this thesis engages with quantitative data – and the largely positivistic philosophy of science that underpins its collection – only to the extent to which it lends context and structure to local people’s experience, understanding, and engagement with conservation governance at Mount Elgon. Further, the focus on a conservation-related socio-ecological system as an empirical phenomenon yields certain inconsistencies for evaluation from a replicability perspective, as explored in *Section 3.2* on research design.

As a result of similar observations, various research methodologists have argued for the reformulation of the criteria of reliability, replication, and validity in ways that are more suitable for the evaluation of qualitative research (Hammersley 1992; Mason 1996). Conversely, others have asserted that only the formulation of unique criteria will suffice (Lincoln and Guba 1985; Corbin and Strauss 1990; Richardson 2000; Yardley 2000). While each of these latter authors have suggested their own sets of criteria, I contend that Yardley’s (2000) are most relevant to the nature of this study, as they are compatible with both a critical realist philosophy of science, and with a mixed methods, critical case study approach. Indeed, Yardley (2000: 219) suggests

the following four categories of evaluative criteria: i) sensitivity to context, ii) commitment and rigour, iii) transparency and coherence, and iv) impact and importance. Here, I will briefly consider the nature of each of these in turn.

First, 'sensitivity to context' concerns the depth to which the researcher has delved into the theoretical, conceptual, empirical, and ethical dimensions of his or her case. As Yardley (2000: 219-220) writes,

“it is therefore desirable to have a fairly extensive grounding in the philosophy of the approach adopted, and the intellectual history of the categories and distinctions that have been applied to the topic, since awareness of the different perspectives and complex arguments that can be brought to bear on the subject provides the researcher with the scholastic tools to develop a more profound and far-reaching analysis.”

Hence, emphasizing the importance of intellectual context, this criterion primarily concerns familiarity with-, and command of-, relevant theoretical and empirical literature; with underlying philosophical schemata; and with the ways in which the researcher's chosen methods have been applied in empirical work elsewhere.

Second, 'commitment and rigour' concern the researcher's substantive engagement with his or her subject, including the ability to demonstrate “having the necessary skills”, and being able to conduct “thorough data collection and analysis” (Bryman 2012: 393). For Yardley (2000: 222), this includes,

“the completeness of the interpretation, which should ideally address all the variation and complexity observed, and may need to be undertaken at several levels of analysis ... commitment and rigour might be demonstrated by the effective use of prolonged contemplative and empathic exploration of the topic together with sophisticated theorising, in order to transcend superficial, 'commonsense' understandings.”

Here, concerning rigour in particular, Yardley also asserts that researchers should continually triangulate between different sources of data – for example, between differently situated respondents; between primary and secondary sources; and between data collected with different methods. Such alterations in perspective thus enhance the “completeness” of the overall conclusions of the research.

Third, ‘transparency and coherence’ concern the degree to which the researcher’s design and methods are clearly and explicitly stated, and whether the account resulting from the approach is coherently articulated. Further, this should be accomplished in a manner that reflexively demonstrates the researcher’s cognizance of his or her own social position and influence in relation to the subjects of the inquiry (Bryman 2012: 393). To this, Yardley (2000: 222) further notes that “[c]oherence also describes the ‘fit’ between the research question and the philosophical perspective adopted, and the method of investigation and analysis undertaken.” In relation to the discussion in *Section 3.1*, then, transparency and coherence concern both the ways in which the researcher explicitly states the logic and philosophy behind his or her chosen methodology, and also how he or she manages to explain empirical phenomena in ways that do not contradict these selections.

Finally, researchers achieve ‘impact and importance’ in persuasively demonstrating the significance of their findings for the development of more sophisticated theory; for the communities housing the respondents themselves; and potentially also for practitioners outside the academy, if relevant (Bryman 2012: 393). For Yardley (2000: 223), the impact and importance of a given piece of research is thus determined by its “utility” for different groups – for theorists, for practitioners, for the subjects of research, and for the general public. In many ways, this last criterion parallels Blaikie’s (2008, 2011) call for research in political ecology, in particular, “to be useful”, rather than to simply analyze the politics of environmental phenomena for its own sake. Keeping this last principle in mind, especially in relation to the dire poverty experienced by many of this study’s respondents, this thesis strives to fulfil all four categories of Yardley’s (2000) criteria.

3.4.2 Limitations

First, as a critical case study, this project's findings are inherently limited in terms of their generalizability to other empirical contexts. Indeed, a critic could argue that this thesis is somewhat idiosyncratic; in other words, that its findings derive from interaction between relatively unique social and ecological characteristics of the Mount Elgon study area, and thus retain limited significance in other cases. Consequently, the findings presented herein are perhaps best conceptualized as offering a contribution to the development of hypotheses or models that can be tested in other cases, rather than directly contributing knowledge about conservation governance beyond the Mount Elgon context.

Second, as alluded to in *Section 3.2*, substantial portions of the qualitative data collected for this thesis are inherently subjective, and potentially subject to change as the actors involved respond to shifts in the nature of conservation governance at Mount Elgon. To minimize the subjectivity of the responses received from informants, however, I have attempted to maximize the degree of triangulation between different respondents, between different sources of data, and between primary and secondary sources in the analysis of this study's results. Further, in 'saturating' the data with insights gained from both theoretical literature and other empirical work, I have sought to both identify and discuss potential sources of bias within the information received from various different categories of respondents.

Third, portions of the findings of this study are also difficult to replicate. To some extent, this is again due to the volatile and complex nature of social-ecological systems themselves, although this is also an attribute of interpretive research more generally (Bryman 2012: 405). Hence, to mitigate these limitations, I have sought to transparently outline the exact nature of the methodological process involved in this study, and to also explicate the conceptual bases of its approach. Together with the sub-case relevant methods presented in Papers I, II, and III, I hope that these measures assist other interested researchers in replicating the design of this study, if they so

wish, even if its exact findings prove difficult to precisely reproduce.

3.4.3 Ethical Considerations

By way of conclusion to this chapter, I would like to outline the ethical principles that guided the implementation of the above-discussed research methodology. As noted by Bryman (2008: 118), there are four main ethical principles that should guide the actions of every field researcher: i) harm avoidance, ii) informed consent, iii) respect for privacy, and iv) transparency. Given the contentious nature of this study's empirical focus, which currently involves both legal and violent conflicts, these principles were taken extremely seriously. Accordingly, I sought to remain cognizant of even the most subtle connections between harm avoidance, informed consent, and respect for privacy in the course of presenting the findings of this thesis.

Consequently, every effort was made to obtain informed consent before gathering data from respondents. Before interviews, the context and nature of the study were explained to prospective respondents, who were assured of the anonymity of their responses, and the purely academic nature of my research. Additionally, each respondent's privacy was treated with the utmost respect, and individuals have not been identified by name, nor by the name of the village-level community in which they reside. Specifically, the latter decision was made to allay the concerns of community members, some of whom feared that the Uganda Wildlife Authority (UWA) could deny their villages further access to redistributed ecotourism revenue or other benefits as a consequence of participating in this study.

Likewise, in the case of key informants from local government, NGOs, UWA, and other organizations, contextual information like exact job titles or parish-level location is not provided in a way that a reader familiar with the situation could use to deduce the identity of the respondent. Such details have been withheld even where I felt that their inclusion could strengthen the persuasiveness of my argument in the course of presenting certain findings. For the purposes of this study, I maintain that the ethical principal of 'harm avoidance' encompasses issues pertaining both to

personal and professional reputation, and I thus avoided an approach to the presentation of data that could inadvertently vilify individuals from certain occupations.

Finally, at no point during the course of fieldwork did I deceive respondents by misconstruing this study as anything other than exactly what it is – a purely academic examination of conservation governance at Mount Elgon National Park, undertaken to fulfil the requirements for an M.Sc. degree at the Norwegian University of Life Sciences.

3.5 Conclusion

Though not explicitly a critical realist, Edward Said (1997) once encapsulated the basic substance of this position more eloquently than many of its staunchest proponents. “All knowledge that is about human society, and not about the natural world, is historical knowledge,” he wrote, “and therefore rests upon judgement and interpretation. This is not to say that facts or data are nonexistent, but that facts get their importance from what is made of them in interpretation” (Said 1997: 162). While Said explicitly writes of knowledge concerning human society, his statement begins to take on new layers of meaning as we become increasingly aware of the processes that constitute the global context of the Anthropocene.

In addition to expounding upon the relevance of critical realism as a philosophy of social science well suited for contemporary problems in the field of environmental governance, this chapter has also outlined the ways in which I intend to apply Said’s (1997) observation to both social and ecological phenomena. In short, this thesis employs a mixed-methods, critical case study design, which investigates three widely held policy narratives within the literature on conservation and development. Before presenting the empirical findings of this approach in *Part B*, however, the following chapter outlines the results of both primary and secondary archival research on land use trends on Mount Elgon from an explicitly critical realist perspective.

4. Governing Through Nature: An Historical Geography of Mount Elgon – Both Within and Without the State

Curiously enough, none of the tribes on or surrounding the mountain have any knowledge of the popular name for the mountain (Elgon), and I believe this to have been derived in some confused manner from the name of the tribe to the south side, the El Gonyi. The Wa-Kitosh call the mountain Masawa; the Wa Lako Masawa Tukul; and the tribes on the west side use the name Ruteka. Masawa is the name that is most widely known.

- C.W. Hobley, *Notes on a Journey Round Mount Masawa or Elgon*, (1897: 185).

Colonial occupation itself was a matter of seizing, delimiting, and asserting control over a physical geographical area — of writing on the ground a new set of social and spatial relations. The writing of new spatial relations (territorialization) was, ultimately, tantamount to the production of boundaries and hierarchies, zones and enclaves; the subversion of existing property arrangements; the classification of people according to different categories; resource extraction; and, finally, the manufacturing of a large reservoir of cultural imaginaries.

- Achille Mbembe, *Necropolitics*, (2003: 25-26).

4.1 Introduction: “Mount Elgon”, State-Building, and the Biopolitics of Place

At dawn on the 29th of December 1906, one Captain Archer assembled a company of the 4th Battalion of the King’s African Rifles in Jinja, and departed for Mbale in the Eastern Province of the Uganda Protectorate.²⁸ His mission: To conduct a “punitive raid” on the Bagisu people of Namasindo County on the south-western slopes of Mount Elgon.²⁹ Evidently, the Bagisu had raised the ire of the colonial administration by repeatedly refusing to pay taxes or to accept the legitimacy of the Baganda chiefs that the British had installed in the area. Recently, they had substantiated their resistance by killing a number of Baganda tax collectors and razing their outpost – a

²⁸ This introductory account is based on a series of dispatches, dated 12 November 1906 to 19th February 1907, photographed by the author at the Uganda National Archives, December 2011.

²⁹ In an uncanny historical coincidence, this is the same approximate location of one of the ‘resistance groups’ studied in *Part B-Paper III*.

degree of insubordination that the British could no longer ignore. “Though one cannot but admire the courageous and independent spirit of the wild tribes in the Elgon district,” Archer’s superior later wrote from the Protectorate’s headquarters in Entebbe, “nothing but severe punishment will impress upon them the fact that murder and anarchy must cease among them.”³⁰

The primary objective of this chapter, in a critical realist sense, is to demonstrate that the Bagisu’s underlying motivation for violence was far more complex than a mere penchant for “murder and anarchy.” Such oversimplifications are dangerous, as they slide so easily into both the historical record and our “cultural imaginary” (Mbembe 2003: 25-26). Indeed, this colonial narrative of barbaric, “marginal tribalism” (Gellner 1969: 2-3)³¹ on Mount Elgon influences even the anthropologist Suzette Heald’s (1998) *Controlling Anger: A Sociology of Gisu Violence*, wherein she seeks to explain such disturbances through reference to the Bagisu’s kinship system, alcoholism, and their ostensibly aggressive conception of masculinity. Like the name ‘Mount Elgon’ itself, as brilliantly observed by the explorer C.W. Hobley in the first epigraph for this chapter, such interpretations can evolve into “institutional facts” in their own right if left unexamined for a substantial enough duration (cf. Searle 1997). Although both the name of the mountain itself and the ‘character’ of the Bagisu might seem like inconsequential details, they suggest an ominous precedent for the manner in which the colonial administration callously disqualified the knowledge and customs of Mount Elgon’s inhabitants – the Bagisu, Sabiny, and Ndorobo³² people – as they were brought into the steely, cold embrace of Empire.

³⁰ Letter, dated 16 March 1907, H.M. Commissioner to the Earl of Elgin and Kincardine. Photographed by the author at the Uganda National Archives, December 2011.

³¹ Gellner (1969: 2-3) defines marginal tribalism as “the type of tribal society which exists at the edge of non-tribal societies.” Importantly for subsequent portions of this chapter, he explains that “it arises from the fact that the inconveniences of submission make it attractive to withdraw from political authority, and the balance of power, the nature of mountainous or desert terrain, make it feasible. Such tribalism is *politically* marginal. It knows what it rejects” (Gellner 1969: 2, emphasis added). Unlike Gellner, however, the British administration repeatedly sought to explain violence among the Bagisu as senseless barbarism, rather than as a politically motivated form of resistance. On this point, see also Scott (2009: 30).

³² The term ‘Ndorobo’ is controversial. For example, Dowie (2009: 184) claims that the word derives from the Maasai phrase *il torobo*, meaning ‘poor people who cannot afford cattle.’ This label has

Today, many Bagisu residents still insist that *Masawa* or *Masaba* is the proper title for the mountain, while the Sabiny use the term *Masop*.³³ In many cases, both view the moniker of “Mount Elgon” as constituting a symbol of the process through which their resource use rights to its slopes were severely curtailed. Rather poetically, *Masaba* and *Masop* refer both to a purported common ancestor for the Bagisu and Sabiny, respectively, and to the mountain itself (La Fontaine 1969: 179; Goldschmidt 1976: 38). For example, the *BaMasaba* are at once the people of Masaba, and the people of the mountain. Given that the Bagisu, in particular, are one of the few groups in the region who are ‘autochthonous’ or without a unified narrative of prior migration to the area (Heald 1998: 19; Norgrove 2002: 133), the line between these two interpretations is further blurred: The mountain itself, then, is both the common ancestor and source of collective life.

Similar to the manner in which these rival titles for Mount Elgon exist side-by-side, therefore, is the way in which a formal public property regime and an informal – but sometimes *de facto* – common property regime have contended with each other for influence over the mountain’s slopes (cf. Banana and Gombya-Ssembajjwe 2000: 88; Turyahabwe and Banana 2008: 650). Since the British imposed political dominion over the Mount Elgon region in the 1890s, and later ‘Crown’ or colonial ownership over the mountain’s forests in the 1930s (Webster 1954: 5-6; Norgrove 2002: 197), public property has constituted the *de jure* regime. However, one need not be a critical social scientist to realize that the influence of such legislation has often not extended

historically been used – often pejoratively – to refer to marginalized groups throughout Kenya (cf. Lynch 2011), most notably perhaps by the former President Theodore Roosevelt (1910) in his account of an expedition to British East Africa entitled *African Game Trails*. On Ugandan Mount Elgon, the group is now often referred to as the ‘Benet’, whereas on the Kenyan side of Mount Elgon, they are known as the ‘Ogiek’. Likewise, Himmelfarb (2012: 8-9) and Penny Scott (1998: 75) also note that the term ‘Kony’ has also been used to refer to this group. For the purposes of intelligibility, I simply use the moniker ‘Ndorobo’ to refer to the Sabiny-related group that was left within the boundaries of the Mount Elgon Crown Forest when it was originally demarcated in 1938 (Webster 1954: 1).

³³ While the term *masop* does indeed refer to both the mountain itself and an eponymous ancestor for the Sabiny, it also retains a more relational, mundane usage in referring to areas of the mountain and social groups that are higher in altitude than the speaker (Goldschmidt 1976: 38, 1986: 158). Accordingly, the Sabiny also refer to the forest-dwelling Ndorobo with the term *masop* (Petursson 2011: 48). By contrast, the term *soi* refers to those areas that are relationally lower in altitude than the speaker (Himmelfarb 2012: 9).

very far from the offices of the politicians and conservationists that formulated it. As this chapter's historical account suggests, conservation is indeed a "science of Empire" (Robin 1998), but one whose influence ultimately waxes and wanes along with that of the state itself. The fluctuation between state and common property thus constitutes what I will term the 'biopolitics of place' – an oscillation or struggle between divergent views of *what sort of life* the mountain ecosystem should support.

Here, I use the term 'common property', instead of 'open access', advisedly (cf. Vatn 2005: 255). Researchers at Mount Elgon frequently construe periodic declines in state governance, along with the deforestation that accompanies them, as a type of anarchic, open-access property regime. While these periods of poor (state) governance do indeed correlate with deforestation, one could argue that it is fallacious to further conclude that these processes went ungoverned by locally developed rules regarding land tenure and resource use (Aluma *et al.* 1989).³⁴ Indeed, this is the same basic fallacy that characterizes Hardin's (1968) "tragedy of the commons" thesis; in other words, we cannot simply assume, *a priori*, that the absence of third-party enforcement automatically denotes open access (cf. Ostrom 1990: 9). Given what both historical and contemporary anthropological research tells us about the customary land and resource use institutions developed by both the Bagisu and the Sabiny (Gayer 1945; Webster 1954; Goldschmidt 1967, 1976; La Fontaine 1969; Bunker 1991; Heald 1998; Himmelfarb 2012), one cannot accept this open access narrative without some scepticism. Differently put, one should perhaps not speak of the history of the public property regime at Mount Elgon and its failures, but of the history of the *actually existing* public property regime and its alternatives. As this chapter endeavours to show, the transitions between these are more frequent than is commonly understood.

³⁴ At first glance, this observation might appear to mirror Cleaver's (2001, 2002) notion of "institutional bricolage." In taking a biopolitical perspective, however, I want to emphasize the *struggle between* rather than the *interconnection or co-evolution of* different layers of institutions and institutional systems. Differently put, institutions often differ substantially in their inherently normative content – about equitable or culturally-acceptable systems of property ownership, for example – to the extent that they are mutually exclusive in a political sense. It is this culturally-loaded *vision* – this institutional *gaze* – implied by different sets of rules, I argue, that makes them biopolitically contentious in their prescriptions for which sorts of life can and should be supported. Consequently, while this point certainly draws inspiration from Cleaver (2001, 2002), it should not be perceived as precisely synonymous with her notion of "institutional bricolage." On this point, also see Petursson (2011: 70).

Further, through an historical-geographical examination of land use trends on Mount Elgon, I put forth the abductive explanation that conflicts between conservationists and the region's inhabitants are but one manifestation of the latter's broader historical struggle against both subjugation to rival groups and incorporation into states. Indeed, I aim to disentangle – as much as possible – the history of formal conservation initiatives at Mount Elgon first from processes of colonization, and later from post-independence processes of state-building. Part of the goal, here, is to demonstrate that this is virtually impossible to accomplish in a manner that is 'pure' – that is to say, in a manner that clearly separates conservation initiatives from the broader nexus of state politics, political economy, and the subordination of unruly populations to a central government. Importantly for subsequent chapters of this thesis, this account foregrounds the historical relationship between the rise of conservation at Mount Elgon and politico-economic exigencies faced by powerful actors in the broader world-system. Notable examples include, first, the fiscally-beleaguered Uganda Protectorate's need to raise revenue from timber and cash crops, and, after independence, the subjugation of Ugandan farmers to the discipline of the international development industry.

Accordingly, I seek to accomplish these interrelated goals through a process of 'layering' discussions of the geomorphologic, ecological, and biophysical characteristics of Mount Elgon with both quantitative and qualitative historical data regarding land use trends in the region. Hence, the discussion proceeds in four parts: i) Mount Elgon's geomorphology, agro-ecological characteristics, and the initial settlement of the region; ii) British initiatives to incorporate the Sabiny and Bagisu peoples into the colonial Ugandan state through taxation and coffee production; iii) deforestation, economic dysfunction, and the tumultuous nature of the Amin and Obote regimes, and iv) 'community-based' conservation governance after 1986, international development, and new attempts at the economic valuation of ecosystem services. Collectively, this account serves to situate, to contextualize, and hopefully to enrich the contemporary empirical data presented in *Part B* of this thesis.

4.2 Volcanic Erosion, Liberated Plateaux: Mount Elgon as ‘Shatter Zone’

At one hundred kilometres northeast of Lake Victoria, straddling the border between Uganda and Kenya, Mount Elgon is a 4,321-meter high extinct volcano. Due to its massive 4,000-km² basal area, the Uganda Wildlife Authority (UWA) (2009: 33) claims that the mountain was once the largest in Africa - taller even than contemporary Kilimanjaro at an estimated 6,000 meters (UWA 2012). Dating to the Miocene era, Mount Elgon is approximately 20 million years old, one of the eldest in East Africa’s Rift Valley, and is estimated to have last erupted around three million years ago (King et al. 1972; P. Scott 1998: 9). After several of these prehistoric eruptions and accompanying lava flows, the mountain gradually eroded to its current height, leaving behind a 40km² caldera, eight km in diameter, which is currently thought to be one of the largest in the world (UWA 2000a: 5).

Such volcanism also denotes that, especially on the Ugandan side, Mount Elgon slopes gradually into the surrounding plains in a series of cliffs or ‘shelves’. Hence, for the average observer, the mountain’s full height is difficult to grasp when viewed from nearby urban centres. Indeed, visitors to Mbale often mistake the initial escarpment of the 2,347m-high Nkokenjeru or Wanale Ridge, visible from the town, as the peak of Mount Elgon. Rather, at its present elevation, the mountain is the second largest in Uganda, the fourth highest in East Africa, and the eighth highest on the African continent (UWA 2009: 18). Currently, 1,121 km² of the mountain enjoy legal protection within Uganda, whereas the entire protected area in both countries extends 80 km from north to south, and 50 km from east to west (P. Scott 1998: 8).

Rather than discouraging settlement, however, this rugged terrain has historically attracted a number of distinct groups. Although the existing historical record is somewhat speculative (Mwakikagile 2012: 112), the Bagisu, a Bantu language-speaking group, are thought to have first migrated to the Mount Elgon area from what is now Kenya in the 16th century (Were and Wilson 1987: 210-211; UWA 2000a: 10). By contrast, the Sabiny – a Kalenjin-related, Nilotic language-speaking group – are estimated to have arrived via a wider southern migration from Sudan at some point in

the late 17th or early 18th century (Goldschmidt 1967: 8; UWA 2000a: 10; Himmelfarb 2012: 41). The British arrived much later, toward the end of the 19th century. As Webster (1954: 9) notes in the first working plan for the Mount Elgon Forest Reserve,

“[t]he first white man to see the mountain was the explorer Stanley who sighted it in 1875 when journeying in a canoe around Lake Victoria [...] The first description of the mountain was made by Joseph Thomson who visited it in 1883 during his famous journey through Masailand [...] The first ascents of the mountain by white men were by Jackson and Gedge in 1890 and by Hobley in 1896.”

The objectives of these latter explorers were clearly tied up with the broader aims of the British Empire; for the Bagisu and the Sabiny, by contrast, the above-noted geomorphologic characteristics likely account for much of the mountain’s original appeal.

Indeed, both the mountain itself and its dense forests offer a type of natural defence against the cattle raiding and interethnic violence that have periodically afflicted the surrounding plains. For example, Mukherjee (1985: 85) writes that the Bagisu in particular were,

“driven from the plains to the east of Mount Elgon by the attacks of the Masai and Nandi. To escape the ravages of the warlike tribes, the Bagesu [sic] fled to the mountain, only to find that on the lower slopes they were subject to periodical raids [...] [t]hey therefore made their way to the less easily accessible heights and seldom left the high valley and plateaux of the southern and western sides.”

Similarly, the anthropologist and Sabiny ethnographer Walter Goldschmidt (1967: 147) observes that,

“[t]he Sebei claim that at an earlier era they lived on the plains. Military

pressure had forced them onto the mountain, and constant raids (perhaps aided by diseases of man and beast) were also responsible for the low density on the north escarpment. Though the Sebei do not live in the forest, they occupy the open lands above the forest line.”

To this day, descendants of nearby cattle raiding groups, such as the Karamojong and Pokot, still engage in violent rustling to the north and west of Mount Elgon, occasionally driving people further up the mountain’s slopes (Mkutu 2008: 140-141). For instance, Himmelfarb (2006: 5; 2012: 60) reports that the lowest-lying third of contemporary Kapchorwa district is now almost entirely unpopulated by Sabiny due to the intensity of such raids. Further, in addition to offering protection from cattle raiding, the area’s foreboding terrain likely also provided a degree of protection – at least initially - from the taxes and levies that British colonists sought to impose, and later from the political violence that characterized the Obote, Amin, and Obote II regimes (Bunker 1987: 35-38; Heald 1998: 20-23; Norgrove 2002: 197).

Consequently, this case shares many similarities with an argument recently put forth by James Scott (2009), regarding the ways in which “hill and forest peoples” have historically manipulated rugged landscapes to avoid both incorporation into-, and exploitation by-, states. Central to this argument is the notion of a “shatter zone”; that is, the spatial outcome of a process by which state formation³⁵ pushes marginal populations into frontier territories, especially ones marked by mountainous and densely forested terrain (Scott 2009: 142-143). This process can occur by force, when competition for land or resources displaces populations, or it can occur voluntarily, when certain groups flee the negative aspects of integration into states. As Scott (2009: 8) initially defines the term,

³⁵ Here, ‘state formation’ refers both to colonial and post-colonial processes, as well as to the pre-colonial state-making activities of the region’s large kingdoms. In Uganda, the largest and most ambitious of these were the kingdoms of Buganda, Ankole, Toro, and Bunyoro (Mutibwa 1992). These kingdoms existed in often-conflictual relationships with surrounding “unstratified” or state-less peoples such as the Acholi and Langi in the north, the Karamojong, Bagisu, and Sabiny in the east, and groups such as the Lugbara and Bakiga to the west and south (Kasozi 1994: 17-18). To be clear, further, I conceive of ‘state formation’ in the classical Weberian sense, as the assertion of a “monopoly over the legitimate use of violence” (Weber 2004 [1919]: 32-33).

“[s]hatter zones are found wherever the expansion of states, empires, slave-trading, and wars, as well as natural disasters, have driven large numbers of people to seek refuge in out-of-the-way places: in Amazonia, in highland Latin America [...] in that corridor of highland Africa safe from slave-raiding, in the Balkans and the Caucasus. The diagnostic characteristics of shatter zones are their relative geographical inaccessibility and the enormous diversity of tongues and cultures.”

One can detect both of these diagnostic characteristics at contemporary Mount Elgon, and to some extent also at the related extinct volcanoes of Kadam, Moroto, Morungole, and Zulia which together form a chain stretching north from Mount Elgon to modern-day Kidepo Valley National Park on the border with Kenya and Sudan (cf. Webster 1954: 4). Indeed, as Woodhouse (1913: 16) observed in the early 20th century,

“[a]s is common near large isolated mountains which offer a certain amount of shelter and protection to fugitives, the volcanic mass known as Elgon presents a considerable variety of race and language among the residents on its slopes.”

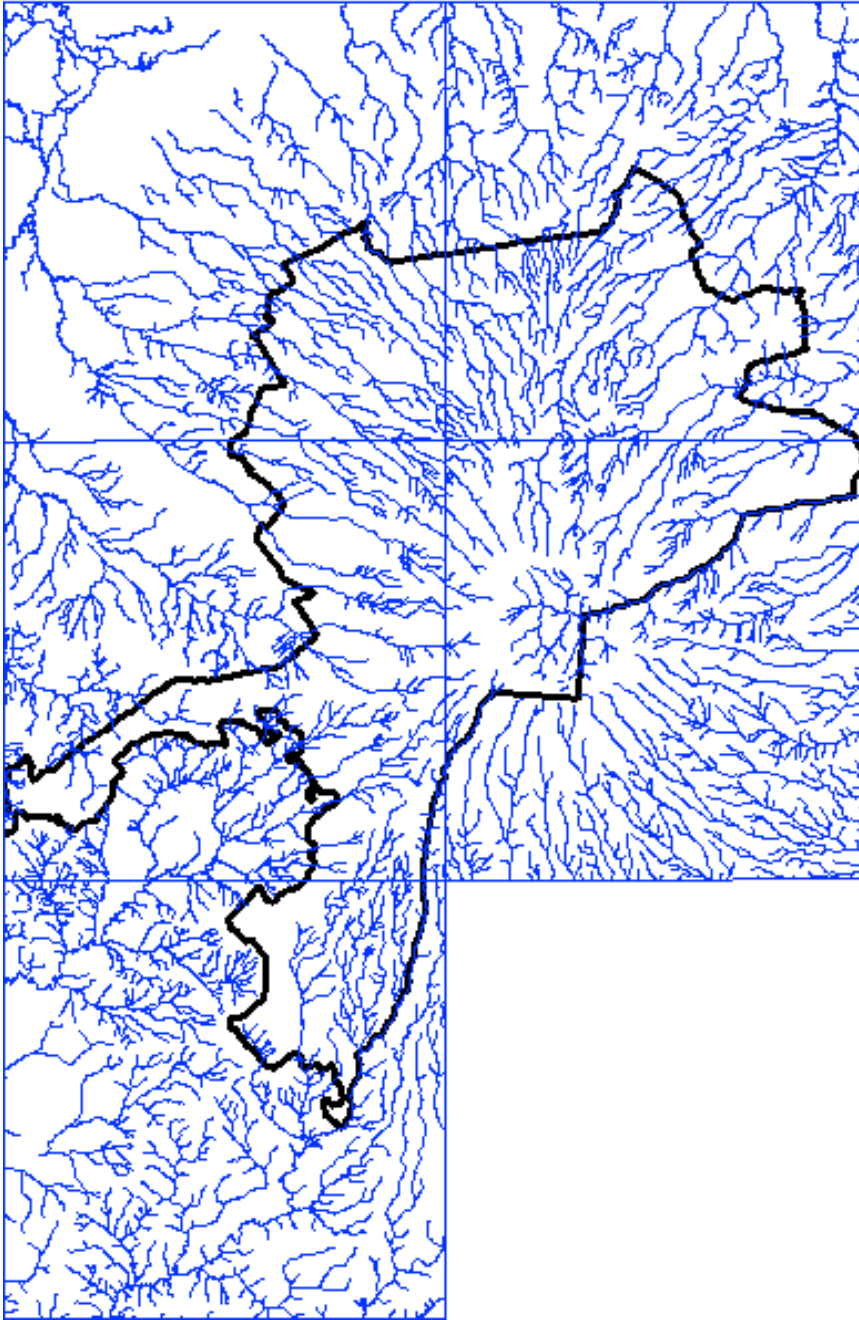
From the perspective of *la longue durée* (cf. Braudel 1982), one can perhaps hypothesize that this chain of volcanoes constitutes one long ‘shatter zone’, especially insofar as it is possible to observe regularities in the interaction between the people who settled these highland areas, and the groups that retained influence over the surrounding plains (cf. Mamdani 1982: 71; Heine 1985).³⁶ At Mount Elgon alone, three main ethnic groups populate the Ugandan portion: the Bagisu or Bagishu (who now mainly reside in Mbale, Bududa, Manafwa, Sironko, and Bulambuli districts);

³⁶ For a case in point, please see the anthropologist Bernd Heine’s (1985) account of the Ik people’s struggles *vis-à-vis* conservation at Kidepo Valley National Park in north-eastern Uganda, written in response to the account of the Ik popularized by Colin Turnbull’s (1972) book, *The Mountain People*. Mt. Morungole in Kidepo and Mt. Elgon constitute the two extremes of a chain of now-extinct volcanoes straddling the Uganda-Kenya border, and striking comparisons can be drawn between the experiences of the peoples that settled at these highland areas.

the Sabiny or Sebei (who reside in Kween, Kapchorwa and Bukwo districts); and the Ndorobo or Benet, a forest-dwelling people – related to the Sabiny – who the government has only recently concentrated mostly in the northern areas of the national park. Further, on the Kenyan side, the largest communities are the Sabaot, the Luhya, and the Teso (Soini 2007: 11), although populations of Ndorobo (locally known as Ogiek) are present there as well (Dowie 2009: 186; Lynch 2011: 396).

In addition to the relatively inaccessible, yet only moderately steep, nature of Mount Elgon's slopes, the region's bimodal rainfall pattern and soil properties certainly also facilitated its settlement. Average rainfall ranges from 1500-2500 mm per year, and is most regular at the mid-level altitudes of the mountain's slopes (UWA 2009: 27). Further, in Uganda, rainfall tends to be most frequent on the southern and western sections of the mountain, which are coincidentally also the most populous (Uganda Bureau of Statistics 2002; Uganda Communications Commission 2010). Although the driest months are December, January, and June, rain can occur in every month throughout the year (P. Scott 1998: 9). Consequently, such rainfall denotes that the mountain also plays a substantial water catchment role for the surrounding region (Webster 1954; Scott 1998; White 2002). Indeed, several major water sources - such as the Suam, Simu, and Lwakaka rivers - originate at Mount Elgon and drain into surrounding lakes, which has caused both colonial and post-colonial conservation authorities to disseminate the oft-quoted statistic that over "one million people" depend on the Mount Elgon ecosystem for their water (Webster 1954: 3; Lang and Byakola 2006: 23; UWA 2009: 28). Primarily in recognition of these water catchment features and their importance for surrounding populations, UNESCO (2003) also designated Mount Elgon as a Man and Biosphere Reserve in 2003.

Figure 4-1: Major water sources originating within contemporary Mount Elgon National Park, Uganda.



Source: Map constructed by Connor Cavanagh in ArcExplorer. Data: UWA-MENP Research and Monitoring Department, 2011.

Moreover, the region's soils are both volcanic and fertile, harbouring relatively high levels of key nutrients such as calcium, potassium, and sodium (Norgrove 2002: 64; UWA 2009; Himmelfarb 2012: 39). Combined with abundant rainfall, these soils

support a wide range of crops, with many farmers benefiting from several harvests per year (Petursson et al. 2011). Currently, the most commonly grown crops are bananas (*matooke*), maize, and coffee, although a wide range of fruits and vegetables are also cultivated, including onions, passionfruits, Irish potatoes, cabbage, tomatoes, sweet potatoes, and carrots. Coffee is particularly important for the local economy, as Mount Elgon is one of the few agro-ecological regions in Uganda where it is possible to cultivate the export-quality Arabica variety (Bunker 1985, 1991). Importantly for strategic reasons, moreover, these characteristics denote that agricultural cultivation may occur at altitudes as high as 2200-2500 metres above sea level, or at least 1000 metres above the surrounding plains (Himmelfarb 2012: 38).

Further, the Bagisu, the Sabiny, and the Ndorobo have also incorporated a number of Mount Elgon's forest resources their respective livelihood strategies (Table 4-1). In addition, each group benefits from a variety of services provided by the broader mountain ecosystem, such as climactic regulation, landslide prevention, water purification, and the relative freedom from both malaria and other mosquito-borne diseases that accompanies the altitude at which many communities are located (Norgrove 2002: 246). Previous research further suggests that many of these resources and services provide a 'safety net' for Bagisu and Sabiny populations when external shocks such as disease, crop failure, or other crises afflict households (cf. Katto 2004; Sletten 2004; Norgrove and Hulme 2006; Sletten *et al.* 2008). For the Ndorobo, in particular, these resources have historically constituted the core source of subsistence, although the group has gradually become more integrated into conventional agricultural production in tandem with their resettlement outside the contemporary national park.

Table 4-1: Ecosystem Services and Natural Resource Use at Mount Elgon, Uganda

Use	Resource
Nutrition	Fungi, Fruits, Honey, Flowers, Bush meat, Leafy greens, Bamboo shoots, Fish.
Health	Medicinal herbs; Clean drinking water; Minimization of malaria and other mosquito-borne diseases.
Ecosystem Services	Water catchment; Micro-climactic regulation; Water purification; Landslide prevention; Nutrient cycling; Crop pollination.
Agricultural Inputs	Fodder, Grazing, Crops, Stakes, <i>Matooke</i> (banana tree) supports; Land for cultivation; ‘Salt licks’ for livestock.
Household Use	Ropes, Firewood, Bamboo, Charcoal, Timber, Thatch, Elephant grass.
Cultural/Spiritual	<i>Musambwa</i> (Bagisu ancestral ceremonies); Bamboo collection ceremonies; Circumcision sites; Twin ceremonies; Burial sites; NR inputs for ceremonies (ie. Colobus monkey hide).
Other	Recreation, Education, Aesthetics.

Source: Assembled from Hinchley (1998: 3), Norgrove and Hulme (2006: 1101), and empirical observations.

Taken together, both these favourable agro-ecological conditions and relative geographical isolation have likely provided a near-perfect foundation for what Scott (2009: 187-207) aptly describes as “escape agriculture.” Indeed, in referring to the livelihood practices that characterize the above described “shatter zones”, Scott (2009: 23, emphasis added) notes that,

“[t]here, in regions beyond the states’ immediate writ and, thus, at some remove from taxes, corvée labour, conscription, and the more than occasional epidemics and crop failures associated with population concentration and monocropping, such groups found relative freedom and safety. There, they practiced what I will call *escape agriculture*: forms of cultivation designed to

thwart state appropriation. Even their social structure could fairly be called escape social structure inasmuch as it was designed to aid dispersal and autonomy and to ward off political subordination.”

At Mount Elgon, similar characteristics initially allowed for a degree of strategic isolation, first, from militant pastoralist groups in the surrounding plains, and, later, from the incursions of British colonists. In addition, as the American sociologist Stephen Bunker (1987) famously argues in *Peasants Against the State*, the Bagisu in particular have historically manipulated their relative isolation to resist what to them appeared to be the illegitimate extension of state power into their territory. These strategies include, but are not limited to, the practice of boycotting the production of certain cash crops desired by both the colonial and post-colonial Ugandan governments – most notably Arabica coffee – and withdrawing into largely cash-less subsistence agriculture when market conditions or state policies became unfavourable (Bunker 1983a, 1984, 1985). Indeed, the rise of the coffee industry is of great importance for understanding early attempts to establish conservation through public ownership over the mountain’s forests, as the following section demonstrates.

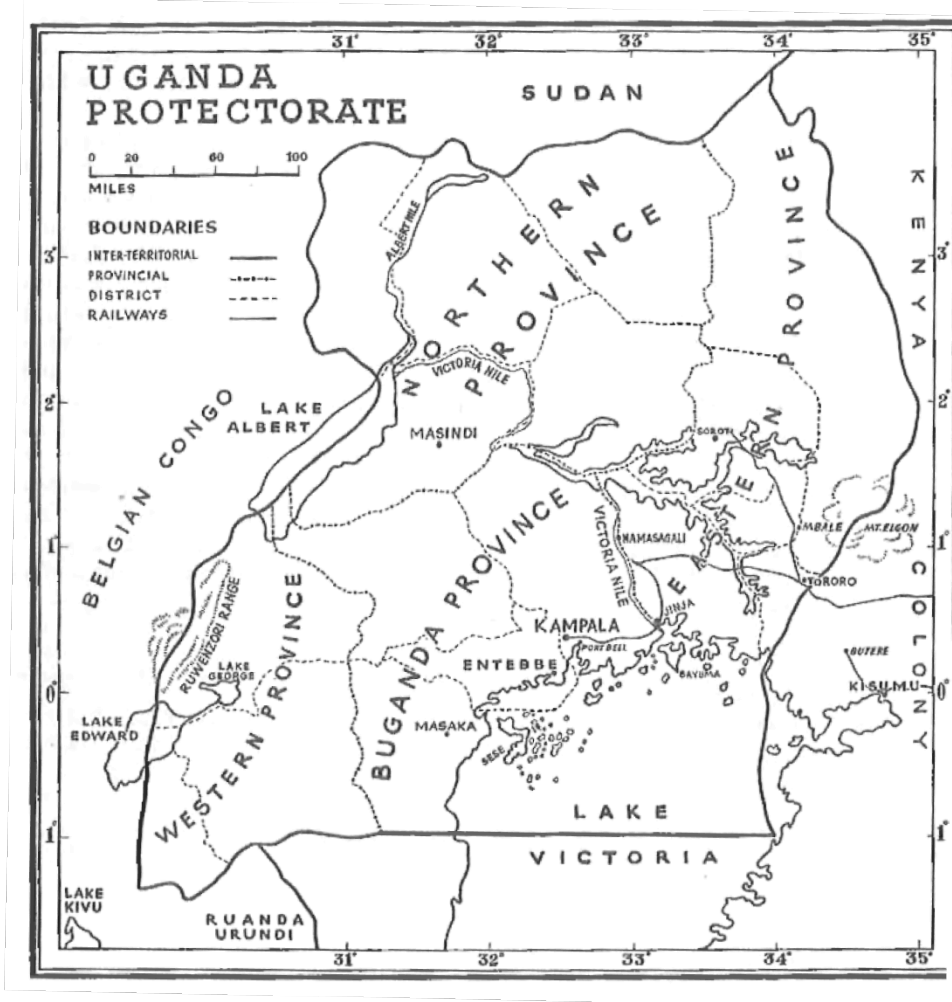
4.3 Imperial Ecology: Taxes, Coffee, and the Birth of ‘Nature’

Initially, again echoing Scott’s (2009: 23) observation above, the social structure of both the Bagisu and the Sabiny also delayed their integration into the colonial state. For example, upon arriving in what is now modern-day Uganda in the mid-to-late 19th century, the British encountered a wide range of politically disparate kingdoms, chiefdoms, clans, and largely non-hierarchical groups. Some of these, such as the Buganda, Ankole, Toro, and Bunyoro kingdoms, possessed well-established hierarchies, armed forces, and sophisticated political institutions (Turyahabwe and Banana 2008: 643; Low 2009: 5-10). Others, such as the Batwa, Ik, and Ndorobo,³⁷

³⁷ Although the Batwa, Ik, and Ndorobo are often described as ‘hunter-gatherers’, Heine (1985) notes evidence that such hunting and gathering has been supplemented with subsistence agriculture and pastoralism where necessary. A degree of caution is necessary, here, as the imposition of the ‘hunter-gatherer’ label is difficult to separate from a latent imperative among colonial historians and anthropologists to construct an aura of primitivism around these groups, which may not in fact be

were almost entirely subsistence-based and ‘acephalous’, or only loosely hierarchical, with no sovereign leader (Kasozi 1994: 17-18; Norgrove 2002: 67; Himmelfarb 2012: 65). Further complicating the overall governance ‘landscape’ were pastoralist groups such as the Karamojong and Pokot, who for the most part attempted to ignore the British project of state-building altogether, most notably by refusing to acknowledge the Uganda-Kenya border that was arbitrarily established through their territory in the first decade of the 20th century (Griffiths 1986; Mkutu 2008: 22-23; Okumu 2010).

Figure 4-2: Colonial Map of the Uganda Protectorate.



Source: Wrigley (1959), Creative Commons Licence.

empirically supported. The controversy surrounding Colin Turnbull’s (1972) study of the Ik is perhaps representative of these issues.

The British favoured the Baganda, in particular, and adopted the kingdom as the enforcer of “indirect rule” in the Protectorate after its creation in 1894 (Bunker 1984: 52; Heath 2010: 514). Even the name of the established Protectorate, Uganda, clearly derives from their early alliance with this kingdom (cf. Thomas 1928). As Cairns (1965: 112) notes, “[t]he high praise accorded to the Baganda people rested primarily on the fact that they were felt to be closer to the west in terms of realized development and potential capacity.” Likewise, as the Ugandan historian Mahmood Mamdani (1976: 41) quotes Sir Harry Johnston, one of the Protectorate’s founders, the Baganda-British alliance constituted “a practical attempt to establish on a sound basis a ruling oligarchy, which, under British guidance, might do for Buganda what the landed aristocracy had done ... to give stability to the government of England” (also cited in Himmelfarb 2012: 65-66).

Hence, one might argue that two distinct processes were at work during this period – first, the extension of British colonial rule through an administrative system of Baganda agents; and secondly, the “internal colonization” (Scott 2009: 12) of the newly established Ugandan Protectorate by Baganda language and influence (La Fontaine 1969: 184). Thus, as Kasozi (1994: 229) observes of the Baganda,

“[t]heir language was therefore viewed as cultural imperialism ... the anti-British and anti-Baganda movement *Kyanyangire* was aimed not only at Baganda chiefs but also at Baganda cultural imperialism, especially in the use of Luganda in church, education, and administration.”

The British formalized their cooperation with the Baganda early-on, however, signing the “Uganda Agreement” in 1900, which institutionalized the privilege of the Baganda *Kabaka* (king) over the other kingdoms, chieftains, clans, and tribes of the newly formed protectorate (Norgrove 2002: 66-68; Low 2009: 337). As Thomas (1928: 236) reports, the agreement also afforded the British the right to impose “hut and gun taxes”, and to declare unrestricted Crown ownership of “approximately half the area of the kingdom, [which was] classified for the most part as waste and uncultivated land and forests.” This latter provision, implemented under the colonial

doctrine of *terra nullius* or privately unclaimed territory, is of singular importance for the history of conservation in Uganda (cf. Norgrove 2002; Webster and Osmaston 2003; Himmelfarb 2012). Indeed, it establishes the legal and conceptual basis for the government of the Protectorate to hold previously communally owned land “in trust”, and was subsequently reinforced with the signing of the Toro Agreement (1900), and the Ankole Agreement (1901) (Webster and Osmaston 2003: 125). In other words, all land and forest that was not held under private property or leasehold arrangements could in principle be categorized as ‘waste’ and expropriated by the colonial government, who would ostensibly then manage it for the ‘common good’ of the Protectorate.

However, this simple proprietary framework did not translate so easily to all of the societies of Uganda. For instance, lying in between the Baganda at one hierarchical extreme, and the Ik on the other, were groups such as the Bagisu and Sabiny. Traditionally, both groups were loosely organized under a clan system, but their ‘acephalous’ social structure could not be so easily manipulated by a colonial ‘divide and rule’ strategy – especially one predicated on the provision of land as a reward to cooperative chiefs (Norgrove 2002: 66-68). As the Ugandan Commissioner specifically remarked about the Bagisu in a letter to the Earl of Elgin and Kincardine in November 1906,

“[t]hough they are believed to number about half a million, there is no cohesion whatever among them and they acknowledge no supreme ‘Chief.’ Each head of a clan considers himself independent of his neighbours and is a law unto himself. During the past three years the Sub-Commissioner of the Province has been trying to civilize these people through the influence of Baganda agents, but the latter appear to have taken advantage of their position and to have aroused the animosity of the Ba-Gishu. [...] The influence of the Ba-Gishu on the surrounding tribes is beginning to have a bad effect, and I

recommend that steps should be immediately taken to quell the unruly spirit which is growing in the vicinity of Mount Elgon.”³⁸

Here, to borrow Ernest Gellner’s (1969: 41-42) phrase, the implicit strategy in such forms of social organization was perhaps one of “divide so that ye need not be ruled.” Indeed, with no enduring authorities to endorse against rivals, the British found it difficult to exercise influence over the Bagisu, whose social and political structure allowed them to resist the whims of individual chiefs. As wittily put by Scott (2009: 210), “a state often tries to find a collaborator and create a chiefdom. While it is usually in someone’s interest to seize this chance, nothing ... prevents his would-be subjects from ignoring him.” Such was the predicament of the British in the Mount Elgon region.

Consequently, the first serious clashes between the Bagisu, Sabiny, and the Ugandan state apparatus began to emerge in 1903-4. By and large, conflicts arose in response to the imposition of the first “hut tax”, under which male household heads were obliged to pay a yearly sum or risk being sentenced to one month of unpaid labour (Himmelfarb 2012: 66). As Mamdani (1975: 28) asserts, the creation of tax law was instrumental in constructing a labour market in Uganda, “the logic being that a peasant would have to earn money through employment to pay taxes which could not be paid in kind.” Given that both Bagisu and Sabiny economies were almost entirely non-cash based at this time, the imposition of a financial tax was understandably and earnestly resisted. Indeed, as Jørgensen (1981: 61) observes, the Eastern Province alone “recorded at least 17 tax revolts and punitive expeditions between 1903 and 1911.”

Further, one could argue that the imposition of lucrative taxes was a much more pressing concern for the British administration in Uganda than it was in neighbouring Kenya. For example, Thomson (1928: 234-235) nicely summarizes the interrelated political and financial predicament of the early Uganda Protectorate thusly:

³⁸ Letter dated 26 November 1906, sent from H.M. Commissioner to the Earl of Elgin and Kincardine. Photographed at the Uganda National Archives in Entebbe, November 2011.

“There followed five years during which the country continued to be the stage for successive excursions and alarms; the threat of Kabarega, the king of Bunyoro, in the northern provinces; the flight of King Mwanga of Buganda; the Mohammadan insurrections; and finally the mutiny of Sudanese troops. As a result the net annual cost of occupation which Portal had estimated at £20,000 had by 1899 risen to over £300,000 [...] the British taxpayer had, before the close of the century, contributed in all a sum perhaps approaching six millions sterling towards an undertaking which, in its inception, was a concession to public idealism.”

In contrast with neighbouring Kenya, which the British governed as a white settler colony, the native population in Uganda was expected to provide the bulk of the Protectorate’s tax revenues. This was at first problematic: As noted by Norgrove (2002: 67), the British Treasury was forced to provide a “grant-in-aid” worth 84% of the Protectorate’s expenditures in 1903. Similarly, Wrigley (1959: 13) writes of the early 20th century in the Protectorate that “the philanthropic enthusiasm of a few years back had notably subsided and the emphasis on a material return had grown considerably stronger.” Hence, the colonial government faced a variety of pressing incentives to “capture the peasantry” (Hyden 1980), rather than to allow rural populations to languish in un-taxable subsistence agriculture. In the Uganda Protectorate, in particular, this was pursued through the introduction of two cash crops for export: cotton and coffee (Heath 2010: 514; Mamdani 1987). In this manner, not only could the colonial administration raise revenue through exports, but the cultivation of these crops also provided a means of integrating farmers within the market economy, and of providing them with the cash income necessary to pay hut taxes, poll taxes, gun taxes, and other financial levies (Mamdani 1975: 28).

In the following vignette, constructed from primary archival sources, I endeavour to illuminate the nature of this process. Indeed, a close reading of dispatches and communications between British administrators illuminates the nature of the incentives that the Protectorate faced to incorporate frontier regions of Uganda under

the authority of the central government. As this account demonstrates, the imposition of taxes was neither uncontroversial nor peaceful.

4.3.1 Vignette: Taxing the Colonial Frontier

At Mount Elgon, the Bagisu and the Sabiny did not take kindly to the introduction of such levies. Further, a brief reconstruction of dispatches initiated by the tax collector for Bugisu region, one Sidney Ormsby, and the British Commissioner for Uganda in 1906-7 serves to illuminate how the geomorphologic characteristics of Mount Elgon historically enabled the region's populations to resist these early attempts at incorporation into the colonial Ugandan state.³⁹ Ormsby initiated these dispatches in November 1906, evidently out of dismay at the Bagisu's killing of five of his Baganda tax collectors, as well as the wounding of three more. Worried that these actions were part of a broader and more concerted campaign of resistance, Ormsby writes to the Sub-Commissioner for Bukedi District that,

“the natives, no doubt fired with the success of their performance on Wednesday [the aforementioned raid] and waiting another opportunity to blood their spears, remembered the post close by where for the moment, there was only one Muganda and from all accounts, attacked it in very large numbers [...] three boys escaped but the houses were looted and burnt.”⁴⁰

Again, in accordance with the aforementioned ‘divide and rule’ strategy well documented for its use elsewhere in East Africa (Mamdani 1976, 1996), the British were at this point utilizing Baganda agents in order to extend the reach of the central government into the most remote areas of the Protectorate – including Mount Elgon. At this juncture, the strategy's objectives were certainly realized in the Mount Elgon case; that is, the Bagisu directed their disenchantment and resistance to the imposition of taxes at the Baganda (or Muganda, in Ormsby's parlance), rather than at the British

³⁹ Here, I refer to a series of letters photographed at the Ugandan National Archives in December 2011, which are dated 12 November 1906 to 19 February 1907. Some names cannot be provided because of illegible signatures.

⁴⁰ Letter dated 12 November 1906, from S. Ormsby to H.M. Sub-Commissioner, 3p.

themselves. Indeed, as noted by the anthropologist Suzette Heald (1998: 23), nowhere was “the ‘thin white line’ of British imperialism thinner” than in the Bugisu region of the Uganda Protectorate during the early 20th century.

Unfortunately for the Bagisu, however, Ormsby was not alone in his irritation. After receiving the dispatch, a report was promptly submitted to the Commissioner’s Office, outlining the apparent severity of the situation at Mount Elgon. Interestingly, this was expressed not just in terms of the immediate situation, itself, but in relation to the broader colonization process in the Eastern Province of the Protectorate. As the Sub-Commissioner reports, he feels,

“forced to recommend that [the Bagisu] be severely punished for their action. I can see no other method of putting an end to the truculent and defiant attitude of these people ... If [others] continually see and hear of the defiance shown us by the Bagishu, it may, I am afraid, have the affect of throwing the country back some ten years and costing us much in blood and money to return it to its present state of advancement. It is therefore not only with the object of punishing the recalcitrant sections of the Ba-Gishu but also with a view to the advancement of the country as a whole that I have ventured to recommend that rigorous police measures should be taken to terminate once and for all the defiant attitude of these people.”⁴¹

The Sub-Commissioner’s ire reflects a broader sentiment of British distaste for the Bagisu during this period. Indeed, the local District Officer mirrored his sentiments, asserting that the Bagisu were,

“still seeped in the lowest form of superstition, sodden with native liquor and addicted to cannibalism. Until our advent they had no political system of any description [...] the remarkable progress of the District was almost entirely due to the [Baganda] agents” (cited in Heald 1998: 25).

⁴¹ Letter dated 19 November 1906, Report from H.M Sub-Commissioner to H.M. Commissioner’s Office, 2p. Photographed at the Uganda National Archives, Entebbe, December 2011.

Much of the insecurity underlying the tone of these two officials arises from the fact that these killings were not isolated incidents. Indeed, in a separate memorandum distributed by the Sub-Commissioner's Office, various Bagisu communities had reportedly killed three Indian traders, three porters, and thirty Baganda agents of the colonial state over the previous two years. In response, the British had so far retaliated with three "punitive raids", resulting in the killing of thirty-four Bagisu, as well as the seizure of 1020 cattle and 2292 sheep and goats.⁴²

An account of a fourth punitive raid, resulting from Tax Collector Ornsby's complaint above, further illustrates the benefits of Mount Elgon's terrain in resisting the advances of outside groups. In a report of the events, the Sub-Commissioner for the region notes how,

"[o]n the 20th [of January 1907] Capt. Archer attacked the slopes of Namasindo [contemporary Namasindwa, Manafwa District] in three parties and his own party was attacked when going up a gully by showers of boulders. Capt. Archer was himself hit by one but fortunately having seen it coming was enabled to avoid it to a great extent and it only bruised his ribs. One of the troops had a broken jaw and his teeth knocked out and a porter was killed by a spear. Several of the troops also received abrasions from these boulders."⁴³

Accounts such as the above reveal the salience of what Scott (2009: 43) refers to as "the friction of terrain" in shatter zones; that is, the manner in which standard units of distance such as kilometres or miles begin to lose their descriptive power in predicting the difficulty of moving people and goods – and thus governing – across space. Such friction becomes amplified when those who inhabit the terrain wish to further obstruct passage, as well documented by the experience of Captain Archer's company above.

⁴² Letter, n.d., appended to *op. cit.* Entitled: 'Memorandum of Disturbed Localities in the Mbale District.' Addressed to Commissioner's Office, 1p. Photographed at the Uganda National Archives, Entebbe, December 2011.

⁴³ Report, dated 29 January 1907, from Sub-Commissioner Bukedi District. Recipient not listed. Photographed at the Uganda National Archives, Entebbe, December 2011, 6p.

One should further note that, even at contemporary Mount Elgon, the omnipresent threat of rain, combined with the thick, clay-like nature of the mountain's volcanic soils, likewise prevent ascent. Even in the contemporary setting, these same characteristics are used to obstruct the passage and activities of both conservationists and military personnel (Norgrove and Hulme 2006: 1107). To summarize, then, these interrelated geomorphologic, geographic, and ecological characteristics – combined with the loosely organized social and political structure of both the Bagisu and Sabinu – initially enabled both groups to resist incorporation into the British colonial state and its politico-economic implications, such as the imposition of new taxes and commercialized forms of agricultural production.

4.3.2 Transnational Commodity Flows and the Birth of 'Nature'

By the mid-1930s, however, the governance situation at Mount Elgon began to change rather quickly. After the cessation of the First World War and the resolution of the Great Depression, British colonial administrators once again found themselves with relative surpluses of both finances and manpower (Webster 1954: 6). At this juncture, a more concerted effort emerged to harness market-based strategies of generating taxable revenues from rural populations in the Ugandan Protectorate. As noted by Mamdani (1987: 194-196), though, the Eastern Province's climate was either too dry (in Karamoja) or too cool (at Mount Elgon) for the production of cotton. As such, beginning in earnest in the 1930s, the colonial administration began to focus its efforts on developing a commercially viable, export-oriented coffee industry in the region. For example, Bunker (1984: 57), notes that while the colonial administration introduced coffee to Bugisu in 1912, it was not until the 1920s and 1930s that authorities were able to enforce its obligatory cultivation for all households in earnest. Also during this period, the first road was built linking Bugisu with the Sabinu region in the northeast, which, for the first time, facilitated access to markets for Sabinu coffee farmers in the area. By the 1950s, these efforts had attained substantial success. Indeed, after 1950, coffee reportedly provided more than fifty percent of Uganda's foreign exchange, of which the Bugisu region of Mount Elgon, in particular, provided a disproportionate amount (Bunker 1985: 375). As observed by Himmelfarb (2012:

50), farmers at Mount Elgon provided approximately two thirds of Uganda's Arabica coffee harvest by 1958, the total value of which exceeded exports of raw cotton, cotton oil, and cottonseed combined.

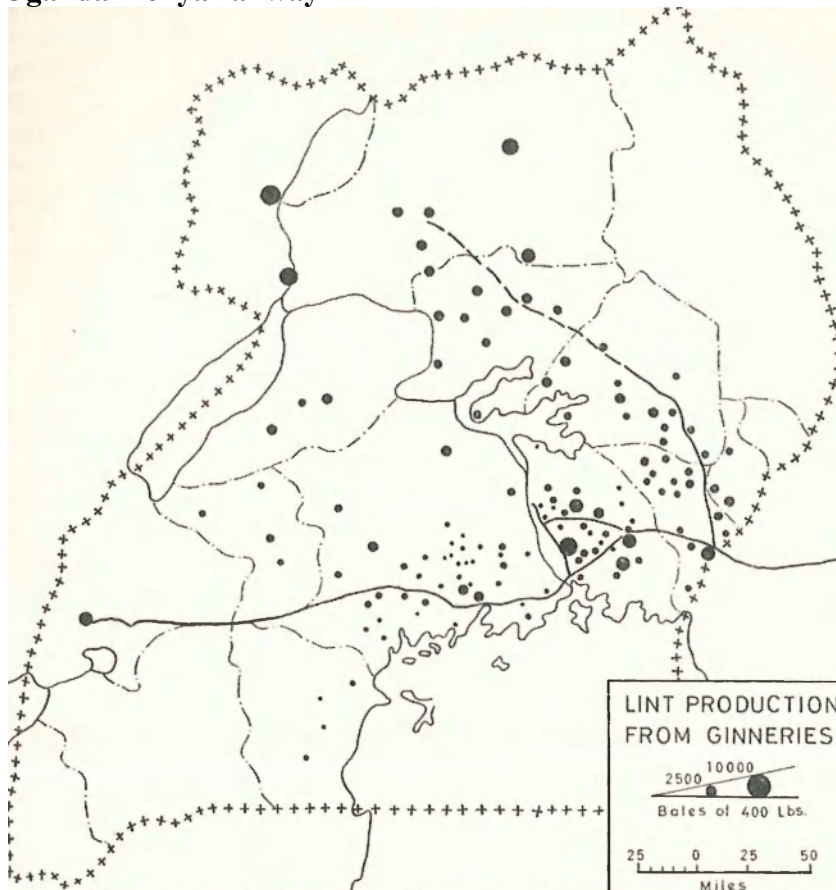
Here is the crucial point: As the economic significance of the Mount Elgon region grew, so too did concerns about its sustainability (cf. Himmelfarb 2012: 49-51).⁴⁴ Initially, the British were largely uninterested in the health of the mountain's ecosystem. For instance, although Uganda's Scientific and Forestry Department was established in 1898 (Turyahabwe and Banana 2008: 643), its 1921 annual report notes that "the forests of Mount Elgon *have never been visited* by a member of the Forest Department and very little is known concerning their area, composition, etc" (cited in Webster 1954: 5, emphasis added). Formally, the colonial rationale for public conservation at Mount Elgon – from the late 1930s – officially arose out of concerns related to the water catchment role that the mountain's ecosystem provides for surrounding agrarian communities. Indeed, by the 1940s onward, government documents regularly state that population growth and agricultural encroachment into forests pose a threat to the sustainable functioning of the Mount Elgon watershed (Gayer 1945; Webster 1954). Such rhetoric was also employed in relation to forests across the country, as the protected forest estate grew from 3,657 km² in 1932 to 16,360 km² in 1950 (Webster and Osmaston 2003: 126). Of this area, only 564 km² (or 3.4%) was set aside as "Native Forest Reserves"; that is, reserves in which indigenous people still had limited resource use rights (*ibid*: 127).

From a critical perspective, however, one could argue that the conservation of the mountain's forests was primarily tied, first, to the sustainability of the region's water-dependent coffee industry (cf. Himmelfarb 2012: 49-50), and, second, to the ability of the state to commercially exploit the mountain's timber. These concerns became especially salient after 1928, when the East African railway – which originally linked

⁴⁴ For excellent accounts of the relationship between conservation and the production of cash crops elsewhere in the British Empire, please see Grove's (1997) *Ecology, Climate, and Empire* and Drayton's (2000) *Nature's Government*. MacKenzie's (1988) *The Empire of Nature* further provides an interesting contrast to these works, demonstrating the colonial emphasis on conservation for recreation rather than economic concerns prior to the first decades of the 20th century – a position that had clearly become economized by the 1930s.

the Indian Ocean port of Mombasa with the town of Kisumu on Kenyan Lake Victoria – was extended in two branches through both Mbale and Kampala (O'Connor 1965: 36). The extension of the railway vastly increased the access of commodities traders (and at one remove, Ugandan farmers) to export markets. It also greatly reduced the cost of transport, which was previously conducted over lengthy and unreliable land routes (Mukherjee 1985: 186-187).

Figure 4-3: Cotton production clustered around the two main branches of the Uganda-Kenya railway



Source: O'Connor (1965: 9), Creative Commons Licence.

Hence, within the context of the wider British Empire, the Uganda Protectorate was suddenly able to shrug off its reputation as an introverted hinterland, and connect itself more firmly to the same transcontinental commodity flows that characterized the more productive settler colonies of Kenya and Southern Rhodesia (Mamdani 1975: 27). Arguably, these broader politico-economic trends are also reflected in the

Protectorate’s 1938 Forest Policy, which stresses the need to preserve forests not primarily for the maintenance of indigenous livelihoods, *per se*, but “for the maintenance of climactic conditions suitable for agriculture, for preservation of water supplies, [and] for provision of forest produce required in agricultural and industrial development” (cited in Turyahabwe and Banana 2008: 646).

For example, the Uganda Protectorate’s export records show that the Bugisu region provided an increasingly disproportionate amount of the state’s native coffee production between 1928 and 1937. This is true even if we compare Bugisu with the much larger administrative units of the Western Province and the Buganda Province, respectively. Indeed, during this period, farmers in Bugisu produced between 12 and 15 percent of the entire Protectorate’s coffee harvest grown by native Ugandans (Table 4-2). In some years, such as in 1931 and 1933, native coffee production in Bugisu actually *exceeds* production in the Western province as a whole. Further, one should also note that this coffee was of the Arabica variety, and thus of greater economic value than the Robusta coffee produced in lower-lying areas of the Buganda and Western Provinces (cf. Mamdani 1987).

Table 4-2: Coffee Production by Native Ugandans, 1928-1937

<i>Year</i>	<i>Region</i>			<i>Yearly Total (tons)</i>
	Buganda Province	Western Province	Bugisu	
1928	4,700	2,900	1,100	8,700
1929	11,300	3,400	1,400	16,100
1930	16,200	3,800	2,000	22,000
1931	17,000	1,800	2,100	20,900
1932	18,800	3,800	2,800	25,400
1933	20,100	3,400	3,500	27,000
1934	21,000	5,300	4,000	30,300
1935	22,500	7,400	5,000	34,900
1936	27,500	9,800	6,100	43,400
1937	30,800	11,100	7,000	48,900
Grand Total	189,900	52,700	35,000	277,600

Source: Modified from Wrigley (1959: 61).

Accordingly, the economic significance of the coffee producing regions of both Bugisu and Sebei was highly asymmetrical relative to both the region's geographical size and its political influence in Protectorate-level affairs. Though the region was previously marginal to both the political and the economic concerns of the colonial state, the rise of the coffee industry meant, by the late 1930s, that the British were increasingly interested in maintaining its productivity.

Simultaneously, the Forest Department also authorized the initiation of commercial timber exploitation, resulting in the establishment of softwood plantations at Kapkwata and Suam in the Sabiny region of Mount Elgon (Webster and Osmaston 2003; UWA 2009). As Webster (1954: 15) observes, the region's timber for non-subsistence uses was, at the time, largely imported from Busoga, Buganda, or Kenya. Accordingly, the regional administration was under financial pressure to meet this demand from local sources. Although the conceptual basis for these management practices was established in 1938, such hybridization of forest reserves for both conservation and 'sustainable' commercial exploitation were formally institutionalized in the 1948 Forest Policy, which stresses that the forest estate should be managed to "obtain the best returns on capital value and the expenses of management" (cited in *Nature* 1948: 864). From this perspective, the Forest Department had little to gain by prioritizing the indigenous use of forest resources, as such activities generated no financial returns for the fiscally beleaguered colonial state, and would also have inadvertently heightened the ability of communities to maintain purely subsistence livelihoods in the place of market-oriented cash cropping (cf. Bunker 1984: 53; Mamdani 1987: 195).

In accordance with these policies, portions of Mount Elgon were first gazetted as a Crown Forest under Legal Notice No. 100 of 1938, and later as a Central Forest Reserve under Legal Notice No. 41 of 1948 (Webster 1954: 1; Norgrove 2002: 197). Although the Forest Department conducted some preliminary activities on the mountain in the late 1920s (Webster 1954; Petursson 2011: 33), it was not until 1938 that formal-legal control was imposed. Local communities were not consulted regarding the borders of the reserve, and few arrangements were made to allow for the

extraction of resources – such as fuel wood – from the forest. In principle, conservation at Mount Elgon was thus deeply unpopular; in practice, however, the prevailing management approach was one of “benign neglect” or non-enforcement of resource access restrictions. So much so, that Norgrove (2002: 197) describes the initial PA management as ‘populist’ relative to the more protectionist regimes that would follow (Himmelfarb 2012: 50).

Prior to the demarcation of the reserve, it is not clear that either the Bagisu or the Sabiny possessed any robust, European-style cultural distinction between human ‘society’, on one hand, and unadulterated ‘nature’ on the other (cf. West et al. 2006). For example, writing on the topic of Sabiny property law, Goldschmidt (1967: 143) notes that,

“[t]he resources and material goods of Sebeiland are divided according to Sebei law into two categories: those that are the product of nature, the provision of God, to which man has added nothing, and these are all in the public domain; and those in which some investment of labor or human skill has been made, and these are held as the private rights of individual adults.”

This is, as Goldschmidt (1967, 1976) later observes, a ‘Lockesian’ conception of property,⁴⁵ wherein objects become private property when individuals remove them from the commons through the application of human labour. Yet, the rationale for this model of property was not merely *social*, Goldschmidt (1967: 143-144) continues, as it:

“Derives ultimately from the basic assumption of a pastoral people that the grass, water, and salt are available to the people, or put another way, that livestock have free access to the resources necessary for their existence [...]

The public sector of the natural resources includes the following: (1) all

⁴⁵ Goldschmidt refers to the classical political theorist in the liberal tradition, John Locke, who famously wrote about the nature of property relations between humans in the ‘state of nature’, or prior to the formation of the ‘social contracts’ that were necessary for the establishment of European states.

bushland or open land on which animals can graze. (2) All free-flowing or standing water. (3) All mineral deposits, including salt, pottery clay, iron ore, cosmetic clay. (4) All natural growing plants, including those used for medicine, grass for thatching, trees for housing, wild fruits or vegetables, and the like. (5) Wild animals.”

However, one should note that the use of the word ‘nature’, here, shares little in common with the capital-N ‘Nature’ that one finds in the work of American and British writers such as Henry David Thoreau or Frederick Courtney Selous. Indeed, the nature-society distinction makes little sense in the context of groups that live entirely immersed within what one might refer to, from a western perspective, as ‘nature.’ Rather, one might argue that the Bagisu, Sabiny, and Ndorobo subscribed to a type of “ecology without nature” (Morton 2007), wherein both natural resources and the physical environment were valued for pragmatic, cultural, and spiritual reasons, but were not conceived as existing in a way that was ontologically distinct from human ‘society’ (cf. Castree 2005; Adams and Hutton 2007; Berkes 2008).

This is perhaps especially true in the case of the Ndorobo or Benet, who actually resided within the territory that was demarcated as the Mount Elgon Crown Forest in 1938. Indeed, the administration of the Eastern Province initially assumed that the Ndorobo’s traditional livelihoods posed little threat to the forest, and were thus allowed to remain. As Webster (1954: 7) notes of the Ndorobo at Mount Elgon,

“[t]heir mode of living is the herding of cattle and sheep, the collection of honey and the making of baskets which they exchange for flour with the people living in the agricultural areas below. When Elgon was reserved in 1938, it was decided that they should be allowed to stay within the reserve.”

Interestingly, this position reflects a wider colonial fascination with the ostensibly ‘primitive’ nature of the Ndorobo. It appears that even the American president Theodore Roosevelt became enthralled with various groups of Ndorobo during an expedition to British East Africa in 1909-10, placing them at the very bottom of a

racial hierarchy that he develops in an account of his expedition, entitled *African Game Trails* (Roosevelt 1910). In the text, Roosevelt actually likens the Ndorobo to the primates that he encountered on his journey. As recorded by Neumann (2011: 62), Roosevelt,

“further arranged Africans within a hierarchical system that typically portrayed them as either animal-like or childlike, depending on their rank. Ndorobo, East African hunter-gatherers, occupied the bottom of the scale. Roosevelt associated them closest to primates, as when he observed a Colobus monkey in a tree’s ‘topmost branches where only a monkey or a Ndorobo could have felt at home.’”

According to the Forest Department’s first working plan for Mount Elgon, however, concerns were already emerging that the size of the both the Ndorobo’s population and that of their cattle was beginning to grow to unsustainable levels (Webster 1954: 7). Combined with purportedly burgeoning populations in both Bugisu and Sebeiland, colonial forest officials predicted that encroachment would soon become a virtually omnipresent problem for conservation governance at Mount Elgon (Gayer 1945). Indeed, in Webster’s (1954: 25) terms, the de-reservation of parts of the forest reserve would constitute “only a temporary alleviation of, and not a permanent solution to, the land problem in Bugishu.” As the reality of political independence for Uganda gradually became clearer, however, priorities that were more urgent overshadowed the management of Mount Elgon, such as transferring control over the country’s more commercially valuable forest reserves in Buganda and elsewhere (Webster and Osmaston 2003).

4.4 Evading Kleptocracy: The Political Economy of Coffee Production and Deforestation, 1962-1985

After Milton Obote took control of Uganda’s newly independent government in 1962, the history of forest management at Mount Elgon becomes virtually inextricable from the political economy of both the production of coffee and other cash crops in the

region. For example, the new government's first priority was arguably to achieve financial solvency and thus lend political substance to its independence (Mamdani 1975; Saul 1976; Khadiagala 1993). In order to accomplish this, the Ugandan state faced enormous incentives to both continue and expand the export-oriented cultivation of cotton, coffee, and other agricultural produce by further "capturing" the rural population within the market economy (cf. Hyden 1980). The alternative, which was certainly faced by many other post-independence African states, was to immediately sink deeper into debt bondage to the World Bank, IMF, and even private banks (Frank 1979; Mamdani 1990). As Bunker (1984: 52) describes the predicament of the government in the early post-independence period,

"the Ugandan state derives almost all of its revenues from numerous, widely dispersed households which control most of the essential means of production and the land on which they are used. The absence of a class of either big landowners or large-scale merchants obliges the Ugandan state to control the marketing of crops directly and to draw its revenues directly from a large number of small producers."

In order to extract revenue from these households, the Forest Department likewise faced pressures to both commercialize and formalize its control of the forest estate, rather than to allow it to be used for subsistence purposes. As such, all 'local forest reserves', which the British had established in certain areas for the use of local governments and populations, were recentralized under government control as 'central forest reserves' under statutory instrument No. 67 of 1967 (Turyahabwe and Banana 2008: 649). Such changes were further institutionalized under the 1970 Forest Policy, which stressed, "(i) management of forest to increase timber production; (ii) protecting wildlife and creating amenity forests; (iii) efficiently using the available forests by exploiting more species for various uses [...]; and (iv) encouraging people to grow their own trees" (*ibid*). Once again, the state pressured forest-adjacent populations to produce cash crops for markets, rather than to subsist on farm produce and common-pool resources for nutrition and household energy.

One can only speculate about the potential effects of this policy, however, because its tenure was cut short, in practice, by a *coup d'état* led by General Idi Amin in 1971. Indeed, the dawn of Amin's (1971-1979) reign in Uganda precipitated a context in which both the economy and the country's peripheral territories were characterized by relative lawlessness. In 1972, for example, Amin declared an "economic war" that would ostensibly "Africanize" Ugandan commerce at the expense of the country's large Asian middle class, which he framed as an exploitative relic of British colonialism (Mutibwa 1992: 115; Mamdani 1993). Within two years, the initiative had led to the expulsion of approximately 90,000 Asians, and the expropriation of some "5,655 firms, factories, ranches, and agricultural estates" (Jørgensen 1981: 288). Rather than being redistributed to ordinary Ugandans, however, these properties were instead simply distributed to both Amin's supporters and key individuals in the military. In most cases, the expertise necessary to effectively use these assets did not exist, and tax revenues from industrial production declined sharply as a result (Kasozi 1994: 117).

As his economic and diplomatic troubles worsened, Amin grew increasingly paranoid about dissent in both the military and civil service. First, it was primarily Acholi and Langi members of the military, police, and state bureaucracies that were massacred, as Amin suspected that these groups were loyal to his predecessor, Milton Obote (Jackson and Rosberg 1982: 252). Before long, however, the targeting process for extrajudicial killings became increasingly erratic, and many innocent people appear to have been randomly selected merely to satiate the macabre desires of Amin's secret police (cf. Lawoko 2005). So much so, that Mamdani (1975: 58) argues that terror was actually *institutionalized* in Uganda at this time, as the maintenance of political power quickly became the only clearly identifiable objective of Amin's government (Bunker 1984: 204). Indeed, Kasozi (1994: 104) estimates that Amin's regime is directly responsible for the deaths of as many as 300,000 people over its eight-year tenure. Beginning in the mid-1970s, therefore, thousands of people from the cities and the central 'Luwero Triangle' fled to Uganda's heavily forested areas to avoid such political violence. Accordingly, rather than providing the natural foundation for the growth of Uganda's economy – as the 1970 Forest Policy predicted – forests under

Amin were instead “used as dumping grounds for the bodies of the many people tortured and murdered by the army or police” (Webster and Osmaston 2003: 167).

Beginning in this period, local communities at Mount Elgon encroached upon some 25,000 hectares of the forest reserve and exploited both its harvest-able natural resources and its land for subsistence purposes (UWA 2000a, 2009). This situation was exacerbated by Amin’s 1975 ‘Land Reform Decree’ (LRD), which was generally interpreted as granting Ugandans the right to settle and deforest any forested area that they pleased (Hamilton 1984: 54). Consequently, as Turyahabwe and Banana (2008: 650) assert, “common pool resources became *de facto* open access regimes and were severely degraded in quality and reduced in size.” Under the LRD, the state became the sole landowner in Uganda, and all previously freehold or *mailo*⁴⁶ property was immediately converted to leasehold (Hunt 2004: 176). Further, although the decree did not abolish customary tenure outright, it effectively subordinated the traditional land rights of communities to the whims of the state – indeed, the text of the LRD itself stipulates that customary tenure exists “only at sufferance” of the government (cited in Coldham 2000: 67). Accordingly, rural populations faced few incentives for long-term investment or capital accumulation, as the state could easily expropriate their land and assets at a moment’s notice (Mamdani 1987: 197).

Contrary to most accounts of this process (e.g. Scott 1998; White 2002; UWA 2009), however, I argue that incursions into the Mount Elgon forest reserve arose primarily as a result of declining opportunities to access export markets for coffee and other produce, rather than out of mere greed or opportunism on the part of local people. Indeed, due to widespread economic dysfunction in Uganda, the only viable option for exporting coffee was to first smuggle it into Kenya – an alternative that, for most farmers, was largely unattainable. Although the Bugisu Cooperative Union (BCU) – a coffee farming collective formed to enhance the negotiating power of Bagisu producers (Bunker 1984) – continued its business throughout this period, normal

⁴⁶ *Mailo* land tenure arises from the Uganda Agreement of 1900 between the British Government and the Buganda monarchy, which granted the *Kabaka* (king) and several chiefs large tracts of land in return for cooperation with the colonization process (Thomas 1928).

operations became increasingly difficult to maintain. As noted by Bunker (1985: 376), for example, military and police officials would periodically appear at the BCU’s warehouses and simply appropriate coffee shipments, “sometimes in collusion with cooperative staff.”

Records kept by the BCU during this period testify to the economic troubles that plagued the coffee industry at Mount Elgon. Before 1969, the BCU had recorded annual losses on only two occasions – in 1954/55 and in 1958/59 (Bunker 1985: 377). Such was the degree of dependence of both the colonial and early post-colonial state on coffee exports. During the eight-year period of Idi Amin’s reign, however, the cooperative registered only one annual profit in 1972/73 (Table 4-3).

Table 4-3: Coffee Production through the Bugisu Cooperative Union, 1969-1982

Financial Year	Coffee Purchased (tons)	Coffee Processed (tons)	Profit/Loss in UGX	
1969/70	-	-	4,781,971	profit
1970/71	12,955	12,300	-1,143,849	loss
1971/72	12,076	11,103	-1,306,561	loss
1972/73	15,097	15,097	1,008,056	profit
1973/74	11,421	11,421	-19,003	loss
1974/75	12,321	12,321	-978,078	loss
1975/76	11,634	11,634	-817,776	loss
1976/77	2,315	2,315	-3,224,818	loss
1977/78	652	652	-3,607,401	loss
1978/79	5,760	5,760	-5,648,261	loss
1979/80	6,965	6,965	-	-
1980/81	2,661	2,661	-	-
1981/82	19,388	19,388	-	-

Source: Modified from Bunker (1985: 376-377), via the Bugisu Cooperative Union. The symbol (-) indicates that no data were available for the year in question.

Given that farmers in the region were largely dependent on coffee sales for cash income, these records are likely indicative of a broader shift toward subsistence cultivation - or perhaps more accurately, a politically induced form of “escape agriculture” (Scott 2009: 178). Indeed, this is particularly salient after 1975/76, when coffee purchases through the BCU declined from a high of nearly 13,000 tons in 1970/71 to a mere 652 tons in 1977/78. Notably, this decline begins in 1975/76, the same year in which Idi Amin issued his Land Reform Decree.

As such, by the time Amin's regime was finally deposed by a Tanzanian invasion in 1979, substantial numbers of people had thoroughly rooted their livelihoods within the Mount Elgon Forest Reserve (White 2002; Norgrove and Hulme 2006). Aside from the LRD itself, it appears that the state continuously played an active role in encouraging people to return to a primarily subsistence style of production. For example, oral histories conducted with Norgrove's (2002: 116) respondents yielded recollections of a recurring radio advertisement aired during the Amin years, which admonished people that "you should not cry of famine – clear the forest and plant food." Based upon satellite imagery of deforestation at Mount Elgon during the years of Amin's regime (Petursson 2011: 75), it appears that local people earnestly took this advice to heart.

Under Obote's second regime (1980-1985), the government formally reasserted control over Mount Elgon's forests. In reality, however, one could argue that actually-existing state governance *declined* under the Obote II regime, albeit for primarily economic, rather than political, reasons. As noted by Webster and Osmaston (2003: 167), "inflation resulted in the purchasing power of the salary of a forest officer in 1988 being worth only 0.4% of what it was in 1962, enough to buy four loaves of bread a month." Likewise, Struhsaker (1987: 218) observes how, under Uganda's "annual inflation rate of approximately 120%, civil servants on relatively fixed incomes are particularly hard hit, exacerbating their economic difficulties and often tempting them into illegal activities." Even from a comparative international perspective, these processes were devastating – indeed, the World Bank ranked Uganda as the worst performing economy in Sub-Saharan Africa for the period between 1961 and 1989 (Norgrove 2002: 71). At Mount Elgon, it appears that these economic trends gave rise to the Forest Department practice of selling illegitimate titles to land within the forest reserve, although their 'clients' often were unaware of the illegal nature of the transaction (Norgrove and Hulme 2006: 1098).

While such encroachment allowed people to survive through the turbulent years of the Amin and Obote regimes, it also revoked one of the primary means of protest that

Mount Elgon populations could direct against the state. Indeed, as Bunker (1983a, 1991) demonstrates, both the Bagisu and the Sabiny were previously able to obtain a degree of autonomy from both the late colonial and early post-colonial states by manipulating the threat of coffee underproduction. Given the incentives faced by both the late Protectorate's administration and the Obote regime, such threats were taken seriously, to the extent that both governments were forced into paying farmers at Mount Elgon prices well above those received by coffee farmers elsewhere in Uganda (Bunker 1983a, 1983b, 1985). Similarly, the Bugisu Cooperative Union was able to repeatedly fend off merger attempts with the centralized Coffee Marketing Board (O'Connor 1965: 10-11; Bunker 1984: 57). Under Amin, however, the 'threat' of a subsistence "exit option" was instead actively encouraged by the state, effectively eliminating the sole source of political leverage for Mount Elgon's population.

As such, although the decline of state governance at the Mount Elgon Forest Reserve correlates with deforestation during this period, I argue that this is *not* accurately conceived of as an open access regime, as others have suggested (Eltringham and Malpas 1993; Turyahabwe and Banana 2008: 650). Rather, I assert that encroachment was systemically *orchestrated* under a broader politico-economic *logic* of reducing the dependence of the rural populations on both agricultural markets and services provided by the state. Indeed, I deliver this assertion in stark contrast to other researchers of conservation in Uganda, who portray deforestation during this period as an anarchic scramble for resources (cf. Ofcansky 1996: 9-10; White 2002: 2).

Moreover, once attained through encroachment, evidence suggests that customary tenure and resource access institutions governed the use of new land and resources. For example, in perhaps one of the only empirical studies of encroachment into Ugandan PAs that focuses on tenure issues, Aluma *et al.*'s (1989: 67-68) USAID-funded study concludes that between 45,000 and 60,000 people settled in Kibale National Park/Game Reserve Corridor during this period, while thousands more had settled in Mabira Forest Reserve. Contradicting the anarchic narratives of other conservation researchers, however, Aluma *et al.* (1989: 67) emphasize that "virtually all of the land [...] is claimed for agricultural purposes under customary tenure

arrangements,” and that “settlers have replicated their customary land tenure institutions within the reserves, although the areas remain state land.” Indeed, the authors further explain how “customary tenure institutions provide rules and procedures for land allocation, use, and inheritance” (Aluma *et al.* 1989: viii). I contend that this is a much more suitable model for explaining the processes that yielded deforestation at Mount Elgon during the 1970s and early 1980s. Given the centrality of customary land and resource use institutions to the ‘lifeworlds’ of individual Bugisu and Sabiny – including strict rules for the acquisition and inheritance of land (Goldschmidt 1967: 143) – it is somewhat unlikely that these were simply abandoned in an opportunistic scramble for resources (La Fontaine 1969; Heald 1998).

Regardless of the exact nature of the prevailing property regime, however, substantial portions of the forest reserve were indeed deforested or degraded in this period. Further, much of Mount Elgon’s large game migrated to the better-governed Kenyan side of the mountain. Indeed, whether originally motivated by desperation or by opportunism, subsequent problems with agricultural encroachment and cross-border cattle rustling through the reserve have largely prevented their return. Originally, the IUCN asserts that elephants (*Loxodonta africana*), buffalo (*Syncerus caffer*), leopard (*Panthera pardus*), antelope (*Sylvicapra grimmia*), and giant forest hog (*Hylocherus meinertzhageni*) were present on both Ugandan and Kenyan sides of the mountain (Scott 1998: 12). Currently, remaining primates include blue monkey (*Cercopithecus mitis*), black and white colobus monkey (*Colobus guereza*), redtail monkey (*Cercopithecus ascanius*), and baboons (*Papio anubis*) (Sletten 2004: 32). Further, the mountain’s forests continue to provide a habitat for more than 300 registered species of birds, which include Jackson’s francolin (*Francolinus jacksoni*), a species that is allegedly found nowhere else (UWA 2000a, 2012). Due to the unrest associated with the early post-colonial era and subsequent encroachment, however, large game such as elephants and leopards are now only rarely sighted on the Ugandan side of the mountain. Combined with widespread evidence of deforestation (White 2002; Petursson 2011), the absence of these larger forms of wildlife prompted the Ugandan government and international organizations to reassert public control of the mountain

after relative order was restored to Uganda in 1986.

4.5 Restoring Nature, Revitalizing the State: The National Resistance Movement, International Development, and Environmental Change, 1986-Present

By the time Yoweri Museveni's National Resistance Movement (NRM) came to power in 1986, local people had encroached upon approximately 25,000 hectares of the Mount Elgon Forest Reserve. Such encroachment was part of a broader trend across most of the country's forest reserves (Hamilton 1984; Aluma *et al.* 1989; Eltringham and Malpas 1993; NFA 2011), which was driven by the above-discussed politico-economic processes. Beginning in the early 1990s, however, the NRM government began a concerted initiative – with assistance from NGOs, bilateral donors, and international organizations – to reestablish control over the country's protected areas. Given the tumultuous nature of the preceding twenty years in Uganda, the state was initially ill-equipped to accomplish this task without assistance. Indeed, as Harrison (2005: 250) observes of the development industry's role in Uganda during this period, “government reforms have been as concerned with constructing the state as they have with reforming it” (cited in Sjaastad *et al.* 2007: 43-44).

Hence, from the late 1980s onward, donors such as the Norwegian Agency for Development Cooperation (Norad), Swedish International Development Agency (Sida), German Technical Cooperation (GTZ), USAID, the World Bank, and European Union provided support to the government for precisely these purposes (USAID 1991; World Bank/GEF 2002; Sjaastad *et al.* 2007; Gosalamang *et al.* 2008). International NGOs such as the Worldwide Fund for Nature (WWF), Flora and Fauna International (FFI), and the African Wildlife Foundation (AWF) were also heavily involved, particularly with mountain gorilla conservation in southwestern Uganda (Adams and Infield 2003; Blomley 2003). These initiatives were implemented at multiple scales, however, and sometimes with limited coordination or standardized terms of reference between projects funded by different organizations. In some cases, donors held divergent views on the proper nature and function of conservation

institutions, with a notable conflict emerging between USAID and the European Union/Norad over forest sector reforms in particular (Sjaastad *et al.* 2007: 47-48).

At the national level, perhaps the most notable of these collaborations was the US\$ 30 million “National Action Plan for the Environment (NAPE),” established between the Ugandan government and USAID (1991, 2003), and specifically designed to assist “Uganda’s public and private sector to more effectively and sustainably manage its resource base in selected areas.” Notably, key activities included the re-demarcation of existing PA boundaries, and the removal of encroachers from degraded reserves. Indeed, it is likely that Aluma *et al.*’s (1989) USAID-funded study of encroachment into protected areas was intended to guide this process. Similarly, beginning in 1999, the World Bank/Global Environment Facility (2002) provided US\$ 37 million in grants and loans for a nearly identical project, the ‘Protected Areas Management for Sustainable Use (PAMSU)’ initiative. PAMSU was likewise intended to enhance UWA’s control over protected areas, to stamp out encroachment, and to increase the agency’s capacity to raise revenue through ecotourism operations (Cavanagh 2012). As noted by D.C. Miller *et al.* (2012), the timing of these initiatives fit with a broader global trend in the provision of international development assistance for conservation, which has historically reached its highest peaks in both the early 1990s and the early-2000s.

Among scholars of post-colonial environmental history in Africa, the degree to which such conservation initiatives are “organic” – or, alternatively, imposed by external actors – is the subject of much debate (cf. Levine 2002; Chapin 2004; Nelson *et al.* 2007; Dowie 2009; Brockington and Scholfield 2010; Holmes 2011). As observed by historians such as Gibson (1999: 83), developing world elites often welcome conservationist support as a means of reasserting control over natural resources at the expense of both marginalized populations and political adversaries. Indeed, with these new influxes of aid and credit – and the subsequently reduced dependence on commodity exports – the Ugandan state could finally seek to quash the “exit option” previously wielded by rural populations (Hyden 1980; Bunker 1991). This would also have the effect of minimizing the rural populations’ subsistence-oriented access to

common-pool resources, and maximizing their incentives to produce cash crops for markets (Bunker 1985). Differently put, it is dangerous to construe the provision of development assistance for conservation as being either purely benign, or, by contrast, as constitutive of a form of ‘neo-colonialism.’ Rather, as the nuanced historical works of authors such as Neumann (1998, 2004) and Gibson (1999) indicate, mutually beneficial alliances may instead emerge between domestic elites and foreign interests in protected area governance, although such alliances are often less altruistic than admitted in official policy discourses.

Several of these internationally-financed initiatives were also designed for implementation specifically at Mount Elgon. Beginning in 1988, Norad funded the IUCN and Ugandan conservation agencies to design and implement the ‘Mount Elgon Conservation and Development Project (MECDP).’ MECDP’s primary objective was to develop a model for collaborative resource management agreements (CRMAs), which could assist in reducing conflicts between local communities and conservationists (Hoefsloot 1997; Hinchley 1998; White 2002). Further, in 2006, Norway and Sweden again funded the IUCN and local authorities to establish the ‘Mount Elgon Regional Ecosystem Conservation Programme (MERECP),’ arguably in line with a broader shift from community-based conservation (CBC) to transboundary protected area management (TBPAM) in environmental governance theory and policy (Larsen *et al.* 2008; Hoefsloot *et al.* 2011; Petursson 2011). Building on experiences with MECDP, MERECP was intended to link conservation agencies in both Uganda and Kenya, in order to compensate for the border’s artificial division of the mountain ecosystem, and to explore the possibilities for funding forest conservation through the sale of carbon offset services (cf. Petursson *et al.* 2011; LVBC 2012).

In the Mount Elgon case, one can certainly identify deleterious consequences of internationally backed conservation initiatives for local people. Under the auspices of the USAID-funded NAPE in particular, Mount Elgon was upgraded to a Forest Park in 1991, and later to a National Park (IUCN Category II) in 1993 (Norgrove and Hulme 2006: 1099; Gosalamang *et al.* 2008). As part of these operations, large

numbers of people were removed from within the new national park boundary. By most accounts, the process of eviction was marked by violence, property damage, looting, and other forms of human rights abuse (Norgrove 2002; White 2002; Lang and Byakola 2006; Vangen 2009; Hurinet-Uganda 2011). Although official records were not kept regarding the total number of people that lost their homes in these evictions, Vangen (2009: 135) estimates that the total number could be between 150,000 to 300,000 people. Similarly, White (2002: 3) – the IUCN’s Chief Technical Advisor for MECDP – estimates that the 25,000 hectares of encroached land at MENP could feed as many as 84,000 *households*. Since White (2002: 3) himself claims that the average household at Mount Elgon contains seven individuals, this puts his total estimate at 588,000 adversely affected people in the Mount Elgon region.

During this period, with funding from Norad and technical assistance from IUCN, UWA (then Uganda National Parks [UNP]) designated three different vegetative zones on Mount Elgon, which still provide the underlying basis for the most current management plan (UWA 2009). As noted by Scott (1998: 9), these are the Alpine and Ericaceous Zone (above 3200 meters), the Afromontane Forest Zone (2000-3200 meters), and the Afromontane Rainforest Zone (below 2500 meters). Based on assessments conducted after 1986, these zones are thought to host approximately 4,000 species of flora and fauna, of which 3,000 are endemic (Hinchley 1998; Scott 1998; White 2002). As such, conservationists now assert that Mount Elgon’s varied flora and fauna, combined with several rare species of each, denote that the area is of global significance to international efforts to conserve biological diversity (Hoefsloot 1997; Scott 1998; UNESCO 2003; UWA 2009; LVBC 2012). Further, both UWA and the Ugandan government now frame their management goals in relation to global biodiversity conservation as well, following the government’s ratification of the Convention on Biological Diversity (CBD) in 1993 (NEMA 2002).

The IUCN considers the Alpine and Ericaceous Zone (23 percent of the reserve) to be most important for conservation purposes, as it is dominated by moorland and heathland, and hosts a wide range of rare shrub and herb species (Scott 1998). Here,

key species are Lady's Mantle (*Alchemilla elgonensis*), Carex (*Carex runssoroensis*), Giant groundsel (*Dendrosenecio elgonensis*), and Yellow helichrysum (*Helichrysum spp.*). Likewise, the Afromontane Forest Zone (21 percent of the reserve) transitions from heathland and moorland into forest, and supports a bamboo belt in the southwest (*Arundinaria alpina*) as well as a wide range of other species, notably including African redwood (*Hagenia abyssinica*), Afrocrania (*Afrocrania volkensii*), Cape Beech (*Rapanea melanophloeos*), and African podocarpus (*Podocarpus milanjanus*) (Norgrove 2002: 65). Finally, the southern and western portions of the Afromontane Rainforest Zone are characterized by the presence of Red stinkwood (*Prunus Africana*), Aningeria (*Aningeria adolfi-friedericii*), and Elgon olive (*Olea welwitschii*), while Fern pine (*Podocarpus gracilior*), African Juniper (*Juniperus procera*), and Cape Ash (*Ekebergia capensis*) characterize the northern and eastern slopes (Scott 1998: 12). As of 1998, the IUCN estimated that 64 percent, or 15,632 ha, of the Afromontane Rainforest Zone alone had been lost to agricultural encroachment (Hinchley 1998; Scott 1998).

As a result of efforts to reforest these degraded areas at MENP, UWA (2009: 33, 2010) increasingly also cites carbon sequestration and climate change mitigation as one of the national park's most important conservation values. This new perspective on conservation emerged after the Ugandan government ratified both the UN Framework Convention on Climate Change in 1993 and Kyoto Protocol in 2002. Subsequently, the government has engaged in negotiations regarding possible financial mechanisms for the reduction of carbon emissions from deforestation and forest degradation (REDD) (GoU 2007; NFA 2011). Although the exact nature and content of a REDD mechanism is still under development, a carbon offset forestry scheme has existed at Mount Elgon in 'voluntary' form since 1992, under a collaborative arrangement between UWA and the Forest Absorbing Carbon Emissions (FACE) Foundation, a Dutch NGO (FACE Foundation 1992; UWA 2010). Similarly, the Mount Elgon Regional Ecosystem Conservation Programme (MERECP) now involves schemes to sell credits from carbon offset forestry at MENP, as well as to financially compensate local communities for successfully avoiding deforestation (LVBC 2012).

Under the UWA-FACE arrangement, in particular, forest restoration at Mount Elgon was financed through the sale of voluntary carbon credits to consumers and private firms in Europe and North America (FACE Foundation 2001; UWA 2010).

Essentially, FACE offered to cover the costs of reforesting the 25,000 hectares of degraded parkland at Mount Elgon, in exchange for the rights to the carbon dioxide stored within the new forests.⁴⁷ According to a report by SGS Agrocontrol (2001), these new plantations were expected to sequester 3.75 million tonnes of carbon dioxide equivalent within 99 years of establishment. Due to widespread local resistance, however, the project was largely forced to cease its operations by 2002-3.

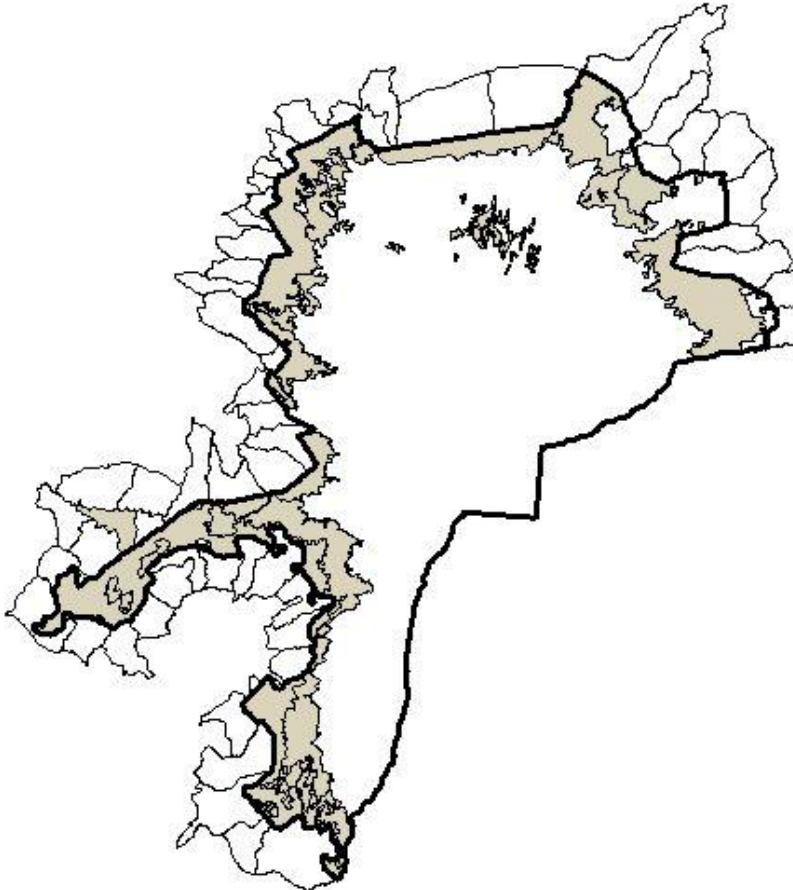
Arguably, the underlying causes of resistance to both the UWA-FACE project and contemporary conservation more broadly are rooted in the politics of the local administrative units that border the national park. At present, MENP borders eight districts, which makes its relationship with local governments among the most administratively complex in all of Uganda. Some of these districts were created as recently as 2010, due to the current National Resistance Movement (NRM) government's policy of administrative decentralization (Francis and James 2003; Turyahabwe *et al.* 2007). Listed in order from most southeastern to most northeastern, the districts are the following: Manafwa, Bududa, Mbale, Sironko, Bulambuli, Kween, Kapchorwa, and Bukwo. In addition, each district is divided into counties, sub-counties, parishes, and villages.

The political structure of local governments parallels this system of geographical organization. Government bodies at the local level are known as 'local councils', and are organized in the following manner: Village Council (Local Council I); Parish Council (LC II); Sub-county Council (LC III); County Council (LC IV); and District Council (LC V). Constituents elect the chairpersons that head these councils. The district LCV Chairman is thus the highest-level elected official in the district. In addition to the LCV Chairman, the government appoints a Resident District

⁴⁷ The case of the UWA-FACE project at Mount Elgon will be covered in more detail in *Part B-Paper I*.

Commissioner (RDC) for each district, who acts as the official NRM representative in the region.

Figure 4-4: Map of park-adjacent parishes and estimated current encroachment at MENP



Source: Constructed in ArcExplorer by Connor Cavanagh. Data: UWA-MENP Monitoring and Evaluation Department, 2011.

As noted by Bunker (1984: 56), this system of administration was instituted during the initial extension of Baganda influence throughout the Uganda Protectorate – as he puts it,

“[t]he colonial and later the national administration transformed the areas now called Bugisu district from a series of politically separate, economically

isolated, major lineages into a politically unified entity which participated in the national, and through it, international system. A hierarchy of chiefs was charged with the administration of territories ranging from counties to sub-parishes, under a District civil service and later, a District representative council.”

From the beginning of this system of administration, local people have chosen chiefs based on both their individual wealth, and on their perceived ability to protect the interests of the community (La Fontaine 1969; Bunker 1984; Heald 1998). During the Obote, Amin, and Obote II regimes, this was largely established in relation to individuals who were best positioned to facilitate the interests of local farmers *vis-à-vis* the centralized Coffee Marketing Board (cf. Bunker 1983a, 1984, 1985). In the present context, however, conservation now plays a much more central role in the politics of the parishes that neighbour the national park. Currently, at least 57 parishes lie adjacent to MENP (Figure 4-4), although it is possible that this figure has increased due to the recent creation of both Bulambuli and Kween districts. Since 1986, the rapidity with which new administrative units have been created has actually somewhat impeded the ability of local authorities to collect GIS data and draw accurate maps at the sub-district level. In *Part B* of this thesis, I delve into the current governance challenges faced by MENP in much greater detail.

4.6 Conclusion

As the great anthropologist Pierre Clastres (1987) observes in the last two lines of *La Société contre l'État*, paraphrasing Marx, “[i]t is said that the history of peoples who have a history is the history of class struggle.” Importantly for a reading of Mount Elgon’s history, he continues, “[i]t might be said with at least as much truthfulness, that the history of peoples without a history is a history of their struggle against the state” (Clastres 1987: 218).⁴⁸ Far from suggesting that such groups do not ‘have a history’ in a literal sense, Clastre’s observation helps us understand the ways in which

⁴⁸ This passage also serves as the epigraph for Scott’s (2009) *The Art of Not Being Governed*.

states, while they appear to us as objective entities, are both historically contingent and socially constructed through power-laden institutional processes (cf. Anderson 1983; Searle 2010). By introducing the reader to the historical geography of the Mount Elgon region, therefore, this chapter has put forth two key assertions that seek to deepen our understanding of Clastres' observation.

First, the chapter has argued that one can identify, proceeding in tandem with the history of state governance, a subaltern history of attempts to (re)assert customary tenure rights over Mount Elgon's forests. Evidence of this subaltern history principally arises when the state – whether due to political, military, or economic disorder – is at its weakest. The history of Mount Elgon is replete with such circumstances, arising first from the Uganda Protectorate's financial crises, and later from the political and economic dysfunction that characterized the immediate aftermath of Uganda's independence. Although periods of decline in state governance do indeed correlate with deforestation in the region (Petursson 2011), the point is that such deforestation was driven by a systemic, politico-economic *logic*, rather than simply by an anarchic scramble for resources. As noted in this chapter, such logic arose from the legislative and policy incentives provided by Idi Amin's regime (notably the 1975 Land Reform Decree), and later by the hyperinflation and institutionalized corruption suffered by Uganda's economy during the Obote II regime. From this perspective, the relevant question for further research is not, 'why was so much damage caused?' But rather, 'why was the damage caused not markedly greater?' The answer to the latter question, I suspect, arises from the common property institutions that govern local encroachment into state-owned protected areas (Aluma *et al.* 1989).

Second, this account constructively challenges reports that frame conflicts between Mount Elgon National Park and local communities principally in relation to the struggle of rural populations against conservation *as such* (cf. Norgrove 2002; Norgrove and Hulme 2006; Holmes 2007). Instead, I assert that one can more accurately read the experiences of these groups as part of a broader struggle against exploitative incorporation into both states and their associated agricultural markets

(Bunker 1991; Scott 2009). The validity of this assertion becomes apparent as one takes a wider historical perspective, and examines first the conflicts between these groups against militant pastoralists such as the Karamojong and Pokot; against the precocious government of the Uganda Protectorate; against the expansionistic Baganda; and later against the atrocity-prone regimes of Milton Obote, Idi Amin, and Milton Obote II. Taking this perspective, I argue that initiatives to establish markets for coffee and timber at Mount Elgon, and initiatives to restrict subsistence, non-financial access to common-pool resources, are closely related. Indeed, I follow Bunker (1991) in suggesting that one should interpret these trends as a continuous attempt to “capture the peasantry” (Hyden 1980), and seal off – once and for all – its “exit option” of withdrawal into subsistence agriculture. By way of conclusion to the chapter, I also alluded to the ways in which these very same trends are present in the construction of markets for both ecotourism and environmental services at Mount Elgon, although this topic will be examined in greater detail in *Part B* of this thesis.

More broadly, these inquiries suggest the need to contextualize case studies of conservation more deeply within histories and geographies of both state formation and the construction of transnational markets. In particular, such a focus may assist in enhancing our understanding of resistance to conservation – its context, objectives, and strategies. Subsequent chapters of this thesis proceed toward this end in the following manner: First, I examine attempts to establish a market for carbon offset services at Mount Elgon, and the nature of the mass evictions that were necessary for doing so. Second, I analyze the substantial gap between conservationist rhetoric regarding ‘benefit sharing’ schemes, which are purported to compensate for exclusion from protected land and common-pool resources, and the actual distribution of such benefits in local communities. Third, I examine the tactics adopted by local people to resist the perceived illegitimacy of both these schemes and conservation more broadly, and to reassert control over protected resources. In the final chapter, I conclude by reflecting on the findings of these inquiries for protected area governance at Mount Elgon – both in the regional context and against the overarching backdrop of global environmental change.

**PART B:
GOVERNING ENVIRONMENTAL CHANGE,
BIODIVERSITY, AND LOCAL RESISTANCE AT
MOUNT ELGON, UGANDA**



Mount Elgon, Uganda: Angry residents gather to confront UWA rangers near an outpost in disputed territory. Encroachment and conflict have constituted omnipresent difficulties for park management at Mount Elgon, most notably since the protected area was upgraded to a national park in 1993 (Photo: Connor Cavanagh).

5. Travelling Green?

The Political Ecology of a Failed Carbon Offset Project

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Abstract

In East Africa, financially strained governments increasingly adopt voluntary, market-based schemes for bolstering the public management of protected areas. Often, these are portrayed as ‘triple-win’ solutions for climate change mitigation, biodiversity conservation, and local socioeconomic development. Benefits are said to accrue at multiple scales to the international community, to consumers of ‘carbon offsets’ and other commodities, as well as to local populations. In examining such rhetoric, this paper conducts an analysis of a voluntary carbon offset scheme at Mount Elgon National Park in eastern Uganda, involving a partnership between the Uganda Wildlife Authority (UWA) and a Dutch NGO, the FACE Foundation. In doing so, the paper utilizes a mixed-methods approach, alongside a theoretical perspective rooted in political ecology, to ascertain the extent to which this project met the expectations of its stakeholders. Based on these data, the paper identifies a number of mechanisms that ultimately caused the decline of the project, and suggests lessons for similar initiatives, such as those being negotiated under the framework of Reducing Emissions from Deforestation and Forest Degradation (REDD) in East Africa.

Key words: Voluntary carbon markets; REDD; Political ecology; Mount Elgon; Uganda; Carbon offsets; Hybrid environmental governance

5.1 INTRODUCTION

‘Travel greener!’ Implores the homepage of GreenSeat.nl, a Dutch organization that markets carbon offset services to airline, train, and bus passengers worldwide. On this website, and at the mere click of a mouse button, one can ostensibly pay for a clear environmental conscience and a healthier atmosphere. At present, GreenSeat markets carbon offsets derived from ‘voluntary’ clean energy projects, such as those that involve solar and wind power. In the early 2000s, however, the organization allegedly sold offsets deriving from the Forest Absorbing Carbon Emissions (FACE) Foundation’s tree plantations at Mount Elgon National Park in Uganda (Checker, 2010; Faris, 2007; Lang and Byakola, 2006; Sullivan, 2011). Today, by contrast, one cannot find mention of this project in the websites or organizational literature of either GreenSeat or the FACE Foundation. What happened? In unpacking the rather suspicious disappearance of this project from global ecosystem service markets, this paper examines the rise and decline of the FACE Foundation’s scheme at Mount Elgon; the problematic ways in which it marketed its offsets via GreenSeat and other outlets; and the implications of these activities for both local people and Ugandan conservation managers.

These concerns are salient, as recent years have seen a massive proliferation of both scholarly and policy-oriented discourse on the commodification of environmental services (Millennium Ecosystem Assessment [MEA], 2005; The Economics of Ecosystems and Biodiversity [TEEB], 2010; UNEP, 2011; Vatn, 2000). One can trace many of these discussions to the Rio Earth Summit in 1992, after which most of the world’s governments signed the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention on Biological Diversity (UNCBD). For the first time, a near-consensus emerged that emissions of carbon dioxide and other greenhouse gases were directly causing deleterious changes in the Earth’s climate, as well as in its other biophysical systems, such as those that uphold biodiversity and ecosystem services. Congruent with these efforts to formulate

regulatory solutions to these processes, a wide range of corporate, private, and civil society actors also developed their own ‘voluntary’ mechanisms for both trade in carbon dioxide offsets and the sale of other ecosystem services (Boyd et al., 2011), which collectively operate outside of the regulatory frameworks negotiated through the United Nations.

While largely admirable in their intent, market-based, voluntary mechanisms in particular give rise to a glaring conceptual paradox. Although brokers of the voluntary carbon market implicitly acknowledge that global industrial capitalism is rapidly producing several interrelated social and ecological crises, the proposed response is to utilize the power of these same markets in raising the economic value of ecosystems and the services that they provide (MacDonald and Corson, 2012; McAfee, 2012). Thus, the mantra of ‘selling nature to save it’ holds that the international community can mitigate environmental change and its attendant crises fully within the conceptual and normative bounds of international capitalism (McAfee, 1999). Indeed, ‘carbon offsets’ are only the beginning – recent voluntary market initiatives also involve the commodification of other ecosystem services like water catchment, the provision of non-timber forest products, and even biodiversity itself in the form of ‘biodiversity offsets’ (UNEP, 2008; Global Environment Facility [GEF], 2010; Ecosystem Marketplace, 2011). By implication, these efforts transform the biophysical services that ecosystems provide – in their abstract equivalent form – into commodities that various actors can purchase, sell, or trade.

Yet, in doing so, the commodification of ecosystem services also implicitly entails the imposition of a particular set of assumptions about the ‘materiality of nature’ (Bakker and Bridge, 2006) onto those who participate in such transactions. Chief among these assumptions, for example, is the notion of the global commensurability of greenhouse gas emissions. That is, an assumption which holds that one tonne of carbon dioxide equivalent (tCO₂e) emitted by industry in the Global North is precisely equivalent to another sequestered by forests (or offset via an alternative scheme) in the Global South. Here, proponents of emissions trading assert that tCO₂e are commensurable without considering the divergent social, economic, and political relations entailed in

either production or sequestration. This point should not be misunderstood as a methodological or technical critique – I do not question that forests actually sequester carbon dioxide, often in the amounts predicted by forest technicians, although some analysts have raised salient technical issues related to carbon leakage and permanence (Bachram, 2004; Galik and Jackson, 2009; Gilbertson and Reyes, 2009). Rather, my thesis is that the geographically disconnected production and sequestration of tCO₂e are incommensurable due to the massively divergent conditions that characterize each process in general, and the social, political, economic, and ecological consequences that accrue to sequestration-proximal communities in particular.

Further, the predominately Western-technocratic worldview that conceptualizes all tCO₂e as perfectly commensurable often sharply contrasts with those of rural and indigenous populations in the Global South. Indeed, these latter populations may have radically different means of conceptualizing their relationship with both ‘natural’ spaces and with natural resources (Kosoy and Corbera, 2010: 1233). In some cases, these communities may also subsist in economies that remain largely disconnected, in whole or in part, from those that have catalysed processes of global environmental change (Ikeme, 2003; Marino and Ribot, 2012; Roberts and Parks, 2006). Rightfully, then, a wide range of scholars from disciplines as diverse as anthropology, geography, economics, and ecology have recently raised these and similar concerns about the potentially exploitative nature of ecosystem services markets (Arsel and Büscher, 2012; Boyd, 2009; Bumpus, 2011; Bumpus and Liverman, 2011).

Consequently, environmental governance discourses routinely frame carbon credits and other commodified ecosystem services in ways that virtually demand analysis from a perspective capable of rendering visible their often exploitative social, political, and ecological relations of production (Kosoy and Corbera, 2010). This paper proceeds toward this end, by analysing one such voluntary carbon offset and conservation scheme at Mount Elgon National Park (MENP), known as the Uganda Wildlife Authority-Forest Absorbing Carbon Emissions (UWA-FACE) project. Taking up the analytic tools provided by the field of political ecology, I seek to problematize the ways in which the UWA-FACE project creates ‘value’ for the

prospective consumers of its carbon credits (cf. Appadurai 1986), and the implications of this process for both MENP park managers and adjacent populations.

Accordingly, this paper will proceed in the following manner: First, I examine recent approaches to the political ecology of carbon offsetting, and draw particular attention to the peculiar ontology of carbon offsets, which are at once both material, relational, and discursive entities. Second, I consider the methodological implications of these characteristics, and demonstrate how they influenced the process of data collection at Mount Elgon National Park. Third, I advance a variety of reasons for why the UWA-FACE project ultimately succumbed to its challenges, and present findings regarding the manner in which various actors expropriated land and resources before ecosystem services could be sold from plantations at Mount Elgon. I conclude with an overview of attempts to salvage carbon-offsetting efforts in the region, and unpack the implications of these for other proposed schemes, such as those being negotiated for Reducing Emissions from Deforestation and Forest Degradation (REDD) through the UNFCCC.

5.2 POLITICAL ECOLOGIES OF CARBON OFFSETTING

Much recent work in human geography and political ecology has critically engaged with the production of ‘socio-natural’ commodities (Arsel and Büscher, 2012; Peluso, 2012), and especially so within the politicized context of global environmental change (Bumpus and Liverman, 2011; Peet et al., 2011). Following influential work by Castree (2003b, 2008), these inquiries increasingly share an interest in the ways in which the hybridized social and material characteristics of new ‘green’ commodities result in an uneven distribution of costs and benefits for various social groups. Specifically, political ecologists have taken exception to new forms of exploitation implicated in the production and consumption of carbon offsets, including those found to result in new forms of dispossession or restricted access to natural resources (Beymer-Farris and Bassett, 2012; Büscher et al., 2012; Fairhead et al., 2012). These concerns further compound related discussions about both climate and environmental justice, which seek to prevent the mitigation of largely Northern-induced global

environmental change at the expense of the rural, Southern poor (Ikeme, 2003; Marino and Ribot, 2012).

At their core, such discourses problematize the ‘matter of nature’ (Bakker and Bridge, 2006), or the ways in which the ontology of a carbon offset is simultaneously both social and natural. For example, Bumpus (2011: 613) notes that carbon offsets are perhaps best conceived as a ‘dynamic, two-way relationship of mutual influence and adjustment between social systems and material nature [... where] the material and the discursive aspects of carbon commodification are interwoven.’ In researching the production of carbon offsets, then, this latter observation is of singular importance. Offsets do not exist merely in a mundane physical sense, as a rock does, but in both the biophysical world and in social relations between producers and consumers. If one of these two components exists, but the other does not, the carbon offset unravels as an entity and ceases to exist. In unpacking this conceptual puzzle, here, I primarily focus on reforestation-generated carbon offsets, the production of which was the objective of the UWA-FACE project at Mount Elgon, and their basic ontological structure.

By way of definition, there are four distinct, yet simultaneous, ‘types’ or dimensions of existence for each individual carbon offset. For Bumpus (2011: 616), these are:

‘the carbon that continues to be emitted by the offset buyer (type 1); the carbon that would have been emitted if it had not been displaced by the project activity (type 2); the lower emissions as a result of the project activity (type 3); and the tCO₂e (type 4) that is produced by the difference in emissions as a result of the project activity and baseline.’

Here, we see that the ontology of a carbon offset is primarily *relational* (Castree, 2003a). That is, a carbon offset – abstracted as tCO₂e – is essentially bound up in relationships between emitters of carbon dioxide, those who sequester it or otherwise reduce their own emissions, offset technologies, and the biophysical world. In the case of reforestation projects, tCO₂e have a material existence in the sense that it is

possible to measure the amount of carbon dioxide that is stored in a given portion of forest (Ascui and Lovell, 2011; Ebeling and Yasué, 2008). However, the tCO₂e stored in forests is not, clearly, the very same tCO₂e that was emitted by a specific actor elsewhere in the world. Consequently, although carbon sequestration is an inherently biophysical ecosystem service, the *production of a carbon offset*, as opposed to the mere sequestration of carbon dioxide, involves the (often transnational) construction of relationships between those who emit and those who sequester. Differently put, the existence of a carbon offset is at once material and relational, and these two components are mutually co-dependent.

Such co-dependency forces the proponents of carbon offsets to constantly engage in acts of ‘translation’ in order to keep these relationships functioning smoothly (Mosse, 2005: 9). To put it differently, measurement and accounting technologies must be constantly employed in order to assure the consumers of carbon offsets that they are, in fact, purchasing something that exists (Ascui and Lovell, 2011; Lansing, 2011; Lovell and MacKenzie, 2011). Yet, for offsetting arrangements that involve afforestation or reforestation, carbon is ‘uncooperative’ in the sense that it is much more difficult to measure and quantify than in other technologies. This is particularly true in contrast with, for example, the industrial gas destruction of hydrofluorocarbon-23, which is much more controllable and measurable (Bumpus, 2011; Bumpus and Liverman, 2008; Lovell and Liverman, 2010). In particular, forestry projects are specifically afflicted by the twin problems of ‘leakage’ and ‘permanence’, or the omnipresent risk of stored carbon being released through fire, disease, pests, human encroachment, or a variety of other contingencies (Harvey et al., 2010; Wunder, 2008).

Thus, for Bumpus (2011: 620), a carbon offset is best conceived as being created through a process of ‘hemming in’ that involves the use of monitoring procedures, guarantees of additionality, baseline calculations, and robust offset methodologies. As these components become more loosely coupled, the offset’s own existence becomes less certain. Consequently, we again see how the existence or ontology of a carbon offset is inseparable from the functioning of *both* biophysical systems, and the

socially initiated actions of monitoring, evaluation, auditing, and the dissemination of the results thereof to consumers and prospective consumers.

5.2.1 Ontological Characteristics, Methodological Implications

Accordingly, the ontology of a carbon offset highlights a number of insights for research methodology, or the epistemological requirements for attaining knowledge about the implications of these schemes. As the preceding exposition demonstrates, the production of a forest-based carbon offset is at once material, relational, and discursive. It involves biophysical carbon sequestration; geographically diffuse relationships between emitters, off-setters, and consumers; and the transcription of these processes into discursive artifacts like policy and monitoring reports, project audits, and marketing literature. As such, a critical realist philosophy of science is well suited to examining these phenomena. Indeed, critical realism appropriately concedes a degree of objectivism regarding the existence of material objects and processes, but simultaneously acknowledges the ways in which humans interpret these phenomena in divergent and often problematic ways (Bhaskar 1975; Forsyth, 2001).

In accordance with a critical realist philosophy of science, I undertook a mixed-methods approach to examining the manner in which the UWA-FACE project at Mount Elgon sought to create carbon offsets through the reforestation of Mount Elgon National Park. First, basic quantitative methods and analysis were used to measure the physical establishment of forest compartments at Mount Elgon; their distribution around the protected area; and, subsequently, levels of local encroachment into these. Such data was gathered through semi-structured interviews with both Uganda Wildlife Authority staff, as well as through content analyses of official documents, accounts, and project records. As such, these methods examined the biophysical aspects of carbon offsetting at Mount Elgon, and the management practices that such initiatives entail.

By contrast, qualitative data and analysis were used to cultivate a phenomenological understanding of the manner in which both park managers and local people frame and

interpret these processes into meaningful experience within their own ‘lifeworlds’ (Demeritt, 2002: 780-783). Qualitative analysis was necessary to understand the ways in which local, primarily subsistence farmers were brought to understand the concept of carbon offsetting, with all of its connections to global political economy. Such an approach was also useful in conceptualizing the construction of relationships between brokers of the international carbon market (in this case, the FACE Foundation), state agencies (the Uganda Wildlife Authority), and other international actors such as bilateral donors (USAID) and multilateral organizations (the World Bank and GEF). Here, key methods included semi-structured interviews with key informants, focus group discussions, and content analyses. As such, these methods were used to examine the relational and discursive aspects of carbon offsetting, which are not detectable with straightforward, ‘naïve realist’ approaches to science (Forsyth, 2001: 147).

Subsequent portions of this paper present the findings of the above-discussed methods. First, I briefly provide an account of the history of the UWA-FACE project, which is constructed based on content analyses, key informant interviews, and archival research. Second, I present the findings of household, key informant-, and focus group interviews held in contemporary UWA-FACE-adjacent communities, regarding attempts to resurrect the project in a much-revised form.

5.3 THE COMMODIFICATION OF CARBON SEQUESTRATION AT MOUNT ELGON

In 1992, a Dutch NGO – the Forest Absorbing Carbon Emissions (FACE) Foundation⁴⁹ – approached the Ugandan Ministry of Trade, Tourism, and Industry (MoTTI) with a proposition to reforest degraded sections of the Mount Elgon Forest Reserve.⁵⁰ The FACE Foundation knew that many of Uganda’s protected areas had been severely degraded during the tumultuous post-independence period, and during the civil war that eventually brought current President Yoweri Museveni to power in

⁴⁹ The FACE Foundation has since renamed itself as ‘Face the Future’.

⁵⁰ Mount Elgon Forest Reserve was upgraded to national park status in 1993.

1986. At Mount Elgon, this damage was particularly severe, as approximately 25,000 hectares of the reserve's forest cover were lost during this time (Norgrove and Hulme, 2006: 1098; White, 2002). Since Uganda's economy also suffered greatly during this period, few internal revenues were available for the regeneration of national parks and forest reserves. Indeed, the World Bank notably ranked Uganda as the worst performing economy in sub-Saharan Africa for the period between 1961 and 1989 (Norgrove, 2002: 70-71), and the implications for the government's capacity were understandably substantial.

As a result, the MoTTI favorably received the FACE Foundation's interest in Mount Elgon. According to the original contract between these two parties (FACE Foundation, 1992), FACE agreed to cover the costs of reforestation, including those incurred for labor and procurement. In return, the MoTTI and its subsidiary, Uganda National Parks (UNP),⁵¹ were required to relinquish the rights to market the carbon dioxide stored in the new forest compartments, and to guarantee the security of these new plantations for a period of 99 years. Further, the contract established that these compartments would sequester a minimum of '5,500 kg CO₂ per hectare per year' (FACE Foundation, 1992: 7). As noted earlier, carbon credits generated by this scheme at Mount Elgon were also allegedly marketed via a Dutch organization known as GreenSeat – which sells voluntary carbon offsets to airline, bus, and rail passengers – and its parent organization, the Climate Neutral Group (Checker, 2010; Lang and Byakola, 2006: 9; Sullivan, 2011: 336). As such, prospective consumers were invited to 'travel greener!' by purchasing carbon credits from the FACE Foundation's plantations at Mount Elgon (GreenSeat, 2012).

Unbeknownst to many consumers, however, the Dutch Electricity Generating Board (known as 'N.V. Sep') originally established the FACE Foundation in 1990 (FACE Foundation 2000, 2001a). Officially, N.V. Sep's objective was to ensure that the foundation would 'provide enough CO₂ credits from afforestation and reforestation projects to offset the CO₂ emissions from a new coal fired power station' in the

⁵¹ Uganda National Parks later merged with the Game Department to form the Uganda Wildlife Authority (UWA) in 1996.

Netherlands (Société Générale de Surveillance [SGS] Agrocontrol 2001: 4). Although the FACE Foundation formally ‘decoupled’ from N.V. Sep in 2000 (FACE Foundation, 2001a), European commercial electricity firms still constitute a large portion of the FACE Foundation’s clientele (FACE Foundation, 2000, 2001a). Unsurprisingly, the organization generally downplays this connection with coal-fired electricity generation, and asserts that its main objective ‘is to establish and protect forests [...] sustainably and responsibly, in suitable areas, wherever in the world, and by so doing to contribute to reducing the amount of CO₂ in the atmosphere’ (FACE Foundation, 2001a: 2). Thus, although the organization is ‘non-profit’ in a strictly technical sense, the foundation is only thinly separated from the for-profit apparatus of N.V. Sep and its other clients, who increasingly seek to reduce environmental criticisms of their operations without changing the core of their business practices.

In the early 1990s, this type of contract was virtually unprecedented in sub-Saharan Africa. Indeed, the world’s first voluntary carbon offset arrangement was implemented only a few years prior in 1989, in an agreement signed between the AES Corporation (a US electricity firm) and an agroforestry project in Ecuador (Bumpus and Liverman, 2008: 133). Also a pioneer, the FACE Foundation had established its own carbon offset forestry projects in Ecuador in 1990 (Bumpus, 2004), and perceived Uganda’s newfound political stability as a potentially feasible entry-point for expanding their operations to East Africa. Given that the UNFCCC itself was only established after the Rio Earth Summit in 1992, and the Kyoto Protocol even later in 1997, these activities long preceded the ‘compliance’ carbon offset schemes initiated under the framework of the UNFCCC and its Clean Development Mechanism (CDM). Yet, as an executive from one of Uganda’s largest private carbon offsetting firms observed,

‘[i]n the nineties this all seemed like a good idea. Now, it’s a bloody disaster. FACE came in and all kinds of mistakes were made. Unfortunately, the whole human rights issue now dominates any attempt to talk about carbon at Mount Elgon... From this, we’ve learned that good rapport is essential to establish

before we even start planting’ (Interview, Executive staff member, PES Firm, Kampala, September 2011).

Indeed, as the ensuing discussion aims to show, the objectives of the FACE Foundation were undermined by the manner in which its project was ultimately implemented.

5.3.1 Primitive Accumulation, Selective History, and the (Re)production of ‘Nature’

Within a year of the original MoTTI-FACE Foundation contract being signed in November 1992, the Ugandan government resolved to upgrade Mount Elgon to national park status, and to remove ‘encroachers’ from within its boundaries (Gosalamang et al., 2008; Norgrove and Hulme, 2006; Vangen, 2009; White, 2002). Although it is difficult to retrospectively open up the strategic ‘black box’ surrounding this decision, one should note the correlation between the availability of substantial funds from both the FACE Foundation and other donors, and the decision to reassert government control over Mount Elgon. Indeed, among scholars of conservation and natural resource management in Uganda, substantial debates exist regarding whether this and similar decisions are generally ‘organic’, or undertaken as a result of international pressures and incentives from NGOs, as well as from bilateral and multilateral donors (Gibson, 1999; Gosalamang et al., 2008; Neumann, 1998).⁵² The reality is likely complex, and, I would assert, arises in response to varying combinations of both the interests of political elites and externally provided incentives.

Despite this confluence of interests, the decision to upgrade Mount Elgon first to a Forest Park in 1991 and later to a National Park in 1993 was singularly violent. Beginning in 1993, the 25,000 hectares of degraded parkland targeted for reforestation by the FACE Foundation were cleared of ‘encroachers’ by paramilitary UNP rangers

⁵² For example, USAID played a crucial role in both financing and conceptualizing Uganda’s initiative to regain control over its protected areas. Indeed, the original grant document (USAID 1991) emphasises the need to clearly demarcate the boundaries of reserves and remove existing encroachers.

and National Resistance Army⁵³ soldiers (Norgrove, 2002; Norgrove and Hulme, 2006; White, 2002). By many accounts, these evictions were characterized by widespread violence and human rights abuses, and may have involved little or no prior warning at some locations (Lang and Byakola, 2006; Luzinda, 2008; Norgrove and Hulme, 2006; Vangen, 2009). Afterwards, local communities made allegations of extrajudicial killings, rape, torture, assault, and robbery against UNP, police, and NRA personnel (Checker, 2010; Hurinet Uganda, 2011; Lang and Byakola, 2006; Vangen, 2009). As one community elder described the evictions,

‘[t]hey chased us from our homes, destroyed our crops, burnt our fields, and slaughtered our animals in front of us. Now, because of the conflict there is always the threat of torture, killings, rapes. The courts do not care about us’ (Community elder, Bududa district. Focus group discussion 05.08.2011).

While the Ugandan Constitution affords the right to the state to seize land when it is deemed to be in the national interest (Government of Uganda, 1995), it also stipulates that both due warning and compensation must be provided to evictees. Although official records were not kept about the total number of people evicted, Vangen (2009: 135) roughly estimates that the overall figure could exceed 150,000 persons. Moreover, no evidence exists to suggest that these communities were provided with official compensation (Lang and Byakola, 2006: 69; Gosalamang et al., 2008: 44; Vangen, 2009: 95). Additionally, one should note that while the bulk of these activities occurred in 1993, lower intensity paramilitary evictions continue with regularity around the protected area (White, 2002).

Conversely, the Ugandan government and UNP⁵⁴ claim that these evictions were perfectly legal, and that allegations of abuse remain unproven. For UNP, especially, inhabitants of the Mount Elgon Forest Reserve were perceived as ‘squatters’ or

⁵³ The National Resistance Army was renamed the Uganda People’s Defence Forces (UPDF) in 1995, and is Uganda’s official military force.

⁵⁴ UNP and the Game Department merged to form the Uganda Wildlife Authority (UWA) in 1996. Here, I refer to actions undertaken by UNP, as they occurred prior to the passing of the 1996 Uganda Wildlife Statute.

‘encroachers’, who simply and illegally appropriated public land for their own private use (UWA, 2010; National Forestry Authority [NFA], 2011). However, this position is complicated by a number of observations made while conducting archival research on Mount Elgon’s management history. First, as noted in the original working plan for the Mount Elgon Forest Reserve (Webster 1954: 6),

“[r]ather unwillingly, the [Forest] Department agreed to a field investigation early in 1940 by an administrative officer and a forest officer. As a result of their recommendations, the line was adjusted in twenty places between Bulago and Bumbo [parishes]. These excisions amounting to about six square miles, were not surveyed nor was the gazetted area or the reserve altered. In addition to the excisions, licenses were issued to about 70 families who were allowed to remain and cultivate in the reserve. These licenses were issued for life and, if the original licensee died, the license could be transferred to one of the sons.”

Further, the 1962 *Public Land Act* and 1969 *Public Lands Act* likewise complicated the overarching tenure situation, as both were often interpreted as affording farmers the right to deforest unoccupied land for agricultural purposes without prior consent from the government or other authorities (Mugambwa, 2007; Petracco and Pender, 2009). Later, Idi Amin’s 1975 Land Reform Decree simultaneously claimed all land in Uganda as state property (Hunt, 2004: 176). In effect, farmers were encouraged to appropriate land as they pleased, and the state further distributed portions of protected areas to communities when such actions were deemed politically expedient (Okuku, 2006: 10-11; Turyahabwe and Banana, 2008: 650). In addition, as noted by Norgrove and Hulme (2006: 1098), many others came to inhabit the forest reserve during the turbulent post-independence period, during which allegedly corrupt Forest Department officials sold illegitimate land titles to farmers at Mount Elgon. Today, however, many conservationists systematically ignore these inconvenient pieces of Uganda’s land tenure history, and instead strategically adopt a legalistic, uncritical, and ahistorical perspective on communities living within protected areas (see, for example, NFA, 2011 or UWA, 2009).

Bracketing the legality of the process of evictions itself, conservationists also deny responsibility for alleged human rights abuses (Checker, 2010; Hurinet-Uganda, 2011). As one UWA official noted in an interview,

‘Maybe crimes were committed, maybe they were not. That is a matter for the courts to decide. Regardless, if a banker kills someone in the course of his workday, do you hold the bank responsible? If these claims are true, they are the responsibility of individual criminals. UWA does not order its employees to commit crimes.’ (UWA warden, Mbale. Interview 03.08.2011).

As such, conservation authorities are careful to distance themselves from the actions of their individual employees. Generally, they also appeal to the bureaucratic ‘due process’ of criminal investigation, and contend that the police and courts will adequately deal with cases that arise. This situation is complicated, however, by the factors that prevent victims of human rights abuse from presenting their grievances to police or human rights bodies in Uganda. Indeed, many evictees feel that the police, NRA, and UNP personnel collaborate to protect each other from investigation, and consequently see little point in reporting their experiences (Hurinet-Uganda, 2011). As one displaced farmer reported,

‘[T]he rangers, police and the army came up the mountain, burnt down my home, destroyed my crops, and assaulted my family. Should I now go down the mountain and present my complaint to the police?’ (Focus group discussion, Manafwa District. 21.09.2011).

Indeed, when the state and its security institutions prey on their own citizens, relationships subsequently and understandably become marred by distrust. From this perspective, the lack of complaints delivered to police may provide more insight about citizens’ confidence in their own law enforcement institutions, rather than about the frequency of abuses (or lack thereof) during evictions from the Mount Elgon Forest Reserve.

By implication, one can observe “conservation practice as primitive accumulation” (Kelly, 2011) at Mount Elgon in two distinct forms: i) in the uncompensated expropriation of land and physical assets; and ii) in the expropriation of rights of access to common property and common pool resources (Glassman, 2006; Harvey, 2005). Indeed, whereas the former component is well documented in the social scientific literature on conservation at Mount Elgon, researchers have frequently analyzed the latter only in the economic sense, as a lost asset for park-adjacent household economies (Katto, 2004). In a political sense, however, the expropriation of rights to common property also entails the proletarianization of subsistence farmers, or the heightened exposure of their household’s demand for basic inputs (fuelwood, herbs, other non-timber forest products) to market forces. To put it differently, whereas households would otherwise acquire these inputs by accessing commonly-owned stocks in forest locations, the expropriation of these rights forces households to acquire such resources through market transactions, and further embeds them within the cash-based economy (cf. Corson and MacDonald, 2012; Kelly, 2011: 697). Conversely, the ability of these households to acquire currency may be limited by a number of factors. These frequently include a lack of market access, insufficient land for market-oriented production, and the inability to balance subsistence agricultural needs – such as growing a diversity of crops for adequate nutrition - with the production of sufficient volumes of non-consumable cash crops such as coffee (Bunker, 1991).

Further, given the gravity of the eviction process at Mount Elgon, it would be largely impossible for the FACE Foundation to remain unaware of these issues. Indeed, given that the original carbon offset contract was signed in 1992, and that FACE reforestation operations began in formerly occupied areas in 1994, it seems rather unlikely that this was the case (Lang and Byakola, 2006: 38). One should further note that ‘degraded’ areas of the forest reserve were not merely stripped of forest cover. In many cases, communities had established permanent human settlements within the reserve’s boundaries, including homesteads, schools, trading centers, and basic health facilities (Himmelfarb, 2006). In the process of evictions, UNP and NRA personnel razed these structures (Norgrove and Hulme, 2006; Vangen, 2009), and it is

conceivable that their ruins were still present when reforestation activities began in 1994.⁵⁵ Yet, the FACE Foundation continues to deny that its organization's activities have had any impact on land use conflicts at Mount Elgon. For example, when I contacted one of the organization's executives in an attempt to record the FACE Foundation's perspective, he curtly responded as follows:

'If you are doing fieldwork I suggest you contact UWA. [...] We do not have a role in the conflict, but were only involved in a reforestation project' (FACE Foundation executive, email communication, 11.09.2011).

Unsurprisingly, evicted populations did not appreciate such treatment from conservation authorities at Mount Elgon, nor do they relish enduring attempts to obscure the relationship between the region's history of violent eviction and existing carbon offset projects. In further unpacking this discussion, the next section outlines some of the implications of local resistance to the FACE Foundation's reforestation activities at Mount Elgon, and proposes several mechanisms that eventually lead to the collapse of the initiative.

5.3.2 Uncooperative Carbon, Unruly People: Dissecting the Collapse of the UWA-FACE⁵⁶ Project

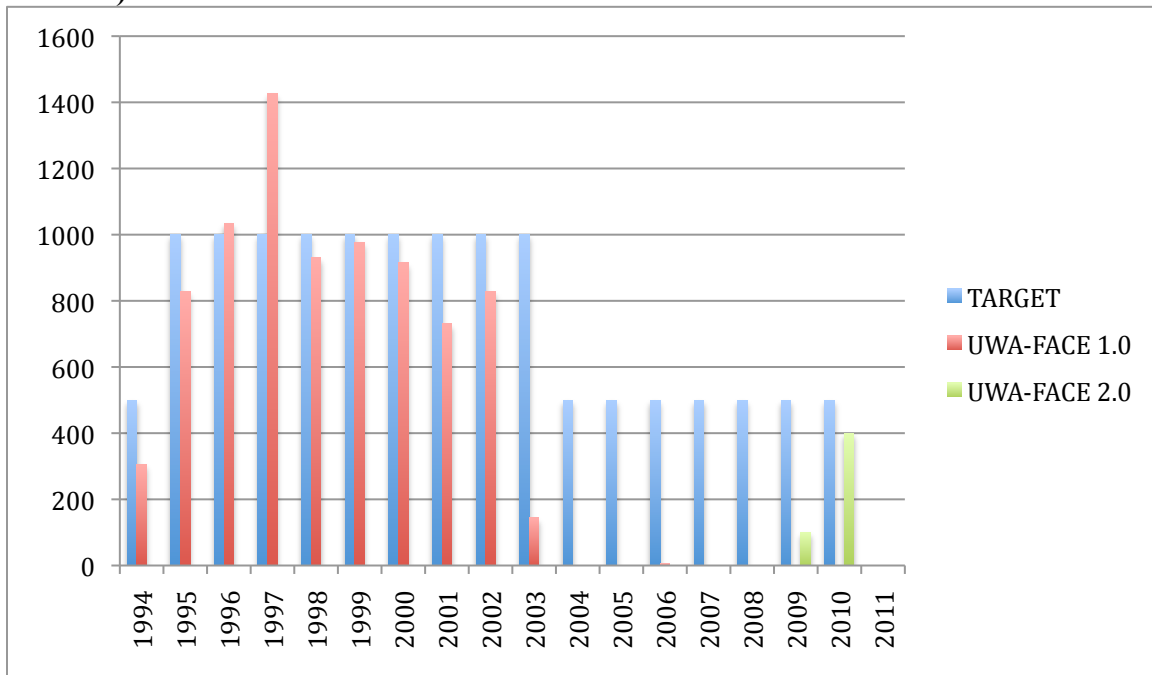
Beginning in 1995, the UWA-FACE project established reforestation targets of 1,000 hectares per year (Figure 5-1). Generally, these were either achieved or exceeded until the year 2000, after which reforestation activities began to decline. By 2004, UWA-FACE restoration had entirely ceased, despite reformulated management targets of 500 hectares per year. As this section demonstrates, the reasons for this decline yield a variety of lessons for forest-based carbon offset schemes in East Africa, and not least for proposed initiatives to Reduce Emissions from Deforestation and Forest Degradation (REDD).

⁵⁵ Sites allegedly razed by UWA and the UPDF were also observed firsthand during the course of fieldwork.

⁵⁶ After UNP and the Game Department merged to become UWA in 1996, the FACE Foundation's project at Mount Elgon became known as the 'UWA-FACE project' in policy documents (cf. UWA 2000, 2009b; FACE Foundation 2001b).

Essentially, the decline of the UWA-FACE project began when its managers sought certification from the Forest Stewardship Council (FSC) for its carbon offset operations at Mount Elgon National Park in 2000. By the late 1990s, consumers had grown sceptical of both the environmental and social impacts of carbon offsetting, and the FACE Foundation felt that such doubts could be allayed if they exposed their operations to a rigorous audit. Accordingly, as part of the FSC certification process, the UWA-FACE project was subjected to an independent examination by the Société Générale de Surveillance (SGS) Agrocontrol, one of the world’s most respected certification firms.

Figure 5-1 – Actual UWA-FACE Reforestation vs. Management Targets (in hectares).



Source: UWA (2010) and semi-structured interviews.

The assessors concluded - based on the plantations established at the time - that the project would sequester 3.73 million tonnes of carbon dioxide over the first certification period, which was deemed to last until 2034 (SGS Agrocontrol, 2001: 36-45). Of these, 1.62 million credits were set aside as a ‘risk buffer’, so that the remaining ‘2.11 million *virtually risk free* GHG credits ... [could be] delivered

between 1996 and 2034’ – at which time plantations were due for re-inspection (SGS Agrocontrol, 2001: 9, emphasis added).

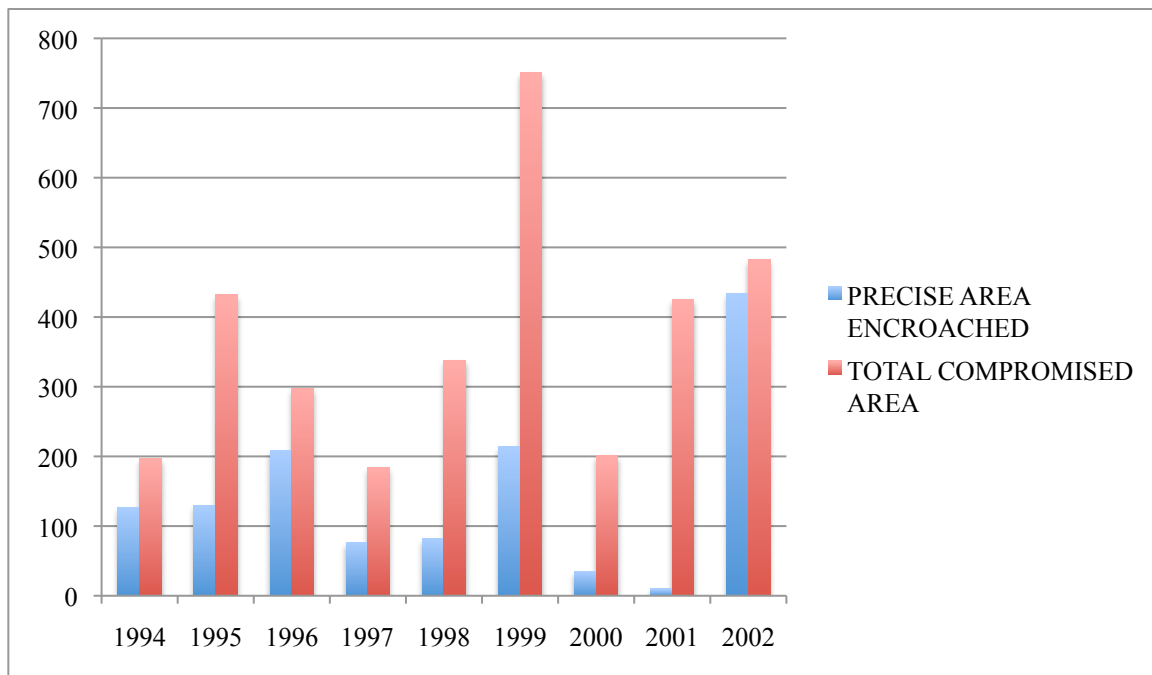
Yet, as interceding years have shown, the claim that these credits were ‘virtually risk free’ was highly problematic. Indeed, the SGS auditors themselves originally raised a number of substantive concerns about the future security of UWA-FACE plantations, which led them to propose two ‘corrective actions’ – one major and one minor – before the FSC could grant certification (SGS Agrocontrol, 2001: 57-58). These concerns revolved around the ‘major’ lack of a preexisting social impact assessment for UWA-FACE activities, and the ‘minor’ lack of a robust environmental impact assessment of the project’s ability to guarantee the sequestration of carbon dioxide. Regarding the social impacts of the project, the assessors noted, simply, that UWA-FACE’s ‘[s]ocial impact assessment is not adequate. Negative social impacts have not been identified and steps have not been taken to reduce those negative impacts’ (SGS Agrocontrol, 2001: 55). Essentially, it was clear to the assessors that neither UWA nor FACE had seriously considered the implications of widespread local resistance to the project for both the consumers of carbon offsets and their actual climate change mitigation effects.

In particular, the auditors raised concerns about ‘political and social instability’, or the ability of UWA and FACE to protect their new plantations from local encroachment for the proposed period of 99 years. As the report’s authors observed,

‘[t]he political situation in the land surrounding Mt. Elgon is quite tense. There is a very high population density and land for cultivation is in very short supply. The decision to evict encroachers from the National Park has only served to increase the pressure on land outside the park. There is no doubt that local politicians can gain significant support by successfully arguing for a realignment of the park boundaries to afford their constituents access to more land’ (SGS Agrocontrol 2001: 40).

As noted by Lang and Byakola (2006: 27), it would have been virtually impossible to predict, in the early 1900s, the sort of land use regime that would prevail at Mount Elgon in the year 2000. Population dynamics have undergone massive changes, and the region has witnessed incredibly tumultuous political, economic, and social upheavals since the dawn of the 20th century. From the perspective of *la longue durée*, counted among these were the rise and fall of British colonialism; several periods of civil war and recurring *coups d'état*; state-led programmes of political and ethnic cleansing; bio-political crises (such as the HIV/AIDS pandemic); and chronic environmental-social shocks, such as recurring drought and ensuing famines (Bunker, 1991; Doyle, 2006; Mamdani, 1976). From this perspective, critics assert, it is both naïve and potentially misleading to offer guarantees to prospective consumers regarding the future sanctity of forest plantations – in a contested region, nonetheless – until the year 2093.

Figure 5-2: Encroachment into UWA-FACE plantations, 1994-2002.



Source: UWA (2010) and semi-structured interviews.

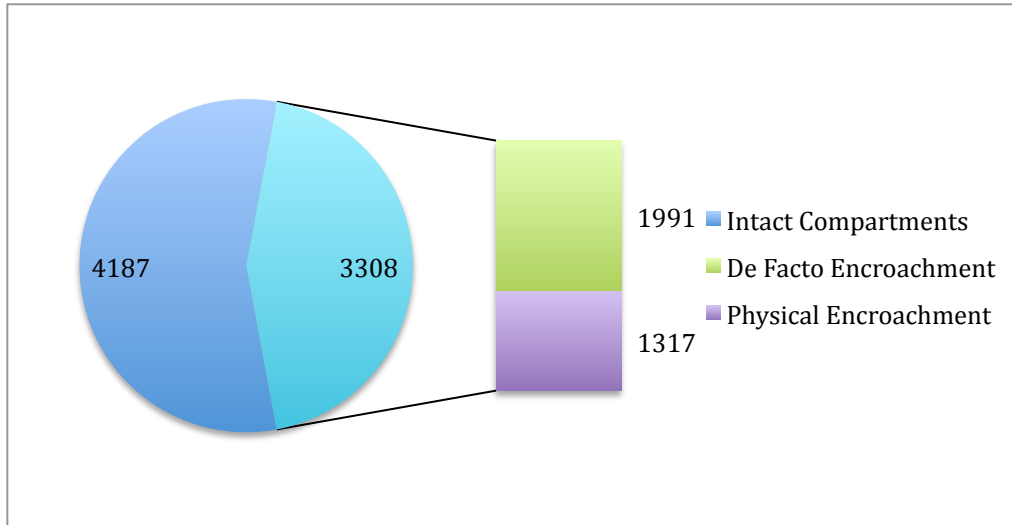
As hindsight now demonstrates, these concerns were well-founded. From the outset of the project, agricultural encroachment and subsequent deforestation constituted

omnipresent problems for UWA-FACE's plantations. Project records show that, even in the 1990s, up to 450 ha per year were compromised by community encroachment (UWA, 2010). By 2004, these procedures had become obviously unsustainable, and were beginning to intermingle with allegations of human rights abuse directed at UWA employees (Checker, 2010; Faris, 2007; Lang and Byakola 2006).

Further, from a carbon offset marketing perspective, physical encroachment is compounded by the problem of '*de facto* encroachment', or the manner in which carbon offsets become difficult to 'translate' when entire forest compartments are compromised by partial deforestation (cf. Mosse, 2005: 9). Indeed, when encroachment exceeds the allowance of a predetermined 'buffer zone' – in this case, 44% of total sequestration capacity (SGS Anglocontrol, 2001) – the amount of carbon sequestered in said compartments must be recalculated. Otherwise, the danger arises of issuing carbon credits for environmental services that were not in fact provided. Indeed, when market transactions are involved, to do otherwise would effectively risk engaging in a form of fraud (Bachram, 2004; McAfee, 2012).

In addition, the technical crisis of calculating carbon sequestration is further compounded by the crisis of legitimacy that arises from persistent encroachment. Arguably, incentives thus exist for 'distancing' evidence of encroachment from consumers (cf. Princen, 1997), as such extensive deforestation rightfully poses critical questions of leakage and permanence (Galik and Jackson, 2009). Consequently, one might hypothesize that, rather than retaining equal status, the value of available tCO₂e offsets decline in relation to increases in experiences with leakage. Differently put, at least a portion of the use value of a carbon offset that accrues to a consumer is ethical or moral in nature; when offsets derive from contested sources, therefore, use value proportionally declines. As such, while communities physically encroached upon 1,137 hectares of the UWA-FACE project's approximately 7,500 hectares of new plantations by the end of 2002, the total area compromised by such encroachment amounted to 3,308 hectares, or approximately 44% of the total reforested area.

Figure 5-3: Overall Status of UWA-FACE 1.0 Compartments, 2002.



Sources: UWA (2010) and semi-structured interviews.

Consequently, between 2004 and 2008, no additional trees were planted by the project. FACE and its financiers were presumably (and understandably) frustrated by the arguable failure of their investment, and UWA was highly cognizant of the negative press being attracted by the scheme. Truly, the manner in which the UWA-FACE project came to a halt during this period is indicative of how vulnerable such initiatives are to the judgments of both the international media and civil society. As one UWA warden explained the decline of the project:

‘Their image has been tarnished, so carbon credit operations have halted. You know, it is because of the conflicts and the human rights people crying out, most of them on the internet’ (UWA warden, interview 28.07.2011).

Again, since carbon credits enable corporations and individuals to claim ‘carbon neutral’ status, their primary benefit from the consumer’s point of view is that they confer what can be described as ‘normative capital’, or the right to advertise presumably superior ethical values. If one overarching lesson from the project’s decline can be drawn, therefore, it is this: If the ethical basis on which these carbon credits are ‘produced’ is challenged, their use-value for the consumer rapidly declines. To avoid this, above all else, a stable ‘translation’ (Mosse, 2005) of the social,

political, and ecological relations involved in the offset project must be maintained among all actors involved. Such was the objective of the second incarnation of the UWA-FACE project, the same parties initiated in 2009.

5.3.3 A New Beginning? UWA-FACE 2.0 and the Rhetoric of Collaboration

After nearly six years of inactivity, the UWA-FACE project began anew on a pilot basis in 2009,⁵⁷ albeit after being completely redesigned (UWA, 2009b, 2010). Evidently, both UWA and FACE conceded that the above-noted levels of encroachment, and high likelihood for the exacerbation thereof, were far too salient to continue marketing credits along the established project model. As a result, the scheme was redesigned on fully ‘collaborative’ basis (UWA, 2009b). Whereas the original model had entailed the establishment of ‘fortress-style’ plantations, this approach involved the use of the *taungya* system, or the allocation of plots to individual farmers within areas slated for reforestation. Farmers signed five-year, renewable contracts for practicing agro-forestry within these plots, and accepted responsibility for maintaining the health of their trees at a predetermined density (UWA, 2009b: 14). After UWA deems that the trees have reached maturity (ie. when the new canopy ‘seals’), farmers will be required to vacate their plots and refrain from once again entering the park. FACE agreed to finance this pilot project in park adjacent areas of Bududa district for 2009-2010, after which progress will be re-evaluated (UWA, 2010).

Generally, beneficiaries in Bududa-adjacent communities support this scheme, rather unsurprisingly, as it serves to substantially increase their agricultural yields and food security. As one beneficiary of the scheme noted,

‘[n]ow there are good relations because we have plenty of food, and the price

⁵⁷ For the purposes of both this discussion and clarity, I will refer to this incarnation of the project as UWA-FACE 2.0.

of posho⁵⁸ has gone down. This makes life easier and gives us security’ (Farmer, Bududa district. Focus group 05.08.2011).

By contrast, in the previous incarnation of the UWA-FACE project, benefits accrued to communities only through employment, which was seasonal, and involved a maximum of 500 individuals for the entire park in the early 2000s (UWA, 2000, 2010). Under the collaborative scheme, however, benefits accrued to a broader cross-section of individuals, and ensuing incomes accrued at a steadier rate throughout the year.

Conversely, however, one could argue that UWA-FACE 2.0 merely constitutes a temporary means of alleviating the underlying conflicts over land tenure at Mount Elgon. Indeed, several farmers mentioned that the current memorandum of understanding only forestalls the conflicts that will inevitably ensue when current *taungya* farming contracts expire. As one put it,

‘After five years, if we are chased away, what shall we eat? Maybe after five years the land should be ours forever’ (Farmer, Bududa district. Focus group 05.08.2011).

The regional project manager for the UNDP agreed, saying,

‘Now, the *taungya* model is working much better than the fortress approach but it is still a temporary solution ... people want food on their plate, they don’t want to hear the jargon of carbon trading. If [UWA] gives them that, they will just laugh’ (UNDP Project Manager. Interview 24.08.2011).

In response, UWA (2010: 19) has proposed a ‘carbon community fund for rural development and community benefits’, wherein a fixed percentage of the revenues arising from carbon credit sales would be transferred to community organizations.

⁵⁸ *Posho* is the Lunganda term for ground maize, which is both the most common meal in the region and a staple crop.

Such a discussion is somewhat premature, however, given that the new system would necessarily require certification by either the FSC or another scheme - such as through the Verified Carbon Standard (VCS) or Gold Standard systems – before its carbon credits would become marketable. In light of the contentious history of the UWA-FACE project at Mount Elgon, the project’s managers might conceivably find it difficult to secure such a certification.

Further, interviews revealed a variety of controversies regarding the manner in which plots were allocated to farmers in UWA-FACE plantations.⁵⁹⁶⁰⁶¹ Generally, the number of available plots is far less than the number of households in park-adjacent parishes, denoting that newly established community restoration councils wield a large degree of power over the allocation process. As one community elder observed:

‘The land belongs to us and our ancestors. Many of our ancestor’s bodies are buried on the land taken by the government and UWA [...] Now UWA has allowed some people back in, but not everyone. If you are friends with the [community restoration] committee, you get a plot. If you speak out, you get nothing.’ (Farmer/community elder, Interview 06.09.2011).

Such findings provide rare insight into the problematic ways in which conservation agencies (such as UWA), NGOs, and bilateral donors frequently portray protected area-adjacent communities as being largely homogenous and unified. In reality, contentious struggles exist both between and among these groups, where the stakes in terms of access to power and resources are relatively high. In such contexts, access to employment (as in the case of UWA-FACE 1.0), or land (as in the case of UWA-FACE 2.0) constitutes yet another mechanism through which these struggles can be waged. This is especially salient in political contexts that are generally characterized by patronage systems, such as those that have been found to be salient in Bugisu (Bunker, 1991; Norgrove, 2002). In such contexts, politicians and leaders will seek to

⁵⁹ Focus group interview, Bududa district 10.08.2011

⁶⁰ Focus group interview, Bududa district 16.08.2011

⁶¹ Key informant interview, UWA-FACE Community Restoration Chairman, Bududa district, 04.08.2011.

secure their respective positions by distributing benefits to supporters and followers. Accordingly, such issues should likely be considered when designing benefit sharing arrangements for carbon offset forestry programmes in other East African settings as well – if benefit distributions are left to local leaders, such resources could potentially further entrench existing intra-community inequalities, rather than equitably alleviate the dire poverty that exists in the Mount Elgon region.

5.4 CONCLUSION

This paper has sought to critically examine the rise and decline of a carbon offset and conservation scheme at Mount Elgon National Park, Uganda. While the UWA-FACE project advertised itself as a ‘triple win’ for climate change mitigation, forest conservation, and local development (FACE Foundation, 2001a; UWA, 2009b), a political-ecological and historical analysis of the project suggests that such rhetoric is blatantly selective and inaccurate. For example, the original forest restoration agreement, signed between the FACE Foundation and the Ugandan government in 1992, was closely followed by one of the bloodiest and largest-scale forest eviction campaigns in Uganda’s post-colonial history (Checker, 2010; Norgrove and Hulme, 2006; Lang and Byakola, 2006; Vangen, 2009; White, 2002). Local people were evicted from the same 25,000 hectares of degraded forest that were slated for UWA-FACE rehabilitation, and have not been compensated for the loss of land, property, and livelihoods that accrued as a result, despite potentially valid legal claims to their property (Hurinet-Uganda, 2010; Norgrove and Hulme, 2006; Vangen, 2009). Consequently, the ‘benefits’ of seasonal labour advertised by project managers accrued on a scale far, far below the overall costs of eviction. From this perspective, one can therefore perceive the uncompensated dispossession of local people as a form of ‘primitive accumulation’ or ‘accumulation by dispossession’ (Glassman, 2006; Harvey, 2005; Kelly, 2011), which essentially subsidized the participation of the UWA-FACE project in global carbon offset markets.

In addition to its socially controversial nature, the UWA-FACE project was likewise unable to achieve its environmental objectives. Indeed, only approximately 8,000 of

25,000 planned hectares were reforested before the project was forced to stop its operations. By 2004, up to 44% of the project's newly established forest compartments had been rendered unsalable from a carbon offset perspective, and the FACE Foundation withdrew from the agreement as a result (UWA, 2010). Such levels of encroachment exceeded the 'risk buffer' established by the project's carbon sequestration auditors (SGS Agrocontrol, 2001), and will likely compromise the project's ability to gain re-certification for the sale of ecosystem services in the future. It does not appear that public records were kept by either UWA or FACE about carbon credits sold through this scheme prior to 2004, however, and it is thus nearly impossible to retroactively verify whether carbon credits were issued for actually existing environmental services.

These findings present a number of implications for similar forest-based carbon offset schemes in East Africa, including both voluntary initiatives and compliance schemes being piloted under the framework of Reducing Emissions from Deforestation and Forest Degradation (REDD). Of particular interest is the ways in which brokers of the carbon offset market can attempt to both shade costs and induce distance between offset consumers and actual sites of carbon sequestration (cf. Princen, 1997). In the Mount Elgon case, such efforts are visible in attempts to disassociate the UWA-FACE project from the violent eviction process that was necessary for its establishment. This was accomplished by exploiting geographical and cultural distance between sites of production and consumption of environmental services, as well as through the construction of a dense network of intermediaries that obscured the exploitative relations of carbon offset production at Mount Elgon. In effect, these aggregated strategies enabled the FACE Foundation and its intermediaries to maintain stable 'translations' of offset commodities to consumers and donors (cf. Mosse, 2005), especially over the Internet, which obscured the above-discussed social and ecological controversies involved in the project's implementation.

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6. Conservation governance, benefit sharing, and environmental (in)justice at Mount Elgon, Uganda

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Abstract

At Mount Elgon National Park in Uganda, local authorities assert that a variety of benefit sharing schemes mitigate the negative consequences of conservation for nearby communities. These include redistributed ecotourism revenue, collaborative resource management agreements, employment opportunities, and a number of other programmes. Conservationists argue that these initiatives result in a ‘win-win’ outcome for both the national park and local communities, wherein conservation and development goals mutually compliment each other. In examining these claims, this paper addresses the following research question: How does the current distribution of shared benefits affect the perceived legitimacy, and thus the effectiveness, of conservation at Mount Elgon National Park? Taking an environmental justice approach, the study addresses this question through an analysis of both the geographical and the temporal distribution of benefits from conservation at Mount Elgon. In doing so, it uncovers large inequalities in access to ecotourism revenue and other benefits both between and among local communities. The perceived illegitimacy that results from these inequalities was found to exacerbate conflicts between conservationists and local people, and to result in ecological damage to the national park. To alleviate both the environmental injustice and ecological harm entailed by these inequalities, the paper recommends a number of measures to universalize access to collaboratively managed resources in adjacent populations.

Keywords: Conservation; benefit sharing; legitimacy; environmental justice; inequality; Mount Elgon; Uganda

6.1 Introduction

In East Africa, conservationists have long sought to downplay the detrimental impacts of protected areas by emphasizing the ways in which a variety of benefits accrue to adjacent communities. Specifically, protected area (PA) managers have framed the redistribution of ecotourism revenue as the primary means through which conservation could be “given a human face” (Bell, 1987). Thus, scholars such as Eltringham (1994) famously observed that PAs could “pay their own way” by both generating benefits for local communities and reducing managerial costs for the state. In Uganda, for example, the Uganda Wildlife Act of 2000 governs ecotourism revenue sharing, and requires all national parks to redistribute twenty percent of gate receipts to the local governments that border protected areas (Government of Uganda, 2000). Similarly, additional ‘benefits’ of PA-adjacent residency are said to include resource access agreements, ecosystem services, targeted employment initiatives, and infrastructural projects (UWA, 2009; Sandbrook and Adams, 2012; Tumusiime and Vedeld, 2012). Based on this ‘win-win’ logic, both bilateral and multilateral development organizations have provided aggregated grants and loans worth more than US \$70 million to Ugandan conservation agencies (USAID, 1991; World Bank/GEF, 2002; Larsen et al., 2008). Consequently, the notion that protected areas retain the potential to deliver on both biodiversity conservation and socioeconomic development objectives remains deeply rooted in conventional policy, donor, and academic discourses (Brown, 2002; Adams et al., 2004).

Further, environmental management professionals now consider the efficacy of these schemes to be central not just to traditional conservation efforts, but also for ensuring the sustainable governance of many types of emerging payment for ecosystem service (PES) initiatives (Mwayafu and Kimbowa, 2011; UN-REDD, 2011). In particular, these concerns are salient for schemes that will be managed on a protectionist basis by public authorities or NGOs, such as those currently being piloted under the framework of

Reducing Emissions from Deforestation and Forest Degradation (REDD) in East Africa (Beymer-Farris and Bassett, 2012). Many such initiatives depend upon the ability of a managerial authority to guarantee a specific land use (ie. ecosystem conservation) for a predetermined area and amount of time; hence, they often exclude local people and alternative land uses (such as subsistence agriculture) by default. In these contexts, both informal resistance and formal-legal contestations of land tenure pose omnipresent threats to the feasibility of PES schemes, as they directly challenge the ‘legitimacy’ of the commodities that are sold to-, or exchanged with-, consumers. In conservation and development studies, for example, evidence abounds of disenchanted local populations indiscriminately slaughtering wildlife and clearing protected forests in reprisal for perceived injustices (Collett, 1987; Peluso, 1995; Sunseri, 2005; Norgrove and Hulme, 2006). Accordingly, effective benefit sharing measures are crucial for ensuring the long-term sustainability of PES schemes in both voluntary and proposed compliance markets.

In engaging with these concerns, this paper critically examines the ‘win-win’ logic of ecotourism and biodiversity conservation through an analysis of benefit sharing practices at Mount Elgon National Park, Uganda. In contrast with studies of conservation that have focused on net benefits for aggregated communities (Ferraro et al., 2011; Turner et al., 2012), this paper proceeds with an explicit focus on *inequality*, or on the geographically and socially uneven distribution of positive outcomes for park-adjacent residents. In doing so, I seek to answer the following research question: How does the current distribution of shared benefits affect the perceived legitimacy, and thus the effectiveness, of conservation at Mount Elgon National Park? The findings of this approach suggest much needed reforms in conservationist benefit-sharing practice, in order to account for divergences in the accrual of benefits; to ensure more equitable socioeconomic outcomes; and to prevent ecologically destructive conflicts with park-adjacent residents. Alongside global efforts to implement large-scale PES schemes such as REDD, moreover, these concerns are both timely and salient.

Accordingly, this paper will proceed in the following manner: First, I frame the present topic by providing an exegesis of the notion of ‘environmental justice’, and examine the perceived illegitimacy of conservation as a symptom of a lack thereof. Second, I briefly introduce the study area, and outline the methodology that was used to collect data on benefit sharing practices and outcomes at Mount Elgon. Third, the paper presents findings on the quality and quantity of shared benefits, their asymmetric geographical distribution, and the salience of these in relation to conflicts between local people and park management. I conclude by unpacking the implications of these findings for the benefit sharing rhetoric of both the Uganda Wildlife Authority (UWA) and its financial supporters in the international development community.

6.2 Environmental Justice, Conservation, and the Problem of Legitimacy

Originally, scholars linked the concept of environmental justice to the emergence of anti-pollution and industrial waste movements in the United States, which took exception to the geographically and socially uneven distribution of ‘Locally Unwanted Land Uses’ (LULUs) (Walker and Bulkeley, 2006; Walker, 2012). For example, in a recent annual review, Mohai et al. (2009, p. 406, emphasis added) define “environmental justice studies” as a field in which researchers document “the unequal impacts of *environmental pollution* on different social classes and racial/ethnic groups.” Similarly, Pellow et al. (2002, p. 426, emphasis added) observe that the field highlights “the distribution of *hazardous facilities* in vulnerable communities and on local responses to these policies.” These definitions are perhaps representative of early approaches to environmental justice, which sought to eliminate or to negate the structural conditions that disproportionately expose certain populations to more environmental risks and hazards than others (Pellow and Brulle, 2005).

At their core, these concerns examine the validity of asymmetries in the distribution of costs and benefits from LULUs. For example, Been (1993, p. 1002) astutely notes that

“the benefits that LULUs produce typically are diffused throughout society, while their costs and risks are concentrated in a relatively small group of neighbours.” Potential thus exists for outright prejudice or racism to converge with both economic and sociopolitical incentives to locate conventional LULUs in low income and low status communities (Mohai et al., 2009, p. 414). In controversial instances of waste disposal, for example, economic incentives lead private industry to seek the lowest cost land to dump upon, which typically also houses low-income groups nearby. Likewise, sociopolitical incentives may lead firms to situate hazardous LULUs near communities with the fewest political and financial resources to launch formal opposition. Differently put, this first generation of environmental justice researchers aimed to protect victims of these processes – largely in the United States - from those who would seek to profit or to reduce costs by ‘dumping’ environmentally dangerous throughput upon them, and to advocate for redress when such actions occurred.

More recently, a second generation of environmental justice research has situated the concept in relation to global climactic and environmental change, new land use trends, and their implications for rural populations throughout the developing world (Thomas and Twyman, 2005; Fairhead et al., 2012; Marino and Ribot, 2012). A notable strand of this literature focuses on the rapid proliferation of state-run national parks and reserves, which have skyrocketed in number from approximately 20,000 in 1970 to more than 150,000 today (Adams and Hutton, 2007; IUCN and UNEP-WCMC, 2012). Indeed, the evictions, dispossessions, and resource access restrictions associated with the enclosure of land for conservation have led some researchers to make assertions of ‘green grabbing’, ‘resurgent protectionism’, and ‘primitive accumulation’ (Büscher, 2009; Kelly, 2011; Beymer-Farris and Bassett, 2012). Others have raised concerns about ‘conservation victims’, conservation-related displacement, or ‘conservation refugees’ (Geisler, 2003; Brockington and Igoe, 2006; Dowie, 2009; Svarstad et al., 2012). Although this literature focuses on the costs of environmental *protection* rather than environmental *pollution* (cf. Lazarus, 1993), concerns regarding the economic and sociopolitical incentives for externalizing costs to marginal groups are nonetheless

salient. Indeed, a common theme in this literature concerns the ways in which rural populations experience conservation activities not as benign processes, ostensibly undertaken in the pursuit of the global common good, but as environmental *hazards* or LULUs.

Specifically, one can view conservation as a form of LULU when local populations effectively subsidize its existence by privately bearing uncompensated portions of the costs for the establishment and maintenance of protected areas (Svarstad et al., 2012). This can occur when the implementation of conservation activities implies eviction or economic displacement (Geisler, 2003; Cernea and Schmidt-Soltau, 2006); when protected forms of wildlife inflict substantial damage to park-adjacent crops, property, and livestock (MacKenzie, 2012; MacKenzie and Ahabyona, 2012); and when access to essential common-pool resources is restricted (Ribot and Peluso, 2003; Brockington et al., 2006). Indeed, Ugandan case studies – in particular - suggest that costs arising from involuntary resettlement frequently remain uncompensated even when the failure to do so contradicts policy and legislation that stipulates state responsibility for providing reparations (Archabald and Naughton-Treves, 2001; Adams and Infield, 2003; Blomley, 2003; Norgrove and Hulme, 2006).

By contrast, many of the primary benefits of biodiversity conservation – such as recreational opportunities, carbon sequestration, and pharmaceutically relevant genetic diversity – mainly accrue to regional elites and the international community (MacKenzie, 2012). The vast majority of park-adjacent villagers will never enjoy an ecotouristic experience, and have done little or nothing to contribute to the global economic processes that have suddenly attributed value to the carbon sequestration services provided by forests (Beymer-Farris and Bassett, 2012; Marino and Ribot, 2012). Hence, one can arguably perceive conservation as an environmentally unjust form of land use when its uncompensated costs accrue disproportionately to vulnerable rural populations, and at much greater scales than its purported benefits (Emerton, 2001; Vedeld et al., 2012).

6.2.1 *Environmental Justice and Cognitive Legitimacy*

Although large asymmetries between costs and benefits may yield widespread diagnoses of environmental *injustice*, scholars differ in their prescriptions for how such situations can or should be rectified. Indeed, one should note that any discussion of environmental justice is both inherently and explicitly normative, rather than positive (cf. Ikeme, 2003; Svarstad et al., 2011). Assessments of justice – or the lack thereof – are necessarily based on a chosen balance between particular values: between equality and liberty; between individual and collective welfare; between human and nonhuman security; between benefits for current and future populations, and so on. Decisions about which values are desirable or supportable are by definition subjective, and thus also political, as these choices also entail implications for the cost-benefit distributions that result from their application. That said, the project of building a universal concept of environmental justice still holds great promise. As observed by David Harvey (1997: 332), “[w]hile conceptions of justice may vary according to time, place, and the individuals concerned, the acceptance of a particular conception ‘without misunderstanding’ can provide a powerful mobilizing discourse for political action.” As the immense and uneven implications of processes such as climate change become clearer, it is now more important than ever to elaborate a suitable foundation for the pursuit of environmental justice in relation to both global processes and specific approaches to their mitigation, such as the conservation of biological diversity.

As noted by Ikeme (2003, p. 196), there are two broad – and sometimes mutually exclusive - approaches to addressing or preventing environmental injustices. These lie in the branches of moral philosophy known as deontology and consequentialism, respectively. Most notable moral philosophers, such as Nagel (1979), Nussbaum (1999), Rawls (2001), and Sen (2009), engage with aspects of both deontology and consequentialism, although they inevitably formulate a unique synthesis that prioritizes elements of one school over the other.

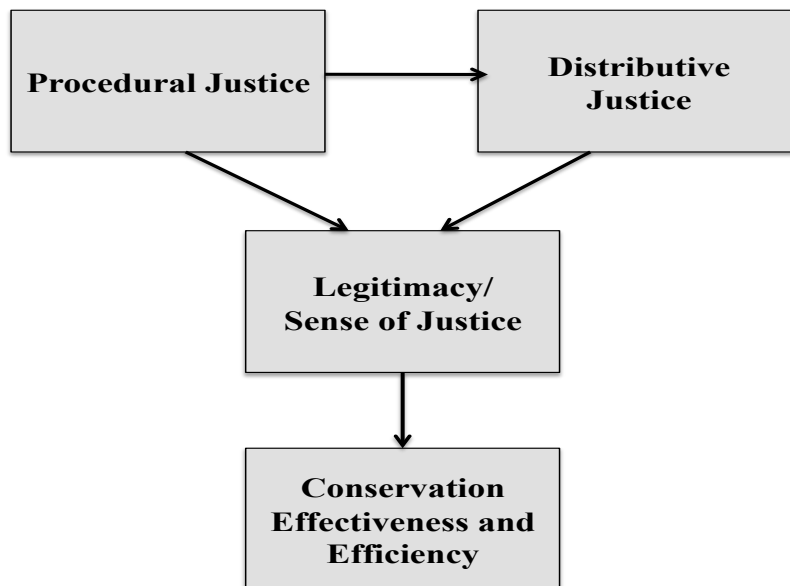
First, in a tradition that one can trace to the thought of the ‘social contract’ philosophers such as Thomas Hobbes, John Locke, Jean-Jacques Rousseau, and later Immanuel Kant, deontologists emphasize duties, rights, and procedures in the construction of just institutions. In relation to environmental management, then, deontological analysts focus on the *ex ante* nature of the institutions that enable policy and management practice, rather than on their *ex post* outcomes. From this perspective, one can say that a land use such as conservation is just or unjust based on its compliance with a principled implementation process – perhaps one that is deliberative, participatory, or democratic in nature. Hence, deontologists could perceive conservation governance as ‘just’, even if it yields outcomes that are highly unequal, if the processes leading to such consequences are deemed to be acceptable. Put differently, where assessments of environmental justice are based upon the value of equality, deontologists privilege the ‘equality of opportunity’ – which is possible to ‘build into’ conservation processes - over the ‘equality of outcomes’. A famous argument in this tradition is Rawls’ (1971, 2001) conception of “justice as fairness”, wherein inequalities are acceptable if they meet the “difference principle”; that is, if they are “to the greatest benefit of the least well-off members of society” (Wenar, 2008). For the purposes of this paper, I will colloquially refer to this tradition as *procedural* environmental justice.

Second, consequentialism links an eclectic tradition of thinkers that include Adam Smith, John Stuart Mill, Jeremy Bentham, and Karl Marx, who emphasize “the ‘rightness’ or ‘wrongness’ of a situation based on application of some judgment focused on end results” (Ikeme, 2003, p. 196). In relation to conservation, therefore, such an approach focuses on the distribution of ‘goods’ and ‘bads’ that accrue as a result of protected area management, rather than on the content of the processes that set its objectives (Okereke, 2008, p. 36). Accordingly, a consequentialist could argue that even participatory or democratically sanctioned forms of conservation are unjust if they still result in highly unequal or detrimental outcomes for specific populations. A notable moral argument in this tradition is Sen’s (2009) recent contribution, wherein the value of a policy or institution is judged by the degree to which it enhances the capabilities of its

stakeholders. Indeed, in a statement that perfectly encapsulates the distinction between deontological and consequentialist approaches, Sen (2009: x) notes in his preface that “[j]ustice is ultimately connected with the way people's lives go, and not merely with the nature of institutions surrounding them.” Here, I will simply refer to this tradition as *distributive* environmental justice.

In an approach that synthesizes elements of both deontology and consequentialism, Svarstad et al. (2011) argue that stakeholders must approve of both procedural and distributive aspects of conservation before it can be deemed “legitimate”, or before affected parties can experience a “sense of justice” (Figure 6-1). One should note that the term ‘legitimacy’ here is used in Bernstein’s (2005, p. 142) sense; that is, “as the acceptance and justification of a shared rule by a community.” In other words, this usage refers to stakeholder *perceptions* – or to “cognitive legitimacy” - and not necessarily to a state of formal-legal legitimacy where actions are undertaken in accordance with relevant laws (Suchman, 1995, p. 582).

Figure 6-1 - Relationship between procedural justice, distributive justice, legitimacy, and conservation outcomes



Source: Modified from Svarstad et al. (2011: 6).

Without cognitive legitimacy or a “sense of justice”, Svarstad et al. (2011: 12-13) argue, conservation initiatives will be both ineffective and inefficient, as disenchanted local stakeholders will resist its implementation.

In subsequent sections of this paper, I adopt Svarstad et al.’s (2011) approach to evaluating conservation practices, albeit with an emphasis on distribution rather than procedure. In the Mount Elgon case, citizens hold a range of customary, civic, and international-human rights - all codified in various pieces of legislation, policies, conventions, and treaties – but which are frequently and collectively ignored by both state and conservation authorities (cf. Hurinet-Uganda 2011). Likewise, purportedly just institutions exist for incorporating local participation into benefit sharing processes (UWA, 2000, 2009), although evidence suggests that actual practices frequently diverge from these guidelines in ways that detrimentally impact local people (Himmelfarb, 2006; Lang and Byakola, 2006; Norgrove and Hulme, 2006). As such, I perceive the factors influencing the nonobservance of these rights and procedures as tangential to the present inquiry, and instead concentrate on a narrower but clearer analysis of the consequences of shared benefit distributions of the perceived legitimacy of conservation at Mount Elgon. I now turn to a discussion of the characteristics of the Mount Elgon study area, and the methodology that was used to analyze these phenomena within it.

6.3 Study Site and Methodology

6.3.1 Mount Elgon National Park (MENP), Uganda

In many ways, the environmental history of Mount Elgon National Park has shaped both its political geography, and the manner in which contemporary cost-benefit distributions accrue to local populations. At approximately 4,321 meters above sea level, Mount Elgon is an extinct volcano that straddles the border between Uganda and Kenya. In Uganda, MENP itself covers approximately 1,121 km² of the mountain’s enormous 4,000-km²

basal area (UWA, 2009, p. 26). Further, the park borders eight districts, which makes the relationship between MENP and local governments among the most administratively complex in all of Uganda. Some of these districts were created as recently as 2010, due to the current National Resistance Movement (NRM) government's policy of administrative decentralization (Francis and James, 2003). Listed in order from most southeastern to most northeastern, these are: Manafwa, Bududa, Mbale, Sironko, Bulambuli, Kapchorwa, Kween, and Bukwo (Figure 6-2). Since 2005, the mountain has also been listed as a UNESCO Man and Biosphere Reserve, and allegedly houses the largest caldera in the world (UWA, 2009, p. 33).

UWA's MENP office is located in Mbale town, which is also the largest trading centre in the area. At present, tourists can access the park from three currently operational gates. These are located at the villages of Budadiri (Sironko district), Kapkwai (Kapchorwa district), and Kapkwata (Kween district). A fourth gate exists at Suam (Bukwo district), but the trail from this outpost to the Mount Elgon summit is not operational. Due to poor roads, few tourists enter or exit the park through the Kapkwata park gate. Instead, Kapkwai has become the most popular entry point for tourists, both due to its proximity to the beautiful Sipi River waterfall chain, and to associated accommodations.

Regional UWA offices are positioned at these locations, and rangers operate from a number of outposts scattered between each gate and the Kenyan border. As such, most of the positive economic and employment feedbacks from ecotourism at MENP are concentrated in Mbale (where the highest quality hotels and UWA HQ are located), Sironko, and Kapchorwa. Conversely, the southernmost districts that border MENP are relatively marginalized from tourist impacts due to the absence of local park entrances and other tourist attractions.

Figure 6-2: Map of contemporary Mount Elgon National Park and adjacent districts.

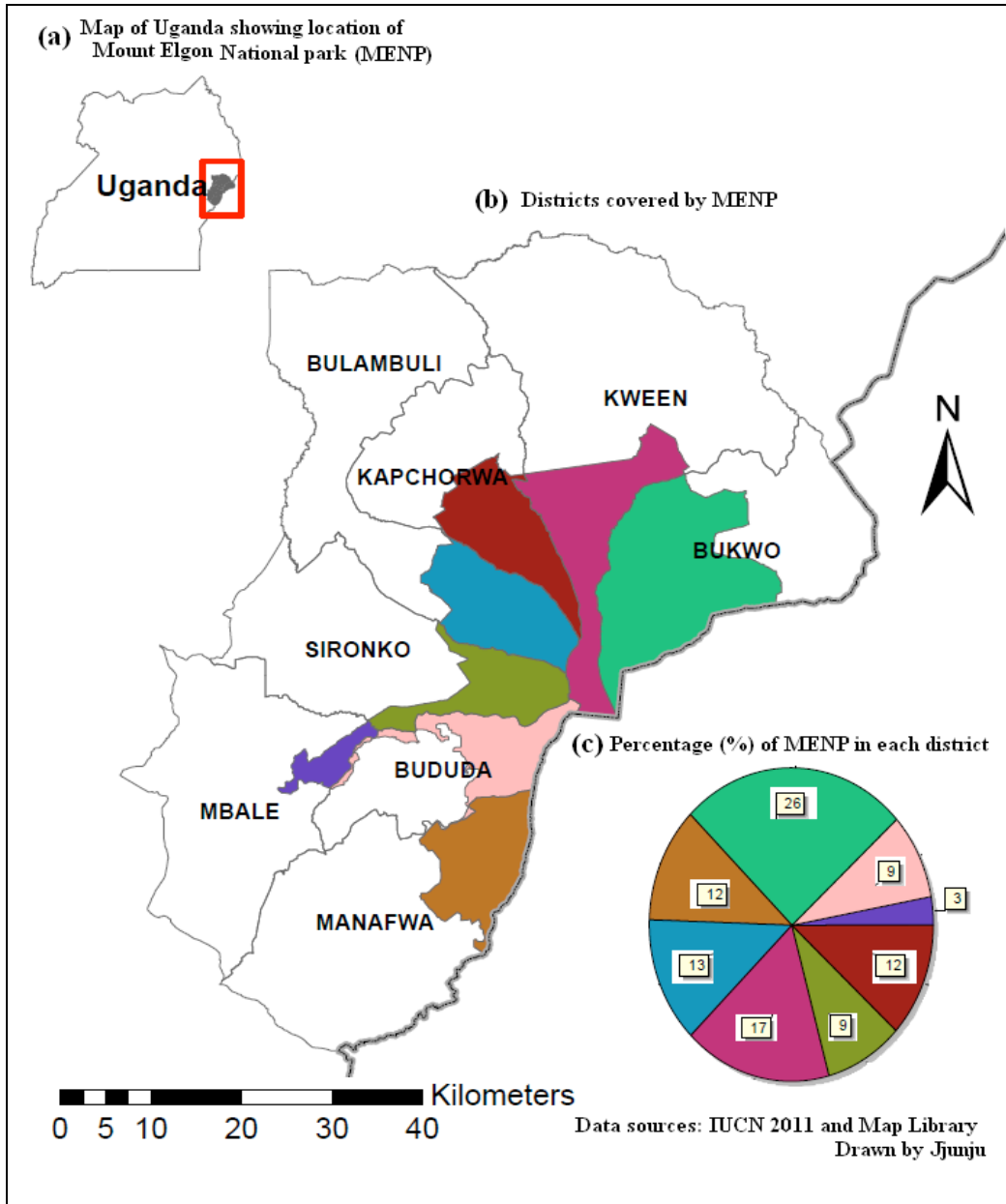


Figure 1: Location of Mount Elgon National park (a) in Uganda, (b) district coverage and (c) proportion of park area in each district as of 2010.

Source: Nakakaawa (forthcoming 2012). © Charlotte Nakakaawa, reprinted with permission.

On the Ugandan side of the border, formal conservation was introduced when the British colonial authorities gazetted portions of the mountain as a 'Crown Forest' in 1938 (Norgrove and Hulme, 2006, p. 1098). After Uganda received independence from Britain in 1962, however, the consecutive regimes of Milton Obote (1962-1971), Idi Amin (1971-1980), and Milton Obote (again, 1980-1985), precipitated a context in which Uganda's peripheral territories were characterized by poor governance and relative lawlessness (Eltringham and Malpas, 1993). In particular, in an effort to reduce the dependency of Ugandan farmers on state-provided services, Idi Amin's regime encouraged rural populations to encroach upon protected areas, and to convert them to agricultural use (Webster and Osmaston, 2003, p. 167). At Mount Elgon, this led to the quasi-legal encroachment and deforestation of approximately 25,000 hectares of the forest reserve (Scott, 1998; White, 2002).

In an attempt to repair such degradation at Mount Elgon, the Ugandan government upgraded approximately 1,121 km² of the mountain to a national park in 1993, with financial assistance from USAID. As part of this initiative, large numbers of people were evicted from their homes within the newly established national park. Although official records were not kept regarding the scale of these evictions, Vangen (2009) estimates that the overall figure could well exceed 100,000. By comparison, Himmelfarb (2006, p. 11) found that 6,000 people had faced eviction only in the six parishes he studied in Kapchorwa and Kween districts. Further, claiming that all communities within the forest reserve had settled there illegally, the Ugandan government provided no compensation for the loss of land and livelihood that accompanied these evictions (Norgrove, 2002, p. 255). Given that the region immediately adjacent to MENP is one of the most densely populated areas in rural Uganda, with population densities ranging from more than 800 per km² in the southeast to approximately 120 per km² in the northwest (Uganda Bureau of Statistics, 2002), such estimates could be plausible. Moreover, based on statistics kept by the Uganda Communications Commission (2010), the total MENP-adjacent population is now approximately 1,592,400. To spatially contextualize this figure, the

western-most borders of park-adjacent districts extend not further than 40km from the border of MENP.

Two main ethnic groups populate these communities: the Bagisu (who mainly reside in Mbale, Bududa, Manafwa, Sironko, and Bulambuli districts) and the Sabiny or Sebei (who primarily reside in Kween, Kapchorwa and Bukwo districts). Historically, the Bagisu are agriculturalists, and today they remain heavily dependent on MENP land and other resources for the sustenance of their livelihoods (Norgrove and Hulme, 2006; Sletten et al., 2008). For the Bagisu, the consumption of certain resources, such as bamboo shoots (known in Lugisu as *malewa*), is closely associated with cultural rites that reinforce a perceived connection with the ancestors and their practices (Scott, 1998). Access to the park is also considered important in order to visit cultural sites for the celebration of ‘twin ceremonies’, burial ceremonies, and for the harvest of medicinal herbs. Declining soil fertility and decreasing crop yields on the lower slopes of Mount Elgon have put pressure on the Bagisu to encroach upon the park boundary and cultivate its relatively more fertile land. Most conflicts between UWA and the Bagisu are thus related to agricultural encroachment.

By contrast, the Sabiny are a Nilotic people, and speak a Kalenjin-related language known as Kup’sabiny. They maintained a semi-pastoralist lifestyle until, in an effort to escape both lowland cattle raiders and political violence, most fled to Mount Elgon during the turbulent Amin and Obote years (Scott, 1998, p. 15; Himmelfarb, 2006, p. 4). In contrast with the Bagisu, cattle occupy the dominant symbolic position in Sabiny culture; indeed, cattle ownership is closely associated with both upward mobility and social security (Mkutu, 2008). The slaughter and sacrifice of cattle is thus a key aspect of both the Sabiny’s infamous circumcision ceremonies and their other cultural rites (UWA, 2009). Yet, the maintenance of large numbers of cattle denotes the need for expansive grazing areas, but such pastures are increasingly unavailable due to land use pressure and the inability of the Sabiny to compete with the Karamajong and Pokot for grazing land in the plains surrounding Mount Elgon. These pressures often lead many Sabiny to graze

their cattle inside the park boundaries, which has been a source of continuous conflict between the Sabinu and UWA-MENP authorities (Lang and Byakola, 2006).

Further, the Ndorobos – also sometimes referred to as ‘the Benet’ – are a group of forest-dwelling indigenous people that were left inside the reserve boundary when the British first demarcated it in 1938. Originally, the Ndorobos were thinly spread throughout the forest reserve on both the Ugandan and Kenyan sides, and the British did not see them as a threat to the conservation of the area as a result (Webster, 1954; Scott, 1998). However, conflicts between the Bagisu and the Sabinu over administrative boundaries in the mid-1960s resulted in the Ndorobos being driven out of Bagisu-adjacent areas of the forest reserve, and herded into park areas adjacent to what are now the districts of Kapchorwa, Kween, and Bukwo. In 2005, the High Court in Mbale delivered a favourable ruling on a lawsuit initiated by these communities, which led to the degazettement of portions of MENP claimed by the Benet (Cultural Survival, 2005).

6.3.2 Sampling and Data Collection

Empirical data on the costs and benefits of conservation for these communities were collected between July and December 2011. Extensive key informant interviews were conducted with Uganda Wildlife Authority (UWA) personnel, as well as with local government officials, journalists, academics, and NGO staff. Quantitative data were obtained from UWA archives and management records. These data include park visitation statistics, revenue sharing disbursements, budget and income records, and distributions of resource access agreements, which are not available from alternative sources. Key informants were asked to provide narratives to explain variation in these data over time, and to reflexively evaluate management practices based on these trends.

Further, quantitative data on crop raiding were obtained through group discussions with farmers from ten park-adjacent parishes in five districts. Here, five households from each

parish were purposively selected for their proximity to the park, and for their reported prior experiences with crop raiding. These participants were asked about the scale of the costs incurred from crop raiding per year, and about the adaptive or evasive strategies employed in response. Narratives were also provided about the broader implications of damages from crop raiding, including its consequences for food security, health, and children's access to education.

In addition, these quantitative data were triangulated with qualitative data from focus groups and purposively selected key informants in NGOs, local government, and multilateral organizations. Cultural leaders facilitated focus groups at the village level, and participants were selected based on their willingness to participate, as per local customs. Interviews were mostly conducted in English, which is widely spoken even at the village level, although a translator was also employed to assist when individuals preferred to communicate in one of two local languages: Lugisu or Kup'sabiny. A female Ugandan research assistant was also employed to ensure access to female respondents and their children at the village level, as in some cases local customs prevented the author from holding private interviews with this segment of the population. Before presenting the findings of this approach, I first briefly outline the nature of the enabling legislation and policy for sharing the benefits of conservation in Uganda.

6.3.3 Benefit Sharing at Mount Elgon: Legislation, Policy, and Practice

In Uganda, the overarching context of administrative decentralization greatly influences the nature of benefit sharing from conservation (Francis and James, 2003). First, the most salient contribution that Ugandan protected areas make to local economies arises from the redistribution of ecotourism revenue to local governments. Following the Local Government Act of 1997, administrative units in the country are divided as follows: village (local council I), parish (local council II), sub-county (local council III), county (local council IV), and district (local council V). Further, the Uganda Wildlife Act of

2000 stipulates that twenty percent of “park entry fees” must be redistributed through a process involving the parishes that are directly adjacent to protected areas (Government of Uganda, 2000). Accordingly, UWA has complied with this legislation by formulating a ‘community-park institution’ (CPI), which oversees both the revenue sharing process and deliberations over sources of conflict (Archabald and Naughton-Treves, 2001; Tumusiime and Vedeld, 2012). Simultaneously, the agency also cooperates with the Environment and Production Committees (EPCs) that are part of local government at both district and parish levels, which nominate community proposals to receive revenue sharing funds (UWA, 2000). As of 2011, UWA at MENP has funded community projects based on agroforestry, dairy farming, beekeeping, school construction, and hiking trail establishment for the purpose of ecotourism (UWA, 2009, p. 37).

In addition, MENP formally shares ‘benefits’ by negotiating resource access agreements at the parish and village level. These include beekeeping agreements, bamboo collection agreements, boundary management agreements, and collaborative resource management agreements (CRMAs) (Sletten et al., 2008; Moll, 2011). Initially, the CRMAs were an IUCN-backed initiative, designed to reduce conflicts between park authorities and local people (Scott, 1998; White, 2002). As noted by Hinchley (1998, p. 18), after conducting a mid-term review of the CRMAs for the IUCN,

“[i]n the context of many ongoing conflicts and problems with communities surrounding the Park, and an inability of Park staff to solve these problems through law enforcement approaches, a meaningful shift toward collaborative management approaches is a necessary and pragmatic response. Strong and unambiguous support is needed from UWA for innovative and flexible approaches to meeting community needs as a means toward improved conservation of Park resources.”

In addition to beekeeping, bamboo, and collaborative management agreements, UWA also attempted to demonstrate such innovation by introducing boundary management

agreements, which involve the restoration of park borderlands through the *taungya* system. Essentially, the latter scheme allocates plots to farmers within degraded parkland, which allows them to plant both indigenous tree species and selected crops. When the newly planted canopy ‘seals’ (usually within 5-10 years), however, farmers are required to return to their communities outside the national park. Presently, a large share of active boundary management agreements exist in Bududa district, as part of a carbon offset agroforestry scheme with the Forest Absorbing Carbon Emissions (FACE) Foundation. Finally, a small number of communities have also been selected to participate in the East African Community’s Mount Elgon Regional Conservation Programme (MERECP), which involves the establishment of microcredit revolving funds, and plans to offer payments for both carbon sequestration and avoided deforestation in the future (Larsen et al., 2008; Mwayafu and Kimbowa, 2011).

In practice, these benefit-sharing procedures are complicated by an additional aspect of decentralization in Uganda – the creation of new districts, sub-counties, and parishes. Since the late 1990s, the number of districts adjacent to MENP has mushroomed from two – Mbale and Kapchorwa – to eight: Manafwa, Bududa, Mbale, Sironko, Bulambuli, Kapchorwa, Kween, and Bukwo. Consequently, new local government and administrative structures are created for each additional district, denoting that UWA must engage with a steadily proliferating number of local councils and EPCs. Accordingly, the number of park-adjacent parishes eligible for redistributed benefits increases, while the amount of available resources and land shared by the park-community boundary has declined in recent years. Increasingly, this means that UWA must choose between spreading its resources more thinly across adjacent communities, or risk accusations of selectivity by continuing to concentrate its resources in specific locations. As the results of this study demonstrate, the agency has favored the latter strategy to date, perhaps at the expense of environmentally just outcomes in many park-adjacent communities.

6.4 Results and Discussion: Linking Environmental Injustice and Cognitive Illegitimacy

UWA's official benefit sharing policy claims that the purpose of redistributing ecotourism revenue and establishing resource access agreements is to:

“ensure that communities living adjacent to parks obtain benefits from the existence and management of the parks so as to contribute towards improving their welfare and develop partnerships with local communities for conservation and sustainable management of resources outside and inside the parks for the benefit of present and future generations” (UWA, 2000, p. 1).

Likewise, in the 2009-2019 management plan for MENP, UWA (2009, p. 37) further claims that “[t]here is ample evidence to prove that the Park has improved income and standards of living among local communities.” However, the agency refrains from presenting data that contextualizes figures on *actual* redistributed ecotourism revenues, resource access agreements, and park employment relative to their geographical distribution, overall demographic trends, and relationship to incurred costs. Many communities have not benefited at all from these schemes; indeed, as one individual put it during a focus group discussion,

“[r]evenue sharing is a myth. We have not seen it. Instead, the conflict is benefitting UWA. They send proposals for this, and this, and this ... it is a cycle revolving” (Community elder, Focus group discussion, August 2011).

In engaging with the source of this commentator's skepticism, this section presents findings on the scale of ecotourism-related activity at Mount Elgon, before examining the geographic and socioeconomic significance of attempts to share the benefits deriving from it. In doing so, I suggest that the inequalities arising from this process cause many

local groups to perceive conservation as being illegitimate at Mount Elgon, and thus subsequently catalyze ecologically destructive conflicts with park management.

6.4.1 Mount Elgon: Ecotourism in Context

Currently, tourism is one of Uganda’s major sources of economic growth. For example, the sector contributed 9.2 percent of the country’s gross domestic product in 2008, and the government formally seeks to expand this contribution as part of its current economic growth strategy (Tumusiime and Vedeld, 2012, p. 18). Substantial debate exists, however, about the extent to which the benefits of tourism accrue primarily to local communities, or whether they are ‘leaked’ to supra-local actors (Sandbrook, 2010; Ahebwa et al., 2011; Sandbrook and Adams, 2012). Similarly, various scholars have expressed concerns that the scale of the benefits from conservation-related ecotourism may in fact be disproportionate to the costs of PA-adjacent residency (MacKenzie, 2012; Tumusiime and Vedeld, 2012; Vedeld et al., 2012). Data on projected MENP incomes for the 2010-11 financial year confirm that these concerns are well-founded (Table 6-1).

Table 6-1: Projected incomes of Ugandan National Parks, 2010-11 Financial Year

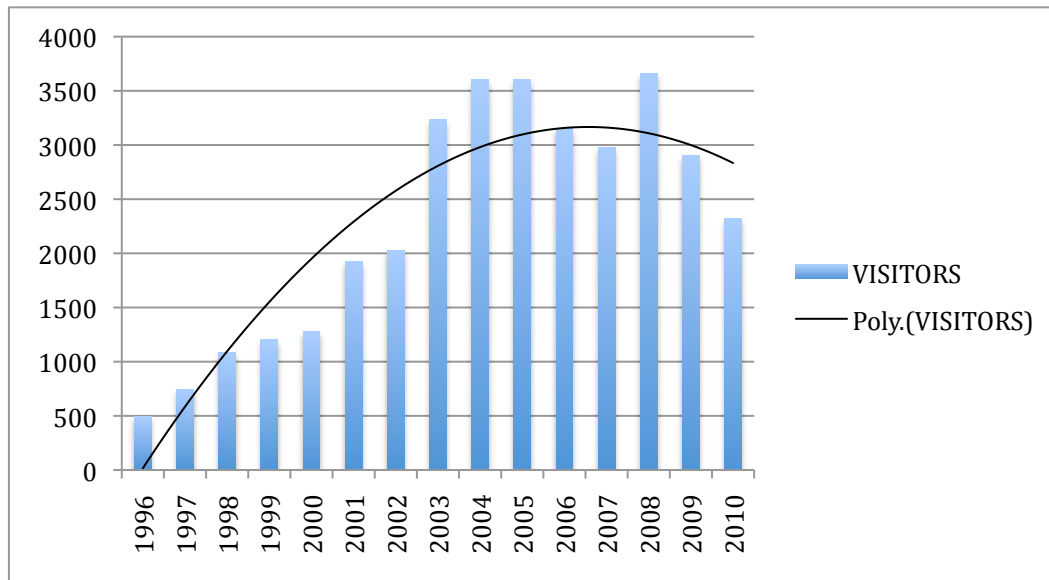
NATIONAL PARK	TOURISM INCOME (USD)	DONOR INCOME (USD)	COMBINED TOTAL
Bwindi Impenetrable NP	4,495,925	81,690	4,577,615
Murchison Falls NP	1,278,008	0	1,278,008
Queen Elizabeth NP	1,169,799	85,492	5,855,623
Kibale Forest NP	685,420	128,370	813,790
Lake Mburo NP	288,626	215,010	503,636
Mgahinga Gorilla NP	203,923	0	1,317,426
Mount Elgon NP	146,022	50,302	196,324
Kidepo Valley NP	72,542	0	72,542
Rwenzori NP	54,061	0	54,061
Semiliki NP	25,388	0	25,388
TOTAL	8,419,714	560,864	8,980,578

Source: UWA (2010a)

Indeed, in terms of income purely from ecotourism, Mount Elgon ranks seventh out of Uganda’s ten national parks for 2010-11, with a projected income from tourism of only 146,022 USD. If we adjust this figure to account for the donor revenues that were also expected to accrue to MENP from the Forest Absorbing Carbon Emissions (FACE) Foundation and the MERECP project in the same year, relative to donor funds that accrued to other national parks, MENP still remains in the seventh ranking.

Further, although UWA (2000, 2009) frequently discusses potential means for increasing the volume of tourists to Mount Elgon, the number of visitors to the mountain has remained relatively marginal over the last ten years (Figure 6-3). Indeed, although annual visitation rose from 500 individuals in 1996 to approximately 3600 in 2008, the scale of such activity is still tiny in relation to the local population’s demand for land and resources within the national park.

Figure 6-3: Tourist visitors per year at Mount Elgon National Park (MENP), 1996-2010.

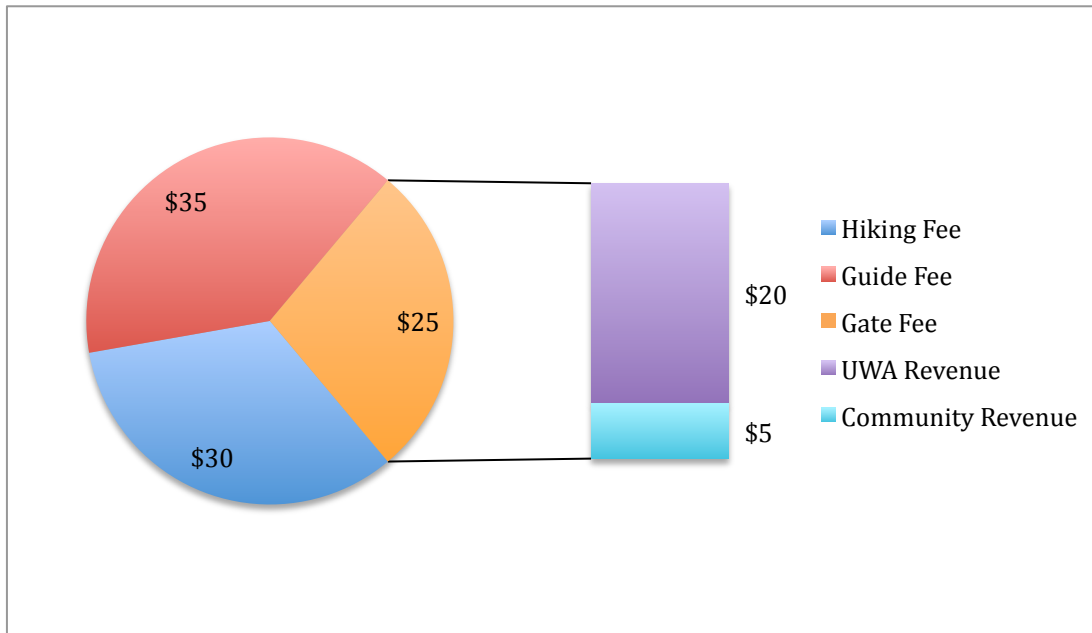


Sources: UWA (2009) and key informant interviews.

Moreover, the number of tourists visiting the area has declined since 2008, when a Belgian national was shot and killed by local poachers during an ascent of the mountain. Subsequently, the Foreign Offices of Australia, Canada, the United Kingdom, and the United States placed travel warnings for Mount Elgon on their advisory webpages for Uganda, which the UWA Tourism Warden at Mount Elgon attributes for the recent decline in the number of visitors (interview, MENP Tourism Warden, July 2011). Staff members at Mount Elgon also blame journalists and NGOs for publishing reports of alleged human rights abuse at Mount Elgon (e.g. Lang and Byakola, 2006; Checker, 2010; Hurinet-Uganda, 2011), including a recent documentary film, for diminishing the desirability of the protected area as a tourist destination. Irrespective of small variations in the volume of tourists visiting the park, however, the scale of this activity is marginal relative to a rapidly growing park-adjacent population of more than 1.5 million individuals (UCC, 2010).

In addition, the potential of ecotourism to alleviate poverty at Mount Elgon is further diminished by the manner in which UWA calculates the percentage of “entry fees” eligible for redistribution to communities. Although the Uganda Wildlife Act of 2000 stipulates that 20 percent of entry fees must be shared, it does not clearly define how this amount should be calculated. This gives UWA a large degree of leeway for determining benefit sharing policy and practice. For example, a non-resident foreign tourist must pay US\$ 90 per day to enter Mount Elgon National Park; however, the amount of revenue available for redistribution is not calculated on this amount, but only on a subset of it (Figure 6-3).

Figure 6-3: Breakdown of the \$90/day fee to enter MENP



Sources: UWA (2011) and key informant interviews.

Indeed, while UWA collects US\$ 90 per non-resident foreign tourist at MENP park gates, the “gate fee” constitutes only US\$ 25. Consequently, the amount of revenue eligible for sharing is calculated as twenty percent of \$25, rather than \$90. As such, UWA’s community revenue sharing account is credited with only \$5 for every non-resident foreign tourist that visits the park. In addition, not all visitors to the national park pay the full fee – foreign nationals residing in Uganda, East African Community residents, and Ugandan nationals pay substantially reduced tariffs – which further limits the amount of revenue available for redistribution.

Here, the manner in which UWA translates benefit-sharing legislation into practice can perhaps be interpreted as a form of institutional ‘gerrymandering’, or subtle manipulation of existing law and policy to deliberately limit the amount of revenue eligible for redistribution to communities. It is precisely activities like these that undermine an evaluative approach that focuses solely on procedural justice. For example, one could argue that the revenue sharing clauses within the 2000 Uganda Wildlife Act are

procedurally just, in an *ex ante* sense, as they stipulate that substantial portions of scarce park resources must be allocated to local governments through a thoroughly participatory process that is designed to target adversely affected stakeholders. However, it is only a highly formalistic and anti-empirical style of analysis that could reach such a conclusion, as most case study evidence documents substantial deviations from such policy in conservation practice (Lang and Byakola, 2006; Norgrove and Hulme, 2006; Vangen, 2009; Moll, 2011). In other words, an analysis that focuses purely on the content of these institutions, rather than their empirical consequences, will fail to detect injustices arising from vast inequalities in the accrual of shared benefits.

Furthermore, UWA has exhibited a history of similar efforts at institutional manipulation. As noted by Archabald and Naughton-Treves (2001), Ugandan national parks were originally required to redistribute 12% of total park revenue to local communities. In what appears to have been a carefully worded legislative and policy change, however, this figure was altered to 20% of “entry fees” under the Uganda Wildlife Statute of 1996 (later Act, 2000). In practice, this change meant that – at Bwindi Impenetrable National Park, for example – the amount of gate receipts redistributed from the sale of one US\$ 500 gorilla-tracking permit shrank from US\$ 60 to US\$ 6 (Tumusiime and Vedeld, 2012, p. 19). Even under the latter legislation, however, it appears that UWA has reformulated the categories of fees that it imposes on tourists, so as to reduce the amount of revenue that it is required to pay to communities. For example, at Mount Elgon, it is unclear how the “hiking” and “guide” fees are calculated – which together comprise US\$ 65 of the US\$ 90 entry fee – and interviews with park tourism staff suggest that the composition of these fee categories are arbitrary (group discussion, UWA-MENP tourism officers, November 2011).

That said, even if redistributed revenue was calculated based on the aggregated park entry fee (US\$ 18 instead of US\$ 5 per foreign, non-resident visitor), the amounts accruing to local communities would remain marginal relative to the total size of the park adjacent population. In the next sub-section, I further this discussion by examining the

geographical allocation of actually redistributed ecotourism revenue, and the distributive injustices arising from this process.

6.4.2 Divide and Rule? The (Geo)politics of Revenue Sharing

At 1,121 km², Mount Elgon National Park occupies a large swath of both physical and political territory. Indeed, the park now bisects eight districts, each with its own idiosyncratic leadership and internal politics. Consequently, purportedly technical processes of evaluating project proposals and allocating ecotourism revenue are complicated by the local politics and political economies of neighbouring districts. Differently put, evidence suggests that UWA often manipulates the revenue sharing process in order to negate local populist movements, rather than to fulfill the stated purpose of compensating the communities most adversely affected by conservation.

As noted by Norgrove and Hulme (2006: 1100), the area directly bordering MENP is characterized by “high population densities, land scarcity, deep poverty, and physical isolation”, with population densities peaking at over 800 persons per square kilometre (UCC, 2010; Petursson et al., 2011). Thus, during both local and countrywide elections, community relationships with MENP predictably form a core aspect of political campaigning. Frequently, opposition candidates will seek to challenge incumbents by promising voters increased access to land and resources within the national park (UWA, 2010b, p. 4-5). In some cases, populist rhetoric can prompt local residents to encroach upon protected territory even before elections have taken place. Indeed, as one team of auditors concluded while conducting a social impact assessment of community forestry operations at Mount Elgon in 2001,

“[t]here is no doubt that local politicians can gain support by successfully arguing for a re-alignment of the park boundaries to afford their constituents access to more land” (SGS Agrocontrol, 2001, p. 40).

Perhaps the most blatant example of this occurred after President Yoweri Museveni made a pronouncement in favour of community interests ahead of elections in 2010, after which local people encroached upon 1,500 hectares of protected land in Bududa, Manafwa, and Mbale districts (Edyegu and Watala, 2010). After winning the election, however, Museveni retracted his statement, and endorsed UWA's enforcement of the existing park boundary.

In response to such political volatility, UWA (2000) has sought to exclude politically rebellious communities from revenue sharing programmes. The agency accomplishes this by requiring communities to meet a number of “interpretively flexible” (Mosse, 2005, p. 46) criteria in order to remain eligible for assistance. For example, when evaluating proposed revenue sharing projects, UWA (2000, p. 6, emphasis original) asks the following questions regarding the community's “responsible behaviour”:

“Does the community *refrain from illegal activities and assist UWA in fighting illegal activities*? Is the community *aware of the Park* and related conservation issues? Does the community *accept or show tolerance for wildlife on their land*? Does the community help in management of emergencies such as *fighting fires* through reporting and assisting in putting them out?”

At first, these criteria might seem perfectly reasonable. One should note, however, that such “illegal activities” often involve attempts to assert tenure rights to land within the national park, as well as traditional use rights to resources that are not governed by collaborative resource management agreements (CRMAs) (Tumushabe, 2005). Many of these claims are substantive; indeed, the High Court in Mbale currently deliberates over three cases, and, in 2005, a fourth was resolved in favour of communities in Kapchorwa and Kween districts (Cultural Survival, 2005).

Consequently, UWA’s criteria regarding the “responsibility” of prospective grantees are highly political, as they denote that farmers must often choose between asserting rights to land and resources, and accessing shared benefits. At the time of fieldwork in 2011, for example, none of the communities involved with land rights claims had benefitted from either redistributed tourism revenue or resource access agreements. These communities comprise 2,923 households, with a conservatively estimated average household size of at least 5.1 persons (Norgrove, 2002, p. 87). Although these groups alone comprise approximately only 1 percent of the population in park-adjacent districts, they still constitute a measurable population that is categorically denied access to benefits.

Table 6-2: Park area, human population, and benefit sharing arrangements for districts adjacent to Mount Elgon, Uganda

District	Park area proportion, %		Population		Benefit sharing arrangements (BSAs)		
	% in district	% of district area	Total Persons	Density Persons/km ²	Tourism revenue 2002-2011		Other BSAs
					Ug.Shs (000s)	%	
Bukwo	26	55.1	70,500	134.29	7,500	7.66	0
Kween	17	21.83	98,900	116.17	18,500	18.91	7
Kapchorwa	12	36.42	109,300	308.26	8,142	8.32	21
Bulambuli	13	21.34	122,300	187.68	3,975	4.06	11
Sironko	9	22.92	233,500	523.61	20,000	20.44	12
Mbale	3	5.88	428,800	826.84	13,744	14.05	5
Bududa	9	41.43	173,700	692.85	18,452	18.86	8
Manafwa	12	21.58	355,400	590.38	7,538	7.70	0
Total	100	100	1,592,400	379.16	97,851	100.00	64

Other Benefit Sharing Arrangements (BSAs) include Community Resource Management Agreements (CRMAs), Boundary Management Agreements (BMA), Bee Keeping Agreements (BKA), and Bamboo Shoot Harvesting Agreements (BSHA)

Table 6-3: Tourism revenue payments to districts at Mount Elgon 2002-2011

Year and amount ('000s of Uganda shillings and percentage)									
District	Payments	2002	2004	2006	2007	2009	2010-11	Sub-Total	
		UGX	UGX	UGX	UGX	UGX	UGX	UGX	%
Bukwo	2	0	3000	0	4500	0	0	7,500	7.66
Kween	4	16000	0	0	0	2500	0	18,500	18.91
Kapchorwa	3	0	0	0	5642	2500	0	8,142	8.32
Bulambuli	1	0	0	0	3975	0	0	3,975	4.06
Sironko	3	0	0	1500	2500	2500	0	20,000	20.44
Mbale	4		4000	0	4744	5000	0	13,744	14.05
Bududa	5	0	4000	0	9452	5000	0	18,452	18.86
Manafwa	2	0	0	0	5038	2500	0	7,538	7.7
Sub-Total	23	16000	11000	15000	35851	20000	0	97,851	100

Likewise, UWA’s other selection criteria are sufficiently flexible to only include communities in benefit sharing schemes when they actively support both UWA and its exclusionary approach to conservation. From this perspective, one can read ‘awareness’ as ‘political support’, and ‘tolerance for wildlife’ as ‘willingness to absorb damages from crop raiding’. Similarly, given the local population’s dependence on environmental incomes deriving from the national park (Katto, 2004; Sletten et al., 2008), virtually no communities are ‘unaware’ of the protected area in a literal sense. The further requirement of unpaid labour to assist with park activities also places a rather undue burden on local communities, which are already engaged in time- and labour-intensive agricultural production. Likewise, this criterion is not accompanied by a quantitative figure regarding exactly how much unpaid labour UWA can reasonably expect to receive from local communities.

Such political factors may help to explain broader inequalities in the redistribution of ecotourism revenue at Mount Elgon (Tables 6-2 and 6-3). For instance, Manafwa district – where two of three groups involved with land claims are located – has received only 7.7% of redistributed revenue since 2002. This is despite housing 355,400 people, or 22.3% of the park-adjacent population, and 12% of the park-community boundary.

Further, the amount of revenue actually redistributed to the district – 7,538,000 UGX or approximately 3,027.31 USD since 2002 – amounts to only 0.0085 USD per district resident over a nine year period. In contrast to the regular and substantial costs of park-adjacent residency, this amount is obviously and vanishingly small.

Likewise, Bulambuli, Bukwo, and Kapchorwa districts were similarly marginalized, accruing only 4.0% (approximately US\$ 1,593.19), 7.7% (US\$ 3,006.01), and 8.3% (US\$ 3,263.33) of shared revenue between 2002 and 2011, respectively. By contrast, the four best-compensated districts – Kween, Sironko, Mbale, and Bududa – collectively received 72.3% (US\$ 28,335.07) of shared revenue. As such, while UWA explicitly provides criteria for projects that can be excluded from its benefit sharing scheme, there appears to be a less comprehensive logic behind the *inclusion* of projects. Indeed, when I asked MENP's community conservation warden to comment on the uneven distribution of ecotourism revenue around the park, he simply responded that the dispersal of funds is dependant on the quality of proposals that UWA receives (Interview, UWA-MENP warden, August 2011). As a result, revenue sharing funds were continually dispersed without regard for growing inequalities until 2007, when a more balanced approach was implemented. Payments were stopped in 2010 and 2011 to allow for the development of a new, more equitable scheme, which UWA plans to implement in 2013. Under the new model, shared revenue will be evenly dispersed based on a calculation of population and boundary-length indices in each park-adjacent parish (UWA, 2011b).

In addition to the uneven geographical distribution of shared revenue, however, one should also note their temporal distribution - or the manner in which these benefits accrue over time (Table 6-3) - relative to the nature of costs incurred from crop raiding (Table 6-4). Although the revenue sharing process is intended to compensate communities that incur heavy damages to their harvests from crop raiding (UWA, 2000; 2009), the process is temporally unsuited to realistically be of any substantive assistance. Put simply, damages from crop raiding are direct, robust, and immediate. These damages can cause acute food insecurity, and diminish the ability of households to procure cash for essential

goods and services such as medicines, health care, and education. By contrast, even when redistributed revenue reaches a community that has suffered damages from crop raiding, these resources may accrue years after the fact, and only indirectly. Indeed, all proceeds from the revenue sharing scheme accrue to community enterprises, which begin to generate individual returns to households only after a substantial start-up period. Further, in the event that the established projects are not commercially successful, the returns to individual households can be either meager, or nonexistent.

Table 6-4: Extent and cost of crop raiding in districts around MENP, Uganda (N=50)

<i>District</i>	<i>Crop loss due to raiding (%)</i>			<i>Adaptive Strategies</i>		
	Minimum	Maximum	Average	Avg. Cost/month of adaptation (UGX)	Main Strategy	Avg. Labour time/day
Mbale	20	67	42	48,000	Scarecrows Patrol hut construction	7
Sironko	30	80	50	20,000	Scarecrows	8.5
Bulambuli	35	70	57	50,000	None- Too expensive	12
Bududa	30	70	56	0	Scarecrows	12
Manafwa	30	70	56	20,000	Scarecrows	12
Average	29	71.4	52.2	27,600	N/A	10.3

Indeed, residents of park-adjacent parishes in five districts collectively reported an average loss of 52.2% of harvests to crop raiding animals in the preceding year (Table 6-4). Individually reported annual losses ranged from 20% to 80% of total crop yields. In the most disastrous cases, residents described packs of ten or more baboons descending on their fields either shortly before sunrise, or shortly after sundown – times when farmers were least likely to be working or guarding their crops. Respondents also claimed that baboons were more difficult to chase away when raiding in packs, and that they could sometimes pose a threat to small children and livestock. Foxes, bush pigs, birds,

rats, and vervet monkeys were also reported to periodically raid crops, although farmers perceived these as posing a less serious threat than baboons.

In response to crop raiding, households employed a number of adaptive strategies. The most common strategy involved the construction of scarecrows, which was reported to cost households between 20,000 and 50,000 UGX per month, on average (Table 6-4). In all surveyed parishes, however, respondents claimed that this strategy was largely ineffective, to the extent that farmers in Bududa district reported that they had abandoned the practice altogether. Farmers in Sironko district instead elected to organize community patrols and construct patrol huts along the border of the park. When asked about the prospect of building fences around individual plots, moreover, farmers reported that this was both expensive (estimates ranged from 1-2 million UGX per hectare) and ineffective, given the relative agility of crop-raiding monkeys and baboons. Similarly, farmers were universally reluctant to set traps for animals, claiming that such strategies were illegal, and would be punished by UWA. Further, all farmers claimed that crop diversification was marginally effective at reducing damage from crop raiding, as *matooke*, onions, and coffee were generally thought to be less targeted by baboons. However, the extent to which these crops can be grown instead of maize and other vegetables is limited due to concerns regarding both nutrition and market demand.

Due to the infeasibility of these tactics, respondents reported that they were instead forced to spend considerable amounts of time guarding their fields from animals. On average, farmers claimed that at least one household member was required to be present in the fields for 10.3 hours per day. Due to the need for adults to engage in other productive activities, this meant that the task was often delegated to children, who were frequently required to guard crops instead of attending school. As noted by one park-adjacent farmer in a group discussion,

“[t]he baboons move in large numbers. We try to plant more onions to discourage them, but often they can eat everything. Even when we complain, there is no

interest from UWA in protecting us. At the same time, we cannot hunt the baboons, because the rangers will fine us 100,000 shillings [US \$40]. So the children just stay home to protect the crops while we work” (Farmer, focus group discussion, November 2011).

In particular, this finding echoes concerns voiced by Haule et al. (2002), Kagoro-Rugunda (2004), and MacKenzie and Ahabyona (2012: 72), that crop raiding denotes deleterious consequences for children’s access to education. Other reported implications of damages from crop raiding included reduced access to cash, and the subsequently reduced ability to procure medicines or to pay children’s school fees. Despite these disadvantages of park-adjacent residency, however, all respondents (N=50) claimed that the costs associated with relocating farther away from the park were greater than absorbing damages from crop raiding.

Consequently, current revenue sharing practices are ill suited for compensating farmers for the costs incurred from crop raiding. Given the small amount of ecotourism revenue available for redistribution at MENP, the strategy of concentrating funds in select projects is understandable, albeit inequitable. However, substantial inequalities also exist in the geographical distribution of other benefit sharing arrangements, which cannot be similarly explained by the scarcity of available resources.

6.4.3 Enforcing Scarcity: Cognitive Illegitimacy and the Uneven Geographical Distribution of Resource Access Agreements

Unlike the procedure for redistributing ecotourism revenue, UWA’s approach to establishing other types of benefit sharing arrangements (BSAs) is weakly institutionalized. For example, despite early efforts by the IUCN to scale up these agreements to all park adjacent parishes (Hinchley, 1998), neither UWA-MENP nor the central UWA administration has published universal regulations for negotiating these

agreements with local communities. Yet, as Himmelfarb (2006, p. 10) notes in his study of park-adjacent communities at MENP:

“Within a context of rapidly decreasing yields, limited access to markets, and insecurity of tenure [...] people have increasingly turned to resources from the interior of the park to diversify their livelihoods. [...] As insecurity has been concentrated among communities closest to the forest edge, in-park resource use has become most important to families in those areas.”

In short, park-adjacent communities' high level of dependence on environmental incomes, combined with UWA's monopoly over controlling access to these, denotes that power relations asymmetrically skew the negotiation process in favour of the latter (Sletten et al., 2008, p. 45). Moreover, like the process of revenue sharing, interviews suggest that MENP authorities deliberately use these agreements as leverage in persuading communities to comply with UWA's directives. As one of MENP's wardens bluntly observed of the negotiation process:

“We sign these only where minimal conflict exists. If tensions escalate, we do not renew the agreements, or may even terminate them prematurely” (Interview, MENP warden, October 2011).

At the time of fieldwork in 2011, UWA employed five types of these BSAs: Beekeeping agreements (BKAs), community revolving funds associated with the Mount Elgon Regional Ecosystem Conservation Programme (MERECP), Bamboo Collection Agreements (BCAs), Collaborative Resource Management Agreements (CRMAs), and Boundary Management Agreements (BMAs) (Table 6-5).

Table 6-5: Type and geographical distribution of active BSAs at Mount Elgon, 2011

District	Type of BSA					
	BKA	MERECp	BCA	CRMA	BMA	Total
Bukwo	0	0	0	0	0	0
Kween	2	0	5	0	0	7
Kapchorwa	5	0	0	8	8	21
Bulambuli	2	0	1	4	4	11
Sironko	2	1	5	2	2	12
Mbale	1	2	0	1	1	5
Bududa	2	1	0	0	5	8
Manafwa	0	0	0	0	0	0
Total	14	4	11	15	20	64

Source: Semi-structured interviews.

Overall, a total of 64 agreements were found to exist in 26 parishes. Due to the recent sub-division of districts in the Mount Elgon area, an updated roster of the total number of park-adjacent parishes was not available from UWA. However, prior to the division of Kapchorwa and Mbale into the eight districts that now border the park, Scott (1998, p. 13) observed the existence of 58 park adjacent parishes. Accordingly, one can infer that the current BSAs are active in substantially fewer than half of parishes that now border MENP.

Accordingly, the uneven distribution of BSAs around MENP exhibits similarities with the distribution of ecotourism revenue. Again, park adjacent communities in Manafwa and Bukwo are marginalized, with both districts enjoying no access to benefit sharing arrangements. Further, out of a total of 64 agreements, nearly 33% were concentrated in Kapchorwa district, which houses only 6.86% of the park-adjacent population. Likewise, only five BSAs were active in Mbale, which houses nearly 27% of the park adjacent population, and eight in Bududa, which is home to 11% of the neighbouring population. Consequently, like benefits accruing from revenue sharing schemes, existing BSAs are concentrated in the districts that receive the greatest benefits of tourism at MENP. Indeed, 51.5% of agreements are located in Sironko and Kapchorwa, which also host both the

two most active MENP park gates and tourist attractions near the Sisiyi and Sipi waterfalls, respectively.

First and foremost, then, these findings highlight both procedural and distributive injustices in current benefit sharing arrangements around MENP. Both the uneven distribution of actual benefits - and the recurring attempts to bend institutions and procedures to fit management objectives - suggest that UWA has appropriated the benefit sharing process for political reasons. Further, local communities' cognizance of these processes delegitimize benefit-sharing processes, and exacerbate grievances against conservation in the area. For example, congenial relations between park staff and local communities constitute a prerequisite for both the disbursement of ecotourism revenue, as well as the negotiation of other resource access agreements. Communities that are in open conflict with PA authorities were found to be less likely to benefit from a resource access agreement. Further, UWA requests that communities contribute to the monitoring and enforcement of PA regulations in exchange for access to resources. In some cases, this can result in a relatively substantial amount of 'unpaid' labour for individuals who are already quite taxed in terms of workload and other non-productive forms of labour, such as anti-crop raiding activities. Also crucial for the establishment of a resource access agreement is the ability to diversify livelihoods in order to avoid PA encroachment and other illegal income generating activities. Such breaches of park regulations have been found to increase the potential for conflict, which in turn limits the ability of communities to negotiate with the PA.

Hence, these relations can be conceptualized as forming two distinct categories of cycles: one 'vicious' and the other 'virtuous'. Virtuous cycles arise when communities diversify their livelihoods away from subsistence agricultural dependency and 'illegal' incomes. Such abstinence improves the odds that communities will negotiate resource access agreements and other benefits with PA officials, and, by implication, move further away from illegal or provocative activities. By contrast, vicious cycles form when, due to inadequate access to legitimate enterprises or resource stocks, communities supplement

their agricultural livelihoods with income from encroachment, poaching, or illegal resource collection. Here, the perceived illegitimacy of conservation strains relations with PA authorities, leading to protracted conflicts (either in court or through physical violence), and preventing the formation of benefit sharing agreements. Although not all-illegal activity is due to socioeconomic desperation, it may be a salient factor in many cases, especially where the loss of land or livelihood is at stake.

Conversely, in areas where communities benefit from ecotourism from MENP, it is perhaps easier to refrain from illegal resource use, and, by extension, more realistic to amicably liaise with park officials. Communities in Mbale, Sironko, and Kapchorwa districts, for example, benefit from the multiplier effects of tourism, as well as from concentrated benefits such as redistributed ecotourism revenue and other BSAs. By contrast, areas that are marginalized from MENP ecotourism impacts, such as Manafwa and Bukwo districts, may face fewer incentives to refrain from committing resource use crimes such as agricultural encroachment, timber harvesting, or the harvesting of forest products.

6.5 Conclusion

This study has identified both procedural and distributive injustices in the process of sharing the benefits of conservation at Mount Elgon National Park. Whereas the deleterious socioeconomic effects of conservation were found to be both robust and acutely experienced, shared benefits were relatively meager and temporally unsuited to serve as compensation. Further, the paper demonstrated that existing BSAs fail to target vulnerable social groups *within* park-adjacent communities, such as women and children, whose roles in the household economy denote that they are asymmetrically affected by resource access restrictions and external shocks like crop raiding. These inequalities and inconsistencies result in a situation in which local people perceive conservation at Mount

Elgon as being illegitimate, and such perceived illegitimacy, in turn, exacerbates ecologically destructive conflicts with park management authorities.

Although UWA (2011b) plans to implement new revenue sharing guidelines in 2013, the efficacy of efforts to redistribute the benefits of conservation have to date been limited by the political or instrumental character of their implementation. In other words, UWA's tendency to use BSAs as either a reward for compliance or a punishment for noncooperation has resulted in the formation of 'vicious' and 'virtuous' cycles of park-community interaction at Mount Elgon. Such patterns serve to further concentrate benefits within already better-off communities, while allowing poorer communities to descend into a vicious cycle of marginalization from benefits and subsequent illegal livelihood strategies. While the forthcoming revenue sharing guidelines' focus on equity constitutes a positive development, the actual amount of revenue redistributed to each community will become even less robust, as it will be spread among a far larger set of beneficiaries. As such, further research is needed regarding the socioeconomic effects of these new revenue sharing practices, relative to costs, as well as on their effects on community-park conflicts at other Ugandan national parks.

To supplement these new revenue sharing procedures, this study concludes by recommending that nonfinancial benefit sharing arrangements should be universally implemented in all park-adjacent parishes. At present, fewer than half of parishes neighbouring MENP enjoy legal access to non-timber forest products and fuelwood from within the park. An entitlement-based approach to these agreements would prevent resource access from being used as a political tool by conservationists, and would thereby reduce inequalities in resource access between communities. Further, the comprehensive negotiation of access agreements would also reduce inequalities within individual villages, by improving women and children's legal access to water, fuelwood, and other resources. The all-inclusive negotiation of beekeeping agreements, for example, would also serve to reduce the dependence of local communities on land and other park resources at little cost to park management. Indeed, although Ugandan national parks will

continue to face a number of pressures related to both rising adjacent populations and insufficient ecotourism revenue in the coming years, modest initiatives like these may yield tangible improvements in the lives of those most affected by global efforts to conserve biodiversity in Uganda.

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7. Guerrilla Agriculture: A Biopolitical Guide to Illicit Cultivation within an IUCN Category II Protected Area

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Abstract

Protected areas now encompass approximately 12.3 percent of the Earth's terrestrial surface. Crucially, such protection denotes *exclusion* – of farmers, of pastoralists, and of indigenous people. Engaging with the biopolitical implications of these displacements, this paper explores the emergence of an increasingly widespread type of resistance to conservation in the developing world: guerrilla agriculture. In doing so, it undertakes a historically informed comparative analysis of three groups of farmers at Mount Elgon, Uganda, which pursue the illegal cultivation of food within a national park through a variety of nonviolent, violent, discursive-representational and formal-legal tactics. The paper concludes that researchers too often portray rural populations as passive victims of global economic and environmental change; rather, at Mount Elgon their struggles are frequently effective at carving out spaces of relative autonomy from conservationists, development organizations, and the Ugandan state apparatus.

Keywords: Biodiversity conservation; resistance; biopolitics; weapons of the weak; Mount Elgon; Uganda

7.1 Introduction: The Biopolitics of Conservation

The sheer scale of contemporary biodiversity conservation is staggering. As measured by UNEP's World Conservation Monitoring Centre (UNEP-WCMC 2012), protected areas (PAs) now encompass approximately 12.3% of the world's terrestrial surface, 5.9% of territorial seas, and a further 0.5% of extraterritorial seas. Proponents of conservation argue that such increases in PA coverage are necessary to prevent further species loss and ecosystem degradation due to anthropogenically induced environmental change (Stolton and Dudley 2010). Others emphasize how forested PAs assist in global efforts to mitigate climate change, in light of their role in sequestering carbon dioxide and preventing emissions from deforestation (Adams 2008). Still others justify conservation as a land use strategy by noting how, in the context of emerging attempts to commodify ecosystem services (McAfee 2012), protected areas may increasingly contribute to sustainable development through the local redistribution of revenue from both payment for ecosystem service (PES) schemes and ecotourism ventures (Igoe 2010; MacDonald 2010). Collectively, these arguments comprise an influential 'triple win' narrative, in which conservationists assert that protected areas simultaneously contribute to the realization of positive outcomes for biodiversity protection, climate change mitigation, and local development.

Notwithstanding such enthusiasm, the delineation of PA boundaries is an inherently political act (Adams and Hutton 2007; Peluso 1995). Crucially, such protection denotes *exclusion* – of farmers, of pastoralists, and of traditionally forest-dwelling indigenous people. Indeed, even apolitical research increasingly undermines the triple-win narratives of conservationists and international environmental technocrats. In particular, a variety of studies from East Africa demonstrate that, when benefits from conservation actually do exist, access to these is often highly asymmetrical and reproductive of existing social inequalities (MacKenzie 2012; Neumann 1995; Tumusiime and Vedeld 2012). Revenues from ecotourism, research, and payments for ecosystem services (such as carbon credits) can be usurped by the state, by private enterprises, or by corrupt officials, with little

‘trickling down’ to the communities that bear the opportunity costs of conservation (Büscher et al 2012; Vedeld et al 2012). Consequently, when costs remain uncompensated, and when benefits remain unevenly shared or nonexistent, rural populations arguably subsidize the existence of PAs, as they bear the largest direct and opportunity costs for their existence (Svarstad et al 2012).

By implication, processes of biodiversity conservation are now central to emerging forms of global biopolitics, wherein governmental programmes select some populations and life-ways to prosper under changing political and environmental conditions, and others are simply “let die” (Cupples 2012; Foucault 1990; Hannah 2011; Li 2010). Unwilling to accept the logic of development and governmental projects that exclude them, dissatisfied park-adjacent populations thus often dispute the legitimacy of conservation as an acceptable land use, and resist its implementation with a variety of both covert and overt strategies (Norgrove and Hulme 2006). To briefly cite but a few examples, these range from the continuation of banned livelihood practices (Tumusiime et al 2011), to the deliberate slaughter of protected wildlife (Western 1994), to acts of violence targeted at conservation authorities (Robbins et al 2006). Despite the widespread prevalence of these activities in case studies of conservation (Holmes 2007), however, various researchers have questioned whether or not local people actually pose an existential threat to protected areas. Indeed, as Brockington (2004) argues, researchers and activists often underestimate the state’s capacity to firmly and decisively repress local resistance to conservation.

In engaging these concerns, this paper conducts a comparative analysis of three groups of subsistence farmers that have chosen to openly resist conservation efforts at Mount Elgon National Park, Uganda. In doing so, I compare and contrast their objectives, their strategies for achieving these, and their probability of posing an existential threat to conservation efforts in the region. Of particular interest, here, is the recurring focus on what I call ‘guerrilla agriculture’ or illegal food production strategies – defined as the means by which farmers circumvent state regulations that seek to restrict subsistence

cultivation as a viable land use. Consequently, I conceptualize these actions not just as resistance to conservation, *per se*, but also as struggles against the broader processes of colonization, marketization, and centralization of state control over natural resources (Bunker 1991; Büscher et al 2012; Igoe et al 2010). Viewed from this perspective, there is much more than mere resource access at stake for local farmers; indeed, struggles against conservation are also partly struggles against the biopolitical precarity that the economic and ecological crises of global capitalism entail for certain marginal populations.

Accordingly, this article will proceed in four main sections. First, I frame the interaction between local people and conservation at Mount Elgon by drawing on Nixon's (2011) notion of "slow violence", as well as on studies of resistance from geography, anthropology, and political ecology (Holmes 2007; Neumann 1995; Scott 1987; Sunseri 2005). Second, I provide an exposition of the ethnographic approach to fieldwork that was adopted, and discuss its advantages for critically examining the 'lifeworlds' of activists in the Mount Elgon context over alternative methodologies. Third, I historically situate resistance strategies at Mount Elgon, before presenting findings on four main categories of strategies that local people used to support guerrilla agriculture: i) nonviolent-symbolic, ii) militant, iii) discursive-representational, and iv) formal-legal. I conclude with a discussion of the implications of these tactics for environmental justice amidst the broader context of global economic and ecological change.

7.2 Situating Guerrilla Agriculture: Slow Violence, Everyday Resistance

Today, the biopolitical violence that has marked the worldwide spread of conservation institutions remains largely hidden from the international public sphere. 'Win-win' or 'triple-win' representations of protected area management continue to dominate conventional academic, donor, and policy-based discourses on the subject (Igoe 2010; Sullivan 2011; Svarstad et al 2008). Increasingly, conservation agencies and their

financial supporters uphold win-win representations even when such portrayals contradict the findings of scientists and other researchers, who present evidence of conservation refugees (Dowie 2009), conservation-displaced populations (Brockington and Igoe 2006), or conservation victims (Svarstad et al 2012). As noted by Büscher et al (2012: 16, emphasis original),

“neoliberal conservation thus becomes an essential contribution to neoliberalism’s most profound contradiction: the ability of its proponents to produce and favor discourses that are seemingly free of contradictions [...] A major part of neoliberalism’s attractiveness and pervasiveness lies precisely in this ability to hybridize and stimulate consensus-oriented discourses, *despite* their increasingly contradictory realities.”

Indeed, precisely despite evidence of ‘conservation victims’, organizations such as the Worldwide Fund for Nature (WWF) and African Wildlife Foundation (AWF) continue to enjoy sterling reputations among Western publics, and are generally presumed to secure conservation outcomes that conform to their official, allegedly socially responsible rhetoric (Sachedina 2010).

As such, the negative socioeconomic consequences of these organizations’ actions reveal the relevance of “slow violence” as an analytic perspective (Nixon 2011). As donors like USAID and NGOs such as WWF frequently remind us, they do not directly evict or harm populations during the implementation of conservation programmes (cf. Corson 2010). Rather, conservationists usually construe such actions as unfortunate excesses involved in the operations of local government agencies, such as the Uganda Wildlife Authority (Norgrove and Hulme 2006), or Tanzania’s Forestry and Beekeeping Division (Beymer-Farris and Bassett 2012). As a result, one could argue that many scholars of conservation have neglected the second-order, indirect socioeconomic consequences of policy decisions, and the discursive or representational battles fought to obfuscate the existence of such outcomes (Igoe 2010). For example, researchers in political ecology and cognate

fields frequently expose and decry the existence of conservation-related human rights abuses and dispossessions (e.g. Fairhead et al 2012), but have enjoyed less success in articulating the nature of the more subtle damages that accrue to local populations. In other words, while conservation-related evictions and abuses are relatively easy to challenge, the slow, ‘everyday violence’ of uncompensated crop and wildlife raiding, exclusion from common pool resources, and higher staple food prices frequently remain artificially separated from decisions made by individual actors and organizations.

Of course, neither the direct nor the ‘slow’ violence of conservation remains unopposed. As the Marxist historian Eric Hobsbawm (1973) famously remarked in the inaugural issue of the *Journal of Peasant Studies*, the goal of resistance for subsistence agriculturalists is to pursue strategies not for overthrowing some elite group or class, but for “working the system [...] to their minimum disadvantage.” James Scott (1987) later conceptualized these subtle tactics, which can nonetheless retain deep and abiding consequences for the agendas of the powerful, as “the weapons of the weak.” Accordingly, these strategies involve actions that are ‘everyday’ or largely mundane in character: “foot dragging, dissimulation, desertion, false compliance, pilfering, feigned ignorance, slander, arson, sabotage, and so on” (Scott 1987: xvi). In contexts where institutional change is unlikely, where collective mobilization is expensive, and where rebellion is risky, such an approach likely constitutes the most pragmatic option for resistance.

Perhaps nowhere are these ‘weapons of the weak’ more relevant than in resistance to biodiversity conservation. In many cases, and across Sub-Saharan Africa in particular, the expansion and intensification of conservation is legal, often profitable, and arguably warranted on purely environmental grounds (cf. Hamilton 1984). As such, groups seeking to openly resist these initiatives will likely face swift and heavy-handed repression from states, often with financial, in-kind, or ideological support from development and pro-conservation organizations abroad (Brockington and Scholfield 2010). Holmes (2007), for example, demonstrates how protected area-neighbours implement these strategies in

34 case studies from across the developing world. Of particular interest, here, are the recurring patterns and similarities in tactics that rural populations utilize – in 27 of these case studies, the continuation of banned livelihood practices constitutes the main form of resistance. Other, more overt forms of resistance to conservation include the deliberate slaughter of wildlife or destruction of forest cover, as observed in selected cases from Uganda (Adams and Hulme 2001), Tanzania (Sunseri 2005), and Kenya (Collett 1987; Western 1994). That said, in its most extreme incarnations, anti-conservation resistance can also take the form of threatened, attempted, or actual assault, murder, or torture of conservation personnel (Brockington 2004; Norgrove and Hulme 2006; Robbins et al 2006).

Further, what separates these acts from petty crime or mere opportunism are the ‘hidden transcripts,’ laden with political meaning, which accompany them. With the notion of ‘hidden transcripts,’ I again draw upon Scott (1992) in referring to the narratives that subaltern individuals use to interpret their own experience of domination or oppression, to give meaning to their resistance, and to frame alternatives. For Scott (1992: 27, emphasis original):

“the hidden transcript represents discourse – gesture, speech, and practices – that is ordinarily excluded from the public transcript of subordinates by the exercise of power. The practice of domination, then, *creates* the hidden transcript ... [it], in turn, reacts back on the public transcript by engendering a subculture and by opposing its own variant form of social domination against that of the dominant elite.”

At Mount Elgon, the most common ‘hidden transcripts’ refer to alternative constellations of interaction between humans and their ‘natural’ environment, which either condemn modern conservation altogether, or (re)imagine it in ways that are radically inclusive of humans. Indeed, the environmentalism of farmers at Mount Elgon is one that could be described as valuing “ecology without Nature” (Morton 2007). In other words,

communities generally value their biophysical surroundings for practical, aesthetic, and cultural reasons, but do not conceive of ‘the environment’ as an ontologically separate category from ‘society’. Rather, farmers promulgate a “traditionalist discourse” (Svarstad et al 2008: 120), and assert that they are more than capable of both living within and sustainably managing forests at Mount Elgon, as their ancestors had done for generations prior to the advent of British colonialism. As such, farmers generally conceive of themselves as embedded *within* what conservationists refer to as ‘nature’, rather than alienated from- or external to it. In the following section, I provide an exposition of the methodology that was used to gain access to such insights, as well as an introduction to the geographical characteristics of the Mount Elgon study area.

7.3 Studying Resistance: The Politics of ‘Science’ at Mount Elgon National Park (MENP), Uganda

Originally gazetted as a ‘Crown Forest’ by the British colonial administration under the Legal Notice No. 100 of 1938 (Webster 1954), Mount Elgon is a 4,321m high extinct volcano. The mountain’s forested slopes straddle the border between Uganda and Kenya, of which the Ugandan portion encompasses approximately 1,121 km² of protected area. Combined with the mountain’s fertile volcanic soils, abundant rainfall guarantees that the region can support a diverse variety of crops – including Uganda’s largest share of commercially valuable Arabica coffee – as well as one of the densest rural populations in East Africa (Petursson et al 2011: 1306).

Currently, eight districts border the circumference of the park within Uganda. A predominantly agriculturalist Bantu group, the Bagisu, populate the southern districts of Manafwa, Bududa, Mbale, Sironko, and Bulambuli. Likewise, a Nilotic agro-pastoralist group, the Sabiny or Sebei, primarily inhabit the northern districts of Kapchorwa, Kween, and Bukwo. Based on Uganda’s 2002 census projections, population densities now range from highs of more than 700/km² in the Bagisu region, to lows of approximately 130/km² in the Sabiny region (Uganda Bureau of Statistics 2002). Livelihood strategies and

resource use patterns are relatively similar around the whole of the national park, although for cultural and agro-ecological reasons the Sabiny traditionally rely more heavily on livestock husbandry than the Bagisu (Goldschmidt 1976; Petursson et al 2011: 1306). Consequently, for both groups, fuelwood constitutes the primary source of energy for domestic heating and cooking. Non-timber forest products are used to supplement agricultural diets, and herbal medicines generally constitute the only affordable means of treating illnesses (Norgrove and Hulme 2006: 1101).

Fieldwork with three purposively selected groups of Bagisu farmers was conducted during September-December 2009 and July-December 2011. Two of these groups are located in Manafwa district, whereas the third is located in Sironko. The district-level locations of these groups may be safely disclosed, as they are already well known to local authorities. Indeed, as part of their struggles, all three organizations have launched lawsuits against both UWA and the Ugandan Attorney General, and have chosen to publicly disseminate this information. However, given that this paper discusses both formal-legal challenges and informal strategies (many of which are technically illegal), I will not refer to specific persons, nor will I attribute agency for certain resistance tactics to individual groups. Instead, when necessary to disaggregate the analysis between actors, I will anonymously refer to these as the Resistance Group A (RG-A), Resistance Group-B (RG-B), and Resistance Group-C (RG-C), respectively, so as to avoid incriminating them.

Notably, conducting fieldwork on resistance presents a number of methodological and epistemological challenges. In this context, the sensitive character of the subject matter denotes that standard approaches to structured and semi-structured interviewing are unlikely to be effective. Most informal resistance strategies are technically illegal, and would conceivably provoke the Uganda Wildlife Authority (UWA) to take action to further restrict resource access and shared benefit distributions in relevant communities, if detected. Accordingly, although I endeavoured to explicitly communicate my lack of a professional affiliation with UWA, and to make clear the purely academic nature of my

research, many communities were notably hesitant to provide information in the form of a structured or semi-structured questionnaire. The following reaction from one of RG-B's leaders, delivered after consulting his colleagues about the prospect of allowing community members to participate in semi-structured interviews, is exemplary of a more widespread hesitation to engage in such structured interactions:

“We're sorry, but we can't answer your questions in that way [referring to the questionnaire]. In our grandfathers' time, a *muzungu* [white man] like you came here with those questions, and used them to take the mountain away from us. We are happy to discuss our problems with you, but we refuse to use those papers” (Interview, RG-B committee member, 2011).

At issue, here, was not the provision of information as such, but the form in which the information was conveyed. Indeed, the committee was happy to engage in what one could describe as an ‘unstructured interview’, where individuals were not simply required to provide quantified responses to pre-designed questions. In other words, RG-B's leadership was worried about both my *interpretation* of their responses, and the policy or management prescriptions that could be based upon them. They were not concerned about providing me with information, but with providing me with *enough* information, which would adequately contextualize, justify, and explain their decisions, so that their actions could not be extricated from the situational rationales that informed them. Consequently, and interestingly, it appears that part of this group's resistance programme was also an opposition to quantification and subsequently de-contextualized analysis by researchers and consultants.

As a result, archival document analyses, unstructured in-depth interviews, and ethnographic observation form the primary basis for this research. Intensive, recurring unstructured interviews were held with the leadership committees of each resistance group, their legal representation, and the human rights-based NGOs that provided them with in-kind support. Simultaneously, these interactions were triangulated with focus

groups and unstructured household interviews with ‘ordinary’ group members that did not hold leadership positions. Throughout, I also observed resource use and agricultural practices, as well as patterns of interaction between group members, government officials, and conservation authorities. Oral histories delivered by both local people and conservation authorities were compared and contrasted with official documents contained in the library of the Faculty of Forestry and Nature Conservation at Makerere University in Kampala, as well as in the National Archives in Entebbe. Here, my hermeneutic approach to analyzing both texts and verbally-delivered narratives was inspired by Bourgois’ (2010: 18) call for researchers to “open the Pandora’s box of invisible violence” – a concern also shared by Nixon (2011) – and to contribute to the understanding of the ways in which inherently biopolitical policy decisions translate into tangible, often detrimental effects in the lifeworlds of vulnerable communities.

In what follows, I first historically situate resistance to conservation at Mount Elgon with the findings of oral histories and content analyses, before providing an exposition of currently active ‘guerrilla agricultural’ resistance strategies.

7.4 Colonists, Foresters, and Kleptocrats: Understanding Resistance at Mount Elgon

In Uganda, the strife entailed by the post-independence regimes of Milton Obote (1962-1971), Idi Amin (1972-1979), and Milton Obote (again, 1980-1985) effectively neutralized one of the Bagisu’s historically most potent resistance strategies. Previously, in the face of pressure from the colonial state to increase production for export markets, withdrawing into subsistence agriculture had constituted a form of veto or “exit option” to protest undesirable policies or terms of trade (Hyden 1980: 32). Indeed, production for subsistence is not “something the state can sell or tax” (Bunker 1983: 750). Although purely subsistence agriculture entails a decline in living standards that accompanies the reversion to reliance on land and livestock, rather than on cash incomes, it simultaneously

denotes a degree of autonomy from the potentially exploitative policies of governments and commodities traders.

As Bunker (1985: 373) notes in his seminal work on agricultural practices in Bugisu district, however, both corruption and Amin's depletion of Uganda's foreign reserves wreaked havoc on commodity exports, leading to "the nearly complete abandonment of cotton production and to a steep decline in coffee production." Given that a disproportionate amount of Uganda's coffee – and especially its high-quality Arabica coffee – is grown at Mount Elgon, the sudden loss of access to export markets placed pressure on farmers to secure their livelihoods through purely subsistence means, such as encroachment into forests. Under Amin, though, the decision to do so was suddenly a matter of exigency, rather than of strategy. In particular, Amin's 1975 Land Reform Decree encouraged encroachment in order to reduce the rural population's dependence on the state and its declining ability to facilitate export-oriented agriculture (Eltringham and Malpas 1993: 102; Turyahabwe and Banana 2008: 650).

Similarly, under Milton Obote's second regime and the civil war that followed it, economic dysfunction and the declining real value of public salaries provided conservation officials with incentives to facilitate encroachment by selling illicit resource and land use permits to local farmers (Norgrove and Hulme 2006: 1098). As noted by Webster and Osmaston (2003: 167), "inflation resulted in the purchasing power of the salary of a forest officer in 1988 being worth only 0.4% of what it was in 1962, enough to buy four loaves of bread a month." Here, communities participated in agricultural resistance by pressuring or cajoling conservation officials into following corrupt practices that benefited local people. Today, furthermore, many farmers who purchased these illicit permits – and their descendants – emphatically claim that they are valid. Indeed, the permits issued during this period to land within the Mount Elgon reserve's boundaries, which I examined during fieldwork, are physically indistinguishable from their legitimate counterparts.

Further, evidence suggests that corrupt officials may have also granted larger-scale concessions. For example, one resistance group in Manafwa district (RG-C) claims that Forest Department officials agreed to degazette approximately one thousand hectares of the reserve for the use of one of their clans in 1980, during Milton Obote's second regime. In a written statement of the RG-C's history that was prepared by the group's leadership committee, they claim that

“[s]ince the creation of the reserve's boundary in 1936/38, several excisions have been made under Mt. Elgon forest reserve to relief [sic] forest department and safely settle and incorporate families living in the forest reserve in their village communities. Notable among the excisions is part of the forest reserve was excised in favour of the [name withheld] family in [location of RG-C] in 1980. This explains clearly that the land we claim is our ancestral land” (written historical statement, RG-C leadership committee, 2011).

Consequently, RG-C's leadership traces its right to disputed land in Manafwa district to managerial decisions allegedly taken by Forest Department officials during Obote's second regime. Unfortunately for these communities, contemporary government and conservation authorities do not consider such claims to be legitimate (UWA 2009: 48).

Indeed, the validity of the permits and excisions that were allegedly granted under Obote's regime did not survive the civil war that deposed his government. Shortly after Yoweri Museveni's National Resistance Movement (NRM) restored relative stability to Uganda in 1986, the new government launched a countrywide initiative to repair the ecological degradation that occurred during Uganda's tumultuous post-independence period. As part of this initiative, the government upgraded the Mount Elgon Forest Reserve to a Forest Park (1991) and later to National Park status (IUCN Category II) in 1993. Collectively, these efforts heralded in the dawn of modern 'community based' conservation at Mount Elgon, which focuses on the generation and limited redistribution of revenue from ecotourism activities, and the education or 'sensitization' of local

communities about the value of forest ecosystems (Norgrove and Hulme 2006: 1095; UWA 2009: 53).

In the process of upgrading the reserve to a national park, however, paramilitary conservation rangers and Uganda People's Defence Forces (UPDF) personnel evicted local people from approximately 25,000 hectares of encroached parkland (Sullivan 2011: 336). A written account provided by RG-B describes the evictions as follows:

“In 1992-3 a gang of soldiers of the then-National Resistance Army together with Uganda Wild Life [sic] Authority rangers armed with guns mounted [four villages, names withheld]. They carried out an illegal and massive eviction which left several homes homeless and many people landless. They burned and demolished houses, and looted property [...] Both cash crops and food crops were all destroyed causing irreparable suffering to the local peasants who after provoked to seek refuge in nearby trading centres” (written historical statement, RG-B leadership committee, 2011).

Although official records were not kept regarding the number of people displaced by these evictions, Vangen (2009) roughly estimates that the overall figure could total more than one hundred thousand individuals. Given that the region immediately adjacent to MENP is one of the most densely populated areas in rural Uganda (Uganda Bureau of Statistics 2002), such estimates could be plausible. In this research alone, the three evicted groups of farmers that were studied collectively amount to 2,923 households, with a regionally average household size of approximately 5.1 persons (Norgrove 2002: 87). Moreover, based on statistics kept by the Uganda Communications Commission (2010), the total MENP-adjacent population is approximately 1,592,400. To spatially contextualize this figure, the western-most borders of park-adjacent districts in Bugisu region extend not farther than 30-40km from the border of MENP.

Finally, the simultaneous existence of two park boundaries – one from 1993, and another stemming from a ‘boundary correction’ that was demarcated in the early 2000s – further complicates the land tenure situation at Mount Elgon (UWA 2010: 5). Unfortunately for local communities, the enforcement of the more recent boundary was also characterized by violent evictions. Indeed, an account from RG-A’s leadership highlights the similarity of the actions taken by UWA nearly ten years after the original demarcation of the national park’s boundary:

“In the year 2001, the servants/employees of Uganda Wild Life [sic] Authority and Attorney General of Uganda – UPDF soldiers dressed in combat uniforms armed with scaring guns jointly with game rangers armed with guns attacked our residents [...] They maliciously destroyed acres and acres of land covered with crops like coffee, banana plantations, beans, maize, cocoyams, passion fruits, tomatoes, cabbages, among others. They burnt down people’s homes, demolished houses, and looted iron sheets and used roof timbers and wall poles for fire wood. They looted livestock of all classes [...] one person [name withheld] was killed in the incident” (written historical account, RG-A leadership committee, 2011).

By contrast, UWA (2010) claims that corrupt surveyors compromised the 1993 demarcation exercise by allegedly accepting bribes from local communities in exchange for altering the boundary in their favour. As such, the agency commissioned a new survey, this time using GPS technology, which expanded the boundaries of MENP up to 1 km into community land in some locations (UWA 2010: 5). Rather understandably, therefore, communities seek to counter these violent, recurring dispossessions with a number of violent, non-violent, discursive, and institutional strategies to maintain their agricultural livelihoods.

7.5 Guerrilla Agricultural Strategies

Indeed, in the socioeconomic context of recurring dispossessions at Mount Elgon, it is unsurprising that the production of food constitutes the centrepiece of resistance to conservation. Here, I define ‘guerrilla agriculture’ as the range of strategies that rural communities use to circumvent laws and regulations that criminalize subsistence cultivation, and to ensure their own food security. By their very nature, these tactics blur the contours between subsistence and ‘improvement’, or between economic opportunism and political grievance – not least because the overarching context of dire poverty renders the distinction rather meaningless. As one local government leader described the situation of his constituents,

“[t]hings are not good. We are camped in disputed land. But since there are many people here, we have no food, no education, no clothing, and high mortality. When we try to harvest, UWA harasses us. They destroy our coffee and *matooke* [plantain] plantations. Now, as many as five people per month are dying of famine. We will even bury one body today” (Key informant interview, local government, RG-C, 2009).

Hence, in the worst affected MENP-adjacent communities, the practice of guerrilla agriculture is often synonymous with the assertion of a right to survival, or the rejection of the legitimacy of governmental programmes that would otherwise see them “let die” (Hannah 2011; Li 2010). Whereas farmers in Bugisu once sought to ‘veto’ unfavourable state policies by refusing to grow coffee and other cash crops for export, the Ugandan government’s contemporary dependence on foreign aid and credit reduces the impact of such radical initiatives (Bunker 1991). In other words, the enormity of international flows of aid and credit renders the scale of a Bagisu coffee production boycott rather insignificant. In response, therefore, communities focus their struggles on agricultural extensification into protected land, rather than intensification and diversification of crops for commercial purposes on existing land. In subsequent portions of this section, I present

four ideal types of strategies that farmers use to support such guerrilla agricultural strategies: i) nonviolent-symbolic, ii) militant, iii) discursive-representational, and iv) formal-legal.

7.5.1 Nonviolent-Symbolic Strategies

Given that these tactics involve the smallest degree of risk, nonviolent strategies form the core of farmers' resistance to conservation at Mount Elgon. Perhaps the most obvious of these, covert planting involves the cultivation of fast-yielding food crops in sections of parkland that local people believe are neglected by ranger patrols. Typically, community members clear small portions of forest and plant crops within the park while they collect forest resources such as firewood or bamboo. In addition, both key informant interviews and UWA reports confirm that such planting increasingly occurs at night (Mafabi 2012). Due to transaction costs – for example, the risk of illegally entering and exiting the park, calories spent hauling tools and inputs, and the time required for both – most covertly planted crops lie only marginally within the park boundary. Community members justify these practices with claims of ancestral rights to the use of Mount Elgon's slopes, and the assertion of familial property rights that were only 'recently' and illegitimately revoked by conservation authorities.

Given the amount of time between planting and harvest, however, it is nearly impossible for even small gardens to remain completely hidden from park rangers. As a precaution, therefore, communities utilize many of the 'weapons of the weak' described in detail by Norgrove and Hulme (2006: 1102): bribery, park boundary manipulation, feigned ignorance, false compliance with orders to cease cultivation, and the obstruction of routes toward their illegal gardens. Yet, although Norgrove and Hulme (2006) refer to the illicit exchange of money for access to resources as 'bribery', rangers also appear to market such transactions to communities. As asserted by an employee of a human rights NGO in Mbale Town,

“[c]onfusion is a large source of the conflict. Rangers make little money, so they can extort cash from community members in exchange for access and grazing. Only later, they become frustrated when they are evicted by the strict UWA officials” (Key informant interview, NGO Legal Officer, Mbale, 2009).

Worth noting, here, is the value-laden manner in which divergent commentators refer to the same activity as either ‘bribery’ (instigated by communities) or ‘extortion’ (instigated by UWA personnel). More likely, similar to the conditions under which Forest Department officials sold illicit permits in the early 1980s, the relative cash-dependence of salaried UWA employees provides mutual incentives for trading illegal access and use rights. Between periods of fieldwork in 2009 and 2011, for example, the value of the Ugandan shilling (UGX) fell from approximately 2,100 UGX to nearly 2,900 UGX per USD. To compensate, the prices of many goods and services rose accordingly. Yet, throughout this period, the average ranger’s monthly remuneration remained static at approximately 200,000 UGX. This created great strain on rangers’ individual capacity to both fulfil day-to-day needs and remit money to their families for health and educational purposes, such as for the omnipresent requirement to pay school fees. By contrast, farmers were relatively insulated from inflation as a result of the prevalence of subsistence cultivation, and could ‘pay’ rangers with food, village-brewed alcohol, and other goods in exchange for access to protected forests.

Yet, despite the prevalence of these nonviolent tactics around the circumference of MENP, they are not always sufficient to prevent interference from UWA personnel. In such cases, communities sometimes resort to real or threatened violence to deter the enforcement of conservation regulations.

7.5.2 Militant Strategies

Although the aforementioned nonviolent strategies often assist in the maintenance of small gardens within the national park, UWA's practice of rotating park rangers between outposts often compromises mutually beneficial relationships. In other words, these rotations may lead to the sudden cessation of illicit agreements that enable access to land and resources, causing members of affected communities to attempt to violently 'discipline' UWA staff. When present, not unlike Heald's (1986) account of Bagisu "vigilante groups", these tactics oddly resemble mafia-style reprisals against informants. Shortly before fieldwork began in 2009, for example, two rangers who had allegedly reneged on illegal resource access arrangements were tortured before one was hacked to death with a machete (Key informant interview, legal NGO, 2009). Another two rangers were killed and a third injured at the same location in 2002 (Edyegu 2009). These events occurred in the immediate vicinity of RG-A's disputed territory, although it should be noted that no firm evidence exists to link individual members of the group to any of these assaults or killings.

Simultaneously, communities also employ violent tactics in reprisal for the human rights abuses allegedly perpetrated by UWA personnel. Also in 2009, for instance, members affiliated with RG-B burned down a local UWA outpost after a young woman was shot in the back of the head by a ranger (Hurinet Uganda 2011). Another outpost in Manafwa district was razed in 2010, following the slaying of a young boy (Kazungu 2010). Similarly, shortly after fieldwork ended in 2011, residents in nearby Bududa district burned down a third UWA outpost in reprisal for the killing of a local farmer (Ssalongo 2012). In a focus group discussion, one member of RG-B justified their group's actions and similar violence as a form of vigilante justice:

“What were we to do? These are crimes against humanity. The woman was shot dead, and twelve people have been killed since 2005. Just lately, there have been three cases of rape, and the rangers have also sodomized old men, just to

humiliate them. They will not let us have peace” (Focus group discussion, RG-B members, 2009).

Despite their severity, community members have not presented most of these allegations to local police. In 2011, I questioned RG-B’s leadership about why it had chosen not to pursue legal action against the individuals who allegedly committed these acts. In response, one of the group’s leaders replied as follows:

“When we go to the police, they either ignore us or they intimidate us. I once filed a complaint of rape, but nothing happened. When I returned to the police station to follow up, I was told the file could not be found. Earlier this year, the same woman was again raped by rangers. Now you tell me, how much time should I waste?” (Focus group discussion, RG-B committee member, 2011).

In another focus group discussion, an RG-C leader offered another reason why complaints cannot be brought to the police or government officials:

“UWA tries to say that we are rebels. They tell the UPDF [the Ugandan military] that we want to fight the government, but we do not. If we try to go to police they just say we are agitating and they intimidate us” (Focus group discussion, RG-C committee member, 2011).

As such, communities are drawn to violent strategies in response to both the direct violence suffered at the hands of UWA and security forces, as well as the intimidation that they face when attempting to rectify these injustices through law enforcement institutions. Consequently, these tactics serve the dual purpose of both maintaining illicit access to land and resources within the national park, and providing the threat of ‘vigilante justice’ as a deterrent for violent evictions perpetrated by security forces and UWA staff. Yet, in order to prevent these actions from being characterized as mere ‘crime’, or, alternatively, as an act of open rebellion against the state, each of the three

resistance groups also engage in a variety of what I call ‘discursive-representational’ strategies.

7.5.3 Discursive-Representational Strategies

With the concept of ‘discursive-representational’ strategies, I refer to the attempts of communities to solicit political support from NGOs, media outlets, human rights groups, government agencies, and local politicians. Here, their goal is to utilize normative pressure from sympathetic parties to prevent the Uganda Wildlife Authority from enforcing its own policies. As mentioned above, a second objective is also to publicly frame resistance tactics primarily as a livelihood strategy, rather than as criminal activity or open rebellion against state authority. For example, during fieldwork in 2011, I attended two workshops that brought together all three resistance groups, local politicians, journalists, and community-based organizations. A prominent Ugandan NGO organized the first of these, whereas a prominent international NGO organized the second. At these workshops, leaders from each group delivered well-rehearsed narratives, posed for pictures, and conducted individual interviews with journalists from national newspapers and television stations.

In these and similar settings, discursive-representational strategies involve the promulgation and distribution of narratives that justify the illegal agricultural use of land within Mount Elgon National Park. Typically, this is accomplished through the assertion of a combination of indigenous-, ancestral-, human-, and property rights to the protected area. In an exemplary statement, one community elder asserted all of the above during a workshop group discussion:

“The park belongs to our ancestors, many of them are even buried here [ancestral claim] ... In 1935, the British conserved the land, rangers were there, but we were allowed to cultivate because we are the indigenous people [indigenous claim] ... Since 1993 and the national park, there are now too many boundaries,

so they also take the land that we own [property rights claim] ... Why should we go hungry on our fathers' land? [human rights/ancestral claim]" (Focus group discussion, RG-C members, 2011).

In some cases, this may also be coupled with selective allegations of human rights abuse, corruption, or criminality directed against UWA personnel. As a member of RG-A emphatically stated:

"Since these UWA people grabbed our land in 2002, we have seen torture, killings, shootings, property grabbing, and burnt houses. They have looted our livestock and money. The government has never followed up the evictions, and the police ignore our complaints about the rangers" (Focus group discussion, RG-A members, 2011).

Once developed, local people disseminate such narratives to potential allies in the above-mentioned organizations, who are invited to pressure UWA to acquiesce to the community's demands. Occasionally, the mere threat of negative publicity may also be used as leverage, in an attempt to ensure such acquiescence. Indeed, given the dependence of the national park on ecotourism as the main form of income generation, conservation authorities remain vulnerable to widely disseminated activist campaigns. Combined with numerous media reports of conflicts between UWA and local communities, for example, the killing of a Belgian tourist by local poachers in 2008 prompted Canadian, American, British, and Australian foreign services to issue travel advisories for the Mount Elgon region. Later, UWA officials attributed recent declines in the volume of Western park visitors to these decisions (key informant interview, UWA tourism warden, 2011).

When combinations of the above strategies prove ineffective, however, communities that are able to raise sufficient resources also seek to challenge the legitimacy of both

conservation itself and the manner in which it is enforced through the Ugandan legal system.

7.5.4 Formal-Legal Strategies

This final category of resistance is extremely costly, and is infrequently pursued by most communities at Mount Elgon, as it involves navigating the Ugandan law enforcement and justice systems. That said, in an attempt to retain ownership rights to land that currently lies between the 1993 and 2002 park boundaries, all of the three resistance groups in this study have sued UWA and the Ugandan Attorney General through the High Court in Mbale town. In each case, communities have successfully obtained High Court injunctions, which theoretically allow for the continuation of cultivation while the court deliberates on the case. Since the main suit in these cases was filed between seven and ten years ago, one can perhaps see the attainment of injunctions as a valuable strategy in itself, irrespective of the final ruling.

In order for this strategy to be feasible, however, substantial financial resources are required, as well as the ability to frequently travel to Mbale town for consultations with lawyers, hearings, and other meetings. The costs for such activities alone, over the course of ten years, are enormous for communities. Further, the need to procure cash to finance these lawsuits denotes that farmers must restructure their agricultural strategies in favour of producing substantial volumes of cash crops (such as coffee, *matooke*, and tomatoes) instead of a wider variety of less valuable food crops for primarily subsistence purposes. That said, the groups examined in this study generally perceived the costs of maintaining a lengthy legal challenge as being lower than the costs of immediate eviction and its attendant processes of dispossession.

Additionally, despite some successes with the adoption of formal-legal strategies, all three groups have reported that UWA has periodically failed to respect the High Court injunctions that were obtained. Undoubtedly, the agency remains highly aware that these

groups finance their legal campaigns by selling cash crops such as coffee and *matooke*, and has reportedly taken action to destroy portions of their respective harvests in order to disrupt this revenue stream. As a lawyer for RG-B noted:

“These people of UWA have taken a number of steps to frustrate us. When the rangers grow bold, they slash my clients’ crops, frustrating their ability to pay for this case [...] We have raised this issue with the court and police, but they do not seem to care” (Key informant interview, lawyer for RG-B, 2009).

Further, many group leaders suspect that UWA and the Ugandan government are deliberately prolonging these cases in order to sap their already meagre resources. When I concluded fieldwork in 2009, for example, all three groups were confident that the High Court would soon reach a favourable decision. As 2011 drew to a close, however, and yet another hearing was scheduled for a date four months later, these perceptions began to change. In frustration, one of RG-A’s leaders put it thusly:

“Look, we travel here from [location of RG-A] for the hearings with the little means we have. Once or twice a year, the judge mysteriously does not appear for the hearings, so we must adjourn until a later date. It is like this for ten years now. Ten years. When we return home, they threaten us, intimidate us, slash our crops, what. UWA or the court, it is all the government, and the government wants us finished” (Key informant interview, RG-A committee member, 2011).

Above all else, here, one can observe communities that are trapped at the intersection of both direct and structural violence. Indeed, each of the three groups examined in this study simultaneously bear the indirect costs of PA-adjacent residency – such as damages from crop and wildlife raiding and restricted access to resources – in addition to the violence directly inflicted by the state and its agents. Conversely, the strategies employed in response – whether nonviolent, violent, discursive-representational, or formal-legal – yield some relief from these deleterious processes. Indeed, in conjunction with one

another, these tactics enable communities to hold on to subsistence amidst a governance context in which they are being let – or sometimes even made – to die (Hannah 2011; Li 2010).

7.6 Conclusion

Amidst the overarching context of global climactic and environmental change, rural populations find themselves increasingly trapped between conventional expropriations for extractive industry, export-oriented agriculture, or large development projects, and new, ‘green’ enclosures for biodiversity conservation, carbon offset forestry, or biofuel plantations (Fairhead et al 2012). Rather tragically, the latter now frequently displace populations in an attempt to mitigate the detrimental environmental and economic impacts of the former. In particular, as the scale of global biodiversity conservation increases in response to anthropogenically-induced biodiversity decline, so too does the scale of human precarity that it engenders. Similar to other cases from throughout the developing world (Benjaminsen and Bryceson 2012; Beymer-Farris and Bassett 2012; Holmes 2007; Peluso 1995), local people at Mount Elgon National Park endure the effects of both direct and structural forms of violence as a result of these processes. In contrast to the simultaneous prevalence of direct violence such as evictions and human rights abuse, much of the latter is ‘slow’ in the sense that it arises from legislation and policies that were enacted years or even decades previously (cf. Nixon 2011), and which thus obscure their own relationship to value-laden decisions made by individuals and organizations. Fieldwork conducted on the socioeconomic impacts of both direct and structural violence at Mount Elgon further reveals often-grim insight into the lifeworlds of individuals and communities who are, in a biopolitical sense, largely being ‘let die’ (Hannah 2011; Li 2010).

Too often, though, the language of governmental programmes that ‘make live or let die’ robs its objects of their own agency. At Mount Elgon, for example, communities employ

a variety of guerrilla agricultural strategies to maintain their livelihoods against the threat of both utter dispossession and policies that seek to subsidize the lifestyles and livelihoods of other populations at their expense. This paper found that these strategies broadly correspond to nonviolent-symbolic, militant, discursive-representational, and formal-legal categories. Combined, these tactics allow communities to circumvent policies and legislation that criminalize subsistence agriculture, and which aim to bolster the global public good of biodiversity at the expense of local and traditional livelihoods. In reply to Brockington (2004), however, the goal of resistance through guerrilla agriculture is not to pose an existential threat to the Mount Elgon National Park itself. Rather, the objectives of the three groups examined in this paper highlight the goal of maintaining a portfolio of both subsistence and market-based production strategies that allow cash incomes to be raised, when necessary, and to also enable a withdrawal into subsistence cultivation when terms of trade become exploitative or undesirable. Like conventional forms of guerrilla resistance, therefore, the goal of guerrilla agriculture is to carve out the largest possible space of autonomy for local communities from both the state and large economic actors such as commodities trading companies.

Consequently, more research is needed not just on the biopolitical *impacts* of international responses to patterns of economic and environmental change, but also on *responses* or reactions to these governmental programmes. How do communities resist expropriation for new “green grabs” or other environmentally justified forms of primitive accumulation (cf. Fairhead et al 2012; Kelly 2011)? In what ways do vulnerable populations struggle to neutralize or negotiate with legislation and policy decisions that seek to deprive them of the necessary preconditions for productive livelihoods? Indeed, if ‘the point is to change it’ (Castree et al 2011), we must generate and disseminate accounts of the actions and strategies that marginalized populations employ to resist these new forms of dispossession, rather than only descriptive accounts, however nuanced or evocative, of their immiseration. Such efforts may provide a fruitful basis for (re)invigorating the pursuit of global environmental justice in times of ecological, social, and economic crisis for international capitalism.

7.7 References

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8. Synthesis, Conclusions, and Recommendations¹

“Conservation cannot promise a return to pristine, prehuman landscapes. Humankind has already profoundly transformed the planet and will continue to do so. What conservation could promise instead is a new vision of a planet in which nature – forests, wetlands, diverse species, and other ancient ecosystems – exists amid a wide variety of modern, human landscapes. For this to happen, conservationists will have to jettison their idealized notions of nature, parks, and wilderness – ideas that have never been supported by good conservation science – and forge a more optimistic, human-friendly vision.”

- Peter Kareiva and colleagues, *Conservation in the Anthropocene*, (2011)

“Love your monsters.”

- Bruno Latour (2011)

8.1 The Biopolitics of Conservation in the Anthropocene

The conservation biologist Michael Soulé (1985) once wrote that the relationship of his “crisis discipline” to biology and ecology was “analogous to that of surgery to physiology and war to political science.” In a crisis discipline, he argues, “one must act before knowing all the facts [...] A conservation biologist may have to make decisions or recommendations about design and management before he or she is completely comfortable with the theoretical and empirical bases of the analysis” (Soulé 1985: 727). It is doubtful, however, if even Soulé himself could have anticipated the enormity of “one of the facts” that the proponents of the Anthropocene now pose as a challenge to the implicit worldview of conservation biology. Indeed, if one accepts the notion that humans now exert the most salient influence over the Earth’s systems, the ontological division between ‘Nature’ and ‘Society’ that conservationists have traditionally upheld rapidly begins to dissolve (Latour 2011; Lorimer 2012; Sayre 2012). Rather than acting as “the mirror of Nature” (Rorty 1979), scientific disciplines such as conservation biology and

¹ This chapter is designed to serve as an executive summary, so as to facilitate “readers in a hurry” (cf. Latour 2005: 231).

ecology increasingly serve, arguably, as a ‘mirror for humanity’, in that they describe fewer and fewer empirical phenomena that remain untouched by the externalities of human civilization.

And yet, while the science and associated theory of the Anthropocene might deconstruct the *conceptual* presuppositions of conservation biology, the practical import of the discipline is perhaps greater now than ever before (MEA 2005; Caro *et al.* 2011; IPCC 2011). In response to global environmental change processes, for example, the international community has exponentially increased both the number and scale of protected areas since 1970 (IUCN and UNEP-WCMC 2012). However, both global forest cover and overall biodiversity have steadily declined throughout this same period (Chape *et al.* 2005; FAO 2011; Butchart *et al.* 2012). In many parts of the developing world, researchers have also detected these deleterious trends *within* protected areas (DeFries *et al.* 2005; Naughton-Treves *et al.* 2005; Kareiva *et al.* 2011). Accordingly, a growing body of evidence suggests that the fate of biodiversity within even well fortified reserves is inextricably tied to the sustainability of the wider socio-natural landscape of which they are a part (Laurance *et al.* 2012). Such findings denote the need to acknowledge the salience of anthropogenic influences on PAs, even in purported cases of ‘fortress conservation.’

Accordingly, researchers and policymakers must “go beyond panaceas” in order to develop governance solutions that are well suited for the social, political, and ecological characteristics of both individual protected areas and the communities that surround them (Ostrom *et al.* 2007). Given that the world’s poorest billion citizens remain heavily dependent on (often formally protected) ecosystem services for the maintenance of their livelihoods (Government of the Gambia 2011; UNDP 2011), it is increasingly clear that the fate of biodiversity and that of its neighbouring human communities are inextricably linked. Indeed, in the Anthropocene, one principle is certain: Parks that ignore the wellbeing of their surrounding human populations will do so at their own peril.

Although the findings of critical research highlight the interconnected relationship between the welfare of human communities and that of their biophysical environment, such data retain only limited influence over the realms of law and policy. As discussed in *Chapter Two*, many prevailing discourses of environmental governance advocate for environmental management practices that risk further marginalizing PA-adjacent communities. Indeed, land use policies and legislation that threaten the livelihoods of rural populations – both in countries like Uganda and internationally – have proliferated in recent years (cf. Fairhead *et al.* 2012; White *et al.* 2012). Notable proponents of these include advocates of the ‘green governmentality’ discourse (Bäckstrand and Lövbrand 2006), who use natural scientific evidence of climate change, deforestation, and biodiversity decline to stubbornly advocate for a “back to the barriers” style of biodiversity conservation (Wilshusen *et al.* 2002; Hutton *et al.* 2005). Similarly, proponents of the ‘green economy’ discourse advocate for market-based schemes that often provide land managers with financial incentives to exclude local people from access to land and common-pool resources (Arsel and Büscher 2012; Fairhead *et al.* 2012; Marino and Ribot 2012). Although these latter initiatives ostensibly “sell nature in order to save it” (McAfee 1999), they risk inadvertently endangering the very ecosystems that they aim to protect by fostering grievances among local populations.

Such trends beg the following question: Conservation *of* biodiversity, surely, but *for* whom? From a biopolitical perspective, conservation is highly contentious when it subsidizes the lives and livelihoods of certain elite social groups – through the production of carbon or biodiversity offsets, ecotouristic experiences, and pharmaceutically relevant genetic diversity – at the expense of economically marginal, ecosystem-dependent populations (cf. Youatt 2008; Dempsey 2012). For every safari enjoyed, for every new drug developed, for every carbon- or biodiversity credit issued, it is likely that a nearby community’s livelihood has been adversely affected. In this context, exploitative relations both between and among populations become apparent in policies and legislation that either “*foster* life or *disallow* it to the point of death” (Foucault 1978: 138). ‘Win-win’ or ‘triple-win’ rhetoric notwithstanding (A. Sletten 2009), it is increasingly clear that current

management practices often result in “hard choices” or trade-offs being made between conservation and development goals (Sunderland *et al.* 2008; Hirsch *et al.* 2010; McShane *et al.* 2011). Indeed, a growing body of case study research from across the developing world suggests that the nearly ubiquitous persistence of win-win rhetoric arises more directly from conservationists’ need to attract grants, to secure private donations, and to justify expenditures than out of any sort of empirical warrant (Boyd 2009; Brockington and Scholfield 2010; Beymer-Farris and Bassett 2012; Büscher *et al.* 2012).² As this thesis’ findings at Mount Elgon demonstrate, moreover, conservation regimes that are perceived as unjust will often be met with stiff resistance from local communities. As found in Papers I and II, especially, management attempts to uphold win-win rhetoric in contrast with empirical realities ironically risk instead resulting in ‘lose-lose’ outcomes for both conservation and local livelihoods.

In subsequent portions of this chapter, I further synthesize this thesis’ findings before offering a set of recommendations for alleviating conflicts between UWA and local communities at Mount Elgon National Park. Accordingly, the chapter will proceed as follows: First, I reflect upon the historical development of governance regimes at Mount Elgon. Second, I review this study’s key empirical findings from Papers I, II, and III in *Part B* of this thesis. Finally, based upon these findings, I offer a set of policy recommendations for conservation governance at contemporary Mount Elgon National Park, and suggest promising new areas for further research on conservation in the Anthropocene.

8.2 Resisting Nature, Escaping the State: Reflecting on the Historical Geography of Conservation at Mount Elgon

In conducting a critical case study of Mount Elgon National Park, Uganda, this thesis has sought to contribute toward the development of the next generation of equitable

² For an interesting comparison with international development more broadly, please see Mosse’s (2005: 46) argument about the relationship between policy rhetoric and the political economy of aid funding.

conservation policy. Too often, though, oversimplified models of ‘local communities’ in conservation research have led to ineffective policy and legislative prescriptions, as they ignore the unique historical and political context of particular groups of “resource users” (cf. Agrawal and Gibson 1999; Agrawal 2003). In attempting to avoid such a pitfall, this thesis has sought to develop a nuanced understanding of the relationship between the region’s populations, their use of natural resources, and the conflicts that have arisen under different governance regimes.

When one traces the history of agrarian resistance at Mount Elgon to the pre-colonial era, as done in *Chapter Four*, one discovers that such conflicts arise from the Bagisu, Sabiny, and Ndorobo’s respective struggles both *for* self-determination and *against* incorporation into states. First, this is true of the pre-colonial era, when both groups fled to the upper plateaux of Mount Elgon to avoid military confrontation with aggressive pastoralists such as the Karamojong and Pokot (Goldschmidt 1967; Mukherjee 1985). Second, it is true of the early colonial era, when the relative isolation of the mountain initially allowed people to resist both British-imposed taxes and the cultivation of cash crops (Bunker 1987; Heald 1998). As the economic significance of the Mount Elgon coffee industry rose throughout the 1930s, moreover, and as British concerns about its sustainability emerged, the era of formal ‘conservation’ dawned (Himmelfarb 2012). Mount Elgon was first gazetted as a Crown Forest in 1938, and local resource access was further restricted when the colonial administration upgraded the PA to Central Forest Reserve status in 1948. In a very real sense, then, the birth of state-imposed conservation also signalled the birth of ‘Nature’ itself on the mountain. Indeed, previous anthropological research suggests that local people did not share the primarily Western ontological distinction between ‘Society’ and ‘Nature’, although they certainly valued their biophysical environment for pragmatic, spiritual, and cultural reasons (Goldschmidt 1967, 1976, 1986; La Fontaine 1969; Norgrove 2002).

During the turmoil that characterized the post-independence regimes of Milton Obote, Idi Amin, and Milton Obote (again), formal conservation broke down at Mount Elgon.

Following Idi Amin's 1975 Land Reform Decree, local people were encouraged to encroach into protected areas and deforest them for subsistence purposes (Norgrove and Hulme 2006; Turyahabwe and Banana 2008; NFA 2011). Given that export markets for coffee largely collapsed during Idi Amin's regime in particular (Bunker 1985), local people were left with few alternatives but to revert to subsistence agriculture and the collection of forest products for nutrition and energy. Rather than constituting an anarchic process of 'land-grabbing from below', however, incursions into forests at Mount Elgon during this period were instead driven by a systemic, politico-economic *logic*. Indeed, the Amin government sought both to reduce the dependence of the rural Ugandan population on state-organized export markets, and to limit the power of the "exit option" of withdrawing from cash crop cultivation into subsistence agriculture (Hyden 1980; Bunker 1987). As Norgrove's (2002) informants recall, this campaign was orchestrated over the radios that most communities have access to. "You should not cry of famine", one of respondents notably cites a recurring advertisement, "go into the forest and plant food" (Norgrove's 2002: 116).

Following the Tanzanian invasion that finally deposed Idi Amin, and the initiation of Milton Obote's second regime, efforts to reinstate conservation at Mount Elgon were limited by Uganda's overarching economic crisis. Rampant inflation wreaked havoc with the value of public salaries, resulting in the real worth of a Forest Officer's remuneration in 1988 constituting less than 1% of its value in 1962 (Webster and Osmaston 2003: 167). Somewhat understandably, then, corruption effectively constituted the *de facto* conservation regime, wherein those who could pay for access to land and resources were able to do so. Conservation existed, in a formal sense, but in practice it was conservation only for – or *from* – the poor. Consequently, damage to the Mount Elgon Forest Reserve was extensive, with approximately 25,000 of land being deforested before 1986 (White 2002; Norgrove and Hulme 2006).

When Yoweri Museveni's National Resistance Movement (NRM) came to power in 1986, however, and Uganda once again enjoyed relative political stability, a concerted

effort emerged to regain control of the country's protected areas. While the NRM government certainly wished to establish such control, a great deal of pressure to do so also emanated from bilateral donors (such as Norad and USAID), multilateral organizations (such as the World Bank), and international conservation NGOs (such as the WWF) (cf. Himmelfarb 2012: 55; Tumusiime 2012: 19). Following a US\$ 30 million grant from USAID (1991, 2003) in particular, protected areas across the country were re-demarcated, encroachers were violently removed, and a number were upgraded to national parks (Adams and Infield 2003; Blomley 2003). At Mount Elgon, financial and technical support from Norad, IUCN, and the FACE Foundation further provided incentives for an upgrade to national park status.

Estimates vary, but in the process of the ensuing upgrade, as many as 300,000 people were evicted from the newly-minted Mount Elgon National Park (cf. White 2002; Vangen 2009; Himmelfarb 2012). As White (2002: 2-3) posits, the 25,000 hectares of encroached forest could have fed as many as 84,000 *households*, or approximately 580,000 people at current household sizes. Since these evictions took place, conflicts between park authorities and local people have continued – often violently – with allegations of human rights abuse being made by both sides (Hurinet-Uganda 2011). A land claim suit was resolved in favour of communities in 2005 (Cultural Survival 2005), and the High Court in Mbale now deliberates over three more. When land, livelihood, and, indeed, pride are at stake to such a degree, the very nature of conservation becomes inherently and overwhelmingly political. Understandably, then, the contemporary empirical context within which I immersed myself was both tumultuous and, at times, high-strung.

As the great anthropologist Pierre Clastres once observed, paraphrasing Marx, “[i]t is said that the history of peoples who have a history is the history of class struggle.” Importantly for our purposes, he continues, “[i]t might be said with at least as much truthfulness, that the history of peoples without a history is a history of their struggle

against the state” (Clastres 1987: 218).³ This observation, I assert, provides great insight into the historical struggles of the Bagisu, Sabiny, and Ndorobo at Mount Elgon. In this sense, the Ugandan state and its institutions are not ‘natural’ – they were *born*, their power and legitimacy were *asserted*, and as such empirically responsible social scientists must understand where and why certain groups resisted subjugation to them (cf. Scott 2009: 280-281). As Edward Said (1979: 19-20) so eloquently puts it,

“[t]here is nothing mysterious or natural about authority. It is formed, irradiated, disseminated; it is instrumental, it is persuasive; it has status, it establishes canons of taste and value; it is virtually indistinguishable from certain ideas it distinguishes as true, and from traditions, perceptions, and judgments it forms, transmits, reproduces. Above all, authority can, indeed must, be analyzed.”

Given its deep roots in both colonialism and the imposition of market-based production systems (Neumann 2001b; Brockington *et al.* 2008; Büscher *et al.* 2012), the interrelated processes of knowledge and power formation that lend ‘authority’ to conservation science must be analyzed in sufficient depth. Consequently, this particular conclusion perhaps suggests the need to contextualise case studies of conservation more deeply in both histories and geographies of resistance. By analyzing the ‘cracks’ in the artifice of conservationist power/knowledge, as it were, such inquiries may assist us in developing a richer understanding of specific *motivations* for resistance to conservation (cf. Foucault 1978: 92). Indeed, through such an approach, we may avoid reducing local people to mere consumers of natural resources, who simply aim to grab land or resources out of simple greed, opportunism, or even as the result of some purportedly universal rational actor-calculus.

³ As noted in the conclusion to *Chapter Four*, this passage also serves as the epigraph for Scott’s (2009) *The Art of Not Being Governed*.

8.3 Contemporary Governance of Mount Elgon National Park: Key Findings

Given this historical context, it is perhaps unsurprising that Mount Elgon now constitutes one of the most contentious and complex instances of PA governance in East Africa. In *Part B*, I further examined the ways in which the broader governance *milieu* of global environmental change now influences the nature of conservation management on the Ugandan side of the mountain. In doing so, this study addressed three empirical research questions:

(i) How well does the prevailing rhetoric of ‘triple-win’ outcomes accurately describe the effects of carbon offsetting for local communities, forest conservation, and climate change mitigation at Mount Elgon?; (ii) How do the current spatial and temporal distributions of shared benefits affect the perceived legitimacy, and thus the effectiveness, of conservation at Mount Elgon National Park?; and (iii) How do MENP-adjacent communities respond to the perceived inadequacy and illegitimacy of existing benefit sharing schemes? Further, do these resistance strategies pose an existential threat to the PA itself? In *Part B*, Papers I, II, and III examine each of these questions in turn.

8.3.1 Travelling Green? The Political Ecology of a Failed Carbon Offset Project

In Paper I, I adopt the “conceptual toolkit” of political ecology (Robbins 2011), and critically scrutinize the rise and decline of a carbon offset forestry project at Mount Elgon National Park. Officials from UWA (2010) and the FACE Foundation (2001) initially claimed that the scheme would result in ‘triple win’ outcomes for climate change mitigation, forest/biodiversity conservation, and local livelihoods. However, both historical and contemporary analysis of the project suggests otherwise.

Indeed, while the original contract between UWA and FACE stipulates that the former must guarantee the integrity of the newly established tree plantations for a period of 99 years (FACE Foundation 1992; Lang and Byakola 2006), the project had virtually

collapsed merely ten years after its establishment. While UWA-FACE's project managers initially set reforestation targets of 1000 hectares per year, actual reforestation fell below 200 hectares by 2002, and had ceased entirely by 2004. Key informant interviews and content analyses reveal substantial encroachment into forests even from the very beginning of reforestation activities in 1994. By 2002, nearly 44% of the project's compartments had been deforested in whole or in part – an amount of land that exceeded the risk “buffer zone” established by the scheme's external auditors (SGS Agrocontrol 2001). Further, even if we bracket the issue of encroachment altogether, the project was only able to reforest 8,000 of the planned 25,000 hectares of forest before the cessation of activities in 2002.

Qualitative research among plantation-adjacent communities further revealed allegations of violence and human rights abuse directed against park authorities, which local people responded to with violent reprisals and incursions into protected forests. The project was preceded by one of the bloodiest and largest-scale forest eviction campaigns in Uganda's post-colonial history, resulting in widespread grievances among local people (Norgrove 2002; Norgrove and Hulme 2006; Vangen 2009; Checker 2010). Communities were evicted from the same 25,000 hectares of degraded forest that were slated for UWA-FACE rehabilitation, and have not been compensated for the loss of land, property, and livelihoods that accrued as a result, despite potentially valid legal claims to their property (Cultural Survival 2005; Lang and Byakola 2006). Further, although the project claimed that it ‘benefitted’ local people by providing employment opportunities and demand for tree seedlings, the scale of these benefits are meager compared to the size of local populations. Indeed, at its peak, the UWA-FACE project seasonally employed between 500-1000 people, relative to a population of more than 1.5 million in adjacent districts (UBoS 2002; UCC 2010).

In 2001, only *one year* before the total collapse of the project, a team of expert auditors employed by the FSC concluded - based on the plantations established at the time - that the scheme would sequester 3.73 million tonnes of carbon dioxide over its first

certification period, which was deemed to last until 2034 (SGS Agrocontrol, 2001: 36-45). Of these, 1.62 million credits were set aside as a ‘risk buffer’, so that the remaining ‘2.11 million *virtually risk free* GHG credits ... [could be] delivered between 1996 and 2034’ – at which time plantations were due for re-inspection (SGS Agrocontrol, 2001: 9, emphasis added). The speed with which this project unraveled after such a confident forecast points to a number of uncertainties with carbon offset forestry projects more generally; namely, that they remain vulnerable to social and political shocks. When the perceived benefits of these initiatives are deemed insufficient, disastrous levels of resistance may occur. In Paper II, I sought to further examine such issues by analyzing the implications of revenue and benefit sharing schemes for the perceived legitimacy of conservation at Mount Elgon National Park more broadly.

8.3.2 Conservation Governance, Benefit Sharing, and Environmental (In)justice at Mount Elgon, Uganda

Taking an environmental justice perspective (Ikeme 2003), Paper II analyzes the spatial and temporal distribution of shared benefits from conservation at Mount Elgon, again in relation to ‘win-win’ rhetoric adopted by local conservation authorities (UWA 2000b, 2009). Adopting a model developed by Svarstad *et al.* (2011), the paper examines, in particular, the relationship between access to redistributed benefits and the perceived legitimacy or *sense of justice* that local people do (or do not) hold in relation to conservation at Mount Elgon.

Paper II found large spatial and temporal asymmetries in the distribution of shared benefits. For instance, Manafwa district – where two of three groups involved with land claims against UWA are located – has received only 7.7% of redistributed revenue since 2002. This is despite housing 355,400 people, or 22.3% of the park-adjacent population, and 12% of the park-community boundary. Further, the amount of revenue actually redistributed to the district – 7,538,000 UGX or approximately 3,027.31 USD since 2002 – amounts to only 0.0085 USD per district resident over a nine year period. Likewise,

Bulambuli, Bukwo, and Kapchorwa districts were similarly marginalized, accruing only 4.0% (approximately US\$ 1,593.19), 7.7% (US\$ 3,006.01), and 8.3% (US\$ 3,263.33) of shared revenue between 2002 and 2011, respectively. By contrast, the four best-compensated districts – Kween, Sironko, Mbale, and Bududa – collectively received 72.3% (US\$ 28,335.07) of shared revenue.

Further, although this process is intended to compensate communities that incur heavy damages to their harvests from human-wildlife conflicts (UWA 2000b, 2009), the process is temporally unsuited to realistically be of any substantive assistance. Even when redistributed revenue reaches a community that has suffered damages from crop raiding, these resources may accrue years after the fact, and only indirectly. Indeed, in addition to spatial inequalities in the revenue distribution process, temporal fluctuations are also salient, as RS payments are disbursed only every second calendar year. Further, payments have been suspended altogether since 2009, as UWA (2011b) transitions to a new benefit sharing model. Simply put, however, damages from crop raiding are direct, robust, and immediate. These damages can cause acute food insecurity, and diminish the ability of households to procure cash for essential goods and services such as medicines, health care, and education. By contrast, all proceeds from the revenue sharing scheme accrue to community enterprises, which begin to generate individual returns to households only after a substantial start-up period. Further, in the event that the established projects are not commercially successful, the returns to individual households can be either meager, or nonexistent (cf. Cavanagh 2009).

As such, whereas the deleterious socioeconomic effects of conservation were found to be both robust and acutely experienced, shared benefits were relatively marginal and temporally unsuited to serve as compensation. By extension, the paper suggests that existing benefit sharing arrangements also fail to target vulnerable social groups *within* park-adjacent communities, such as women and children, whose roles in the household economy denote that they are asymmetrically affected by resource access restrictions and external shocks like crop raiding. These inequalities and inconsistencies result in a

situation in which local people perceive conservation at Mount Elgon as being illegitimate, and such perceived illegitimacy, in turn, exacerbates ecologically destructive conflicts with park management authorities. In Paper III, therefore, I specifically examined the nature of the resistance strategies that arise from the perceived illegitimacy of conservation at MENP, and their implications for contemporary conservation governance on the mountain.

8.3.3 Guerrilla Agriculture: A Biopolitical Guide to Illicit Cultivation within an IUCN Category II Protected Area

Engaging with academic literatures on biopolitics (Li 2010), resistance to conservation (Norgrove and Hulme 2006; Holmes 2007), and ‘everyday resistance’ more broadly (Scott 1987, 1992), Paper III examines the strategies and tactics that local people employ to protest the perceived illegitimacy of conservation at Mount Elgon National Park. Of particular interest, here, is the recurring focus on what I call ‘guerrilla agriculture’ or illegal food production strategies – defined as the means by which farmers circumvent state regulations that seek to restrict subsistence cultivation as a viable land use. As noted in *Section 8.2*, such regulations have a long history at Mount Elgon, arising from the colonial period in which authorities sought to restrict subsistence access to common-pool resources and maximize incentives for producing cash crops – such as Arabica coffee – for export markets (cf. Bunker 1987; Himmelfarb 2012).

Paper III found that these strategies broadly correspond to nonviolent-symbolic, militant, discursive-representational, and formal-legal categories. Combined, these tactics allow communities to circumvent policies and legislation that criminalize subsistence agriculture, and which aim to bolster the global public good of biodiversity at the expense of local and traditional livelihoods. Indeed, in the socioeconomic context of recurring dispossessions at Mount Elgon, it is unsurprising that the production of food constitutes the centrepiece of resistance to conservation. Rather than posing an existential threat to MENP, however, the goal of such tactics is to allow local people to maintain a portfolio

of both subsistence and market-based production strategies that allow monetary incomes to be raised, when necessary, and to also enable a withdrawal into subsistence cultivation when terms of trade become exploitative or undesirable. Like conventional forms of guerrilla resistance, I argue, the goal of guerrilla agriculture is to carve out the largest possible space of autonomy for local communities from both the state and large economic actors such as commodities trading companies.

This approach may offer an interesting perspective for other critical analyses of conservation and development. Too often, I claim, the language of ‘governmentality’ and biopolitical programmes that ‘make live or let die’ robs its subjects of their own agency (cf. Rutherford 2007). At Mount Elgon, for example, communities clearly exercise such agency by employing a variety of guerrilla agricultural strategies to maintain their livelihoods against the threat of both utter dispossession and policies that seek to subsidize the lifestyles and livelihoods of other populations at their expense. I conclude, therefore, that if ‘the point is to change it’ (cf. Castree *et al.* 2011), we must generate and disseminate accounts of the actions and strategies that marginalized populations employ to resist these new forms of dispossession, rather than only descriptive accounts, however evocative or nuanced, of their immiseration. Indeed, I contend in the last instance, such efforts may provide a fruitful basis for (re)invigorating the pursuit of global environmental justice in times of ecological, social, and economic crisis for international capitalism.

Having presented the key findings of this study, I now transition to a discussion of the policy recommendations that arise from them.

8.3.4 From Diagnosis to Prescription

“[T]he positions of critic and programmer are properly distinct”, writes Tania Murray Li (2007: 2) in *The Will to Improve*, given that “[a] central feature of programming is the

requirement to frame problems in terms amenable to technical solutions [...] Under pressure to programme better, [programmers] are not in a position to make programming itself an object of analysis.” In many ways, my role in writing this thesis has tended more towards the role of the critic than that of the programmer. I am aware of the degree of academic ‘luxury’ that this entails, as I have so far merely criticized and analyzed the interventions adopted by governments, conservationists, and donors at Mount Elgon, without risking a set of practical (albeit explicitly normative) suggestions for how the situation should be ‘improved.’

And yet, I concur with Li (2007) that one should attempt, insofar as this is possible, to separate the tasks of diagnosis/criticism and prescription. As I hope this thesis has made clear, the conservation of biological diversity is far from a technical endeavour. Too often, attempts to frame it as such simply conceal the implicit politics of what is actually proposed (cf. Ferguson 1994). Indeed, the very practice of ‘producing nature’ involves political decisions about proper land use, about the well-being and security of certain populations, and about the relative value of human life relative to its non-human counterparts, among other concerns. As I have endeavoured to show, conservation in the Anthropocene is not just political. Rather, it is inherently *biopolitical*.

However, in the penultimate section of this thesis, I make a number of recommendations for how the relationship between conservation and local communities can be ‘improved’ at Mount Elgon. Rather than attempting to disguise my political allegiances, however, I will instead endeavour to first make these perfectly clear. As a “compositionist” (Latour 2011), I do not hold an idealized, predominantly Western conception of ‘Nature.’ Instead, I subscribe to a form of “ecology without Nature” (Morton 2007), which holds that one should view humanity as firmly embedded *within* bio-geophysical systems, rather than ontologically separate from them. Rather than pure categories of ‘Nature’ and ‘Society’, therefore, I view the world as being composed of ‘hybrids’ (Castree 2003, 2005), ‘cyborgs’ (Haraway 2007), or ‘monsters’ (Latour 2011), which blend together humans, human technology, and environmental/externally biophysical components. In contrast

with the ‘deep ecology’ of previous environmental philosophers (Næss 1973; Sessions 1995), one can better describe this position as a *dark ecology* (Morton 2010: 59), as it does not idealize, romanticize, or mysticize humanity’s biophysical environment. Rather, it emphasizes the material interdependence of human systems and non-human systems (or quasi-human systems, in a hybridized sense.) As we journey further into the Anthropocene, I assert that such a biopolitics is increasingly well suited to guiding human action.

8.4 The Way Forward: From Fortress Conservation, to Fairweather Communitarianism, to Enforced Sustainability

As various conservation professionals have noted, the task of developing management prescriptions for Mount Elgon National Park challenges even the most experienced policymakers (cf. Hinchley 1998; Scott 1998; White 2002; Hoefsloot *et al.* 2011). As such, I do not presume, here, to offer a corrective to that which UWA, the IUCN, Norad, or the East African Community’s Lake Victoria Basin Commission have proposed. All of these actors are currently involved with conservation policy in the region, and I believe that many of them sincerely wish to achieve sustainable outcomes for both conservation and development at Mount Elgon.

However, as noted in the previous section, my primarily academic subject position allows me to advance recommendations that these actors perhaps *should not* offer, due to the politics of their organizations, and the political economy of the processes through which they receive funding. Indeed, as development ethnographers like David Mosse (2005) have famously noted, policy change becomes ‘sticky’ within organizations once certain beliefs or presuppositions have been institutionalized. As such, this section offers recommendations that might receive support *within* certain sections of these organizations, although they would likely not receive endorsement *from* these organizations in a formal sense. That said, in seeking to “plant the seed” (Robbins 2011)

of alternative policy thinking among these actors, I will make the case for radical policy change here, regardless.

8.4.1 Fortress Conservation, Fairweather Communitarianism, and their Discontents

Unlike landscapes such as Kilimanjaro and the Serengeti, the conservation history of Mount Elgon is perhaps unique in that the colonial rhetoric of ‘wilderness’ and ‘pristine nature’ (cf. Cronon 1996; Neumann 1998) is relatively absent. A case in point can be found in a report that one Captain Archer – whose reason for visiting Mount Elgon was to conduct a “punitive raid” on a group of Bagisu who refused to pay taxes to the British Crown – dispatched to the Commissioner for the Uganda Protectorate in 1907.⁴ Archer wrote not primarily of scenic landscapes, of wilderness, or of pristine ‘Nature’, but instead remarked that:

“Each visit I pay to these foothills of Elgon impresses me more and more with the teeming population, fertile country and great possibilities arising therefrom. I have little doubt that, when we can establish our authority more securely and an official can be spared to spend his time among them, thus letting them get to know the advantages of our administration over their present lawless habits, we shall make rapid progress in opening up trade to this beautiful garden.”

From the first attempts to exert state control over the Mount Elgon ecosystem, *economic* rather than *aesthetic* or *idealistic* concerns have played a central role. Indeed, throughout much of its history – and arguably still today – Mount Elgon itself constitutes a commercial powerhouse. The region’s fertile soils, its “teeming” labour force, and its dependable supply of water denote that the region retains vast potential for commercial agriculture – a fact clearly observed by both the colonial and post-colonial state administrations (Bunker 1987; Heald 1998; Norgrove 2002; Himmelfarb 2012).

⁴ Letter, Cpt. Archer to H.M. Commissioner’s Office, dated 29th January 1907. Photographed at the Uganda National Archives, December 2011.

My point is that fortress conservation at Mount Elgon is historically related to economics and political science inasmuch as it has been, first, to ‘nature preservation’ and, later, to ‘conservation biology’. Differently put, much of the impetus for fortress conservation on the mountain has arisen from the commercial opportunities and constraints faced by state administrators. Since colonization, examples include maintaining a suitable water supply for the cultivation of coffee and other cash crops (Bunker 1987; Himmelfarb 2012), ensuring an adequate supply of timber for the Eastern Province (Webster 1954; Webster and Osmaston 2003), and, now, raising revenue from both ecotourism and payment for ecosystem service schemes (Byakola and Lang 2006; Norgrove and Hulme 2006; Mwayafu and Kimbowa 2011a).

I raise this issue because a historical review of institutional changes at Mount Elgon, combined with the empirical work conducted for this thesis, suggests that these factors have often prevented policy shifts from being made in favour of local communities. As this thesis’ findings demonstrate, ‘win-win’ rhetoric has been systemically upheld even when it directly contradicts empirical realities. Here, I refer to such trends as *fairweather communitarianism*, because the language of ‘community conservation’, ‘participation’, and ‘benefit sharing’ appears to be upheld only insofar as it supports the interests of the state and its donors. As Vangen (2009: 138) concludes in her analysis of MENP – rightfully, I think – UWA has thus far shied away from a rights-based approach to the participation of park neighbours, despite exponential increases in policies couched in the language of ‘community’ and ‘participation’ since the 1990s (cf. UWA 2000b). Not much has changed, then, since Webster (1954: 2) wrote of resource access restrictions in the first colonial working plan for Mount Elgon Forest Reserve, bluntly, that “there are no rights.” While I do not uncritically advocate for rights-based approaches, an emerging body of empirical work on common property demonstrates that secure resource use rights should perhaps be perceived as a necessary – albeit insufficient – condition for achieving sustainability in conservation-related socio-ecological systems (cf. Ostrom *et al.* 2007;

Ostrom 2009; Miller *et al.* 2012). As such, if real change is to be achieved, persistent economic and political disincentives for devolving use rights must also be addressed.

While many human rights activists disapprove of the current state of ‘fairweather communitarianism’ at MENP (cf. Lang and Byakola 2006; Checker 2010; Hurinet-Uganda 2011), so too do an increasing number of conservationists. For the ‘back to the barriers’ crowd (cf. Hutton *et al.* 2005), community-based policies have failed to curb both encroachment and environmental degradation. Twenty-six years after Yoweri Museveni’s NRM government restored order to eastern Uganda, most large mammals have not returned from the Kenyan side of Mount Elgon (UWA 2009). Encroachment continues to varying degrees around the whole of the national park, and even where resource use agreements do not exist, communities often maintain access to protected resources through both bribery and violence (cf. Paper III; Norgrove and Hulme 2006; Hurinet-Uganda 2011).

Keeping in mind these shortcomings of previous conservation models at MENP, the following section outlines the rationale for what I will call an *enforced sustainability* approach. One could describe this approach as a ‘hybrid’ model for conservation, which acknowledges the possibility of sustainable coexistence of human communities *within* protected ecosystems. I should note that this is a *conceptual* proposal, rather than a *technical* one, in that it offers a new means of perceiving the relationship between humans and ecosystems at Mount Elgon. I do not claim that these recommendations could immediately be seamlessly implemented in all communities and all locations in the region. Instead, one should perceive these suggestions as a conceptual starting point – a proposal designed to circumvent many of the political obstacles that have previously strained tensions between conservationists and communities in the region.

8.4.2 Enforced Sustainability: A ‘Firm but Fair’ Approach

The conceptual basis for what I will term *enforced sustainability* arises, in the first instance, from previous experiences with ‘collaborative management’ at Mount Elgon. Since the initiation of the Norwegian-funded Mount Elgon Conservation and Development Project (MECDP) in 1988, UWA has implemented these schemes with technical assistance from the IUCN (Hinchley 1998; Scott 1998; White 2002). These actors have also designed and implemented variants of these initiatives in accordance with the Norway and Sweden-funded Mount Elgon Regional Ecosystem Conservation Programme (MERECP). Most recently, MERECP has built upon the foundation established by MECDP by experimenting with alternative funding mechanisms such as the sale of carbon credits, community revolving funds, and the provision of payments for avoided deforestation (Hoefsloot *et al.* 2011; Mwayafu and Kimbowa 2011a; LVBC 2012).

MECDP first piloted a handful of ‘collaborative resource management agreements’ (CRMAs) in only a handful of parishes adjacent to MENP in the early 1990s. As of 2011, however, a total of only 15 active CRMAs were found to exist at the park (cf. Paper II), relative to approximately 58 neighbouring parishes. Here, I outline what one might call an *intensification* of the existing collaborative management approach, which seeks to sustainably integrate certain forms of human activity – excluding permanent settlement – within portions of the national park according to a rights-based model. At first glance, these propositions might appear to resemble measures already employed by UWA, IUCN, or MERECP. Again, however, I reiterate that these proposals differ from previous strategies adopted by the IUCN and UWA not in their *technical* content, but in their *political and conceptual* content. Differently put, many of these recommendations are similar in form – but vastly different in substance – to that which conservationists have proposed in the past.

Recommendation 1: Universalize CRMAs in all MENP-adjacent parishes. First, I contend that CRMAs must form the core of an enforced sustainability approach. CRMAs should be governed according to a rights-based model (cf. Vangen 2009; Moll 2011; Sletten *et al.* 2008), and universally instituted in park-adjacent parishes. By a ‘rights-based model’, I mean an approach through which all residents of PA-adjacent parishes hold institutionalized entitlements to sustainable household quotas of protected resources – including fuelwood, medicinal herbs, nutritional forest products, and access to cultural/spiritual sites – for non-commercial, household use. To prevent the problem of in-migration to park-adjacent parishes (Wittmeyer *et al.* 2008), resource use rights should be tied to tenure rights. That is, access to protected resources should be tied to freehold, leasehold, or customary land ownership within a PA-adjacent parish. Customary land rights should be formalized, with assistance from local government. In cases where poverty, disease, or other shocks result in the loss of property, provisions should also be enacted to allow for resource access to be retained through affiliation with related households. Given high population densities, land scarcity, and deeply institutionalized clan systems among both the Bagisu and the Sabinu (Goldschmidt 1967; La Fontaine 1969; Bunker 1987; Heald 1998), it is unlikely that substantial numbers of illegitimate residents would be able to attain land rights – and thus resource access – in these locations.

Recommendation 2: Revise the substantive content of CRMAs. Second, the substance of all CRMAs must be revised in accordance with the rights based approach. Although current CRMAs refer to “resource use rights” (e.g. UWA n.d.), other provisions within the agreements undercut the substance of the term ‘right.’ For example, current agreements state that “either party may revoke this agreement at any time” (UWA n.d.: 5). One does not need extensive training in political philosophy to realize that a ‘right’ is not held if it can be revoked by a third party at whim, especially without due process or justification. The implementation of a true rights-based approach to CRMAs will reduce UWA’s ability to utilize these agreements as political leverage (cf. Paper II), as the agency will no longer be able to restrict the resource access of groups that attempt to

legally challenge MENP through the courts or human rights bodies. The adoption of such an approach will be unpopular within UWA for precisely this reason; however, I maintain that it is a necessary condition for fostering truly sustainable resource use.

Recommendation 3: Formulate culturally-appropriate, self-monitoring enforcement systems for resource use quotas. Presently, CRMAs include provisions for the creation of a local ‘Resource Use Committee’, which is intended to enforce the agreement at the local level. However, in another excellent case of ‘fairweather communitarianism’, local communities do not contribute to the negotiation of either i) stipulations regarding resource quotas, or ii) the nature of the sanctions to be enacted for non-compliance. In order for these agreements to be effective, the CRMA formulation process must involve negotiation between UWA and communities regarding these issues. Further, resource users must develop their own system of graduated sanctions – which they themselves enforce – to punish non-compliance with existing institutions (cf. Ostrom 1990; Agrawal 2005). As thoroughly documented by Goldschmidt (1967, 1976, 1986), and also discussed somewhat by Himmelfarb (2012), the Sabiny in particular *already possess* relatively well-developed institutions for managing and enforcing resource use. This includes versions of what one might describe as property, tort, and contract law (cf. Goldschmidt 1967). CRMAs must be formulated in ways that synergize with these pre-existing cultural institutions to the greatest possible extent.

At present, UWA stipulates existing sanctions, without community participation, and these rapidly graduate to formal-legal prosecution (e.g. UWA .n.d). This model of enforcement is unsustainable for both social and ecological reasons. Under the above-described approach, by contrast, I recommend that UWA must refrain from interfering with enforcement systems unless it can scientifically document evidence of resource overharvesting or other unsustainable use within the protected area. In the event that this is the case, deliberation must be pursued as the default response. If – and only if – dialogue fails to rectify the situation, law enforcement institutions should be involved in accordance with current guidelines (cf. UWA n.d.).

Recommendation 4: Cede control of all territory outside the original 1993 MENP boundary. As various researchers have observed (Himmelfarb 2006; Lang and Byakola 2006; Norgrove and Hulme 2006; Luzinda 2008; Vangen 2009; Himmelfarb 2012), UWA's alterations to the MENP boundary established in 1993 have precipitated conflicts at various locations around the PA. UWA (2010: 5) claims that the 1993 boundary is illegitimate, alleging that various communities bribed the boundary survey team to alter it in their favour. Another – allegedly correct – boundary was established in 2001-2, which in some locations extended nearly one kilometre into community territory. In conjunction with the military, violent evictions were conducted to remove people within the newly (re)demarcated areas.

Subsequently, the contested nature of these evictions has given rise to both legal and violent conflicts (Hurinet-Uganda 2011). As of 2005, the High Court in Mbale has granted injunctions that prevent UWA from evicting three groups of farmers that have lodged such complaints, which number approximately 15,000 people in total. I recommend that UWA cede its claim to land outside of the original 1993 boundary, as the costs associated with maintaining both legal and other disputes with these communities will eventually become unsustainable. Even if UWA emerges as the victor in the legal process, communities with enhanced grievances will still possess non-legal means of *de facto* access to land and resources in many cases. I suggest that UWA should carefully reflect upon the conservation value of the disputed land, especially in areas where communities have wholly converted it to agricultural use, relative to the costs of re-establishing control over these areas. In many cases, I suspect the costs of doing so outweigh the prospective conservation value of the disputed territory. Indeed, this recommendation was made by President Museveni himself, based on similar logic, prior to elections in 2011 (Kolyangha and Mafabi 2010).

Recommendation 5: Settle existing land disputes out-of-court, if possible. Even the withdrawal of land claims to areas outside the 1993 boundary will likely not dissolve

existing legal conflicts in their entirety, as the complainants also seek compensation for damages incurred through eviction and lost livelihoods. However, UWA should continue all efforts to settle these disputes outside of court. During fieldwork in July 2011, communities had recently refused a settlement of their cases through an ‘alternative dispute mechanism’ process, alleging that the procedure was unfair and biased in favour of UWA’s interests (key informant interview, 23.08.2011). In the future, I recommend that UWA should approach such opportunities in good faith, and harness them as a means of normalizing relations with previously estranged communities. If claims to land outside the 1993 boundary are ceded and CRMAs are universalized, moreover, I believe that local people will exhibit greater willingness to participate in an alternative dispute-resolution process.

Recommendation 6: Harness carbon finance mechanisms only when they can be integrated into household economies. This recommendation concerns potential means of raising revenue for redistribution to communities surrounding MENP. I assert that attempts to link conservation to voluntary carbon markets may provide such opportunities, but only under a very specific set of conditions. Measured in relation to both socio-economic and ecological criteria, past attempts to accomplish this objective have failed, and may have arguably even exacerbated existing tensions (cf. Paper I; Lang and Byakola 2006). However, emerging alternatives – conducted using the *taungya* agroforestry model – with both UWA-FACE 2.0 (Paper I) and MERECP (Mwayafu and Kimbowa 2011a; Hoefsloot *et al.* 2011) suggest that such schemes retain greater potential to both achieve sustainability and deliver on socio-economic co-benefits.

The advantages of these models arise from the involvement of farmers at the household level, and the derivation of carbon offsets from trees planted on either household- or collaboratively managed land. Where household land-use rights are secure, this approach arguably provides the best means of addressing concerns related to social or political causes of leakage and permanence (Bumpus 2011; van Oosterzee *et al.* 2012). Findings from elsewhere in Uganda, especially with regard to the use of Plan Vivo’s agroforestry

model by NGOs such as Ecotrust (Mwayafu and Kimbowa 2011b), corroborate this observation. One should note, however, that such models for ‘community-based carbon offsetting’ are not a panacea, especially when they involve intra-community disputes regarding participation, as noted in the penultimate section of Paper I. Further, these schemes also do not avoid moral concerns about the very practice of carbon offsetting itself, especially in cases where carbon credits effectively grant businesses and individuals a license to continue polluting as usual (cf. Bachram 2004; Lang and Byakola 2006).

Recommendation 7: Initiate a voluntary resettlement scheme to available agricultural land of comparable fertility. The final recommendation acknowledges that population growth in MENP-adjacent districts is a real phenomenon that is likely to continue (UBoS 2002), and that extreme events such as landslides appear to be increasing in frequency in southern and western areas of the mountain (Knapen *et al.* 2006). Recent events in Bududa district, in particular, testify to the severity of the situation (Makuma 2012). As such, a voluntary resettlement scheme must be developed, in conjunction with relevant stakeholders in UWA, local governments, communities, and civil society, in order to negotiate mutually acceptable guidelines for this process. Previous efforts at resettlement to other areas of Uganda, such as Kiryandongo, have been marked by controversy. Displaced individuals have complained of poor agro-ecological conditions, conflicts with native residents, and non-existing government assistance in resettlement areas (Mafabi 2010). Accordingly, any attempt at future resettlement must abide by standards of free, prior, and informed consent (FPIC), respect for human rights, and should endeavour to locate agricultural land of reasonable quality. If such principles are not respected, socioeconomic problems will have simply shifted their geographical location, and will spawn new difficulties in other regions of Uganda.

Together, these seven recommendations form the initial basis for what I have termed the *enforced sustainability* approach to conservation at MENP. This conceptualization seeks to transcend arbitrary divisions between ‘community’ and ‘natural’ territory, and to

integrate human activity into the PA to the greatest extent that is possible to sustainably accomplish. In adopting a rights-based model, the approach further aims to minimize the degree to which UWA is able to exert leverage over local communities for political reasons. By implementing these measures, I contend, all stakeholders will have achieved progress toward developing a more sustainable and equitable model for conservation in the Anthropocene.

8.5 Conclusion: Learning to ‘Love our Monsters’

In a rather unconventional – yet undeniably brilliant – recent essay, Bruno Latour (2011) likens the predicament facing environmental governance to the plot of Percy Shelley’s (1891) *Frankenstein, Or, The Modern Prometheus*.⁵ Dr. Frankenstein’s great sin was not creating a synthetic form of life, argues Latour, but rather abandoning it to wreak havoc on the world after its birth. As the monster itself notes, confronting its creator mid-way through the novel, “[r]emember, I am thy creature [...] I was benevolent and good; misery made me a fiend. Make me happy, and I shall again be virtuous” (Shelley 1891: 137). Following Latour (2011), we should let Dr. Frankenstein’s sin serve as a parable for “a time when science, technology, and demography make clear that we can never separate ourselves from the nonhuman world – that we, our technologies, and nature can no more be disentangled than we can remember the distinction between Dr. Frankenstein and his monster.”

Much like Dr. Frankenstein, humans have already created a new form of monster. We call it ‘Society.’ Yet, as Morton (2007: 194) notes, “*Frankenstein* is an ecological novel precisely *not* because it compels us to care for a preexisting notion of nature, but because it questions the very idea of nature.” Indeed, amidst the context of global climactic and environmental change, rapid population growth, and technological innovation, it has

⁵ Latour (2011) uses the term “political ecology” instead of ‘environmental governance.’ However, since his usage is much broader than that of Blaike and Brookfield (1987) and Peet *et al.*’s (2011), for instance, I avoid it here for the purposes of intelligibility.

become increasingly difficult to purely separate ‘Society’ from ‘Nature’ (Steffen *et al.* 2011b; Lorimer 2012; Sayre 2012). Even by measures of geological time, the character of our economy, our society, and our use of natural resources are unprecedented (Crutzen 2002). Notwithstanding the idiosyncratic nature of Latour’s argument, therefore, I contend that his parable leaves us with fertile conceptual ground for rethinking the ‘nature’ of conservation in the Anthropocene. As this thesis has shown through a critical case study of conservation governance at Mount Elgon, the act of enforcing this arbitrary conceptual boundary is often both ineffective and bloody. Indeed, violence frequently ensues when various stakeholders perceive this division as insufficiently encompassing the depth of the interrelation between resource-dependent communities and the ecosystems that provide them with sustenance.

Lest I be accused of anthropocentric bias, I would like to make clear, in conclusion, that such a hybridized view of ‘socio-nature’ (Castree 2005: 224), “ecology without Nature” (Morton 2007: 140), or ‘dark ecology’ (Morton 2010: 59) will likely improve the health of non-human systems as well. As I have endeavored to show in outlining an *enforced sustainability* approach to conservation, we can allow humans and non-humans to circumvent the arbitrary nature-society divide, so long as we ‘get the institutions right.’ Unlike Ostrom *et al.* (2007), however, I take the position that such a pursuit will be equally political as it is technical. In proposing future areas for research on conservation in the Anthropocene, then, I suggest three distinct areas of inquiry: i) resistance, ii) institutional arrangements and sustainability, and iii) biopolitics.

The first area of inquiry arises from the historical segment of this thesis, and asks, ‘how and why do certain groups resist conservation?’ Further, it inquires, ‘what are the broader histories and geographies that give rise to such resistance?’ Understanding what one might term the ‘pre-history of conservation’ – that is, the localized struggles and conflicts that both pre-date and post-date the institutionalization of protected areas – is essential for cultivating a deeper understanding of conservation itself. Indeed, such an area of inquiry may help us illuminate how struggles against conservation are, in fact, tied up with

broader struggles against states, markets, and various other forms of non-local governance. Here, future researchers can make contributions not just to environmental governance, but perhaps also to social science more broadly. Such knowledge will also enable us to offer politically feasible contributions to the second area of proposed research.

Second, I propose further research on the proper nature and content of institutions for governing the sustainable co-existence of human and non-human systems. At present, much work on social-ecological systems, integrated conservation and development, sustainability science, and related fields focuses on how human communities can sustainably live *outside of* or *adjacent to* protected areas (cf. Ostrom 2009; Miller *et al.* 2012). Rarer, though, are types of research that examine how human systems can function sustainably when they are embedded at least partially *within* non-human systems such as formally protected, forested watersheds. This area of inquiry could ask, ‘what sort of institutions ensure the sustainable human use of natural resources within protected ecosystems?’ Or, ‘how can resource users develop just and legitimate governance systems for enforcing their own sustainable use of protected resources, perhaps even independently from the state?’ While I do not advocate a return to some form of idealized proto-agrarian existence, I suspect that much can be learned, here, from anthropologists and ethnographers working with forest-dwelling human communities. At Mount Elgon, an excellent starting point is the superb political ecology of Dr. David Himmelfarb (2012) and the cultural ecology of his predecessor, Walter Goldschmidt (1967, 1976, 1986).

Finally, and perhaps most interestingly, the concept of *biopolitics* suggests itself as a fruitful area of future conceptual research on conservation. Following the foundation established by Foucault (1978, 2004, 2008), the concept has begun to develop into post-Foucauldian manifestations (cf. Hardt and Negri 2000; Mbembe 2003; Agamben 2005). While early applications of biopolitics emerged around primarily social phenomena (Agamben 1998, 2005; Duffield 2007, 2010), others have now extended their biopolitical inquiries to the relationship between humans and non-humans (Rutherford 2000;

Rutherford 2007; Youatt 2008; Dempsey 2012). Moreover, fruitful sites of synergy for such a project could lie in Latourian “political ecology” (Latour 2005, 2011), as well as in other writing on hybridized “socio-natures” (Castree 2005; Haraway 2007; Morton 2007, 2010). Researchers could also go beyond the subject of human-nonhuman relations, and examine the biopolitical relationships between different nonhuman species. One could ask, for example, ‘why are baboons permitted to rampage throughout community lands, but cattle are not allowed to graze within the reserve?’ While such questions might at first appear to border on the absurd, they can, I contend, help us generate knowledge about the biopolitics that underpin certain conservationist policies.

Having delivered these propositions, I now bring this thesis to a close. It is my earnest hope that the reader has found this account both informative and intellectually stimulating. Throughout, I have sought to make conceptual, methodological, historical, and empirical offerings both to the existing literature on conservation and development, and to the next generation of equitable conservation policy. Like Dr. Frankenstein, I conclude, we need to learn to love our monsters. By doing so, we may proceed – however incrementally – toward the development of equitable conservation strategies for the Anthropocene.

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¹ This bibliography provides references for Chapters 1-4 and 8 of this thesis. Tailored references for Papers I-III are appended to each of these documents, respectively.

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