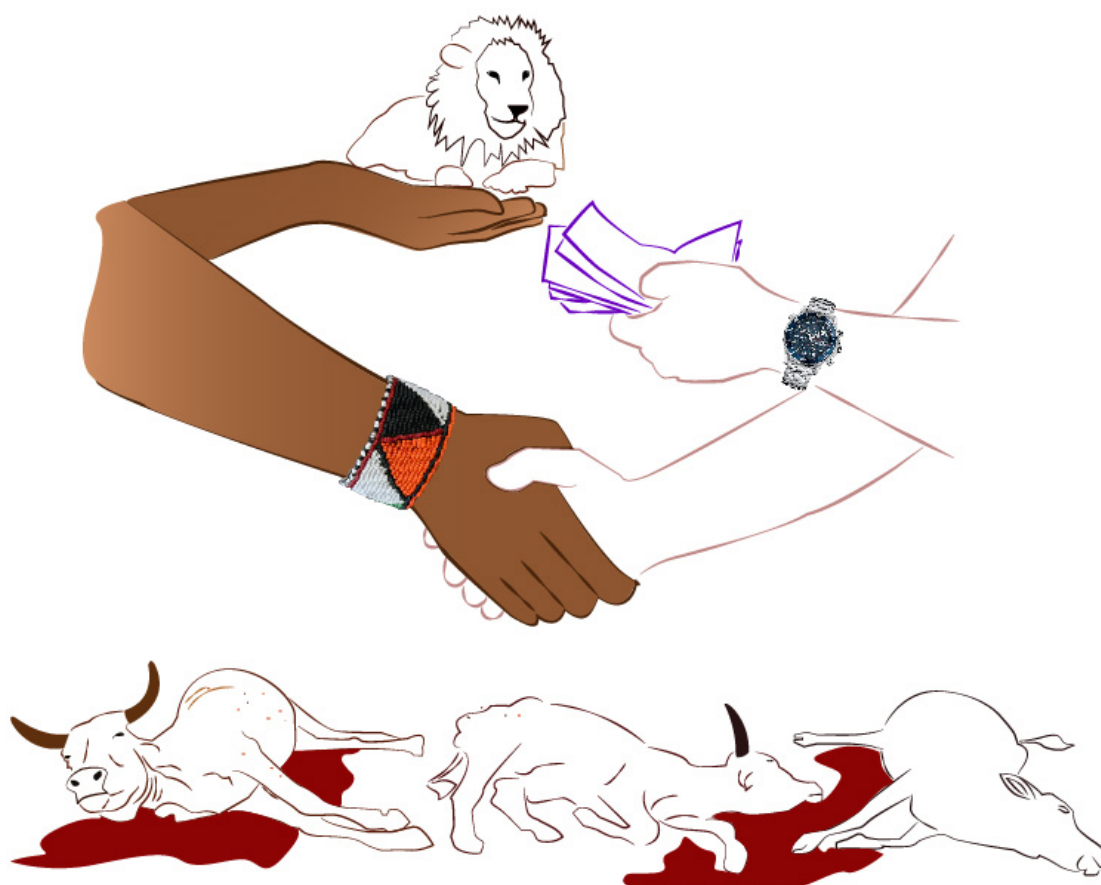


A lion for some cows:

Policy Arrangements in the Payment for Environmental Services at Mbirikani, Kenya



Nowella M. Anyango
Msc Thesis
August 2012

Department of Environmental Sciences
Socio Spatial Analysis
Wageningen University and Research
Centre
The Netherlands

A lion for some cows:

Policy Arrangements in the Payment for Environmental Services at Mbirikani, Kenya

Nowella M. Anyango

© August 2012

MSc Leisure, Tourism and Environment
Wageningen University, Netherlands

Supervisors

Prof. Dr. V.R. (René) van der Duim
Socio-Spatial Analysis Group
Wageningen University and
Research Centre Wageningen,
The Netherlands

Dr. I.J. (Ingrid) Visseren-Hamakers
Forest and Nature Conservation
Policy Group (FNP)
Landscape Centre of the
Environmental Sciences Group
(ESG)
Wageningen University
and Research

Thesis code: SAL-80433
Registration number: 751223016050
Email address: nowellam@yahoo.com

Dedication

To the people of Mbirikani Group Ranch

Acknowledgement

I would like to express sincere gratitude to all the people who made it possible for me to complete this thesis. To the Mbirikani Group Ranch community, thank you for time, co-operation and a great show of hospitality. *Asante sana* for each of the many cups of tea and sodas you bought or made for me, and I still feel deeply touched when *mzee* offered me his sweater so my clothes would not get dusty on the rough tractor ride to Chyulu. Thank you for sharing part of your lives with me.

I am also sincerely grateful to each of the people who took time to be interviewed. Tom Hill, thank you for generously giving me time to ask all my questions. I would mention each of the others by name but to keep my promise of confidentiality to some of you who requested it, I will only mention the organisations you represented: African Wildlife Foundation, Conservation International, Mbirikani Preservation Trust, Centre for Wildlife Studies, African Conservation Centre, Kenya Assemblies of God Church, Kenya Wildlife Services, Mbirikani Advisory Committee, Provincial Administration and Internal Security and the anonymous tour company in Nairobi.

Special thanks go to my supervisors, René van der Duim and Ingrid Visseren-Hamakers. Thank you for your wise counsel, encouragement and patience. To my family and friends, thanks for being there for me through everything. Thanks Lida for the cover page and J.T. for all the meals when I was too busy to cook!

Above all, I thank you God.

Summary

The free roaming African lion (*Panthera leo*) is facing extinction. Some conservationists even predict that this will happen as quickly as the next 25 years. Others have established that today lions are already extinct in 26 countries in which they originally lived. In East Africa, there have been efforts to reverse this situation but the success rate is not always encouraging. One of the greatest challenges is that lions – and other wildlife – typically live in close proximity to local communities, creating human-wildlife conflict. Each year, the pastoralist Maasai people lose numerous cattle to predation, impacting seriously on their main source of livelihood. Consequently, they retaliate by spearing or poisoning lions.

In 2003, a Predator Compensation Fund (PCF) was established at Mbirikani Group Ranch in southern Kenya to tackle this problem. This thesis combines theories from Policy Arrangement Analysis (PAA) and Payments for Environmental Services (PES) to analyse this arrangement with the objective of contributing to an alternative way of analysing PES. The central research question is : How can PCF be interpreted as PES in terms of actors, resources, rules and discourses? Qualitative research methods were employed in both data collection and analysis. This included an observation of a pay-out in the field, 28 interviews, document and literature review.

At Mbirikani, the group ranch community is the environmental service provider. The rules are such that members receive payments for every cow, sheep, goat or donkey killed by a specified predator. Payments are contingent on particular conditions. There are also penalties – including stopping all payments in a zone – should a predator be killed in a two-month period. The lion was found to be the best understood environmental service in the community. There are two types of environmental service buyers in the arrangement: direct buyers who contribute in-cash but not to day-to-day operations and indirect buyers who contribute in-kind to the operationalisation of the fund. There is also an intermediary, the Maasailand Preservation Trust (MPT), who acts as the link between the buyers and providers and as an administrator of the fund.

The research found three prominent discourses between the providers and buyers: compensation versus consolation; value of wildlife versus value of livestock; and specific species versus entire ecosystem. There was also unequal distribution of resources among them and power played out through restricted access to financial resources, lack of transparency on funding, unsustainable funding and discriminate compensation payments. Power was also wielded by holding or being associated with those in strategic positions and using knowledge or skills. Yet through strong negotiations, PCF emerged as a transaction that is neither fully mandatory nor voluntary.

The main conclusion is that PCF is arguably a Payment for Environmental Service because it meets many of its criteria. It is arguable because of peculiarities not common to PES arrangements: the environmental service provider is in this case also a key environmental service buyer; penalties include fines that are 7 times higher than compensation amounts; and implementation of penalties depends on 'command-and-control' mechanisms. PCF, however, met all the criteria for Direct Payments for Conservation: it is focused on both Biodiversity Protection and Landscape beauty; 70% of PCF contributions come mostly from foreign donors; and payments are for the protection of existing lion populations.

Three main effects of Mbirikani are: it has begun an irreversible yet unsustainable process; it has created a cycle of dependence in the community; and it has widened the gap between social classes. However it has not changed the community's attitude towards wildlife. This thesis highly recommends four areas for review of PCF and related conservation initiatives in Kenya. First, since PCF was not initiated with PES in mind, it should be taken back to the drawing board to determine if ending up as PES is the way to go. If so, then there is need for better market development and review of rules towards more fairness and justice that is considerate of the poorest in the community. Secondly, there should be a search for local solutions to the human-wildlife conflict that will not only shift attitudes, but also reduce running costs. Thirdly, conservation should be geared towards making economic incentives for local communities based on local ownership. To achieve this, communities should seek shareholder status in the organisations that would otherwise get away with paying them low lease rates or bed night fees. They should also seek a balance of power by removing the group ranch officials from the management of finances. Fourthly, Kenya Wildlife Services needs to be reformed to increase its presence and operations in the areas outside National Parks where wildlife is much more likely to be found. They should also take more charge in safeguarding local people and resources from exploitation by outsiders. Finally, research from different scientific approaches on Amboseli and similar regions in Kenya should be compiled because the solution to the complex issue of human-wildlife conflict cannot reside solely in one approach.

Key words: Payments for Environmental Services (PES); Policy Arrangements Approach (PAA); Predator Compensation fund (PCF); human-wildlife conflict; and Mbirikani Group Ranch.

Table of Contents

Acknowledgement	i
Summary	ii
List of tables	vi
List of figures	vi
List of acronyms	vi
1 Introduction	1
1.1 Research objective and problem statement	2
1.2 Outline of the thesis	3
2 Payments for Environmental Services: A Policy Arrangement Approach	5
2.1 Background on Payment for Environmental Services (PES)	5
2.2 Using Policy Arrangement Approach to analyse PES	9
2.2.1 Actor Dimension	10
2.2.2 Discourse Dimension	10
2.2.3 Resources and Power Dimension	11
2.2.4 Rules of the Game Dimension	12
2.3 Conceptual Framework	14
2.4 Central Research Question	15
2.5 Relevance of the Study	15
2.6 Methodological Approach	15
3 Predator Compensation Fund	17
3.1 Mbirikani Group Ranch	17
3.1.1 The Constitution and Rules of Mbirikani Group Ranch	19
3.2 Maasailand Preservation Trust (MPT)	21
3.2.1 Organisational structure of MPT	22
3.3 The Predator Compensation Fund (PCF)	23
3.3.1 How the Fund operates	26
3.3.2 Financing and Partners of PCF	27
3.3.3 PCF Pay-out Day	28

4	Analysis: PCF as a Policy Arrangement	31
4.1	Actors	31
4.2	Underlying Discourses	35
4.2.1	Compensation versus consolation	35
4.2.2	Value of wildlife versus the value of livestock	37
4.2.3	Specific species versus entire ecosystem	38
4.3	Resources and Power Relations	38
4.3.1	Financial resources and power relations	38
4.3.2	Position and power relations	41
4.3.3	Expertise and power relations	45
4.4	Working Rules	47
4.4.1	Development of PCF rules through the years	47
4.4.2	Challenges with following the PCF agreement	50
4.4.3	Circumventing PCF rules	55
4.5	So, is PCF a PES arrangement?	56
4.6	Reflection on using PAA to analyse PCF	59
5	Discussion and Conclusion:	60
5.1	Summary of findings	60
5.2	Discussion	63
5.3	Recommendations and suggestions for future study	68
	Appendices	72
	Appendix 1: Interview guideline	72
	Appendix 2: List of interviews	74
	Appendix 3: Copy of Predation Incident Log (September 2009)	75
	References	76
	List of documents from the field:	76
	List of websites	77
	Government of Kenya (GOK) documents	78
	List of citations	78
	Additional Readings	83

List of tables

Table 1: Amount paid for compensation of specific livestock killed by specific predators	23
Table 2: Deductions from full compensation for not meeting conditions	24
Table 3: Amount of Compensation for different categories of predation in September/October 2011	29
Table 4: Summary of disputes and resolutions during Pay-out day 3 Nov. 2011	30

List of figures

Figure 1: Four dimensions of PAA (Arts, Leroy & Tatenhove 2006:99)	9
Figure 2: Conceptual framework of using PAA to analyse PES at Mbirikani	14
Figure 3: Map of Amboseli ecosystem showing land use (KWS 2011)	18
Figure 4: Sign outside MPT gate	22
Figure 5: Process of compensation	26
Figure 6: MPT Advisory Meeting 3 Nov. 2011	28
Figure 7: Summary of PCF actors in terms of ES buyers and providers	33
Figure 8: Comparison of species protected by PCF and Wildlife (Conservation and Management) Act of 1976 (Rev. 2010)	54

List of acronyms

ACC	African Conservation Centre
ATE	Amboseli Elephant Trust
KGR	Kuku Group Ranch
KWS	Kenya Wildlife Service
MGR	Mbirikani Group Ranch
MPT	Maasailand Preservation Trust
MWCT	Maasai Wildlife Conservation Trust
ODWT	OI Donyo Wuas Trust
PA	Ministry of State for Provincial Administration and Internal Security
PAA	Policy Analysis Approach
PCF	Predator Compensation Fund

1 Introduction

Each lion in Kenya brings an estimated US\$17,000 in tourist revenue per annum (Lange 2010). In the same year, each lion kills livestock worth US\$290 (Patterson *et al*, 2004). In general, wildlife tourism generates about US\$400 million per annum in Kenya, the second largest source of foreign exchange (Barnes *et al*, 1992). In semi-arid regions where most wildlife is found, this represents five times higher land use value than the next most economic land use – livestock rearing (Elliot 1998).

There are warnings that within the next 25 years there may be no lions left outside of the biggest, best run parks (Lange 2010). The lion population worldwide has dropped from 1 million at the beginning of the 20th Century to fewer than 30,000 today (Conservation International, 2011). The decline of large carnivores is largely attributed to conflicts with people (Woodroffe 2005; Patterson *et al*, 2004).

One of the largest – and most contentious - conservation areas in East Africa is the over 10-million-acre Amboseli-Tsavo ecosystem across the Kenya-Tanzania border. This is the home of the famous man-eater lions that got their name when two large lions devoured about 120 railway workers during the building of the Kenya-Uganda railway in 1898. Amboseli National Park was declared a reserve in 1906 and gazetted as a National Park in 1974. (Kenya Tourism Board website 2011) The process of creating a national park included the eviction of local communities who had been living there for centuries. The park faces problems with agricultural expansion, water scarcity, droughts, depletion of plant resources, sub-division of land and erection of barriers interfering with wildlife movements (Van der Duim 2010). Today, there are more than 250,000 people living on the park's borders, most in the central zone where they are virtually surrounded by wildlife populations. Conflicts between humans and wildlife are therefore inevitable. (Patterson *et al*, 2004)

While wildlife's economic benefits are captured at national or international levels, mainly by the government and private investors, the accumulation of costs of living with wildlife is felt at the local level (Emerton 2001; Norton-Griffiths 2007 in Nelson *et al*, 2009). Such costs include crop damage, competition for water and grazing sources, killing of livestock, risk of disease transmission and human fatalities (Muruthi 2005). Local incentives to conserve wildlife are therefore low. 'Most Kenyans including Maasai [are] indifferent or even hostile to tourism, as they [do] not profit from it. This is expressed in different forms including poaching of wildlife [which in turn threaten the] entire tourism industry and with it a key source of foreign exchange' (Bruner, 2001:894). One herder living near the Amboseli National Park is quoted in a local daily as follows: 'I have killed two lions in the last two years. My brother, too, has killed a similar number. You cannot sleep while lions destroy your wealth. So we spear them and poison others' (Ngetich 2011).

The Maasai are pastoralists and by tradition value wealth by the size of a man's herd of cattle. Even today, livestock is their main source of livelihood. The greatest threats to this are drought and predators, often perceived to be the lion. Of the two threats, the lion is seen as an easier enemy to reckon with.

In addition to retaliation, lions are also killed in following with the *morani* (young warrior) system. *Morani* usually range between 18 to 23 years of age. Besides their traditional duty of herding livestock, *morani* are considered the guards or defenders of the community. Young boys, *olayioni* are initiated into *moranism* through circumcision and ensuing ceremonies. It is considered a translocation from low to high status and is coveted among boys. An age old tradition is re-enacted when a *morani* faces a lion armed only with spear and shield, and ends with the death of the lion or the *morani*. In the case where the lion is the one that dies, the *morani* receives a new name, earns high respect in the community for his bravery and becomes very popular and desirable to the girls. Previously a *morani* faced the lion alone, but with dropping lion populations, this is today done in groups. After killing the lion, the group distributes seven trophies among themselves: the lion's 4 legs, 2 ears and 1 tail. The tail is the most prestigious part and goes to the *morani* whose spear first pierced the lion. Trophies are also sometimes distributed on the basis of a wrestling match (Maasai Association website, 2011). In olden times, such hunts followed traditional ceremonies and were carried out for prestige; today the motivation is sometimes 'sheer idleness or addiction to hunting' (interview 1.11.11). It is important to note that customarily Maasai people do not eat wild meat including prey killed by animals, even during drought and starvation.

Lion hunts are often engineered by traditional elders who are the cultural governors of the community. *Morani* are expected to respect elders at all times. In an interview that I held where elders and *morani* were both present, this respect was seen by the *morani* casting their eyes down when speaking to or being spoken to by an elder.

Efforts to curb the problem range from helping herders build lion-proof homesteads to attempts in creating positive attitudes about lions among local Maasai communities. Wildlife biologist Craig Packer even suggested that parks must be fenced and heavily guarded by the United Nations (Lange, 2010).

1.1 Research objective and problem statement

At the 300,000-acre Mbirikani Group ranch within the Amboseli ecosystem in Kenya, a Predator Compensation Fund was created in 2003 by a local conservation organization, Maasailand Preservation Trust (MPT). The purpose of the fund is to compensate the Maasai of Mbirikani for livestock lost to lions and other predators. It is an arrangement within a community of about 10,000 Maasai that hopes to 'replace conflict and retaliation with tolerance' (MPT website 2011). In doing this, PCF can be viewed as a form of Payment for Environmental Services (PES). A Payment for Environmental Services is

defined as a voluntary transaction where a well-defined environmental service (ES) is conditionally bought by at least one ES buyer from at least one ES provider who must secure its provision (Wunder 2005).

This thesis will examine PCF in terms of PES. The idea of using PES to tackle the human-wildlife conflict in Kenya is interesting for two main reasons. First, payments for environmental services in developing countries have generated much debate (Milne & Niesten 2009). Secondly, though it is a relatively new conservation concept lacking long-term evaluation, it has a strong gathering of proponents envisaging its strength over other conservation efforts (Nelson *et al*, 2009). For example, at Virilla in Costa Rica PES has been attributed to the protection of approximately 16,500ha of primary forest, security against squatters and increase in land value (Miranda *et al*, 2003). In conducting this analysis, this thesis will use Policy Arrangements Analysis (PAA) as a tool. PAA provides a four dimensional analysis into actors, discourses, resources and rules particularly in the environmental policy domain (Liefferink 2006; Arts, Leroy & Tatenhove 2006).

The objective of this thesis is therefore to contribute to an alternative analysis of PES using PAA. The problem statement is that in light of imminent extinction of lions in Africa, how does the Predator Compensation Fund in Mbirikani fit as a PES solution in terms of the arrangement of actors, discourses, resources and rules? This study thus gives further insight into the human-wildlife conflict in Kenya and provides recommendations that are pertinent to policy makers and the government.

1.2 Outline of the thesis

This thesis is structured as follows. Chapter 2 covers the theories used in this thesis. First background information will be given on Payments for Environmental services and then the four dimensions of Policy Arrangements Analysis will be expounded. Out of these theories, the conceptual framework that will be used in analysis will be built. The central research question and relevance of the study will then be stated and the methodological approach explained.

Chapter 3 gives descriptive information about the Predator Compensation Fund at Mbirikani Group Ranch (MGR). It begins with a brief introduction of the geography and history of the ranch. Thereafter, the Maasailand Preservation Trust (MPT) is introduced. Following this, a detailed description of the Predator Compensation Fund (PCF) agreement is given, including how it operates and is funded. The chapter closes with an observation report of a pay-out day in November 2011.

Chapter 4 is the analysis chapter. The PCF arrangement is examined in terms of actors, underlying discourses, resources and power and working rules. This analysis is then used to answer the question, 'So is PCF a PES arrangement?' To conclude the chapter is a reflection of using Policy Arrangement Analysis (PAA) in analysing PCF as a possible PES

arrangement.

Chapter 5 begins with a summary of the findings. It then proceeds to the Discussion section whereby findings are compared with PAA and PES literature and other conservation initiatives in the region and beyond. It provides a critical view on PCF and concludes with recommendations and suggestions for further research.

2 Payments for Environmental Services: A Policy Arrangement Approach

This chapter begins with background information on Payments for Environmental Services (PES), including its definition, criteria, and arguments for and against it. Following this is the core of the chapter, which focusses on using Policy Approach Analysis to analyse PES and provides a conceptual framework that shall guide this thesis. At the end of this chapter, I pose my research question and explain the methodological approach used.

2.1 Background on Payment for Environmental Services (PES)

The basic idea behind PES is that those who benefit from environmental services (ES buyers) should pay those who deliver it (ES providers). PES is driven by market forces of demand and supply with a business-like agreement being reached through voluntary negotiation. Often ES providers receive fewer benefits from conserving the environmental service than they would with alternative land uses like agriculture (Engel *et al*, 2008). ES buyers must therefore negotiate with ES providers for meaningful compensation that encourages their participation and bridges their conflicting interests (Wunder 2007). Empirical studies show very few ‘true PES’ cases that fit PES definition though there are considerable ‘PES-like’ initiatives (Wunder 2005: 21).

Environmental services are broadly grouped into four categories: carbon sequestration and storage, biodiversity protection, watershed protection and landscape beauty (Wunder 2005). Carbon sequestration and storage can be exemplified by a northern electricity company paying farmers in the tropics to plant and maintain additional trees (Wunder *ibid*) or World Bank’s BioCarbon Fund that pays for improvement of shade-grown coffee systems in the Mexican uplands (Pagiola *et al*, 2005). Biodiversity protection happens when conservationists pay locals to reserve or restore natural areas for a biological corridor (Wunder *ibid*). For example, the Wildlife Conservation Lease Programme, an initiative of Friends of Nairobi National Park (FoNNAP), pays approximately US\$ 4 per acre to landowners not to fence, quarry, cultivate or subdivide designated wildlife corridors around the Nairobi National Park (Gichohi 2003). Watershed protection occurs when downstream water users pay upstream farmers to adopt land uses that limit deforestation, soil erosion or flooding risks (Wunder 2005). Water services is often the focus of PES programs in Latin America like the Payment for Hydrological Environmental Services program (*Pago por Servicios Ambientales Hidrológicos*, PSAH) in Mexico (Pagiola *et al*, 2005). Landscape beauty protection is demonstrated when a tourism operator pays a local community to desist from hunting in a forest in which tourists view wildlife (Wunder 2005). For instance, Tigris Foundation and Phoenix Fund in Vladivostok operate a compensation program in Khasanski Rayon in the Russian Far East that compensates deer farmers for livestock deaths caused by leopards or tigers to prevent retaliatory killings of the predators (Tigris Foundation website 2012).

Payments for environmental services are also called Payments for Ecosystem Services, Performance Payments or Direct Payments for Conservation (Nelson *et al*, 2009; Gichohi 2003). Milne and Niesten (2009) consider Direct Payments as a subset of Payments of Environmental Services. As such they provide the following criteria to this subset: first, payments should be made explicitly for biodiversity conservation though it might include cases where these are bundled with other environmental services; secondly, payments are at least partially funded by philanthropic global investors or international donors and do not rely on local users of environmental services or public funds; and finally, payments are for the protection of existing biodiversity, not for restoration. Payments are sometimes also referred to as markets (i.e. competitive economic incentives), rewards (entitlements and justice through a transaction) or compensation (Wunder 2005).

This thesis, however, will adhere to Wunder's (2005) definition and criteria of Payments for Environmental Services due to its broader outlook and more common usage. It will also focus on payments as compensation, that is, a direct or opportunity cost paid as a moral justification and societal rationality on behalf of the ES provider who bears some cost (Wunder *ibid*).

Threat to environmental services is an important pre-requisite for a PES arrangement. After all, 'without threat PES makes no difference' (Wunder 2007:56). Local communities that destroy the environment are more likely to receive PES than those living in harmony with nature (Wunder 2007). Pagiola (2003) lists threats specific to wildlife as follows: loss of habitat, over-harvesting due to insecure tenure, overharvesting due to high demand and elimination to reduce local costs. He advises that PES is applicable if loss of habitat is mitigated by paying land users to adopt a specified land use. It is also applicable if access to land is critical for harvesting and access can be controlled, though this can be expensive. According to Pagiola (*ibid*), PES can pay both to conserve habitat and for specific management regimes that, for example, compensate for no hunting.

Two important considerations in PES are 'Whom to pay?' (Wunder 2005:13) and 'Who pays?' (Pagiola, 2003:22). The question of whom to pay arises because it is not always possible to identify all ES providers, neither is it often feasible to compensate all actors though one can attempt to pay enough actors to 'form a politically resistant conservation alliance' (Wunder 2005: 14). Also, instead of rejecting environmentally problematic actors, PES tries to strike a deal with them (Wunder 2005). Inclusion of local communities does not often guarantee conservation success (Brockington 2004) but makes PES 'politically feasible' (Wunder, 2007:57).

On who pays, one should keep in mind that there is not always a demand for an environmental service to make it worth paying for and in situations with multiplicity of beneficiaries, not all of them will always be willing to take responsibility for payments (Pagiola 2003; Wunder 2005). Besides, putting a price tag on an environmental service is not usually easy (Ens 2012). A typically referred to PES case in developing countries is Costa

Rica (Wunder 2007; Landell-Mills and T. Porras 2002; Grieg-Gran *et al*, 2005) yet this government run programme is mostly funded from fuel tax with no proof of a market for environmental services nor of conscious and willing ES buyers since fuel buyers do not always pay out of free will or are aware that their purchase contributes to a PES fund (Rojas and Aylward (2003:101). In comparing PES programs financed by ES users to those financed by the government, Wunder *et al* (2008:834) found the ones by ES users to be 'better targeted, more closely tailored to local conditions and needs, had better monitoring and a greater willingness to enforce conditionality, and had far fewer confounding side objectives than government financed programs.'

Two of the greatest challenges to PES are high transaction costs and insecure land tenure (Thuy *et al*, 2008; Pagiola 2003; Wunder 2005). The challenge with transaction costs is that payments must be made annually and indefinitely – 'often into infinity' (Wunder 2005:20) - while most biodiversity conservation financing mechanisms are not set up to make long-term payments (Pagiola 2003). Transaction costs are high because often PES in developing countries requires negotiating, monitoring and paying to numerous land-owners or conflicting communities that own communal land (Wunder 2005).

Insecure land tenure is rampant in developing countries and is a major subject for national debate and conflict (White and Martin 2002). It is a complex issue with historical roots in the absence of legal documentation of indigenous land, lack of recognition of squatters, poor relocation of forcefully evicted communities for conservation, agricultural or development purposes among others. PES is impractical if land tenure is insecure and may first require reformation of property rights (Pagiola 2003). In Asia, for example, Lee *et al* (2007) found a key characteristic of potential ES providers to be the rural poor who often have unclear land tenure. Such communities live from harvest to harvest and lack the incentive or ability to make longer term decisions about their land use. Subsequently, governments and large private landowners enter into PES arrangements with little payment trickling to poor land users. Generally, PES rules out the 'poorest of the poor' who do not own or control land making it only relevant to 'moderately poor' landowners (Wunder 2005: 17).

Payments for services are never intended for poverty reduction (Pagiola *et al*, 2005) and show mixed results when used as a 'motor for poverty alleviation' (Wunder 2007:57). For example, a study of social impacts of PES in Virilla watershed in Costa Rica showed positive impact on financial, human, social, physical and environmental assets (Miranda *et al*, 2003) while in Cambodia, suffering among poor or landless families increased (Milne 2007). Nevertheless PES cannot avoid the issue of poverty in developing countries where most ES providers are poor (Thuy *et al*, 2008). There is, therefore, the emergence of pro-poor PES that can be defined as 'all interventions that empower and support the poor to participate in and benefit from PES' (Thuy *et al*, 2008:363).

In a review of 48 cases of Payments of environmental services in developing countries,

Milne and Niesten (2009) propose a ‘practical framework for design and implementation’ of payments in developing countries. This framework has four key components: contract design, definition of biodiversity conservation services, delivery of performance payments or benefit packages and performance monitoring and sanctions. For future initiatives, Milne and Niesten (*ibid*) propose socially responsible conservation investors, direct incentives as effective conservation that focus on conservation goals and reduce lead times for action, and synergies with sustainable financing from public and philanthropic sources.

While proponents of PES argue that it is ‘the most promising innovation in conservation since Rio 1992’ (Wunder 2005:3), PES is not without criticism. In reviewing previous research done in Maloti-Drakensberg, South Africa, Buscher (2012) exposes the desperate efforts of conservationists and their associated epistemic communities to promote PES as successful so as to build scientific credibility that attracts resources and establishes careers. He argues that this kind of evaluation ignores socio-political histories – histories with deep colonial, racial, capitalistic and conservation roots. He considers PES as ‘neo-liberal conservation’ (Buscher 2012:39) that builds on mechanisms of political-economic problems that caused the environmental and social problems to begin with. As such, PES cements instead of alleviating these problems.

Brockington and Duffy (2010) note that PES produces both fortunes and misfortunes (Brockington and Duffy 2010:481). While they recognize the good intentions and ideals of many of its conservationists and epistemic communities, they give caution to the overly optimistic nature of their rhetoric: ‘win-win solutions (or win–win–win and more), ethically traded commodities, saved nature, wholesome communities, integrated landscapes, sustainable development, cleansed reputations and secure conservation brands’ (Brockington and Duffy 2010:481). Their criticism is about how conservation not being a luxury of the rich, affords benefits in neoliberal conservation that benefit the rich and deepen inequality.

A good summary of arguments against PES are fronted by Karsenty (2004¹ in Wunder 2006). His misgivings are about the efficiency, equitability and legitimacy of PES in conservation easements, tradeable development rights, and conservation concessions. On efficiency Karsenty questions the environmental and economic efficiency of PES in developing countries with insecure land tenure, undefined market institutions and weak control systems. In this respect, compensation hardly covers opportunity costs to downstream actors. Together with this last point, Karsenty’s point on fairness and equity is that forest concessions are often underpriced and therefore underpaid. Also, PES traps communities in poverty because they learn to depend on payments instead of thinking up innovative ways of developing economically. Finally on legitimacy, Karsenty warns about PES luring local people into agreements that later become difficult for them to get out of.

1 In French so I used the summary given in Wunder 2006.

While this thesis recognizes both arguments for and against PES, its main focus is to analyse PES in a new way using the Policy Approach Analysis, to which I shall now turn.

2.2 Using Policy Arrangement Approach to analyse PES

An important analytical tool that was developed to understand the environmental policy domain - yet with the capacity to expand into other domains - is the Policy Arrangement Approach (PAA) (Lieverink 2006; Arts & Goverde 2006; Arts, Leroy & Tatenhove 2006).

PAA, with a genesis in the environmental policy domain, is an appropriate tool in analysing PES arrangements for several reasons. First, PAA is about the arrangement that links interactions among actors with their socio-political structures (Arts *et al*, 2000). This addresses Buscher's (2012) criticism above, that PES advocates ignore the use of socio-political contexts in their evaluation of PES success. Secondly, PAA refers to temporary stabilization (Arts *ibid*) meaning the capturing of stable processes over time – stable because everyday life sets in an order after a while, and processes because change is inevitable over time. As discussed by Milne and Niesten (2009) above, PES often operates in such temporary stability, for example with an agreement being determined at a time but requiring ongoing negotiation over time with changes in legal, political, cultural or social conditions. Finally, PAA points both to organization and substance. Organization refers to agents, rules and resources such as 'departments, instruments, procedures, division of tasks and competence, etc.' and substance refers to policy discourse that is found in 'principles, objectives, measures, etc.' (Van Tatenhove *et al*, 2000:55). Therefore as an analytical tool PAA will help in capturing the dynamics of PES 'without losing sight of important underlying discourses, rules of interaction and power relations' (Groot 2011:13). The choice of PAA in analysing PES is thus made in appreciation of the complexity and messiness that is typical of policies on the ground (Cleverly 2002).

PAA offers four dimensions to describe and analyse day-to-day policy processes: actors and their coalitions; distribution of power, resources and influence among them; actual and formal rules of the game in operation; and current policy discourses and programmes (Lieverink 2006; Arts, Leroy & Tatenhove 2006). These four dimensions are indissolubly interrelated (Lieverink 2006), denoting a domino effect where a small change to any one dimension causes a change to the other dimensions (Arts, Leroy & Tatenhove 2006). This relationship is illustrated with the following tetrahedron:

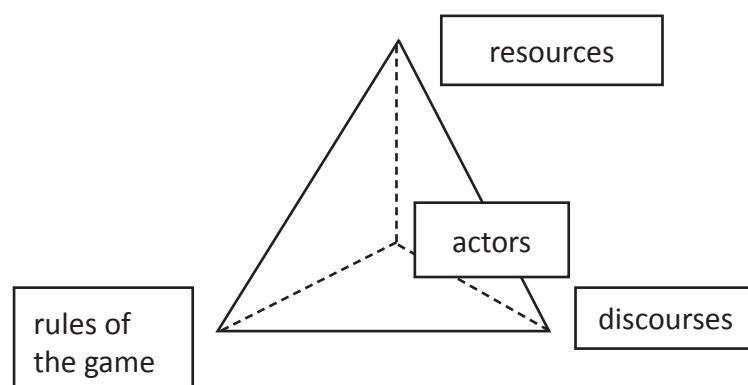


Figure 1 : Four dimensions of PAA (Arts, Leroy & Tatenhove 2006:99)

2.2.1 Actor Dimension

The actor dimension in a PES agreement identifies the actors showing their roles, positions and influence (Lieverink 2006) e.g. as ES buyers, ES providers and intermediaries. Actors can further be distinguished as central or peripheral actors, or clustered according to similarity of roles or power relations or rules governing their interactions. Actors can also be grouped according to their discourse by examining the views they have on the PES arrangement thereby exposing their storylines and narratives. It is not just about included actors but also about excluded actors, and why some coalitions and their strategic actions are successful and some not (Van Tatenhove *et al*, 2000).

2.2.2 Discourse Dimension

Discourse is defined as, 'an ensemble of ideas, concepts and categories through which meaning is given to social and physical phenomena, and which is produced and reproduced through an identifiable set of practices' (Hajer and Versteeg 2005:175). It is not limited to speech but extends to symbols and experiences that govern the way people think and act (Hajer and Versteeg *ibid*). Certain discourses produce certain truth in certain contexts (Arts *et al*, 2011:58).

One attempt of classifying discourses into categories is done by Arts *et al* (2011) in regards to forest-related discourses. In the first category are meta-discourses that are global in nature and relate to economics, politics and culture. As such a key meta-discourse that PES would fit into is neoliberalism (Buscher 2012). Environmental services are seen as a product that can induce demand from ES buyers and whose supply can increase or diminish depending on the diligence of the ES providers. They can be valued in monetary terms and purchased in business-like transactions. Pro-poor PES is also largely informed by sustainable development discourses. Literature that combines PES and poverty often refers to PES as an instrument for or against sustainable development (Lescuyer *et al*, 2009; Nonga 2011; Wunder 2006; Landell-Mills and Porras 2002; Miranda *et al*, 2003). Being an arrangement that characteristically draws from a wide range of local and international actors, rules and resources, PES also points to global governance discourses. Related to global governance is the notion of 'good governance' which is widely agreed to have four dimensions: rule of law; accountability and transparency; participation; and effectiveness and efficiency (Rametsteiner 2009). Its objective is to have mutually cooperating and rewarding relationships among government, civil society and the private sectors.

In the second category are regulatory discourses (Art 2011) that are directed towards particular policy formations and instruments and include state regulation (binding and mandatory), self-regulation (voluntary) and smart regulation (mix of mandatory and voluntary) discourses. From this view, PES could fall under self regulation discourses

because it is defined by voluntary negotiations among actors. For example, an airline voluntarily choosing to use corporate social responsibility (CSR), a regulatory discourse, to offset carbon credits by paying farmers to desist from converting forests into agricultural land. However PES could also fall under smart regulation discourses because governments and non-governmental actors sometimes enter into both binding and voluntary agreements for conservation purposes. For example, in Costa Rica the Forest Law provides a legally binding financial and institutional framework for compensation to forest owners but is implemented within a context of formal and informal agreements between the government, NGOs, financiers and private firms (Rojas and Aylward 2003).

In the third category, Arts *et al* (2011) classify discourses specific to forest conservation, which on a more general scale can be interpreted as environmental specific discourses. They are discourses that shape specific 'issues and policies in specific ways' (Arts *et al*, *ibid*: 57) yet are directly linked to meta and regulatory discourses, both being influenced by and influencing them. This thesis shall focus on these environmental specific PES discourses and through them identify wider discourses – whether meta or regulatory – that could be playing a role in shaping them.

2.2.3 Resources and Power Dimension

The resources and power dimension traces resource dependencies and power relations (Lieverink 2006). Resource and power are intrinsically related because actors need to mobilise resources in order to exercise power (Arts and Tatenhove 2004). Both power and resources contribute to PES efficiency. For example, conditionality is limited in government-funded PES programmes which exhibit reluctance in issuing penalties to politically powerful non-complying actors in developed countries and poor actors in developing countries (Wunder *et al*, 2008). One of the challenges of implementing PES in the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) in Zimbabwe is power struggles resulting in benefits flowing to local elites, sidelining of indigenous groups and marginalization of women (Wunder *et al* *ibid*; Frost and Bond 2008).

Resources include money, knowledge and skills (Arts, 2006). Power is a long-standing contested concept with a history that can be traced as far back as the great Greek philosophers, Plato and Aristotle (Dahl, 1957) or the more modern works of German sociologist Max Weber (Luke, 1974). The debate has continued through Dahl (1957, 1961), Bachrach and Baratz (1962, 1963, 1970), Luke (1974) to Giddens (1984), Clegg (1989) and Baldwin (2002) and others. Within the environmental policy domain, there are arguably three conceptualisations of power: structural power, dispositional power and relational power (Arts and Tatenhove 2004). Structural power refers to how wider social structures determine who the actors will be (or not), what nature the actors will have (or not) and how the actors will act (or not). Dispositional power refers to the positioning of actors against each other as prescribed by rules and resources. Relational power

first recognizes that power does not occur in a vacuum (therefore needing an actor) or in solitude (therefore needing other actors in relation with the actor). It refers to power in interactions amongst actors, sometimes bringing them together in power coalitions, at other times tearing them apart in power struggles. (Arts and Tatenhove 2004).

2.2.4 Rules of the Game Dimension

The rules of the game dimension shows the influence of institutional change on particular policy areas (Lieverink 2006). Societies form rules, pragmatically or organically, to organise and coordinate the activities of many individuals who may have differing personal goals (Brennan & Buchanan 1985; Langlois 1993b). Rules provide actors with guidelines on proper and legitimate action determining 'who is in and who is out; how one can get in, and what the relationship with outsiders is' (Arts and Tatenhove 2004).

Institutions are systems of rules of conduct or sets of working rules (Langlois 1993b; Landell-Mills and Porras 2002). Institutions are often formed accidentally or by trial and error, and change over time altering the rules that govern and organise society (Alleen 2012). After all, humans are 'irrational' (i.e. lack consistent systematic abilities to evaluate complex choices) and 'rarely fully informed' (Landell-Mills and Porras 2002:11-12). Some even propose that the motivation for creation of institutions is not to 'be socially efficient; rather they... are created to serve the interests of those with the bargaining power to create new rules' (North 1995:20). It is common for goals of institutions to end up in unplanned outcomes or unintended consequences, following a 'mind of their own'. This means the process is not always as clear-cut and straightforward as proposed by Ostrom (1990) but is strewn with the mess of negotiations, contestations and differing voices that require constant institutional improvisation – a process that Cleaver (2002) calls 'institutional bricolage.' Institutional bricolage emphasizes relational rather than rational action, the multi-purpose and multi-resource nature of institutions, the fluidity of roles and identity, and the re-invention of traditions and legitimizing symbols.

A key driving force for the formation of institutions are common property resources – implying collective action and collective use - under which many environmental services fall (Ostrom 1990; Boelens 2008; Swallow *et al*, 2005; Fisher 2010). The unpredictable nature of environmental services combined with generally insufficient monitoring and evaluating frameworks, is a key reason why it is often difficult to determine PES (or most other conservation) success (Wunder 2007). Collectivity of action and use further adds to the complexity of PES arrangements. PES runs on rules of conditionality – provision of payments 'if and only if the ES provider secures ES provision' (Wunder 2005:3). This sometimes translates to collective action (or inaction e.g. in the case of desisting from using a forest area) of a common property environmental resource owned under group property rights. On one hand, where small landowners are involved such collective action both reduces transaction costs for ES buyers and strengthens the bargaining power of ES providers (Wunder 2005; Swallow *et al*, 2005). On the other hand, collective action

and use can be problematic in the absence of technical, financial, administrative and organisational capacity (Ens 2012; Thuy et al, 2008; Landell-Mills and Porras 2002).

Institutions govern transactions, interactions or coalitions and take on the form of markets (coordination based on exchange of goods and services as guided by a price system), hierarchies (coordination of rules based on stratification of authority) or cooperative arrangements (coordination based on trust and personal relationships) (Landell-Mills and Porras 2002). Institutions can either be formal or informal though literature shows different way of distinguishing between them: some define informal institutions as those based on culture or tradition (Pejovich 1999); others view formal institutions as those enforced by the state while informal institutions are established by civil society (Manor 2001); still others see informal institutions as self-enforced while formal institutions are enforced by a third party (Ellickson 1991). There is also the view by others that formal institutions are those formed officially while informal institutions are 'socially shared rules, usually unwritten, that are created, communicated, and enforced outside officially sanctioned channels' (Helmke and Levitsky 2006:5). As such examples of formal institutions would be 'state law, common law and property rights' and informal ones 'codes of conduct, norms of behaviour or social conventions' (Landell-Mills and Porras 2002:221-222).

There is a close relationship between formal institutions and informal institutions; informal institutions crop up where formal institutions are difficult to operate (Helmke and Levitsky 2006). Implementing formal PES rules in developing countries where informal rules are deeply entrenched in culture is not always an easy task. One reason given to this is that 'the regulation of minimally accepted behavior has progressed much faster than the adherence to rules and development of effective, non-corruptible enforcement mechanisms' (Swallow *et al*, 2005:20). Another more plausible reason is that when informal institutions are in conflict with formal institutions, they render formal institutions meaningless (Landell-Mills and Porras 2002). After all, informal institutions are slower to change (Landell-Mills and Porras *ibid*). It could also be attributed to distrust of formal rules that do not always deliver what they promise, for example, in Northern Tanzania the Wildlife Policy stipulates that economic benefits from wildlife should trickle down to the local communities but on the ground this is still an illusion (Nelson *et al*, 2009).

PES institutions sometimes form new rules that are counteractive and illegal e.g. in Central Africa actors are compensated to keep from illegal commercial hunting and clearing of forests for agriculture i.e. criminals are compensated to abide by the Forest Code which may 'encourage law-compliant actors to resort to illegality to benefit from this compensation' (Lescuyer *et al*, 2009:136). Also PES sometimes creates 'local elites' who enjoy the lion's share of benefits at the expense of the community (Lescuyer *et al*, 2009:137) and in effect use command-and-control rules to guarantee community compliance (Sommerville *et al*, 2010).

In conclusion this thesis proposes that PAA can be used as a 'lens' on the ground to analyse PES arrangements in greater detail and depth by providing a wider context within which they operate. This will make the often overlooked connection between the technical aspects of PES with the reality of cultural, social and political complexities in which it must operate. For a developing country like Kenya that heavily depends on wildlife tourism revenue, this will no doubt lead to important insight on understanding the situation of increasing human settlements and diminishing wildlife populations vis-a-viz local and international interventions.

2.3 Conceptual Framework

Building from the theories discussed above, I will analyse the five PES criteria using the four PAA dimensions. This framework is represented in Figure 2 below.

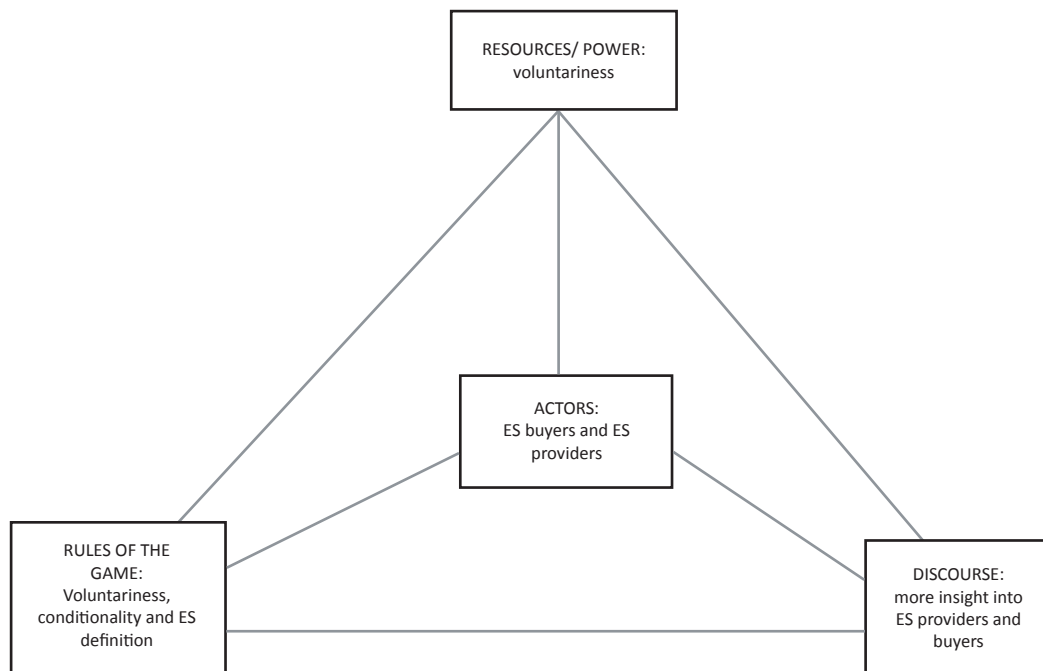


Figure 2: Conceptual framework of using PAA to analyse PES at Mbirikani

The analysis will begin with categorising actors broadly as ES buyers or ES providers and tracing actor coalitions among them. It will also be important to point out actors that are excluded from the PES arrangement. Further I will identify predominant discourses in the case study and link these to wider global discourses. Following this I will analyse resources and power first by outlining sources and types of resources in the case and thereafter by tracking power relations among the actors. I will next analyse working rules among the actors, both formal and informal rules of the game. Finally I will determine if the case study fits as a PES arrangement and later reflect on the use of PAA in analysing PES.

2.4 Central Research Question

The central research question is: How can the Predator Compensation Fund in Mbirikani be interpreted as a Payment for Environmental Services in terms of actors, resources, rules and power?

2.5 Relevance of the Study

This study will contribute to the body of knowledge in three areas. First and secondly, it will make contributions to both the Policy Arrangements Approach and the Payments for Environmental Services which are relatively recent. PAA would 'benefit from further theoretical, methodological and empirical development' (Arts, Leroy & Tatenhove 2006:104) and PES is deemed by some to be 'arguably... the most promising innovation in conservation since Rio 1992, but it needs to be tried out on a much larger scale with more variety in applications to learn what works and what does not' (Wunder 2005:3). Thirdly it will contribute to tourism studies where 'the role of tourism in the conservation' of biodiversity is 'a crucial task if we are to adopt constructive solutions [to] the loss of biodiversity and persistent poverty in sub-Saharan Africa' (Van der Duim 2010:50).

It will also provide important lessons and insights given that there are intentions to replicate the Mbirikani case to the rest of the Amboseli ecosystem and beyond.

2.6 Methodological Approach

Using the approach of PAA, this thesis explores the case of the Predator Compensation Fund – as a Payment for Environmental Services - at Mbirikani Group Ranch, Kenya. Qualitative research methods were employed in both data collection and analysis to capture nuances that would enable an in-depth study.

28 semi-structured interviews were conducted in the period between end of October and beginning of December 2011. The interviewees ranged from Mbirikani Group Ranch (MGR) members and community, current and former MGR committee members, current and former Maasailand Preservation Trust (MPT) employees, local and international NGOs, Kenya government officials and academicians (see list of interviews in Appendix 2).

Prior to visiting the field, I conducted a preliminary study of the case through websites and literature written about it. I also held a skype interview with Conservation International from their New York office. This initial information guided the selection of potential interviewees. This selection was continuously amended as the data collection process underwent a snowball effect. Most interviews were done at Mbirikani Group Ranch, but a few others took place in Nairobi and Kitengela. Except for one telephone interview

that was followed up later in person, all other interviews were face-to-face. They were recorded both electronically and in a notebook.

Additional information, especially those that the interviewees deemed confidential yet important to include in this work, was collected through informal conversations. On 3 November 2011, I made an observation of a Pay-Out Day for compensation at the Maasailand Preservation Trust offices at Mbirikani centre. The observation included attendance of an MPT Advisory Committee meeting held at the same venue. Further, secondary data was collected through document and literature review. It included brochures, sign posts, research papers, proposals, official letters, formal agreements, websites, minutes of meetings and other documents.

In data analysis, I engaged sensitizing concepts extracted from theories of PAA and PES that built the conceptual framework. I used these concepts to create a list of codes under which all data was classified accordingly. By studying these classifications I was able to identify findings, make interpretations and draw conclusions. The thesis takes on a multi-disciplinary approach borrowing from tourism, environmental and social studies.

During my research I faced a couple of challenges. Of the three languages used orally - English, Kiswahili and Ma'a – I was not familiar with Ma'a and therefore used volunteer translators. All written documents, however, were in English. The other challenge that I faced was in analysing discourses because many interviewees had multiple roles in the different organisations. The analysis assumed individuals to be representative of discourses from the organisations that were approached for interviews. I also faced difficulties acquiring data on funding for PCF because MPT was reluctant in providing this information.

3 Predator Compensation Fund

'George Jones was a country singer who sang "I was country when country wasn't cool"...well, we were PES before PES was cool'.

Tom Hill, PCF founder and trustee of MPT (interview 4.11.11)

This chapter provides background information on the Predator Compensation fund. It begins by introducing Mbirikani Group Ranch and constitution. Thereafter, is a brief history of Maasailand Preservation Trust (MPT) and details of the PCF agreement. The chapter closes with a description of the pay-out day that I witnessed on 3 November 2011.

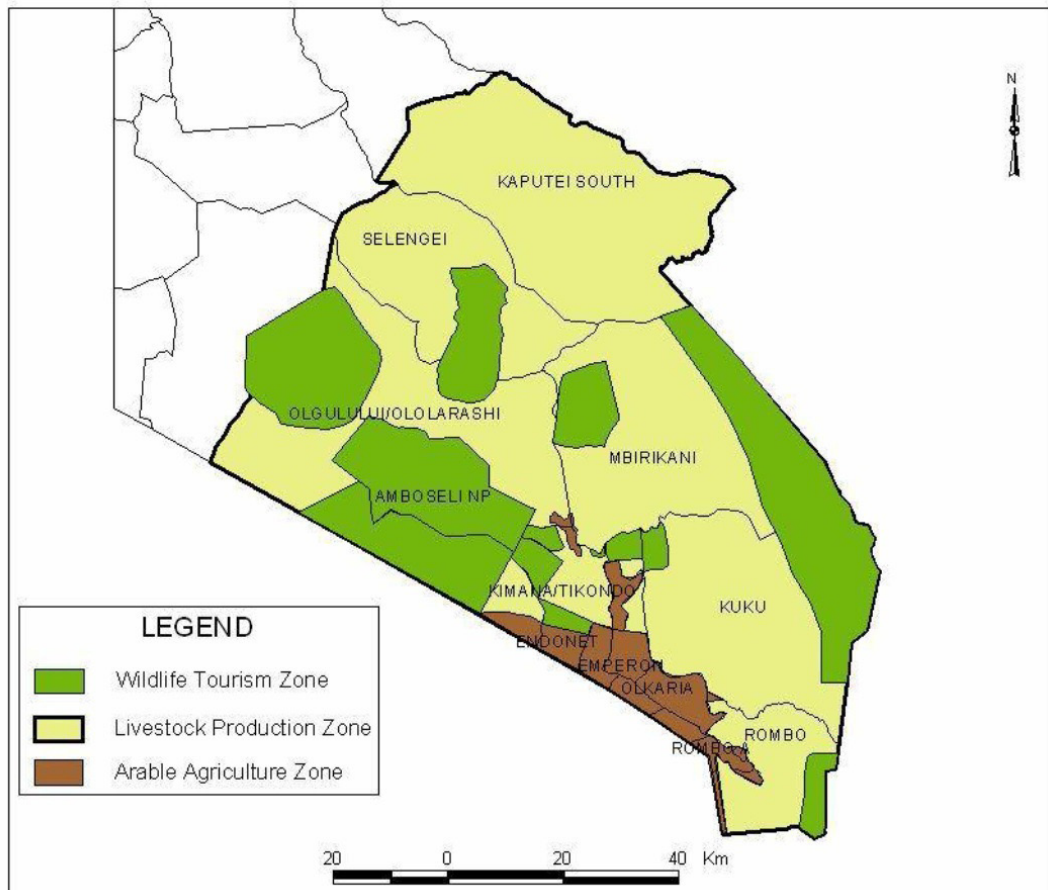
3.1 Mbirikani Group Ranch

Mbirikani (also known as Imbirikani) comes from a local word 'birikani' which means inside a kettle or as an old Maasai man explained to me, the place that holds water for cattle. Mbirikani Group Ranch (MGR) is surrounded by national parks: Amboseli National Park to the west, Chyulu Hills national park to the east, Tsavo national park to the south-east and further south Kilimanjaro national park. Mbirikani is thus a dispersal area, meaning an area 'adjacent to or surrounding protected and wildlife conservancies and sanctuaries into which wild animals move during some periods of the year (Wildlife Bill 2010:10). 70% of the time wild animals are found in the dispersal areas, not the national parks (Ogeto 2007:57). This attribute of hosting key migratory corridors makes Mbirikani attractive to conservation organisations like African Wildlife Foundation (interview 16.11.11).

Out of the 5,700 km² in the ecosystem that includes the Amboseli National Park, MGR covers 392.90 km². Amboseli was designated a UNESCO Man and Biosphere Reserve in 1991 'due to the interactions between pastoralism and wildlife conservation' (KWS MOU 2006:3). Amboseli National Park is under the jurisdiction of Kenya Wildlife Services (interview 8.11.11) and is listed as one of the premium parks in Kenya together with Maasai Mara, Samburu and Nakuru national parks (Kenya Vision 2030, 2007: 41). Due to their unique flora and fauna, premium parks are 'marketed at higher prices than other parks in Kenya' (Kenya Vision 2030, 2007:31). However for Amboseli National Park the vast majority of fauna are found in the ranches contiguous to it than in the park itself (KWS MOU 2006). The major threats to the Amboseli ecosystem are overgrazing, unplanned and uncoordinated tourism developments, droughts and desertification, land subdivision and agricultural expansion and water scarcity (Wildlife Bill, 2010; Van der Duim 2010).

Mbirikani Group Ranch is one of the larger of the five group ranches in the Amboseli ecosystem: Kimana, Kuku, Olgulului, Eselenkei and Imbirikani (see Figure 3 below). Group ranches were formed in Kenya following the Land Group Representatives and Land Adjudication Act of 1968 when Kenya was under British colonial government, and perpetuated after independence. The purpose of the Act is to 'provide for the incorporation of representatives of groups who have been recorded as owners of land under the Land Adjudication Act, and for purposes connected therewith and purposes incidental thereto' (The Land (Group Representatives) Act Chapter 287 (1970, Rev. 2010)). Maasai lands were transferred from common to private group property ownership following traditional claims and issued with title deeds.

Figure 3: Map of Amboseli ecosystem showing land use (KWS 2011)



The intention of group ranches was to improve herding and ecological management and ranches were expected to have both wet and dry season resources, though this was not the case in most ranches (Sindiga 1984). The exclusion from National Parks had restricted access to 'critical water sources, pasture, and salt lick' (Maasai Association website, 2011). This, together with commercialisation of livestock and land, aggravated Maasai frustrations. Some Maasai view group ranches as causing economic polarization

by enriching wealthy Maasai and ‘outsiders’ on the one hand, and further impoverishing the vast majority of the already poor Maasai on the other hand (Maasai Association website 2011). Brockington and Igoe (2006) state that, ‘economic displacement and exclusion from protected areas is more significant in people’s lives and complaints about protected areas than physical eviction’. Wayumba (2004) mentions the biggest challenge to group ranches today as land use/land tenure conflicts arising from sub-division of ranches which results in limited land resources for pastoralism, agriculture and wildlife conservation threatening the national parks and with it the tourism industry. Underlying all this is human-wildlife conflict. There is a general view that the idea of group ranches is a failure, but such discussion goes beyond the scope of this thesis.

3.1.1 The Constitution and Rules of Mbirikani Group Ranch

Mbirikani is the first ranch in Kenya to develop a Group Ranch Constitution according to minutes reporting a speech given by the District Land Adjudication Officer present at the adoption of the Mbirikani Group Ranch Constitution on 6th June 2005. The copy of the constitution acquired for this study however has a stamp with a faded date in 2008. It is signed by the chairman and secretary, and witnessed by the District Land Adjudication Officer and the Group Ranch Lawyer. The minutes report over 60% quorum of Group Ranch members at the meeting (Minutes of Mbirikani Group Ranch Special Meeting, 2005). According to the local Mbirikani chief, the constitution was drafted by a small group of 5 people (interview 9.11.2011).

The Constitution of the Group Ranch refers to area of 125,893 hectares and any other area acquired and registered by the group ranch. The constitution lists 25 tasks of the group ranch that include: ‘to liaise, work and cooperate with and to foster exchange of information between the Group Ranch and other organizations engaged in development activities in the Area.’ (MGR constitution, 2008:3).

There are 4,625 registered members in MGR with the last registration done in the 1980s. An interviewee explained that registration has not been done since because the group ranch officials say that ‘it is enough’. MGR membership is limited to persons who are Maasai and have entitlement to occupy or own a piece of land in the group ranch. Such entitlement can come through inheritance, approval by all group ranch representatives during an Annual General Meeting or a court order (MGR constitution, 2008:4). Women have the right to ‘inherit’ from their deceased husband or to equal shares of inheritance with their brothers or half-brothers (MGR constitution, 2008:6).

Membership rights include living free of charge in the communal land with one’s family, dependants and visitors – unless the majority of other group ranch members disagree with a visitor’s residence (MGR constitution, 2008:5). The main duty of members is to ‘faithfully honour any agreement entered into by the group ranch on behalf of the members’ (MGR constitution, 2008:6).

The constitution specifies four group ranch offices: chairman, vice chairman, secretary and treasurer. However, currently there is no one occupying the office of the vice chairman. These officials are elected into office by the members in a General Meeting for tenure of three years. The chairman, secretary and treasurer are all signatories to the group ranch bank account but all payments require authorization of the Management Committee (explained in next paragraph) except for projects and programmes 'whose total cost have already been sanctioned'. A management committee member explained that the chairman is the 'boss' and calls meetings. He has the power to use money as he deems fit as long as he later reports its usage. He is also in charge of allocation of sub-divided land and dispute resolution among members. The chairman of the group ranch in 2005 is reported to have mentioned an on-going sub-division of 2-acre plots in Namelok, Isinet area (part of Mbirikani) to members as a point at which 'most of their achievements revolved around' (Minutes of Mbirikani Group Ranch Special Meeting, 2005). The main duties of the secretary are keeping files and minutes of meetings. The duties of the officials can be suspended if they are convicted of 'a crime involving fraud or dishonesty.' (MGR constitution, 2008:13).

The constitution also recognises a Management Committee but is not clear on how many members it comprises of except to mention that the quorum for a meeting should not be less than 7 and that it should include representatives in accordance to Section 7 of the Land Adjudication Act. At the time of data collection, the chairman confirmed that there were 25 members of this committee including the three executive officials (MGR chairman, secretary and treasurer), members of the management sub-committee, members of the adjudication sub-committee and the chiefs and councillors of the area as ex-officio members. The influence of traditional elders and opinion leaders is also recognised.

The main function of the committee is to 'supervise the administrative machinery of the Group Ranch at all levels' and it is the authority 'in the event of an emergency' (MGR constitution, 2008:9). A committee member explained that their current tasks are allocation of school bursaries to students, nominating people to be employed at Ol Donyo Wuas (ODW) lodge and meeting visitors to the ranch when the officials are not available. The constitution stipulates the group ranch to employ a manager who should be a member of the ranch with a minimum educational qualification of a diploma in Business Administration, Community Development or Environment and Wildlife Management. Currently, there is no such manager at MGR though Maasailand Preservation Trust (for details see 3.2 below) may be seen to fit this function.

The constitution also suggests appointment of an auditor to certify annual accounts before they are circulated to group ranch members in preparation of Annual General Meetings (MGR, constitution, 2008:12). At any other time of the year, members have the right to inspect the books of accounts with at least 7 days' notice in writing to the secretary (MGR constitution, 2008:14). According to an elder, no audit has ever been done to date.

3.2 Maasailand Preservation Trust (MPT)

MPT is a local NGO that initiated and manages the Predator Compensation Fund (PCF). It has three trustees. Richard Bonham, the chairman, arrived in Kenya as a tourist who frequently flew his Cessna over the Amboseli area (Great Plains website, 2012). However he did not settle in Chyulu Hills, part of Mbirikani Group Ranch, until 1986. Bonham entered a 10 year lease of land with the Mbirikani Group Ranch (MGR) for establishment of Ol Donyo Wuas lodge that he co-owned with his sister, Trish Luke. A former group ranch official explains that the negotiations were based on 'friendship'. Bonham later leased a further 10 acres for his home and thereafter 25 acres for a horse riding lodge. In 1992 he established Old Donyo Wuas Trust (ODWT) that later changed its name to Maasailand Preservation Trust (MPT). He again leased more land for the MPT headquarters in Chyulu Hills and its administrative post at Mbirikani centre. More land was also leased for a rhino unit. The leases were for 10 year terms with an increment of 10% per annum (interview 9.11.11). MPT is currently negotiating with the community to increase the area leased from 22,000 acres to 70,000 acres to accommodate a conservancy.

Tom Hill, accompanied by Ann Lurie, arrived in Kenya in 1996, also as tourists. Hill toured and camped in Mbirikani and found it 'breathtakingly beautiful' and 'just fell in love with it'. At the end of his trip Bonham spoke to him about the environmental problems of the area – 'too many people, too much livestock, not enough water, huge problems with game meat poaching, predator killing, retaliation of Maasai killing lions' – and about the Trust that he had founded. Bonham found the challenges insurmountable at the time due to lack of funds. Together with Hill they found game meat and ivory poaching the biggest threats. They began a game scout network by hiring and training a Maasai group of men as paramilitary game scouts. The Game Scouts programme begun in 1996-97 and has expanded today to become the Amboseli Game Scout Association. Bonham is recognised as its founder. Hill explained that currently, they manage 190 men based in 10 different outposts in four of the group ranches in the Amboseli ecosystem.

Hill has a background in the USA as a business entrepreneur. He entered a deal with Bonham to grow MPT's budget. When he began it was below US\$ 50,000 dollars per year but at the time of my interview with him, he mentioned that it had grown to US\$1.1 million per year. Today he refers to himself as a social entrepreneur. He speaks of his other accomplishments as the founding of The Institute of Human Origin in 1981 that is now part of the Arizona State University. The institute is famous for discovering fossil Lucy in Ethiopia. In 1996 he established the Trust for African Rock Art whose purpose is to create a digital archive of all images of African rock art from Cape Town to the Mediterranean. Hill needed a home in Mbirikani and more land was leased for building the Kanga house in which he now lives. He is a co-trustee of MPT.

Ann Lurie who accompanied Hill built the Ol Donyo Wuas clinic on land leased from

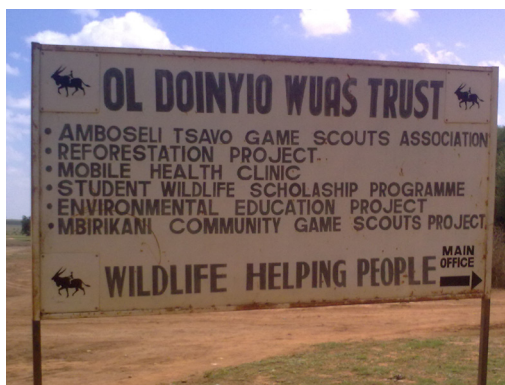
MGR. The clinic was opened in July 2002 and provides free medical care to Mbirikani Group Ranch members and non-members, with specialisation in HIV/AIDS, tuberculosis and high blood pressure. It is sponsored by Ann and Robert H. Lurie Foundation based in USA. Ann Lurie does not live in Mbirikani.

Noah ole Ntiati is the local MGR member that also holds the title of MPT trustee. He was the group ranch secretary when Bonham first came to Kenya, a position that he held for 11 years. Ole Ntiati lives among the MGR community and has personally benefitted from many of the projects initiated or proposed by NGOs. He was obviously not popular among the MGR community interviewees and was described by some as 'weak'.

In April 2003, Hill together with Bonham founded the Predator Compensation Fund. They were motivated by an increase in the systematic killing of lions that Hill attributes to 'intolerance due to economics'. He is convinced that a cultural shift towards intolerance of lions occurred when Maasai cattle were monetarised following the influence of commodification in the area. At the start of PCF, neither Hill nor Bonham had ever heard of 'anything remotely like PES' (interview 4.11.12). They came up with the idea out of what they call 'common sense, a practical solution to an obvious problem that was staring us in the face'.

3.2.1 Organisational structure of MPT

There are more than 30 people employed by MPT. At the top of MPT's structure, is a board of trustees: Richard Bonham, Tom Hill and Noah ole Ntiati. Directly reporting to them is the project manager, Fred Njagi. There are two project coordinators who report to the project manager. Employees specific to PCF include four verifying officers who supervise 11 predator scouts (although the agreement lists only 8 predator scouts). Predator scouts operate in pairs and are equipped with one motor cycle between them, mobile phones with cameras and a GPS. MPT's other projects are listed in a sign board outside its gate as:



- Amboseli Tsavo Game Scouts Association
- Reforestation Project
- Mobile Health Clinic
- Student Wildlife Scholarship Programme
- Environmental Education Project
- Mbirikani Community Game Scouts Project

Figure 4: Sign outside MPT gate

3.3 The Predator Compensation Fund (PCF)

The written agreement is between MPT – formerly Ol Donyo Wuas Trust (ODWT) which is the name used in the agreement- and Mbirikani Group Ranch members. Its purpose is for monetary compensation ‘to owners of livestock killed by predators’ subject to some conditions. The agreement is titled: Mbirikani Predator Compensation Fund (MPCF). On its header is ‘Dr. Frank Hadlock, Founding Benefactor’ and ‘National Geographic Society, Big Cats Initiative, Benefactor’. The signatories to the agreement are the chairman of ODWT and the first three officials of Mbirikani Group Ranch committee (chairman, secretary and treasurer). It is dated 1st May 2010 to 31st December 2010 ‘barring any suspension or termination by ODWT’.

In the agreement Mbirikani Group Ranch is divided into 7 zones that can be adjusted ‘as mutually agreed for 2010’. The zones are: Loosikitok, Orgosua, Chyulu, Kalesama, Icha-lai, Nazipa and Isinet. The agreement is applicable for claims on livestock predation up to one kilometre outside the Mbirikani Group Ranch boundary except where it borders Kimana sanctuary. However penalties apply ‘anywhere off the ranch’ and will affect the individual, his family and his zone. Predators are listed as ‘lions, spotted and striped hyenas, leopards, cheetahs, jackals, wild dogs, servals, caracals and other small wild cats’ but also include buffalos and elephants. They do not include ‘snakes, baboons, crocodiles, hippos and eagles.’

One interviewee mentioned that in June 2010 there was dispute about the amount of compensation vis-a-viz the market price of the cow. The agreement went back to the drawing board and in September 2010 the amount was revised upwards.

Compensation is currently paid as shown in Table 1 below²:

Table 1: Amount paid for compensation of specific livestock killed by specific predators

	Killed by lion in Kshs. & US\$ ²	Killed by hyena or buffalo in Kshs. & US\$ ²
Cow	Kshs. 20,000 (US\$ 230)	Kshs. 10,000 (US\$ 115)
Donkey	Kshs. 4,000 (US\$ 80.50)	Kshs. 3,500 (US\$ 40)
Sheep	Kshs. 2,500 + 500*(US\$ 34.50)	
Goat	Kshs. 2,500 + 500*(US\$ 34.50)	

*Kshs. 500 (US\$ 5.75) bonus is given for shoats (sheep and goats). If no lion is killed in the whole Group Ranch over a two month compensation period.

MPT and MGR contribute to the compensation fund in the ratio of 70:30 respectively. In addition MPT covers all operational costs and has the exclusive right and responsibility of hiring, dismissing and paying salaries of the predator scouts. Predator scouts receive 5% increment of salaries each year. Their main duty is to ‘report loss claims’. They also have administrative duties that include educating their zones on the agreement and alerting MPT about false claims and changes in the agreement proposed by members of their zones.

2 Exchange rate at 1 dollar to 87 Kshs. (Kenya shillings), indicative exchange rates for 11 January 2012 <http://www.centralbank.go.ke/>

Conditions for validity

For a claim to be deemed valid, it must meet 6 conditions as quoted here from the agreement:

1. 'The site of the livestock carcass must NOT be tampered with'. (8.1)
2. 'There can be no butchering of meat and the carcass must be protected by branches and leaves'. (8.2)
3. 'Any tracks left by the predator must be protected until the verifying officer arrives'. (8.3)
4. 'Further, the claim of loss must be reported within twenty-four hours of the loss' [the agreement also states that reporting is only valid if done between 08:00 and 18:00 hours]. (8.4)
5. 'If a claimant cannot collect his/her money on the date stated on the claim form, he/she may present the claim on the following pay-out day. Failure to do so will INVALIDATE the claim'. (8.5)
6. 'Any livestock killed in the ODW 'no grazing zone' will be compensated as "lost"'. (8.6)

However, not all valid claims are compensated at the full value. Two such situations are recognised by the agreement and labelled as 'bad *boma*' and 'lost'. When predation occurs in a homestead that is not properly fenced against predator access, a claim is referred to as 'bad *boma*'. The agreement states that the minimum acceptable standard of a predator-proof fence should be 'four feet high and four feet thick'. Bad *boma* cases include livestock killed 100 metres outside the protected homestead at night. 'Lost' refers to livestock killed outside the homestead during herding. Table 2 below shows the amount of deduction calculated for bad *boma* and 'lost' cases. The last row shows that when total valid claims (including bad *boma* and 'lost' claims) exceed the total determined amount per pay-out day (approx. US\$ 8,966), then claims for 'lost' cases are further reduced on a pro rata basis up to 100%.

Table 2: Deductions from full compensation for not meeting conditions

Label	Deduction / discount amount
Bad <i>boma</i>	30% deduction on compensation amount
Lost	50% deduction on compensation amount
Total pay-out for 2 months period exceeding Kshs. 780,000 (or cap) - approx. US\$ 8,966	Pro rata deduction on all "lost" claims up to 100%

Penalties

The agreement also provides details on penalties when a predator is killed. The first informer to report a killed or wounded predator receives Kshs. 15,000 (US\$ 172) 'provided that the perpetrator or perpetrators are subsequently prosecuted and the Advisory Committee authorizes payment.' (section 15). Penalties take the form of the following non-payments and fines:

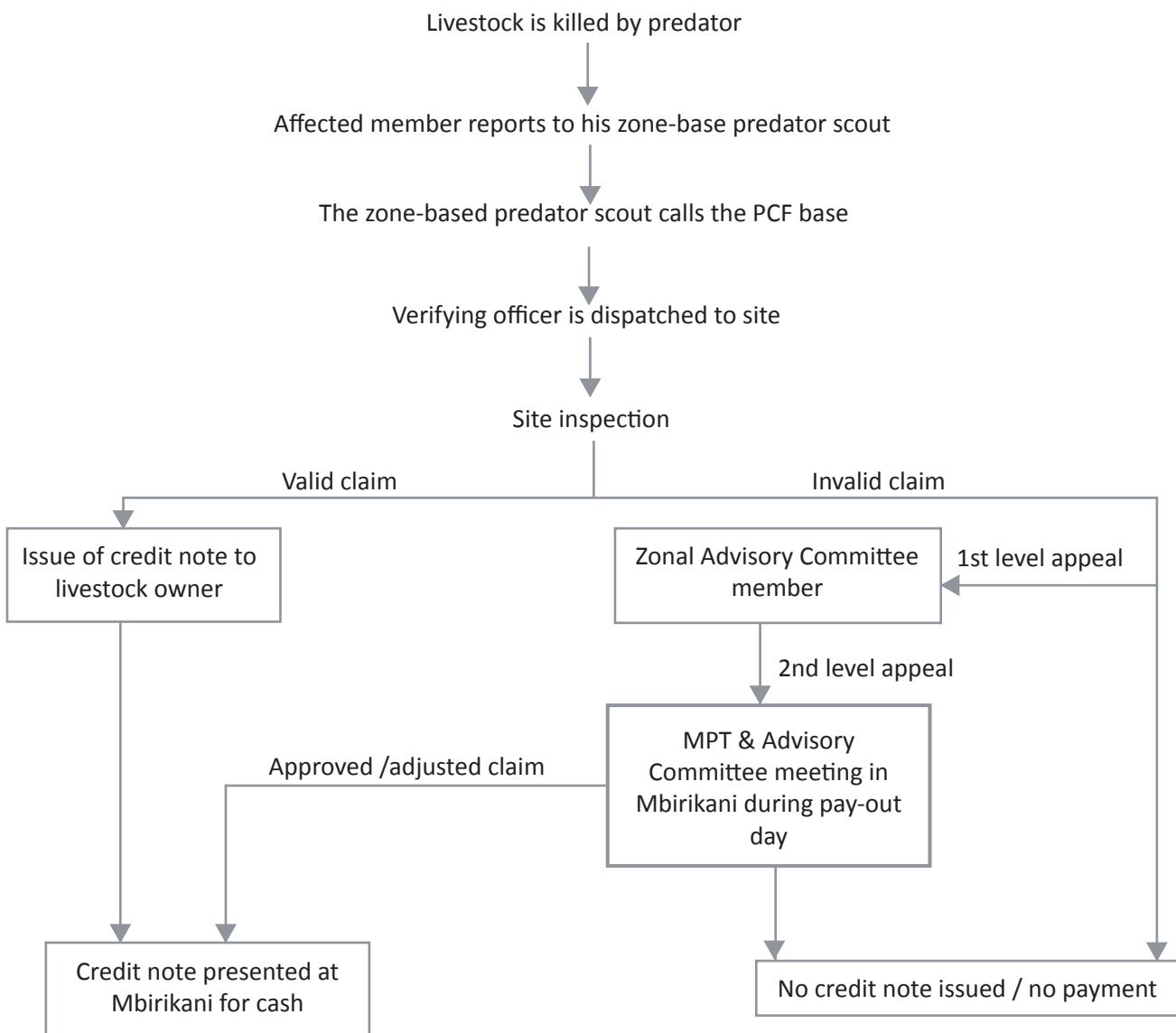
1. No payment is made on any claim in a whole zone 'if, during [a] two-month period, it is reported and proved by ODWT or KWS that ANY PREDATORS as defined...are killed or injured by spearing, poisoning, or any other human-related means in that zone'. This includes unsuccessful attempts to poison predators. Compensation is only reconsidered once perpetrators are identified to MPT and the Advisory Committee, 'who will determine the fine and other penalties due'.
2. Kshs. 20,000 (US\$ 230) fine is given to each person involved in the killing of a predator, up to a maximum of 7 people for a maximum fine of Kshs. 140,000 (US\$ 1,609). (The number 7 is based on the 7 parts that warriors carry home after killing a lion: 4 legs, 2 ears and a tail). Until this fine is paid or a guarantee given, no other member of the affected zone receives any compensation.
3. Kshs. 43,500 (US\$ 500) fine is attracted if a non-resident kills a predator. Livestock owners in the zone in which it occurred are held responsible for enforcement of the agreement and are expected to reimburse 30% of this amount.
4. Kshs. 9,000 (US\$ 103.50) fine is issued on every false claim. It is recovered by deducting pro-rata from valid claims made in that zone during the two-month period.
5. Kshs. 20,000 (US\$ 230) fine is given for attempting to reduce the sentence or release perpetrators facing court justice for violation of the agreement.
6. If a member of the PCF staff is physically threatened no compensation will be issued and the whole agreement will be subject to suspension.

3.3.1 How the Fund operates

When predation occurs in a zone, the predator scout is called by the affected member of his zone. The scout reports the claim to PCF's base which dispatches a verifying officer to the site for inspection. If a claim is valid, the verifying officer issues a credit note that is redeemable for cash on the next pay-out date. When in dispute, a claimant can make an appeal to the MPT Advisory Committee. This committee consists of elected representatives of zones and others 'who must be agreed to by ODWT'.

The flow chart in Figure 5 below shows the process of compensation from predation to payment.

Figure 5: Process of compensation



3.3.2 Financing and Partners of PCF

30% of PCF funds are contributed by Mbirikani Group Ranch. Sources of the group ranch funds are listed in its constitution as: leases; booking fees and bed night fees paid by tourists and other users of campsites; grants, subsidies, or cash gifts from charitable organizations, institutions and individuals; bird shooting fee; sale of wood and sand harvesting; cropping fee; campsite fee and; conservation fee. A group ranch committee member explained that they also get money from leasing space to communication companies for hosting equipment. The constitution further states how the funds are to be utilised and this includes: 'To finance approved projects and programmes or such investments as are approved by the Group Ranch' (MGR constitution, 2008: 12-13).

The other 70% of PCF funds come from MPT. Information on the sources of MPT's fund is not open or clear. National Geographic Society is mentioned as a key funder in the interviews with MPT. The society also appears in the list of funders in MPT's current website. However in 2010, National Geographic Society pulled out of PCF.

Conservation International's website (2011) implied that they were close partners of PCF. In a skype interview, they indicated that funds required for running a project like PCF, even throughout Kenya, was just a drop in the ocean of funds available in conservation. However they have never funded PCF – or entered into any partnership associated with it – though their website implies otherwise. Hill confirms that MPT does not have a relationship with Conservation International (CI). CI expressed interest in PCF in 2005-6 when Hill was invited to speak in their headquarters in Washington. However, according to him, PCF did not succeed in attracting funding from CI because it did not fall in its 'hot zone' category.

In 2010, Kenya Wildlife Services (KWS) once gave Kshs. 1 million (approx. US\$ 11,500) as Community Social Responsibility (CSR) during the severe drought that year. An MPT interviewee mentioned that there were discussions at 'a high level' to double this contribution by May 2012 and make it consistent. However the interview with KWS did not confirm this because KWS has no budget or legal authorisation to fund compensation schemes, except in death or injury of persons by wildlife. Through its CSR programme, every year KWS gives Kshs. 11.2 million (approx. US\$ 128,736) as school bursaries to five group ranches in the Amboseli ecosystem, which is shared according to the membership size of the ranch.

Hill mentioned PCF's other funders as Tusk Trust, US Fish and Wildlife, Save the Rhino, African Wildlife Foundation (AWF) and individuals such as tourists visiting the ODW lodge (interview 4.11.11). Of these, I held an interview with AWF who clarified that they are not involved in giving money directly to PCF, but facilitate meetings and related activities and support efforts geared towards reducing predation e.g. they are involved in the training of local youth, producing documentaries and working with local fundis (semi-

skilled labourers) in making predator-proof *bomas*. Big Life Foundation is described as ‘the greatest single contributor to the cost of [MPT] operations’ (MPT Funding proposal to tour operators 2010). Big Life Foundation was founded in September 2010 by photographer Nick Brandt (Big Life Foundation website, 2011), at least 7 years after PCF begun and almost 20 years after MPT was founded.

3.3.3 PCF Pay-out Day

I attended the pay-out day on 3rd November 2011 for observation. A day before, the Mbirikani payment office at the centre had been cleaned and locked in preparation. I arrived at 8am hoping to be there at least one hour before the process begun. Besides staff, there were less than ten other people waiting. But it was not until 11am when the aircraft from the MPT headquarters in Chyulu hills, about 35 kilometres away, was heard. A vehicle quickly left the offices for the nearby airstrip to pick the trustees and manager who had just flown in. At this point, crowds started streaming into the gate and standing in small groups.



Shortly on arrival of the team from Chyulu Hills, the payment office was opened and a queue formed outside the door. To receive compensation, a person was required to display the credit note issued to them and a national identity card. The MPT manager, Fred Njagi, supervised this process.

Figure 6: MPT Advisory Meeting 3 Nov. 2011

Meanwhile, Richard Bonham and Tom Hill left with members of the Advisory Board for a meeting in a quieter area within the compound.

The meeting was facilitated and translated by Sambu, MPT coordinator. 4 of the zones did not have disputes to represent to the meeting. The first item on the agenda was the breakdown on amount spent on compensation in the Sept/October period. It stood as follows:

Table 3: Amount of Compensation for different categories of predation in September/October 2011

Category	Amount compensated in Kshs.	Amount compensated in US\$
Lost:	Kshs. 211,500	US\$ 2,431
Bad : <i>boma</i>	Kshs. 5,400	US\$ 62
Full (cow):	Kshs. 36,000	US\$ 413.80
Shoat:	Kshs. 23,000	US\$ 267
Lion:	Kshs. 33,000	US\$ 379
Donkey:	0	0
Hyena:	Kshs. 293,900	US\$ 3,378

Thereafter, the discussion focussed on the following challenges during the period:

1. The 'lost' category was uncharacteristically high. Two reasons were given for this. The first reason is that employed herders were not vigilant. There was a difficulty with getting good herders. Bonham asked how much herders earned and the people responded that herders are paid about Kshs. 2,500 to 3,000 (approx. US\$ 28 to 35) per month. The second reason is that there was limited grass necessitating scattering of the herd over a wider area, therefore making it difficult to watch them closely.
2. Hyenas were becoming a nuisance. There was a claim that Kenya Wildlife Service (KWS) was reluctant in dealing with them. Bonham offered to take up the matter with KWS.
3. Group ranch boundaries were not clear and limits for claims needed to be set together with the community.
4. There was an increase in scholarship applications. It was agreed that health, education and conservation courses should get high priority. Bonham added the selected courses should attract jobs immediately. There was a recommendation to create a selection criteria that would take into consideration level of poverty, ability of family, course chosen and academic ability.
5. African Wildlife Fund (AWF) was funding *Menye Layiok* (literally translated 'father of youth'). It is a programme targeting (young warriors) that offers an alternative to killing lions as the boys prepare for initiation into manhood through circumcision. The programme would take the form of Olympic-like events scheduled during school holidays.
6. Bonham reported on a new drip irrigation project that would be open for public experimentation and demonstration when ready.

The final session of the meeting covered disputes that arose during issuing of credit

notes in the zones. At this point verifying officers and scouts joined and a queue of those complaining formed a short distance away, under some trees. Here is a summary of the cases:

Table 4: Summary of disputes and resolutions during Pay-out day 3 Nov. 2011

Case no.	Dispute	Resolution
1	Goats killed around home and not lost as indicated by verifying officer	No one saw predator marks. Verdict: Lost
2	A shoat killed by a jackal. It was preserved above a tree but later a predator pulled it down and ate it. Verifying officer arrived 3 days late because motor cycle broke down	RB: Possible. Committee decides converting lost to full payment due in next pay-out day.
3	Of 19 shoat killed by lion, payment for 13 is approved but owner is in dispute with 2 others labelled lost.	Verdict: Lost status remains
RB interrupts the meeting referring back to case 2. He disputes the verdict for full payment that the committee made. He suggests a reconsideration of the jackal in the next contract review. Heated debate breaks out between him and the committee members. Comments include: 'Richard, don't complicate things...' 'Richard, funga mbuzi uone' [keep goats and see]. 'Richard, now you've diverted the meeting'. Richard walks out of the meeting and does not return to it.		
4	Herder took kids home but on return found one shoat killed by jackal. Verifying officer arrived 3 days after because of broken down motor cycle and found nothing	Verdict: Full payment (50% given immediately and 50% in next pay-out day)
5	Hyena killed 2 shoat and took away with one. Photo circulated showing 'bad' (thorn thickets piled together in a low fence). They were the owner's only animals. Requesting for compensation based on sympathy.	TH: offered to give full payment for one short. Verdict: Payment for lost offered by committee (man walks away in protest but later sends game scout to collect the approved credit note for him).
6	First woman complainant. Shoat killed by cheetah and hang carcass on tree. However verifying officer arrived the next day. The cheetah had climbed and dragged the carcass away leaving trail of skin and blood.	Verdict: full payment approved
7	One 'fat' sheep was caught by hyena as the flock moved from home to Chyulu hills. No photographs taken because battery was low in the camera of the verification officer.	Doubts raised by committee about how a hyena can carry away a heavy sheep. Verdict: lost
Interruption as old woman comes from the payment office to the court questioning why she received payment for a lost case when she expected full payment. She is asked to wait and stands on the side-lines.		
8	Cow killed by hyena. Verifying officer arrived the following day because he was attending training the day of the predation. Owner wants it declared lost.	Verdict: Approved
9	Old woman who had interrupted between case 7 and 8 is next. Sheep killed by hyena. The herder, an old man, was far when the attack took place. She wants full payment because it was a huge sheep. 'Have sympathy as my sons and daughters'.	Verdict: not approved. Woman: 'I'll take money [the discounted one for lost that she had already received] but I'll bring my herder on Tuesday to the white man to take him to his country. I don't want to see him again. If not that I honour this committee, I would have brought him here now to be jailed!'
10	2 shoats killed by a cheetah. The verifying officer only recorded one that was on a tree and reported that there was no sign of another. He went to the site 2 days after predation.	Verdict: Number increase from one to two lost shoat.

4 Analysis: PCF as a Policy Arrangement

'Is a lion more valuable than a cow?'

Elder and opinion leader in Mbirikani (interview 08.11.11)

This chapter moves beyond the description of the Predator Compensation Fund (PCF) arrangement at Mbirikani Group Ranch (MGR) (see Chapter 3), to analysing it through the lens of the Policy Arrangement Approach (PAA). It will examine and explain how and why PCF has been running as it is and will follow the proposed conceptual framework that combines PES and PAA (see Chapter 2). Using PES criteria (Wunder 2005), I will first analyse actors, then underlying discourses, followed by resources and power, and finish with working rules. In the final section of the chapter, I will use my findings to determine if PCF is a PES arrangement.

4.1 Actors

In following the PES criteria prescribed by Wunder (2005), I have categorised actors as either environmental service (ES) providers or buyers. Mbirikani Group Ranch (MGR) community in its entirety is the ES provider because each person in the community is required to provide the ES by desisting attacks on predators. This is irrespective of one's status as a group ranch member or livestock owner. As a matter of fact, the agreement extends this requirement to visitors to the group ranch, whose hosts are held liable for their conduct. The MGR community has a heterogeneous composition that includes its officials, opinion leaders, traditional elders, *morani* and women. All members of the community that I interviewed identified themselves as MGR members although not all are officially registered.

ES buyers are also not as distinctly identifiable as the providers. MGR makes a significant cash contribution of 30% to PCF, and as such emerges as both an ES provider and ES buyer. (See source of MGR funds in 3.1.1 The Constitution and Rules of Mbirikani Group Ranch). MPT initiated PCF and is the engine behind it but heavily depends on funding from external sources. In its role as fundraiser, MPT is the main link to donors and acts more like an intermediary between donors and the MGR community than as a financier. MPT is also PCF's administrator and manages major aspects of the costs of negotiating, monitoring, evaluation, training and community awareness. MPT drafted the initial PCF agreement and remains the main reviewer of amendments made in latter versions.

OI Donyo Wuas Lodge is – with MGR – PCF's most consistent financier to date. It is important to keep in mind that until 2008, MPT and OI Donyo Wuas lodge shared the same owner and management. There have been other financiers over the years but

their contributions were either *ad hoc*, inconsistent or short-term. The list has already been discussed in Chapter 3 and includes tourists to Ol Donyo Wuas Lodge, National Geographic Society, Trust Fund, Save the Rhino, US Fish and Wildlife and Kenya Wildlife Services (KWS). MPT attributes the single biggest financial contribution to date to Big Life Foundation (MPT Funding proposal to tour operators, 2010), an organisation that was founded in 2010.

PCF receives other forms of support from other actors. Kenya Wildlife Services (KWS) is the governmental organ in charge of management and conservation of all wildlife in Kenya. Though there is cooperation between MPT and Kenya Wildlife Services (KWS), there is no official agreement between them. KWS trains MPT game scouts in similar paramilitary fashion to KWS rangers, which is not unique to Mbirikani as KWS has done it for scouts in other parts of the country like Laikipia and Maasai Mara. The MPT Funding proposal to tour operators (2010) confirms that they 'work in close collaboration with the KWS rangers of Amboseli'. As government experts in wildlife research and conservation, KWS brings credibility to PCF, for example, by confirming an increase of lion population and attributing it to PCF (Kenana and Mwinzi, 2010). There was speculation among the interviewees about whether or how much financial contribution KWS gives to PCF. Some, including a member of the MPT advisory board, thought KWS covered every other compensation payment (about once every 4 months) while others thought KWS made absolutely no contributions. An interview with KWS confirmed that they gave a one-off contribution of Kshs. 1 million (approx. US\$ 11,500) in 2011 following a severe drought in the area. The funds were meant to 'cushion' the community and was given as Community Social Responsibility (CSR) – the response given to people who question why this was not extended to other areas in the country with KWS presence that were also facing drought. KWS also provides training, knowledge in the form of research and is involved in cases of the death or wounding of predators.

The Ministry of State for Provincial Administration & Internal Security, in this thesis simply called the Provincial Administration (PA), is represented by the local government chief and police force, and is the only legal authority in Kenya that has the right to arrest. The Provincial Administration contributes strongly to the implementation of PCF through enforcement of rules consistent with the Laws of Kenya, though it operates on a different principle of command-and-control. Involvement of both KWS and the Provincial Administration (governmental bodies) also make PCF politically possible.

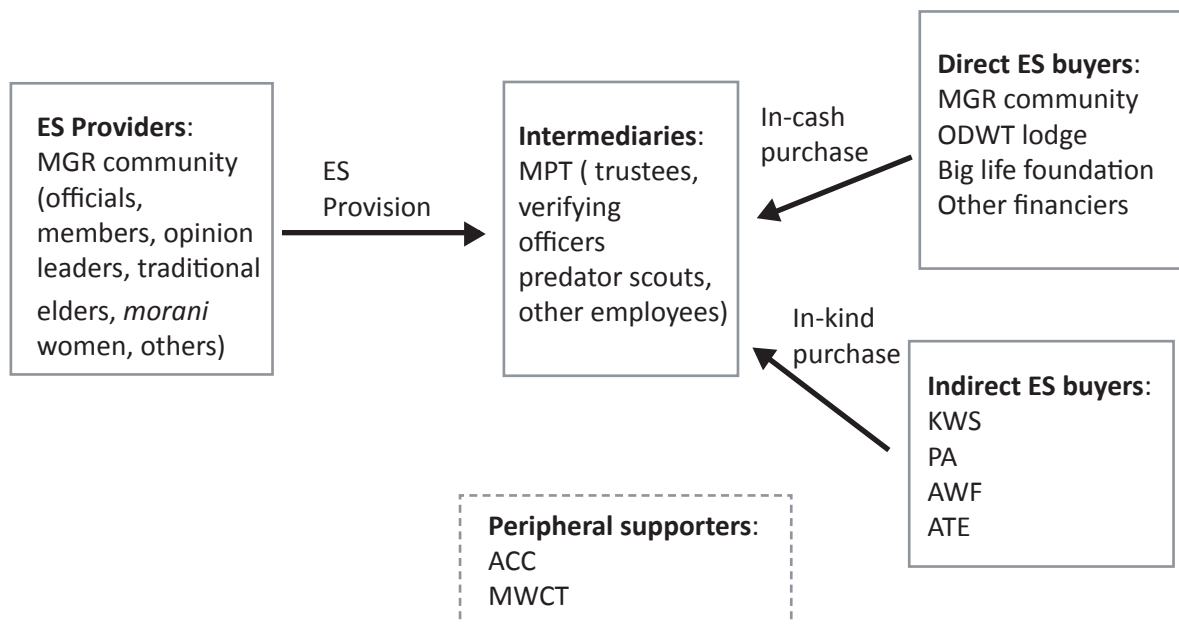
African Wildlife Foundation (AWF), with a reputation in African conservation, provides support in the form of goodwill (i.e. affiliation with an internationally-recognised conservationist), facilitation (e.g. of community awareness meetings), expertise (e.g. in building the community's organisational capacity), knowledge (e.g. in conservation based research) and training (e.g. in 'good' herding practices). AWF also mentioned that they are involved in hiring local labourers to reinforce the traditional way of building *bomas* but with adjustments for a predator-proof fence. For AWF this means 5-6 feet chain link

– ‘not chicken wire’ – with strong posts. In the interview, AWF also mentioned that they worked with MGR as consultants and trainers in the new Constitution of Kenya especially on issues that evolve around group ranches, trust land and the role of the community. They would also be available to provide legal advice like in the case where MGR entered a dubious contract with a mining company – an activity that AWF sees as conflicting with conservation and PCF efforts.

MPT liaises with other conservation NGOs in the ‘spirit of sisterhood’ (Hill interview 4.11.11). African Conservation Centre (ACC) collaborates with MPT during crisis situations, for example, in convening the stakeholders meeting following the drought of 2009 (ACC, 2009). ACC has a longer history in the Amboseli ecosystem with its headquarters currently in Loitoktok town (about 25 km from Mbirikani). It was founded by Dr. Western who has studied and written extensively on conservation in the region since 1967 (ACC website 2012) and headed the Kenya Wildlife Services until May 1998³. Amboseli Trust for Elephants (ATE), based in the Amboseli National Park, works with MPT to replicate a PCF like arrangement in Olgulului Ranch that completely surrounds the park. An ATE representative sits in the Mbirikani Advisory Committee transferring lessons learned to both ranches. Although they do not particularly work together, MPT recognises Maasai Wilderness Conservation Trust (MWCT) as a ‘sister’ in conservation in the region. MWCT was initiated in 1996 by Luca Belpietro and Antonella Bonomi. Since January 2007 MWCT has been running a similar predator compensation project in the neighbouring Kuku Game Ranch that provides an opportunity for comparative study and exchange of ideas.

While financiers contribute directly to the compensation fund, there is nonetheless indirect contribution, especially to transaction costs, by other supporters. To reflect this difference, the analysis separates in-cash from in-kind ES buyers. I have also recognised peripheral supporters who play a role though their contributions are further removed. As such, the following categorisation unfolds: What is interesting is that direct ES buyers

Figure 7: Summary of PCF actors in terms of ES buyers and providers



3 <http://www.sciencemag.org/content/280/5368/s-scope.full> gives details of Western’s sacking by the then President of Kenya due to alleged rivalry with Richard Leakey. The European Community froze US\$ 3 million to KWS as a consequence.

who contribute financially are not as intimately involved in the running of PCF as indirect ES buyers who contribute in-kind. It seems that in-cash buyers prefer involvement from a distance compared to the hands-on contribution of in-kind buyers. This may be explained by the nature of organisations because not all cash contributors are environmental professionals while most in-kind contributors are experts in the specific activity that they contribute to. For example, the Provincial Administration does not have the constitutional capacity to contribute financially to PCF, but it is nonetheless an indirect buyer because it contributes to the transaction costs by providing specific security expertise and services to PCF.

An analysis of the actors should also include excluded parties. The PCF agreement is made for livestock owners and therefore excludes non-owners – who are considered the poorest in a society that traditionally measures wealth by the head of cattle that a man owns. However this only holds true for compensation and not penalties. PCF runs on social pressure so that all residents of a zone are expected to meet the conditions of the agreement, otherwise the whole zone is penalised. The privileges are therefore only accessible to livestock owners but the obligations are shared by all. In other words, everyone in the MGR community is an ES provider, but not everyone is a beneficiary.

Non-MGR members are also excluded. Section 21 of the PCF agreement states that ‘non-members of Mbirikani Group Ranch are NOT entitled to claim from MPCF’ i.e. Mbirikani PCF. While almost all the people from the community that I spoke to said they were members, many are not registered members. Women were not registered during the last process in the 80’s. In subsequent years some women have gained official membership through inheritance. Non-indigenous people are also excluded and though the population of Mbirikani is still largely Maasai, there is a marked presence of non-Maasai communities growing especially in towns like Imbirikani and Isinet. Some interviewees attribute this to the migration of people from conflict areas following the post-election violence in Kenya in 2007. Other interviewees predict that with the on-going sub-division of land in the area - an issue that I will address more extensively later - and subsequent selling in the wider property market, the population of non-indigenous people is likely to increase.

One group that is not included in the agreement but cannot be ignored is the *morani*, most notorious for lion killings. Group ranch registration was last done in the 1980’s when most of present day *moranis* were either not yet born or still infants. To be registered one had to be at least 18 years old. The *morani* also own livestock only by name, but hold no ownership rights to them. As one interviewee comments (interview 8.11.11),

‘We are livestock keepers but most of our age...[there is nothing we can see] apart from those who are employed...[when you go home there is a cow that is said to be yours] by name [but] whenever parents want to sell, [you would never be consulted].’

Through inheritance *morani* are imminent livestock owners and group ranch members. MPT has made great efforts in reaching this group through targeted training, employment and introducing a new warrior initiation project titled *Menye Layiok*.

4.2 Underlying Discourses

Discourses will be analysed first by zooming in on those specific to PCF that affect policies and regulations on the grounds, and thereafter by zooming out to link them to wider discourses. This will give more insight into ES buyers and providers by drawing out the 'ideas, concepts and categories through which meaning is...produced' (Hajer and Versteeg 2005:175).

Categorising actors according to the discourses they represent is complex because individuals transverse the organisations involved and are very highly interconnected. For example, all the MPT employees that I interviewed are also members of MGR. The government administrative chief in Mbirikani sits in the education board of MPT and is also an ex-officio member of the Mbirikani Advisory board. Ole Ntiati, the local co-founder of MPT, is a member of MGR and previously also held the post of Group Ranch secretary for 11 years. The list continues. It should therefore be noted that responses to interviews, though done by individuals associated with one organisation, may also represent views from a different organisation that they are or were also affiliated to. To make analysis possible, the discourses identified from interviewees will be assumed to be those of the organisations that I approached for interviews – whether an NGO, governmental body or MGR community. This means, for instance, that discourses from the administrative chief will be considered those of the Provincial Administration under which his governmental office falls.

By zooming in, this thesis has discovered three prominent discourses that are specific to the PCF arrangement: compensation versus consolation; value of wildlife versus the value of livestock; and specific species versus entire ecosystem discourses. Zooming out of each of these PCF-specific discourses traces links to wider discourses (Arts *et al*, 2011), as discussed below.

4.2.1 Compensation versus consolation

It is interesting that the very word 'compensation' is highly contested among the actors. Generally speaking, ES buyers preferred to use 'consolation' while ES providers used the word 'compensation'. Kenya Wildlife Services (KWS) shun the word 'compensation'. Following the establishment of KWS in 1989, Kenya abolished a previous national-wide wildlife compensation fund on the grounds of excessive corruption and insufficient funds (Thouless 1994). KWS is therefore legally incapable of contributing to a compensation fund but can be involved in 'consolation' through their Corporate Social Responsibility (CSR) fund. African Wildlife Foundation (AWF) clarifies that PCF is not 'compensation',

but ‘consolation’ – a means of comforting a livestock owner whose animal has been killed by a predator. Use of the term ‘consolation’ instead of ‘compensation’ is also preferred by African Conservation Centre (ACC) and Amboseli Trust for Elephants (ATE). While the Provincial Administration prefer to use the term ‘consolation’ to describe the PCF payment, the Mbirikani administrative chief however mentioned the need for ‘real compensation’ that enabled locals to purchase upgraded breeds of livestock instead of being stuck in a cycle of low breed animals.

This need for ‘real compensation’ was resonated by the local community that oscillate between using the term ‘compensation’ and ‘consolation’. While many appreciate being paid for losing their livestock to predators unlike previous times when such death meant complete loss (which is what they refer to as ‘consolation’), many complain that the payment is not ‘real compensation’ because it does not measure up to the market-value of the livestock. Several interviewees quoted how much increment of payment would make the ‘consolation’ a ‘real compensation’ and the value ranged from 2 to 4 times the amount of the current payment based on the price of livestock at the local markets. The interviewees mentioned that they intended to use this argument in negotiating for higher payments in the next review of the PCF agreement, which is due in 2012. It is worth noting that towards the end of 2011 when this data was collected, commodity prices all over Kenya had shot up drastically following abnormal inflation that was later traced to fabricated devaluation of the Kenyan shilling to allegedly enrich commercial banks overnight (Standard digital newspaper, 5 June 2012).

In the interviews with MPT, ‘consolation’ was the term used in the explanations of the payment, though in their external communication e.g. funding proposals and website, they use the term ‘compensation’. ‘Compensation’ is also the more commonly used term found in websites of INGOs and other international organisations that talk about the Mbirikani PCF arrangement (Conservation International website 2011). MPT’s selective use of either term seems to depend on the audience and the goal they hope to achieve with it.

The use of the terms ‘compensation’ or ‘consolation’ are important because they raise different expectations. High expectations are raised when ‘compensation’ is used because it is immediately compared to market-value. Using the term ‘consolation’ brings lower expectations because it suggests that the one receiving it is being granted a special favour out of sheer compassion and not because it is their right to receive it. Therefore, it is probable that ES buyers prefer use of the term ‘consolation’ to keep the amount of payment lower while ES providers prefer using ‘compensation’ to negotiate for higher payment.

Zooming out of this discourse points to the regulatory discourse category. The contestation of terminologies regulates negotiations, formulates policies and dictates corresponding instruments. It illustrates how policy is framed and how this framing reveals

underlying intentions. It also points to national and global discourses on the relation of communities and nature conservation.

4.2.2 Value of wildlife versus the value of livestock

There was also marked difference between how ES providers and ES buyers spoke concerning the value of lions and livestock. To the ES buyers in general, the value of the environmental service – lions and wildlife in general and the habitat that sustains them – was the most significant. They linked wildlife to the tourism revenue earned during safaris. MPT mentioned that the lion had an even higher value for safaris than other wildlife. Hill, one of MPT's co-founders, prophesies that if there was an extinction of lions in Amboseli, tourism would drop by 80-90%. He has a very clear view on the value of livestock to wildlife:

Without lions there would be no tourism because lions are the number one attraction of African wildlife. If the tourists are not here they go somewhere else. It will cost you [Kenya] enormous numbers of jobs and once and for all prevent conservation people like us from ever coming here. We came here not to see you raise goats and sheep and cows, attractive as you are as a people. We are not here because of that. We are here because of the lions and the elephants and giraffes and the wildlife of East Africa.

To MGR, the ES providers, livestock held strong cultural and economic value. Keeping livestock is part of the Maasai identity and way of life. They said that before PCF they held neutral to negative views about wildlife. Neutral because they experienced no 'wow effect' by watching lions, leopards and zebras going about their everyday lives and considered the idea foreign. Also the Maasai do not typically eat wild meat as it is culturally considered taboo. They had negative views when suffering losses caused by predator attacks on their livestock. They had lived with wildlife for many generations but enjoyed no direct cash benefits until the introduction of PCF which now paid for an age-old conflict. MGR interviewees said PCF had given them some positive appreciation of wildlife, yet in an ironic way because cash payments are only received when their livestock is killed by wildlife. Also by targeting livestock owners, PCF has reinforced the value of livestock to the Maasai people because people who do not own livestock cannot partake of compensation payments.

By zooming out, the value of wildlife versus livestock discourse links to two wider discourse categories. First, it links to content discourses by demonstrating how challenges specific to environments where pastoralism and wildlife co-exist are shaped, and the specific way in which this shaping affects policy. Within this category, PCF also falls under smart regulation. It has a mix of actors that includes NGOs, government and the local community and diverse rules that incorporate both voluntary and non-voluntary laws – with national laws being mandatory, PCF rules being punishable through penalties, customary laws being socially, morally and even spiritually binding and international environmental laws circumstantially binding (more details under 4.4. Working Rules).

Secondly, it links to meta-discourses, specifically to broader discourses on economic valuation of nature of which PES is one clear example. An exchange of monetary value takes place when livestock is killed by a predator (maximum compensation per case is US\$ 230) or a predator is killed by an MGR community member (maximum fine per case US\$ 1,609) in market-like transactions. The value of the environmental services - predators but more specifically lions - is determined by MPT who also induce its demand from ES buyers. The supply depends on MGR's willingness to continue provision which is influenced by how satisfied they are with the valuation of their own livestock in cases of depredation.

4.2.3 Specific species versus entire ecosystem

The ES provider, MGR community, spoke of protection of specific species, notably of the lion. This was remarkably different from ES buyers who spoke of protecting the entire ecosystem. MPT's focus is on the lion but boasts that this has had a positive ripple effect on the protection of other predators – without involving extra funds (Bonham, 2010). They speak of protection, not just on wildlife, but the entire habitat in which they live. With this thinking MPT has a Forestation Department that actively works to reforest the group ranch, as the habitat for wildlife. AWF's view is that, 'loss and fragmentation of habitat is the single largest threat to most African wildlife' (AWF website 2011). The AWF interviewee explained that in previous years AWF focussed on specific species and projects but recently shifted to entire ecosystems and programmes – referred to as 'heartlands'. They consider an intact habitat as crucial to the survival of any one species. The African Conservation Centre (ACC) also spoke of working in the ecosystem as opposed to a specific species.

This discourse points to conservation meta-discourses. Use of terms such as 'heartlands' or 'ecosystems' emanates from wider global discussions prevalent not only within AWF but also in other conservation INGOs. For example, Worldwide fund (WWF) labels it 'global ecoregions'.

4.3 Resources and Power Relations

PCF has brought ES buyers and providers in an interesting interaction of power and resources. The unequal distribution of finances, position and expertise has resulted in power inequalities among the actors which are analysed in this section. This analysis will in turn reveal how PCF meets the PES voluntary criterion that is based on a negotiated, as opposed to imposed, framework (Wunder 2005).

4.3.1 Financial resources and power relations

In analysing power relations based on financial resources, four issues arise as follows:

1. Restricted access to financial sources

MPT trustees and MGR officials attain power by being the only channels through which funding comes into or leaves PCF. PCF receives 70% of its funding from MPT who source it from external donors. MPT trustees are the only ones with access to this fund and to its financiers, who in this research are referred to as direct buyers. These buyers take a hands-off approach to PCF, by inference giving MPT a kind of 'power of attorney' over their donations. Because of this special access to donors, some MGR community respondents considered MPT trustees to be the final decision makers and the main actors who would determine PCF's lifetime.

The remaining 30% of PCF's pool of funds comes from MGR. MGR officials – the chairman, secretary and treasurer – are also the only ones with access to MGR's bank account and its sources. Managing the source of MGR's funding keeps the officials very busy all year round. In hushed tones, some MGR community members mentioned that this was a means through which officials engaged in corruption to enrich themselves and maintain their positions in office, through bribing or threatening voters.

2. Lack of transparency on funding

There is mystery about PCF's funding created by both MPT trustees and MGR officials. Only the top 3 MGR officials have information concerning the amount of money that comes into the group ranch bank account. It was surprising to hear a fellow member of MGR's committee (not among the top three officials) mention that he too was not aware of how much money actually comes into the bank account (interview 10.11.11). The Group Ranch constitution states that with a week's written notice, any member of the group ranch should be able to inspect the financial books. However it was clear that this has not been the case on the ground as confirmed by an elder (interview 8.11.11).

Similarly, not even MPT's partners are aware of the aggregate amount of funds that is contributed to PCF. In the interview with MPT, Hill (interview 4.11.11) gave a quick list of some of PCF's financiers. Their website (MPT website 2011) also has a list of donors. Both lists include former financiers like the National Geographic Society who pulled out of PCF but remain on the list. Beyond this rough list, there is no indication of how much is contributed in total. In an earlier research conducted by KWS with AWF support, there is a remark that, 'this study could not obtain much of the data on funds invested into the program' (Kenana and Mwinzi, 2010:31). It was information that was also difficult to obtain for this research. Due to this lack of transparency, some people in the MGR community thought PCF funds came directly from the trustees' personal pockets and therefore considered its trustees Tom Hill and Richard Bonham the most influential actors, referring to them as 'philanthropists'.

3. Lack of sustainable financing

The power yielded by MPT's trustees is nevertheless limited to availability of funds. Continued financing has been a matter of great difficulty. An MPT employee explains:

We see money is running out. It's not that we foresee but already we are running into trouble as it is. It is really expensive to maintain.

A former MPT employee revealed that this concern for sustainability was the main reason why National Geographic Society pulled out of PCF. Hill explained that the lowest moments for him and Bonham were when funding was most elusive. However he sharply disagreed with critiques that condemn PCF because it was not sustainable saying,

Sure I foresee funds run out...Well, you can't sustain anything that is funded. But anything can be unsustainable too. The American Museum of Natural History, Oxford University, Harvard university – they all depend on funding... They are not sustainable. Academics, science, research is not sustainable – it has to be funded. So it is a silly non-point to say the problem with this is that it is not sustainable

There is little hope for conservation of lions should PCF collapse, as expressed by most actors. There are predictions by the MGR community that the killing of lions would accelerate at an alarming rate, to which AWF agrees saying without compensation no predators would remain. The *morani* said they felt constricted by PCF from doing what they were raring to do – kill lions. Other comments from the MGR community include:

'No fund? Wildlife will be killed'.

'Maasai cannot let his cows be killed without doing anything about it'.

'Contract could end due to lack of funds. Then the Maasai will go back to culture'.

This threat, combined with lack of transparency (see point 2 above), creates a dance of power between MGR and MPT with MPT extending one hand offering finances while hiding the other hand that holds the pot of money so MGR cannot tell how deep it goes. On its part, MGR extends one hand to receive the compensation payments but hides the other hand that is holding a spear or poison or trap ready to kill lions. The hidden hands are illusionary though the threats might be real. MPT is likely to be using the power of secrets to prevent MGR from thinking the money pot is bottomless and therefore negotiating for higher compensation or increasing the cases of claims. MGR's threat to kill lions should compensation cease keeps MPT vigilant in fundraising to ensure funds are running constantly. MPT is yet to master the power of attraction towards financiers, since difficulties in sustainability is not an illusion going from the unreliable commitment of previous donors.

4. Discriminate compensation

The PCF benefits system causes further disempowerment for actors who are excluded from it (details under Actors). It discriminates them from receiving financial compensation on the basis that they are often too poor to own livestock. This further weakens them because it is not just that they cannot access PCF funding, but that they are oppressed when it comes to other possibilities for income generation. For example, agriculture is increasingly becoming popular and MGR officials have been overseeing subdivision of a portion of land to each MGR member. An MGR member explained that poor people face oppression in the process because of the inability to bribe to secure good sections of the land, and therefore end up with the worst plots. He mentioned that in some instances, an official would swap good land allocated to a poor person with poor land from another individual with higher bribing abilities.

However, it is important to add that not all actors commend MGR for its alternative land use choices such as limestone mining and agriculture which they see as blockages to migration corridors. AWF is particularly perturbed by the mining activities in the ranch and mentioned that they would pull out of Mbirikani if such conflicting ventures took over wildlife conservation. For AWF this would amount to a 'disregard for partners' (interview 16.11.11).

4.3.2 Position and power relations

By holding a strategic position or being associated with those holding those positions, power is wielded among the actors. Three key positions of power are discussed below:

1. Power of MGR top officials

As the ES provider, one of the key resources held by Mbirikani Group Ranch (MGR) community is the property right of the land. Power within MGR is concentrated at the top with the top officials (chairman, secretary and treasurer). Being a group ranch official gives one special access to resources like the group ranch bank account from which 30% of PCF funds come from. There was also an opinion in the community that when one gets into office they enjoy recognition from MPT, other NGOs and institutions which would materialise in personal development like jobs for family members or bribes. Another view in the community is that when an official completes his tenure, three members of the official's family automatically get educational scholarships from MPT.

These top 3 positions are fiercely contested for, attained through elections and sustained throughout the officials' tenure by continuous canvassing and repositioning. The political atmosphere heightens around election time but continues all year round. One official explained to me that what determined being elected into office was when 'people love

you'. Another official mentioned that being elected depended on the kind of previous contributions one had made in his own clan. A candidate is nominated by his own clan and often it is the strong backing of one's clan that aids one in winning. Voting is not done by secret ballot but by queuing behind one's candidate of choice, meaning competing candidates can easily identify people who vote against them. There were reports that when candidates win elections, they have been known to retaliate against individuals who did not vote for them, sometimes by 'removing them from [job] positions [within the ranch]'

MGR interviewees strongly disliked the struggle for power by group ranch officials, blaming the officials for negative 'politics' which in their view was worse than the corruption that the officials were also accused of - though the two were also linked. Some dismissed corruption as something that exists everywhere besides MGR or with the officials, but strongly disliked the kind of politics emanating from the top three group ranch officials that involved threats, harassment and fear. Others thought the chairman was not so much influential as 'dangerous'. The *morani* spoke of these three officials as 'very strong and can make things happen'. They felt they were even more influential than the trustees of MPT.

Though power exists in these top offices, its officials must sustain it through consistent active interaction with the community – whether through appeals or threats.

2. Power of MPT trustees

The top three group ranch officials and MPT trustees were referred to as the 'gatekeepers of the community.' When seeking interviews among community members, often I was asked: 'Does Richard know you are here?' It was clear that they were wary of being involved in interviews without Bonham's approval.

Richard Bonham – chairman, co-founder and trustee of MPT - was regarded by MGR interviewees as the most influential individual in Mbirikani. Part of this influence emanates from charisma and close interactions with members of the community. When he walked into the pay-out day that I witnessed on November 3, 2011, he first went around greeting individuals, shaking hands, stopping to ask one elder how his broken leg was healing. The people simply call him Richard. He is what can be referred to as a 'man of the people'. He spoke fairly good Kiswahili and only needed translation in the MPT Advisory meeting when Ma'a, the Maasai language, was spoken. Asked why they felt Richard was most influential person, some said it was because he ran most of the projects at Mbirikani – more projects than they could assign to the government. In an interview with three MGR members, there was a joke about Bonham running for office of the local Member of Parliament; however for them this was pushing it too far and they thought it was not a good idea, and concluded with, 'Richard has helped us, but we have helped him even more!' This shows awareness within MGR that MPT's powerful position is gained from

and sustained by the community.

MPT would like to extend the jurisdiction of its power by being the overarching conservation NGO in the Amboseli ecosystem. It is not clear, however, how readily other NGOs in the region will appreciate this, considering some others like African Conservation Centre (ACC) have existed in the region much longer, but contention is expected. In talking about the competition that arises when MPT is seeking funds, for example, Hill remarks:

The business of conservation is one that is populated by humans – humans are jealous, petty, compete with one another, have all those failings. We all do. There are a lot of people that want to claim that they are smarter than you are, their work is better than yours, yours does not work, whatever...It can get pretty nasty at times. We have our critics who say you shouldn't give them the money! Give the money to me. I'm smarter than they are. Their [thing] doesn't work. So there is all that pressure going on.

AWF consider that conservation using the compensation arrangement would be more effective if it was ecosystem-wide and was structured around standardised conditions and payments. The Maasai Wilderness Conservation Trust (MWCT) runs another predator compensation project in Kuku Group ranch neighbouring MGR. The project is independent from PCF but MPT refers to MWCT as their 'sister company that mimics the one we started here' and that they are 'highly compatible but are only connected spiritually not technically' (interview, 4.11.11). Some MGR members compared the 'deal' they were getting from MPT with the one at Kuku. They expressed admiration for Kuku group ranch members because they were of the view that compensation at Kuku is paid more speedily and fully, there being no system of staggered payments or conditions. Also they mentioned that at Kuku the list of predators was longer than in Mbirikani, even including compensation should an eagle carry away the kid of a goat.

While it is important for conservation in the Amboseli ecosystem to be better coordinated and interlinked, it is not clear why there is need for an overarching NGO to do this instead of Kenya Wildlife Services (KWS). It is also not clear if MPT has the capacity for it, particularly when it comes to mobilising adequate funds for more compensation. MPT's solution for this is to introduce a new actor in the scene: tour operators. In a draft proposal, MPT appeals to tour operators to contribute a fee per bed night to an Amboseli-wide fund designated and managed by MPT. The draft proposal is accompanied by a letter from the KWS director, which is however drafted by MPT. At the time of data collection, these documents were still in draft versions that had not yet been dispatched and it was not clear if KWS was privy to them. An interview with a local tour operator revealed that such a proposal would not be enthusiastically received. The tour operator considered such a proposed fee double payment because tour operators already pay park entry fees and part of this money is expected to contribute to communities in surrounding areas. However he has doubts if this money goes beyond 'private hands' to the community. He also questions, 'Why pay to use a service and also to maintain the same

place'. His argument is that such a requirement should be national and not just specific to one region and should be managed by KWS, not a private organisation. To quote him:

Such a fund would be saying to KWS that we do not trust you. A mechanism already exists through KWS to manage funds for the local community. If you create a parallel organisation you say guys doing it are not doing it right. It seems the interest is not in doing the right thing but in creating a private organisation... why not empower the existing mechanism instead of having other organisations...a parallel initiative would create animosity.

The challenges of group ranches increase and differ in a wider scope. It is questionable if the community at Mbirikani and other ranches are involved in MPT's expansion plan.

3. Power of Government organs

Governmental power is resident in Kenya Wildlife Services (KWS) and the Provincial Administration (PA) – for this case the local administrative chief and police force. Association with governmental bodies provides credibility to PCF, implying that the arrangement is backed by the Government of Kenya. Further, this association makes PCF politically viable.

MPT has no legal capacity or power to arrest or fine anyone. PA is the arm of government empowered to undertake arrests while KWS is empowered to conserve and manage all wildlife in Kenya. Involvement of both is mandatory in any case of attacks on predators. KWS is required to appear at the site to conduct inspection and carry out 'due diligence' as experts in wildlife behaviour (interview 8.11.11). KWS is responsible for drafting the charge sheet for wildlife crimes and handing over culprits to the police.

However KWS is stationed at Amboseli National Park which covers only 392.90 sq. km. of the total 5,700 sq. km. in the ecosystem. KWS mentioned that the area outside the national park is too large for them to cover alone and therefore admit the need for assistance from the community in whose hands much of the land is. They therefore collaborate with the community to 'win space for wildlife' (interview 8.11.11), by which KWS means that they are involved with the community through their representatives. The KWS interviewee said most of their interactions with MGR are through its officials because they respect the leadership structure selected by the community. KWS believes that the officials 'represent the will of the community'. KWS also acknowledges MPT as a management organisation contracted by the community in conservation and environmental matters.

Respect for bureaucracy thus influences KWS' interactions at MGR – probably because it is a bureaucratic organisation itself. Most community interviewees expressed low appreciation, awareness or trust of KWS. It is therefore likely that instead of creating a

bridge to the community, the perceived representatives create a buffer from the community. For example, MGR community interviewees stated distrust in their officials, which KWS uses as the main means of reaching them. No KWS representative is invited to the MGR advisory committee and none was present during the pay-out day on 3 November 2011. This combined with comments from interviewees, shows that KWS is deemed an irrelevant, weak or absent actor in PCF, which is surprising considering KWS's position and jurisdiction over all wildlife and National Parks in Kenya. KWS has the potential to be much more important and powerful.

The PCF arrangement relies on the authority of the Provincial Administration (PA) in the implementation of rules. PA's capacity to arrest is exercised on culprits who attack predators. PA collaborates with MPT in this through MPT game scouts (as opposed to PCF predator scouts) in what Hill refers to as 'citizen's arrest' – more commonly called 'community policing' in Kenya i.e. collaboration between the police and community in implementing security in an area. MPT game scouts carry guns which are inspected periodically by the police. One such inspection was carried out by a senior police officer at the time of my visit to the MPT headquarters in Chyulu hills.

Both the administrative chief and the chief of police sit in the MGR advisory committee as ex-officio members. The chief's authority is also used in dissuading herding by young children. MPT, AWF and the Provincial Administration attributed poor herding practices - which they blamed for increased instances of predator attacks - to utilisation of child herders sometimes as young as eight years old, who forego school. The administrative chief explained that at the beginning of school terms, he drives around the ranch forcefully collecting children who should be in school but are not and enrolling them in the nearest school to their homes, often without the mandatory school uniform (primary school education is free in Kenya). MPT covers the costs incurred by the chief during this exercise. The chief is also the chairman of MPT's education board that is in charge of awarding scholarships. This is also possibly linked to the fact that he was previously a primary school head teacher in the community for several years.

Two things arise from this. First, while it is clear that PA's authority is used in ensuring PCF penalties are applied, it is not obvious that this authority translates to PA harnessing power from the arrangement. Instead it seems that PA serves MPT and PCF. Secondly, PA operates through enforcement, meaning PCF is dependent on a command-and-control system instead of voluntariness, to ensure rules are kept.

4.3.3 Expertise and power relations

The final analysis on resources and power relations will focus on expertise as a resource. As already stated, much of this expertise comes from indirect buyers who are professionals in the areas of their in-kind contributions.

Kenya Wildlife Services (KWS) are experts in wildlife and conservation research. KWS has also conducted research on PCF that to an extent validates the efforts made by MPT. An example is 'An evaluation of the successes of the predator consolation scheme in Amboseli Ecosystem' (Kenana and Mwinzi, 2010) that was supported by AWF. Hill argued that the idea of predator compensation had in fact entered the pending national Wildlife Bill after KWS studied PCF. The validation that KWS gives to MPT's work can be heard in Hill's words:

We collaborate with KWS and in July they came out and said the reason there were lions in Amboseli is PCF – which is very hard for KWS to say.

MPT uses this validation to strengthen its appeal for funds to potential donors (MPT Funding proposal to tour operator, 2010). MPT was ambivalent about its relation with KWS, expressing confidence in what they were doing because KWS had validated it while at the same time downplaying KWS' own conservation efforts.

MPT's main resource is organisational skills and new venture development abilities. According to MGR and AWF interviewees, PCF was initiated by MPT and 'sold' to the community but according to MPT, the community initiated the idea of the agreement and MPT facilitated it. What is agreed upon, however, is that the agreement was drafted by MPT and any changes to it are still made by MPT. MGR has contracted a lawyer to handle their legal issues particularly on land issues yet it is not clear how adequately this enhances MGR's legal capacity. At face value, it appears as if MPT has a higher hand in determining the PCF agreement, but a closer look will prove otherwise because on at least 2 occasions – in 2003 and 2009 - MGR frustrated the agreement to a point of near paralysis. This was also evident during the pay-out day on 3 November 2011 especially at the point when the community representatives disagreed with Bonham and Hill on a compensation verdict. Claimant 2 had disputed 'lost' payment for his shoat's (sheep/goat) killed by a jackal and brought the complaint to the Advisory committee meeting. Bonham and Hill both thought it could only have occurred in a 'lost' scenario but the committee members heatedly debated with them commenting,

Richard, don't complicate things...'
'Richard, funga mbuzi uone' [keep goats and see].
'Richard, now you've diverted the meeting.'

Bonham walked out of the meeting and the claimant received full payment. This scenario reveals that MGR perceives that are better skilled at livestock rearing than the MPT trustee. In this area, they feel powerful and confident to contest. MPT's apparent power depends heavily on cooperation with MGR which is a focal point of their relationship.

During regional crises such as drought and heightened human-livestock conflicts, resources and power are shared in a wider range. African Conservation Centre (ACC) gets

involved with MPT and MGR. During the drought of 2009, ACC carried out a census on dead and live lions in May and later in October of the same year. The census indicated a crisis with intense lion predation and scarcity of wildebeest and zebras for prey. ACC then called a crisis meeting for all stakeholders in the Amboseli ecosystem around March of 2010. The stakeholders included AWF, KWS and MPT. The meeting was funded by ACC and its goal was to seek funding to manage the crisis. KWS contributed by translocating wildebeest from other areas to the Amboseli ecosystem while MPT through PCF ‘helped to guarantee wildlife security’ (interview 14.11.11). Amboseli Trust for Elephants (ATE) sends a representative to the MPT Advisory group meetings. ATE runs a ‘consolation scheme’ since 1997 that pays Maasai herders in cash for livestock killed by elephants (ATE website 2011). ATE works with MPT to replicate a PCF-like arrangement in Olgulului Ranch.

4.4 Working Rules

In analysing working rules, I will show how these rules have transformed over time, the challenges faced in following the rules and how the actors circumvent the rules. In doing this, I will determine the voluntary nature of the PCF transaction, if PCF has well-defined environmental services and how conditionality is attained – three of the five criteria of PES (Wunder 2005).

4.4.1 Development of PCF rules through the years

The PCF agreement was drafted by the MPT founders and passed to the Group Ranch officials, who after consulting with the group ranch lawyer (who also oversees the leasing of their land), signed it (for a detailed description see 3.3 Predator Compensation Fund). Introduction of the PCF agreement in Mbirikani was not smooth. A group ranch committee member describes it as ‘a shaky project at the beginning because many lions were still killed; the agreement was not strong’. At its inception the only predator targeted was the lion and conditionality was absent. Awareness was low with some members of the community losing cattle to predators but not claiming compensation because they did not know it was in place. Killing of lions persisted. One zone around Chyulu strongly resisted the agreement and paralysed it. PCF was briefly suspended after three months of existence.

The trustees, particularly Hill and Ole Ntiati, then went around the villages discussing and negotiating, taking in the grievances and creating awareness through drama and question and answer sessions. The community members that I interviewed recall that the meetings included the Group Ranch officials, traditional elders, MPT officials and *morani*, with slight additions and deductions between the interviewees about the people in attendance. They were a series of meetings over a period of time ‘going to every geographic part of the community and social strata – elders, warriors, women, junior elders,

political elected people, government chiefs, traditional chiefs' (interview 4.11.11).

In strict terms the agreement is renewable every year but it has only been renewed about three times since 2003 because 'there is no compelling reason to change it' (interview 4.11.11). Key changes to the agreement have been:

1. Inclusion of other livestock and predators:

Initially compensation only covered livestock killed by lions. However as the founders went around the villages, the community reasoned that when their cow was dead, it did not matter whether it was killed by a lion or a leopard or other predator – in all cases the cow was equally dead. They also wanted their sheep, goats and donkeys included. Though the founders of MPT 'had a particular feeling about lions, cultural histories with lions, lions are central to our mythology unlike the cheetah or hyena.' (interview 4.11.11), they agreed to also include '...spotted and striped hyenas, leopards, cheetahs, jackals, wild dogs, servals, caracals and other small wild cats' and in a latter revision buffalos and elephants were added as predators (PCF agreement 2010). In hindsight, Hill comments:

'As years have gone by, we have seen it was the sensible place to end up. It is about economics and they are right. How could you exclude anything on either side... [but]...with one exception, the hyenas?'

Hyenas are included in the agreement but compensated at half the price of full compensation. An MGR member (interview 1.11.11) explains the reason for this as follows:

Dealing with hyena is very difficult. If I kill a lion I have a case to answer in court but when I kill a hyena nothing can be done to you... People have accepted coz this issue of hyena... hyena are many and striving to deal with them is like chasing the [wind]. Because there is no way hyena will ever go extinct.

2. Definition of borders:

Lions were being killed in the neighbouring Tanzania region by group ranch members, particularly from Olgulului Group Ranch who grazed their livestock there. Nevertheless this also affected the agreement with Mbirikani and the agreement was adjusted in order to cover lion killings by any member of the group ranch anywhere in the world. Section 26 of the agreement was therefore adjusted to read:

'In the event a member of the group ranch kills a lion anywhere off the ranch, the penalties of this agreement will apply to that individual, his family, and his zone as if the killing had occurred in that member's zone.'

The current PCF agreement 2010 divides Mbirikani into 7 zones. The chairman of the Advisory Committee explained that following complaints that some zones were too big to be compared with smaller ones, there was further division of the zones to 11 'for equality'. The agreement is yet to be adjusted accordingly.

During the pay-out day that I attended on 3 November 2011, an item of discussion was the boundaries in Mbirikani. On this issue, the agreement states:

'No claim made is valid if the loss occurred NOT on MGR; however, if the loss occurred within one kilometre of the boundary of MGR, the loss will be considered to have occurred on the ranch. The only exception to the one-kilometre extension of the boundary for MGR will be the common boundary between MGR and the Kimana Sanctuary.'

There was confusion in the Advisory Committee meeting as to where the boundaries existed in some areas and therefore where the one kilometre extension reached. The meeting resolved to clarify this in consultation with the community. An interviewee later mentioned that the issue of boundaries was particularly worrisome along the border with Ukambani where snares are used by the neighbouring Kamba community who, unlike the Maasai, consume meat from wild animals.

3. Increment of compensation amount:

In promoting itself to potential donors, MPT quantifies compensation to the market price: 'The amount of compensation will reflect market prices and be negotiated annually (MPT Funding proposal to tour operators 2010). However members of the group ranch expressed dissatisfaction that the compensation amount fell way below the market price as also discussed under 4.2.1 Compensation versus consolation above.

The talk of market price was prevalent among the group ranch members that I interviewed. They felt underpaid. Some of the comments I received from the interviewees as they compared the market price to the compensation amount were,

'It's an insult'.

'It's half pay, we are not happy.'

'It's a small pay and as warriors looking after the cows, we find it painful when we are paid less'.

Some mentioned that the market price of the cow had significantly increased in recent times, so with the compensation amount, they were less able to replace a dead cow with a new one – much less with the higher breeds endorsed by some livestock NGOs in the region. In general, they mentioned an increase in 'the cost of living' and a 'drop in the value of the Kenya shilling'. I received several recommendations on preferred amounts

for compensation ranging from, 'It would be good for the Maasai if goats and sheep were paid at Kshs. 8,000' (approx. US\$ 92) to bulls being compensated between Kshs. 30,000 to 100,000 (US\$ 345 to 1,150). While some of these sentiments are valid based on a brief tour I made to the Kimana market one afternoon, it is worth noting that compensation of killed livestock is paid 'regardless of age or sex as long as it has been born' (MPT Funding proposal to tour operators 2010) – factors that determine market price.

This grievance combined with a serious drought in 2009 had threatened the PCF agreement and in 2010 it was reviewed. During this time there were wrangles between the community and MPT and the killing of lions resumed as a sign of protest. The community felt that there were too many predators, too many livestock deaths - the 2009 drought notwithstanding - and the compensation was too low in comparison to market prices. During a subsequent pay-out day, there was a standoff between the community and MPT trustees when the community refused to receive any more payments. It resulted in an increment of the compensation for cows from Kshs. 13,500 to Kshs. 20,000 (US\$ 155 to 230).

Regarding the market price vis-a-viz the compensation amount, Hill remarks (interview 4.11.11):

'The actual statistics over the 8 years we have run this project, we have paid out less than 50% of the market value of the animals that we have compensated for. The people have accepted it. It is one of the great surprises. The people were thinking of 100% replacement but it turned out to be less than 50% and yet they have accepted it as a fair replacement. The reason why it is less than 50% on average is because we insisted on a number of penalties and discounts to full payment that have to do with circumstances of depredation.'

Hill refers to full compensation as the market price but remarks that the reason why this hasn't been paid out is because it is dependent on meeting the conditions of the agreement. By saying this, Hill admits that the conditions for full payment have therefore been scarcely met – by inference less than 50% of the time.

4.4.2 Challenges with following the PCF agreement

As shown above, designing the PCF agreement is an on-going process of bargaining between the community and MPT trustees. In this next section I shall concentrate on views about challenges brought about by the rules of the agreement.

A wildlife ecologist working in the region described the arrangement as a 'too complicated system' (interview 2.11.11). His colleague referred to the process as a 'nightmare'. Hill acknowledges that the implementation process is challenging. The administration requires management of staff, logistics, vehicles, training programmes 'and honesty – a

fundamental part in ensuring that claims are valid, proper and correct...it requires great effort and a lot of dedication over time.' (interview 4.11.11).

1. Dissatisfaction with conditionality

The system of making staggered payments on the basis of meeting certain conditions has caused much dissatisfaction as mentioned by the MGR interviewees. It was also the basis for going around PCF rules (see 4.4.3 Circumventing PCF rules below).

Bad *boma* is one of the most disputed conditions. In a joint interview with verifying officers and predator scouts, I realised that they could not clearly articulate what a bad *boma* was. The closest attempt was when one of them told me that a good *boma* was one that was at least at the level of his waist. Being a man close to my height (5 feet 6 inches), I estimated that he indicated about 2½ to 3 feet high. The PCF agreement states the fence should be 4 feet wide and 4 feet high but without a device for or sense of measurement, determining a bad *boma* becomes questionable. 'Bad *boma* is a bad rule', commented an elder.

Another Maasai elder from a defunct group ranch in Kitengela near Nairobi National Park explained to me that unless the fence is also dug deeply, predators can still approach livestock secured behind a high fence. Hyenas are known to dig beneath fences creating burrows that give access to larger animals like lions. He also explained that it was not enough to have a high fence but a strong one too. At the smell of a lion near a fence, livestock get into panic that sometimes results in a stampede where they break the fence in an attempt to run from the nearby predator.

The bad *boma* rule is most disputed because it reduces the compensation amount by 70%. On one hand, MPT and AWF felt having a bad *boma* was a sign of high negligence and recklessness. On the other hand, the community members felt scarcity of building materials and workers made it impossible for many to have good *bomas*. With deforestation, there was scarcity of the acacia trees used for traditional Maasai fences. An elder explained,

'Forests are not in some places. To try to have forests for all will spoil forests. Care for forests or it will affect all of Kenya.'

Others explained that the recommended chain link fences were not available for poor people. KWS, Born-free foundation and KWT (Kenya Wildlife Trust) have developed what is referred to as a predator-proof or lion-proof *boma* but this was new information to some members of the Advisory Committee during their November 3, 2011 meeting. The other MGR interviewees were either not aware of this or were yet to benefit. Scarcity of labourers to build good *bomas* was attributed to competition from agriculture that pays higher wages.

'Lost' was the other heavily disputed rule. To MPT, the idea behind a lost animal was that it was left unattended, or as AWF put it, it was the result of 'lack of vigilance'. Next to the talk on lost were discussions about good herding practices or good husbandry. MPT and AWF both agreed that good herding practices should be rewarded and poor herding practices penalised with reduced compensation. AWF explained that good herding practices in combination with the compensation scheme ensured desired results. Unlike traditional times when *morani* herded livestock, herding today was left to children, some as young as 8 years old. 'Lost' reduced compensation amount by half.

2. Legal Pluralism

The PCF agreement is not the only set of rules that prescribe conservation and environmental matters in Mbirikani. The PCF agreement operates in an environment of multiplicity of legal rules including a minimum of 16 international environmental treaties ratified by Kenya (Alitsi 2002). Here I will discuss three other rules: the Wildlife Act (2010), Maasai customary laws and an MOU between KWS and Amboseli group ranches.

The protection, conservation and management of wildlife in Kenya are legally covered under the Wildlife (Conservation and Management) Act of 1976. The objective of this Act is to yield 'optimum returns in terms of cultural, aesthetic and scientific gains as well as such economic gains as are incidental to proper wildlife management and conservation' taking into cognisance the 'inter-relationship between wildlife conservation and management and other forms of land use'. The policies formulated by the Act include 'all type of fauna (not being domestic animals)' (section 3A). Domestic animals are not allowed into the National Parks (section 17 under Impounding of domestic animals and section f under General offences in National Parks).

The Maasai customary law is hierarchical and structured around age-sets. The laws are oral and access is based on one's position in the hierarchy. The age-sets system is used in determining roles in society, for example, with young boys being taught to herd by taking care of sheep and goats, warriors being exposed to wider terrains and expected to assess suitable watering points as they herd cattle and elders being in charge of crisis situations like finding pasture during drought (Preston College 2006). Before eviction from their traditional land during and after colonialism, the Maasai followed an elaborate nomadic system of grazing around dry and wet seasons. They planned for drought when they occurred every 7-10 years, avoided transmission of pests and diseases from wild animals like tsetse flies, east coast fever and bovine pleuro-pneumonia, and ensured improvement of pastures by converting 'rough veld ... into sweet pasture' (Sindiga 1984:26; Preston College 2006). Customary laws concerning conservation were implemented through a strong belief and taboo system that regulated behaviour, for example, storytelling about trees that bleed milk or forests that eternally swallow adults (Tome 2008), taboos forbidding human consumption of game meat and high regard of land as a dwelling place for spirits (Maasai Art and School Agency International website 2012).

Maasai customary laws are adjudicated by a council of elders and passed on through ceremonies conducted by these elders (Tome 2008). Maasai ceremonies include Enkipaata (senior boy ceremony), Emuratta (circumcision), Enkiama (marriage), Eunoto (warrior-shaving ceremony), Eokoto e-kule (milk-drinking ceremony), Enkang oo-nkiri (meat-eating ceremony), Orngesherr (junior elder ceremony), Eudoto/Enkigerunoto oo-inkiyiaa (earlobe piercing), and Ilkipirat (leg fire marks) – (Maasai Association website, 2011). Some customary laws specific to *morani* are not accessible to women or uncircumcised males. Laws concerning killing of lions by *morani* are passed on by a Maasai elder designated to groom the boys into manhood. There are also laws that are not shared with people who are not members of the community. Children receive information about essential aspects of their traditions from women, often their mothers or grandmothers, in the form of stories, songs or dances around the bonfire. (Tome 2008).

Another set of laws is the Memorandum of Understanding between KWS and group ranches in the Amboseli ecosystem, including MGR, ‘for the provision of sustainable natural resource management’ (KWS M.O.U. 2006:3) and to formalise the institutional relationships between KWS and the ranches ‘to effectively contribute to social economic development’ (KWS MOU, 2006:4). The agreement is renewable every 10 years and is subject to amendments based on challenges and new projects like PCF. The MOU defines the relationship between KWS and the group ranches, which includes joint management programmes, joint policing of the area and leasing of space for wildlife. There is also an informal agreement between KWS and the ranches at Amboseli to graze livestock in the national park between 10am to 1pm daily which contravenes the Wildlife Act, but which KWS justifies by their status as a Man and Biosphere Reserve under UNESCO. In addition KWS pumps water into an area adjacent to the national park for community use on condition that no elephant is speared.

There are points of convergence and divergence in the different legal systems at Mbiri-kani. While PCF compensates for livestock depredation, the Wildlife Act compensates only for personal injury or death (section 62) through funds provided by Parliament (section 62 part 4). The Wildlife Act prohibits hunting of game animals (Wildlife Regulations part 2) while the Maasai customary law only forbids the hunting of lions that are snared, poisoned, facing drought or female (Maasai Association website, 2011). The customary law expects *morani* to exhibit bravery and manhood by facing and killing a lion alone, armed only with spear and shield. It only compromised on this requirement following a reduction in lion population in recent times, by allowing lion hunts in groups of about 10 – called *olamayio* in the Maasai Ma’aa language. After killing the lion, all the participating *morani* engage in a wrestling match and the victor receives the tail of the lion – the most coveted trophy in the community (interviews with MGR members; Maasai Art and School Agency International website 2012; Maasai Association website, 2011). The penalties imposed to culprits through PCF are based on this customary division of the ‘spoils of the kill’ (see 3.3 Predator Compensation Fund).

Fundamentally, PCF and the Wildlife Act have differences in definition of protected animals (see Figure 8 below). In the first schedule, the Act has a list of game animals with part 1 naming the elephant, leopard, lion and rhinoceros. With the addition of the buffalo, these same animals are interpreted as ‘dangerous’ animals (Part 1, section 2). None of these species are included in the list of protected ‘species, sub-species or groups’ (Third schedule). Beyond the list, the Act defines protected animals as **any** animal that is ‘obviously immature, i.e. not fully grown’ or ‘a female game animal when it is either clearly or seemingly pregnant; or in a condition indicating that it is suckling young, whether or not the young are apparent; or accompanied by immature young, whether dependent or not’ (Third schedule, part 1 and 2).

Figure 8: Comparison of species protected by PCF and Wildlife (Conservation and Management) Act of 1976 (Rev. 2010)

Species	PCF	PCF+ACT**	ACT***	Key
- lions	✓			<p>* Species protected by PCF</p> <p>** Species protected by PCF and also listed as “Protected” by Act</p> <p>*** Species specified as NOT protected by PCF but are listed as “Protected” under Act</p>
- spotted and striped hyenas	✓			
- leopards	✓			
- cheetahs	✓	✓		
- jackals	✓			
- wild dogs	✓			
- servals	✓	✓		
- caracal and other small wild cats	✓	✓		
- buffalos	✓			
- elephants	✓			
- baboons			✓	

The protection of the female lion by the Wildlife Act resounds with the Maasai customary law (Maasai Association website, 2011). The customary law forbids the hunting of female lions because they are the bearers of life – unless a lioness poses a threat to humans or livestock. The Wildlife Act only recognises threat to human – and not livestock – and does not penalise killing of any animal in self-defence so long as it is not done during a criminal activity (section 30 part 1 and 2 under Protection of human life).

There is contestation for adherence among the different legal institutions. Young men who follow the traditional *morani* way of life, for example, prefer to abide by the customary rules and consider their educated peers as traitors who adhere to ‘foreign’ rules. Legal plurality can cause confusion when in conflict, for example, in identifying wildlife requiring protection. MPT uses this plurality to strengthen implementation of PCF rules. They depend on legal instruments to improve implementation and try to work with the community to adjust customary rules in the hopes of improving tolerance for wildlife. However this sometimes leads to double penalties; someone found guilty of killing a lion is subject to both law court penalties and PCF penalties.

4.4.3 Circumventing PCF rules

It is one thing to have rules, but quite another to keep or implement them. On this AWF comments: '... a lot of the people like it [PCF] and the structure is good. It is a way of setting themselves to a level of honesty. There is a fine that is high if you lie' (interview 16.11.11). Yet, MPT is privy to some of the tricks playing around the rules and comments that 'it is not 100% clean - we get ripped off, there are invalid claims, collusions, costs of doing business' (interview 4.11.11).

From several interviews, I noted the following ways in which rules were circumvented. I have also included measures taken by PCF to minimise cheating as explained to me by the PCF coordinator:

- **Multiple claims for compensation of the same carcass:** The same carcass would be claimed by more than one claimant. For example, after the verifying officer had left a site of predation, the same carcass would be transported to another site and someone else would claim compensation for it. To curb this, MPT now requires verifying officers to write the GPS details (which include date, time and location) on a piece of paper, place it on the dead carcass and take pictures as evidence.
- **Colluding officers:** Sometimes MPT scouts and verifying officers would collude with claimants to make false claims. In 2009 MPT fired several verifying officers and predator scouts who were involved. Compensation was frozen for the 2-month period in the affected zones. Collusions often took the form of:
 - **Wrong livestock:** This occurred when a claimant stated his cow was killed when in fact a goat, sheep or donkey had been killed – so that he could get full payment.
 - **Full instead of lost claims:** sometimes the verifying officer would write full payment for a lost case.
 - **Increased number of claims:** the verifying officer would log in more deaths than those that actually occurred e.g. writing 3 when only one animal had been killed.
- **Cheating on identity of predator:** this occurs when a claimant, for example, said a lion had killed his livestock when indeed it was a hyena that killed it.
- **Threats for MPT officials:** some group ranch members have been known to threaten MPT scouts and verifying officers so they can make false claims. MPT deals with such situations by freezing compensation to the whole zone when this occurs. This issue is covered in the agreement.

An MPT official explained to me that they have secret informers who counter-check dubious claims. Most of these informers delve around their own zones, among their clan

people where they are least suspected and most trusted.

Occasionally MPT also goes around rules on the grounds of compassion, when compensation is given for an invalid claim because ‘there are some stories that can break your heart’ (interview 4.11.11). One such story goes as follows,

The worst story was a blind old man with one cow to his name, no family to speak of, had to give someone else his cow to take care of. The cow was killed when it wasn't managed properly and the claim not notified properly so he deserved by the rules nothing. He came to us to claim humanitarian consideration and stood before that committee and me several years ago and said he knew he deserved nothing by the rules. I just said. You are right, you don't qualify and PCF will pay you nothing but I'm gonna give you a cow. In fact MPT did pay for the cow. I took it out of the general funds – not me personally.

4.5 So, is PCF a PES arrangement?

So is PCF a Payment for Environmental Service (PES)? In the analysis above, the five criteria given by Wunder (2005) have been incorporated within the 4 dimensions of PAA to determine this.

1. There should be at least one environmental service buyer and at least one environmental service provider

Using PAA's two dimensions of Actors and Discourses reveals PCF has more than one ES buyer, an ES provider, an intermediary and peripheral actors. The ES provider includes the whole MGR community – and their visitors – who are all held responsible for provision although only livestock owners with formal membership enjoy compensation payments. Breaching the agreement results in freezing of payments and attraction of fines to the culprit (or his hosts in the case of visitors), up to the full compensation amount of 7 cows for the death of one lion. The ES provider is also a substantial buyer contributing 30% to PCF from other independent sources of income. Their discourse is based on using the term compensation instead of consolation to negotiate for payments at market price rates; expressing cultural, economic and emotional values of livestock, and neutral to negative attitudes towards wildlife; and focussing only on the protection of lions as opposed to other predators or species.

Other ES buyers are either direct in-cash financiers whose donations are typically *ad hoc*, inconsistent or short-term or the indirect buyers who contribute to specific areas of their own expertise that helps to cover transaction costs. The discourse in this group is preference in the use of the term consolation to the term compensation as a way of keeping payments low and discouraging complaints; the expression of environmental, economic and emotional values of wildlife while considering livestock either a nuisance or a neces-

sary evil; and protection of the entire ecosystem and not just specific species.

Maasailand Preservation Trust (MPT) is the initiator, administrator and self-appointed intermediary between buyers and providers. Their discourse is selective, depending on the audience and the goal they hope to achieve. Peripheral actors include other NGOs in the region.

2. It should be a voluntary transaction

The voluntariness of PCF is arguable. It is analysed under PAA's dimension of resources and power. On one hand, it appears like MPT collaborates with MGR officials and other actors to both coax and force the MGR community to comply by the PCF regulations. MPT trustees have strategically positioned themselves as the focal point in the arrangement and control all other interactions. They are the only point of interaction between financiers and the community, and a main point of interaction between the government and the community. Implementation of PCF penalties heavily relies on governmental command-and-control mechanisms.

On the other hand, MPT is fully aware from previous experiences, that when pushed to the wall, the MGR community resist vehemently through killing of lions in protest or disregarding payments. PCF begun because group ranch officials, who hold disproportionate power within the community, took the liberty to enter into the agreement with MPT, without prior knowledge or approval by the rest of the community. The community's power of resistance was displayed both at this time and at a latter occasion through attempts of paralysing the agreement due to misunderstandings, rising dissatisfaction and conflict. Also as property right holders with a degree of freedom to choose from various land use options, cooperation of the MGR community is crucial to the continuation of PCF and conservation in general. MPT's weakest point lies in their inability to attract and maintain consistent financiers causing endless criticism from other actors about lack of sustainability. To these extents, PCF is a strongly negotiated transaction that is neither fully voluntary nor fully mandatory.

3. The environmental service should be well-defined

PAA's rules of the game dimension is used in analysing the definition of the environmental service (ES). Protection of the lion due to fear of its imminent extinction is the best understood environmental service. Two possibilities for this are, first, it is the only predator that was covered in the initial stages of PCF. Second, special attention is given to lions in the agreement because it attracts the highest compensation amount and is also the only predator whose attack beyond MGR to the whole world is penalised. Such wide coverage is however too open to constitute a clear definition.

The environmental resource targeted by PCF falls in the Landscape Beauty and Biodi-

versity Protection categories of the 4 environmental service types (the other two are Carbon sequestration and storage and Watershed protection) – Wunder 2005. It is in the Landscape Beauty category because it dissuades the local people from killing lions and other predators that are key attractions for tourism in the area. It fits the Biodiversity Protection category because local people are paid to protect predators in the dispersal area in which they also live with their livestock.

4. Payments should be conditional on continued service provision

Using the rules of the game dimension proved that conditionality is evident in PCF. The main condition is that no predator should be killed in a zone over a two-month period for payments to be made to any claims from that zone. Additional conditions linked to good animal husbandry determine the extent of each compensation amount. These additional conditions (i.e. having a good *boma* based on proper fences and thwarting predator attacks while herding away from home) are not popular within the MGR community and are continuously tested through lies and threats. Due to the presence of legal plurality, they also cause confusion when they contravene other institutions or multiple penalties when they coincide with them. On their side, MGR has unwritten expectations based on adequacy of compensation amounts which should be considered for them to continue providing the environmental service.

Summary

The discussions above show that PCF does not fit snugly into PES definition: ES providers are also key ES buyers; penalties include fines that are several times higher than compensation amounts; and implementation of penalties depends on command-and-control mechanisms. However in many other areas, PCF has strong leanings towards being PES. Wunder (2007:49-50) considers 'genuine PES schemes' as those that meet the criteria above although very few 'conform strictly to the simple definition' particularly in developing countries where 'PES remain poorly tested'.

PCF also leans towards the Direct Payments for Conservation criteria proposed by Milne and Niesten (2009), which they refer to as a sub-set of PES. The first criterion is that payments should be made explicitly for biodiversity conservation though it might include cases where these are bundled with other environmental services. PCF is focused on both Biodiversity Protection and Landscape beauty. Secondly, payments should at least be partially funded by philanthropic global investors or international donors and should not rely on local users of environmental services or public funds. 70% of PCF contributions come mostly from foreign donors. Though there is an intention of including local users such as tour operators and public funds through the legislation, at the time of this study, this was not the case. Thirdly, payments should be for the protection of existing biodiversity, not for restoration, which is the situation at MGR where existing lion populations are protected.

In conclusion, PCF is arguably a Payment for Environmental Service that fits better into the PES subset of Direct Payments for Conservation.

4.6 Reflection on using PAA to analyse PCF

The use of PAA in this PES study has had two effects. First, it has provided a step-by-step analysis into the depth of PCF, like peeling an onion layer by layer. It begun with identification and categorisation of the actors then moved into exposing underlying discourses that influence the kind of policies and regulations that they support. In the next step, an analysis of resources and power linked power relations with unequal distribution of resources among the actors. These preceding analyses helped to shed light to the final analysis on rules – who was involved in their formation, what ideologies influenced them, how did resources play a role in it, how does power play out in abiding or rebelling against them, etc.

Secondly, by so doing it has provided connections into four key policy areas that are often studied separately. Actors are informed by diverse discourses and bring different kinds and levels of resources to the table, which determine their power relations and influence the game of rules among them. MPT holds the discourse of value of wildlife over livestock which is translated into rules that penalise killing of lions at 7 times the amount compensated for a lion killing a cow, because MPT has power to determine the rules of the PCF arrangement.

I will now move into the final chapter of this thesis where I will summarise my results and conclusions and then discuss them with theories from PAA and PES, comparing them with conservation initiatives in the region and wider literature. It will conclude with recommendations and suggestions for further study.

5 Discussion and Conclusion:

Though human-wildlife conflicts have been going on in Kenya for many years, credible solutions are yet to be reached. Wildlife is a key tourism attraction but also a main destroyer of local livelihoods through predator attacks on livestock. An area of contention has been that those who benefit most from wildlife often are not the same ones who incur the costs of living with them. There is an attempt to address this problem at the Mbirikani Group Ranch (MGR) in Kenya's Amboseli region, through a predator compensation fund. The fund operates by providing payments to livestock keepers who lose their animals to depredation. This is the case under study in this thesis.

This thesis combines the theories of Payments for Environmental Services (PES) and Policy Arrangement Analysis (PAA) to answer the central research question: How can the Predator Compensation Fund (PCF) in Mbirikani be interpreted as a Payment for Environmental Services in terms of actors, resources, rules and power? The objective is to contribute to an alternative analysis of PES using PAA. Qualitative research methods are employed in both data collection and analysis. This included 28 interviews, document and literature review and analysis that utilised sensitising concepts.

5.1 Summary of findings

Generally speaking this research has two main findings. First, PCF is arguably a Payment for Environmental Service. In many aspects it meets the four PES criteria (Wunder 2005) but in others it does not. The latter include findings that the environmental service (ES) providers are also key ES buyers; penalties include fines that are 7 times higher than compensation amounts; and implementation of penalties depends on command-and-control mechanisms.

Second, PCF met all the criteria for Direct Payments for Conservation, a subset of PES (Milne and Niesten 2009): PCF is focused on both Biodiversity Protection and Landscape beauty; 70% of PCF contributions come mostly from foreign donors; and payments are for the protection of existing lion populations.

More specifically this research revealed that PCF has more than one ES buyer and an ES provider. Everyone in MGR, including its visitors, constitutes the ES provider and has the potential of attracting penalties for flouting the agreement. Two interesting things about the ES provider are that first, when they do not meet the conditions of the agreement, they not only forego payments but also attract fines 7 times higher than the best compensation amount. Secondly, the ES provider is also a significant ES buyer, contributing 30% to the payments. While penalties accrue to all indiscriminately, benefits are enjoyed only by MGR members who have livestock.

Two types of ES buyers were found. The first type is direct buyers who contribute in-cash but not to day-to-day operations. The list of these financiers is quite unstable because most donations are *ad hoc*, inconsistent or short-term. The second type is indirect buyers who contribute in-kind and help to reduce transaction costs by actively contributing their expertise in operationalisation of the fund. There is also an intermediary, the Maasailand Preservation Trust (MPT), who acts as the important link between the buyers and providers and as an administrator of the fund. Other NGOs are peripheral actors, and play a role more in the 'spirit of sisterhood' than in day-to-day contributions.

Amongst buyers and providers three prominent discourses emerged. The first is 'Compensation versus Consolation' with the ES provider preferring the term compensation which for them means negotiating payments at the level of market prices. ES buyers prefer the term consolation to keep payments at the low level of special favour granted out of sheer compassion and therefore should be received with gratitude, not complaints. The intermediary, MPT, uses either term selectively, depending on the audience and the goal they hope to achieve. The second discourse is 'Value of wildlife versus the value of livestock'. Wildlife holds environmental, economic and emotional value to ES buyers while livestock holds cultural, economic and emotional value to ES providers. Both viewed the other – wildlife or livestock – a nuisance. The third discourse is 'Species specific versus entire ecosystem'. ES buyers spoke of protecting the entire ecosystem as opposed to being species specific. ES providers were primarily focussed on lions only.

Further analysis in terms of resources and power showed that access to financial sources is restricted to MPT's trustees who are the only ones in touch with financiers and the fund, placing them as the final decision makers in issuing funds. Likewise, MGR's top three officials restrict access to the source of MGR's income and bank account. This provides a loophole for channelling corruption money to maintain their positions in office through bribery or threats and to provide for their personal enrichment. There is also lack of transparency on funding by both MPT trustees and MGR officials. Combined with unsustainable funding, this created a power game where MPT used threats of drying up of funds to control the community from negotiating for more or higher payments. The community used the threat of imminent extinction of lions should funding cease to keep MPT diligent in fundraising. The power resident in the MPT trustees is therefore limited only to continued availability of funds. The research also found that by providing payments only to MGR members with livestock, non-livestock owners (often the poorest of the poor) are further disempowered in an environment where they face other forms of harassment and oppression because of their weak status.

Power is also wielded by holding or being associated with those in strategic positions. Three of these are identified. One, power among those in the MGR community is concentrated in the positions of its top three officials. Two, MPT trustees and the top MGR officials are the 'gatekeepers' of the community. MPT hopes to extend this position to cover the entire Amboseli ecosystem but such an ambition is likely to create contestation among other NGOs and communities in the region. It would also mean replacement of the government (Kenya Wildlife Services). Three, the governmental position of both

KWS and the Provincial Administration are used in the arrangement to validate MPT and provide authority to implement the rules, albeit through command-and-control mechanisms. However this authority does not translate to power for the two governmental organs who appear to be serving MPT as opposed to wielding power through the PCF arrangement.

Finally power was analysed by examining the expertise of the actors. Expertise was found mostly with indirect buyers who are professionals in the areas of their in-kind contributions. KWS's contributions in the form of wildlife and conservation research was used by MPT to validate their work in funding proposals although on the ground, MPT downplayed KWS' conservation efforts. MPT have organisational skills and new venture development abilities that they used to initiate PES and persuade the community to embrace. They are the main actor that determines if and when changes in the agreement can be made. The initial intention was to review the agreement annually but it has only gone through about 3 reviews since 2003. MGR consider themselves experts in livestock rearing and in this area, they displayed confidence in challenging MPT and succeeded in having their way. During regional crises such as droughts and increased human-livestock conflicts, resources and power are shared more widely and actively with peripheral actors such as African Conservation Centre (ACC).

The voluntariness of PCF is therefore arguable. On the one hand, it appears like MPT collaborates with MGR officials and other actors to both coax and force the MGR community to comply by the PCF regulations. On the other hand, MPT is fully aware from previous experiences, that when pushed to the wall, the MGR community resist vehemently through killing of lions in protest or disregarding payments. To this extent, PCF is a strongly negotiated transaction that is neither fully voluntary nor mandatory.

Rules of the game were examined to expose how well the environmental service was defined. At the beginning of PCF the only predator included was the lion and livestock was the cow. However during PCF's development other predators like leopards, hyenas and wild dogs were added together with elephants and buffalos because it did not matter to the community what killed the cow – a dead cow was a dead cow. The list of livestock was also expanded to include sheep, goats and donkeys. Compensation is applicable up to one kilometre from MGR boundary, but the exact boundary line on the ground is unclear to the community. The findings of this research found the lion as the best understood protected predator by the community. Emphasis on the lion as the protected species is seen in application of penalties for attacks throughout the world – a scope that is however not feasible to monitor and therefore vague as a rule.

Rules of the game were also examined to analyse the voluntariness and conditionality aspects of PCF. Conditionality is strongly present in PCF because payment is dependent on there being no predator killings in a zone over a specific 2-month period or threat made to an MPT staff. Continued service provision relies on MGR members' satisfaction with payment amounts and this demonstrates voluntariness. Previously, the PCF agree-

ment was reviewed following dissatisfaction on the amount of money paid, among other reasons, that was expressed by the community through boycott of payments and protest killings of lions.

Two other challenges were faced by PCF. First the research revealed dissatisfaction with conditionality, particularly on the condition of 70% reduction in payments for bad *boma* cases and 50% for 'lost' cases. MPT and African Wildlife Foundation (AWF) considered a bad *boma* (i.e. not having a strong high fence around the homestead area against penetration by predators) a sign of negligence while some in the community, especially the very poor, considered it a challenge due to lack of money to buy proper chain link wires, scarcity of thorn trees to build traditional fences or shortage of labourers who preferred agricultural jobs that paid higher wages. AWF and MPT consider 'lost' cases a sign of poor herding practices and lack of vigilance, often because child herders were used. The second challenge is legal pluralism among which were the Wildlife Act (2010), Maasai customary laws and agreements between actors like an MOU between KWS and Amboseli group ranches. There are fundamental differences in these institutions, such as definition of protected species, which result in confusion and selection of the preferred rules. Where the institutions converge, it results in double penalisation for perpetrators. The community has devised several ways of avoiding rules and conditionality. These include making multiple claims for compensation of the same carcass, providing false identity of the attacking predator and colluding with or threatening MPT officers.

5.2 Discussion

The results of this thesis bring out three main implications of PCF at Mbirikani: it has begun an irreversible yet unsustainable process; it has created a cycle of dependence in the community; and it has widened the gap between social classes. What PCF has not done is change the community's attitude towards wildlife. I will expound on these issues in this section, comparing them to PAA and PES literature and other conservation initiatives in the region. Finally, I will conclude this last chapter and thesis with recommendations and suggestions for future study.

1. Criticism on sustainability

Criticism on sustainability is PCF's 'thorn-in-the-flesh'. It is criticised for beginning an irreversible process of financing local communities in the hope of attaining conservation, therefore making it highly contingent on continuous financing, which however has been highly elusive. There are well-placed fears that now that the local community has been indoctrinated into a 'carrot-and-stick' way of life, the drying up of funds would eventually lead to atrocious animosity against wildlife. Criticism on sustainability is exacerbated by lack of transparency over the source and pool of PCF funds, a problem that was also found in a joint study by KWS and AWF, both being MPT's partners: 'this study could not obtain much of the data on funds invested into the program' (Kenana and Mwinzi,

2010:31). The challenge of maintaining continuous funding is not unique to PCF but has been found to be one of the greatest challenges of PES especially in developing countries (Thuy et al, 2008; Pagiola, 2003; Wunder, 2005). PES requires consistent and infinite funding that is often not taken into consideration by biodiversity financing mechanisms (Wunder, 2005 and Pagiola, 2003).

MPT and AWF are deliberating on three solutions to tackle the issue of sustainability: increase of the contribution by the local community; contributions by tour operators; and public funding by the government of Kenya. AWF consider higher contributions by the community a better mechanism in terms of sustainability, recommending a reversal of amounts contributed by the community and MPT so that the community contributes 70% and MPT 30% to the fund. However even AWF acknowledge that this 'is a far-fetched idea – highly unlikely to happen' (interview 16.11.11). There are unconfirmed reports that compensation at the neighbouring Olgolului group ranch was initially 100% funded by the community who desired a compensation scheme similar to Mbirikani's. With lack of accountability and transparency over Mbirikani's source and pool of funds, it is difficult to ascertain if increasing the 30% contribution is feasible. There have been instances when even this amount was not available when it was time to pay. Underlying this solution, however, is the strange idea that the community, which is already incurring unbearable losses by co-existing with wildlife, should at the same time be the greatest buyer of the environmental service. Since the community is hardly a beneficiary of wildlife, such a solution would make the beneficiaries free riders and provide additional evidence for Karsenty's (2004 in Wunder 2006) criticism on PES unfairness.

The second and third solutions are conflicting. MPT's strategy is to introduce a new actor in the scene - tour operators – and through this expand into the entire Amboseli ecosystem making MPT the overarching NGO in the region. This would be tantamount to replacing the government – Kenya Wildlife Services (KWS). At the same time, MPT hopes that compensation would be included in the pending Wildlife Bill and make the Government of Kenya its main financier.

Inclusion or exclusion of governments into PES has different impacts. Excluding the government would have two possible impacts on PCF. First, it would weaken PCF's implementation capability which is heavily dependent on governmental command-and-control machinery. Secondly, it would substantially increase transaction costs further increasing PCF's funding problems. Inclusion of the government through legislation is however simplistic. Already, the pending Wildlife Bill includes monetary compensation for livestock killed by predators but implementing this on a national level requires thorough consideration. Kenya has 23 terrestrial National Parks (KWS website 2012), not to mention reserves and sanctuaries, many of which have communities living around them. It is not that PES cannot be managed by government. In Costa Rica it is run by the government and partially funded by fuel levy (Rojas and Aylward 2003). However, the operational requirements and transaction costs for a forest area are very different from those that

require round-the-clock verification of predator killings. Migratory species are the most problematic environmental services protected under PES (Pagiola 2003). There will also be the challenge of identifying and dissuading corrupt claims. In addition, there is the likelihood that the process will be politicised as the unfair favouring of communities that keep livestock and not those whose crops are destroyed by wildlife such as elephants. In comparing PES programs financed by ES users to those financed by the government, Wunder *et al* (2008:834) found the ones by ES users to be ‘better targeted, more closely tailored to local conditions and needs, had better monitoring and a greater willingness to enforce conditionality, and had far fewer confounding side objectives than government financed programs.’ Moreover, he found conditionality limited in government-funded PES programmes which exhibit reluctance in issuing penalties to politically powerful non-complying actors in developed countries and poor actors in developing countries (Wunder *et al*, 2008). Lee *et al* (2007) found that when governments and large private landowners enter into PES arrangements, little payment trickles to poor land users.

2. Cycle of dependence

There is fear that PCF is creating a cycle of dependence among the Maasai people (interview 7.11.11). Because the compensation amount is way below market value, replacement of killed cows results in maintenance of poor breed cattle that yield low returns. This contradicts efforts of livestock NGOs in the region that recommend fewer, better breeds with higher yields. Lee *et al* (2007) also found this poverty trap a key characteristic of potential ES providers in Asia who typically live from harvest to harvest. My results reveal that ES buyers prefer to use the term consolation instead of compensation to keep payment amounts low and dissuade the local community from negotiating for market rate values. This confirms Karsenty’s (2004 in Wunder 2006) argument that PES introduces unfairness and inequity by under-pricing and underpaying communities, lures local people into agreements that later become difficult for them to get out of and subsequently trapping them in poverty. As a consequence, poverty is maintained. Yet poverty is one of the reasons why people at Mbirikani cannot tolerate wildlife.

3. Widening gap between social classes

PCF cements the marginalisation of the poorest of the poor by privileging livestock owners who have a sort of insurance against livestock killings by predators, while disadvantaging non-livestock owners who must adhere to PCF conditions without enjoying its benefits. Non-livestock owners do not meet the pre-requisite of having livestock before one can qualify for payment, but are expected not to kill predators otherwise they face penalties. It is not easy for the poorest to wiggle out of this situation because PCF, like most PES arrangements, works through social pressure – one man’s sin condemns the whole community. It not only widens the gap between the poor and the not-so-poor but also entrenches poverty among those who are not paid.

I also found that it was difficult for less poor people with a few livestock to access full compensation. Whenever their livestock is killed at home, they only attract 50% of full compensation because of falling in the bad *boma* category. This is because full compensation requires a well fenced homestead but people with no access to sufficient funds cannot afford to buy the required chain-link fence or hire labourers to fix their fences. With deforestation, it was also becoming increasingly difficult to gather sufficient branches from thorn trees to build traditional fences. A study in the neighbouring Kuku ranch found that the community perceived a reduction of trees and shrubs was caused by charcoal burning, agricultural expansion and fencing (Okello and Kiringe 2004).

My results show that power within the PCF framework is concentrated with those who hold or closely associate with those who hold certain positions, such as with the top three group ranch officials. This results in reinforcing a class of local elites similar to what Wunder *et al* (2008) and Frost and Bond (2008) also found in Zimbabwe's Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). Typically local elites enjoy the lion's share of benefits at the expense of the community (Lescuyer *et al*, 2009) and have been found to use command-and-control rules to guarantee community compliance (Sommerville *et al*, 2010).

I found the poorest people further disempowered not just because they could not access PCF funds, but also because they were suppressed from engaging in alternative sources of income, such as agriculture, by the top MGR officials. It is not that the poorest people are not able to think up innovative ways of developing economically as argued by Karsenty (2004 in Wunder 2006) or simply that they lack incentives or abilities to engage in longer term decisions as proposed by Lee *et al* (2007). At Mbirikani it is more the case that their initiatives are squelched by stronger actors through harassment and oppression. Typically, PES rules out the 'poorest of the poor' and is only relevant for the 'moderately poor' landowners (Wunder 2005: 17). Brockington and Duffy (2010) even argue that neoliberal forms of conservation favour the wealthy.

It is both unfair and unethical that the poorest should be discriminated from receiving PCF benefits. After all, they are equal owners of the group ranch property. They are also equal owners of the group ranch income out of which 30% is contributed to PCF. That they have to bear heavy losses of their very few livestock, if any, make significant contributions to PCF and yet receive no benefits but be liable to penalties that they can ill afford, is a sign of deep injustice. This is in line with a study on perceptions and attitudes towards PCF by Rodriguez (2007) in which the MGR community felt the project was 'unfair, inequitable and non-transparent'.

4. Shift in community's attitude towards wildlife

Hopes that cash compensation leads to a shift to positive attitudes towards wildlife are far-fetched. At the time of concluding this thesis, 6 lions were killed in one night at

Kitengela near Nairobi where a compensation project also runs. The lions had attacked and killed 28 sheep and were killed by a group who complained that KWS had taken too long to respond to their call (Odongo 2012). Hazzah (2006) who conducted a study on MGR community's attitude towards PCF did not find any effect of compensation on people's propensity to kill lions.

There were predictions among interviewees in my study that wildlife insecurity will be worse off should PCF end, than it was before it began. The question is, how effective are monetary payments or legal mechanisms in shifting community attitudes? The Maasai attachment to cattle is deeply cultural and emotional. When an *olayioni* is facing the circumciser's knife that lifts him to the status of a *morani* even wincing is seen as a sign of cowardice. Yet a *morani* is allowed, even expected, to shed tears and show anguish when cattle are killed by predators. The cow not only holds economic but emotional value as well. Can monetary compensation or legal requirements overhaul deeply entrenched norms and values? Theory on informal rules versus formal rules shows that informal rules are slower to change and when in conflict informal rules render formal rules meaningless (Landell-Mills and Porras 2002).

The founders of MPT are remorseful that Maasai people who they perceive as untouched by monetarisation, and by inference modernisation, until only about ten years ago have now lost that innocence. This line of thinking is not new. Bruner (2001) tells of Mayer's Ranch where the Maasai were paid with food for performances to tourists because of the idea that they did not appreciate money – a supposition made by their British-born employers with Kenyan citizenship. For decades, the Maasai have been used for monetary gain in tourism related ventures that romanticize the 'other', and their land glorified as a haven for wildlife that is spoiled by livestock (Toogood 2012; Preston College 2006). The trend of commodifying Maasai people and culture has roots in colonial times and is still prevalent today as demonstrated in tourism promotional materials in Kenya (Bruner 2001; Tarayia 2004). The Maasai have seen how tourism and conservation have attracted opulence, not because they benefitted much from it but because they have been grossly exploited for it. PCF is co-founded by Tom Hill, an American business entrepreneur who today calls himself a 'social entrepreneur', by which he means someone who starts non-profit organisations. He is guided by the philosophy that everyone is driven by economic self-interest, everyone that is, except himself because he has scaled the economic heights and is now only driven by academic self-interest.

People who face more impactful economic losses are more likely to kill predators than those who don't. Hazzah (2006) found higher intolerance to wildlife among poorer people who had lost a greater proportion of their livestock to predators and livestock traders who had lost more expensive breeds to wildlife. In one way, my findings contradict Hazzah (*ibid*) who also found more tolerance among younger people than older ones. The elders that I interviewed disapproved of predator killings while the younger *morani* said they were raring to kill lions given a chance. It could however be that the elders' re-

sponses do not match their behavior because *moranis* generally receive instructions on lion hunts from them. My findings match Hazzah (*ibid*) in the way that educated people are less prone to kill wildlife than uneducated ones. Young people who embrace *morani sm* typically defy formal education.

My findings are that local people do not kill lions because they are the predator that most often attacks livestock, but because of feelings that lions are more important to the government and NGOs than other predators. An MGR member explained to me that, 'If I kill a lion I have a case to answer in court but when I kill a hyena nothing can be done to you' (interview 1.11.1). He also explained that dealing with hyena attacks was like chasing after the wind because of the perception that hyena are innumerable and impossible to eradicate. Literature, conservation efforts and media on the human-wildlife conflict in East Africa focus on lions much more than on any other predator. The lion is also part of the famous Big Five must-see mammals in wildlife tourism. PCF has likewise reiterated the importance of lions by providing the highest compensation for lion depredation. Other reasons are that lions are the easiest carnivore to kill through spearing, prestige is associated with spearing a lion among the Maasai and when lions attack the livestock is most likely to be cattle which the Maasai esteem higher than other livestock (Hazzah *et al*, 2009).

There are strong indications that the Maasai are capable of embracing non-traditional lifestyles if they find them more rewarding. I came across a Maasai man rearing fish for sale in a large pond. The Maasai traditionally find fish revolting and even call it 'snake'. Also in sharp contrast to Maasai traditional ways, Okello (2006) found in areas surrounding protected areas in Kenya, typically where Maasai live, 'cultivation was considered more beneficial than either pastoralism or conservation... Wildlife conservation was thought to be least beneficial to local people' (Okello 2005:22). Other studies done in Maasai regions of Kajiado and Narok districts found people who had diversified into agriculture had better chances of maintaining their livelihoods than those who relied on livestock only (ILRI website 2012). The latter is referred to by AWF (interview 16.11.11) and MPT (MPT Funding proposal to tour operators 2010) as the 'bank on hooves'.

The deeper challenge is that a general change in community attitude does not guarantee cessation of lion killings. It only takes one person with intention and poison to kill a whole pride of lions (Hazzah *et al*, 2009).

5.3 Recommendations and suggestions for future study

PCF is only 'accidentally' a PES arrangement. It was not initiated in 2003 with PES in mind, but with what its founders considered to be common sense – that Maasai culture had suddenly been defiled by monetarisation and any solution would have to appeal to this newfound value system. PCF seems to have later taken 'a mind of its own', acquired PES characteristics through continuous negotiations and contestations and ended up

with unplanned outcomes – a process very similar to Cleaver’s (2002) institutional bricolage. PCF founders did not have any toolkit full of PES ‘nuts and bolts’ (Wunder 2005) but simply relied on advice from a predator biologist, Laurence Frank (Rodriguez 2007), and what they considered commonsense. It is only years later that they partnered with conservation experts like National Geographic Society and African Wildlife Foundation (AWF). It is not evident, however, that such partnership resulted in a return to the ‘drawing board’ but it is hoped through this thesis that such retreat be made. Below are 5 suggestions for such a review.

1. If PES, then better market development and review of rules

If PES is the direction chosen for PCF, then it behooves the stakeholders – not just the trustees - to deliberately plan for proper market development. Inconsistent funding for PCF is symptomatic of poor (market) development. The evaluation should consider if there is insufficient demand for the environmental service or if there is a problem in supply. Opportunity cost should be analysed in the light of competing land-use choices that result in subdivision of land for agriculture which brings in better and more direct returns. Funding problems could also be emanating from lack of supporting scientific evidence (Landell-Mills and Porrás 2002). The first carnivore census in the region was only carried out in February this year (KWS website 2012). This could explain the erratic behavior of previous financiers who seemed to be attracted at first sight but quickly lost the appeal when it was evident that PCF could not be evaluated on scientific grounds. There are suspicions that the apparent increase in lion population could be simply attributed to migration from ‘dangerous’ areas to the safe lion zone in Mbirikani as opposed to the fact that new cubs are being born.

I also concur with Rodriguez (2007) that PCF rules should be reviewed to embrace a fair and just system that is considerate of the poorest in the community.

2. Search for local solutions

Conservation in Kenya is framed by Western ontology and founded on Western values (Akama 1996; Preston College 2006; Toogood 2012). A quick observation will confirm that most conservation NGOs are run by Western immigrants who dominate conservation-related forums. Kenya Wildlife Services (KWS) forms alliances with these NGOs, sometimes at its own disadvantage as is the case in Mbirikani, or sometimes at the expense of local communities who are eager for strong political will to benefit them (Preston College 2006). Most conservation efforts are therefore not locally owned but they need to be because implementing formal rules where informal rules are deeply entrenched in culture is not fruitful, especially if the formal rules are enforced by a third party and are difficult to operate (Helmke and Levitsky 2006; Landell-Mills and Porrás 2002). Before colonisation, the Maasai had a very effective and intricate system of co-existing with wildlife (Preston College 2006; Sindiga 1984). I concur with Stokes (1981:1)

that 'solutions to global problems such as...deteriorating environmental quality lie at the local level where the consequences are most obvious, the motivation to get involved is most direct, and the benefits of action are most immediate'. A local solution to the human-wildlife conflict will not only shift attitudes, but also reduce running costs.

3. Economic incentives based on local ownership

If conservation could make as much economic sense to local people as agriculture is making today, then doubtless local people will begin to embrace it. I have two suggestions for this to happen. First, communities should begin rethinking leasing land to conservationists or receiving meagre bed night fees from tour operators. Instead they should insist on being shareholders in the organisations. As part owners, they will have more motivation to protect wildlife. They will also have a louder voice and better hold of the organisation's activities and plans. Secondly, group ranches should remove their officials from the management of finances. This shift of official's attention from the group bank account is likely to free them to better concentrate on issues for the common good. Financial responsibility could be placed on a different group, further creating a separation of powers. If the group ranch can afford it, they can also consider hiring an external accountant. Group ranch money will therefore belong to the members and not to a few greedy individuals.

4. Strengthening of Kenya Wildlife Service

There is also need for the reformation of KWS. If 70% of wildlife is likely to be found outside the national parks than in the parks, then KWS should have more presence outside the parks than is currently the case. They should also be more intimately involved with the local people at the grassroots level and not just through their proxies. KWS should take more charge than NGOs in wildlife issues to safeguard local people and resources from exploitation by outsiders.

5. Consolidation of researches

Numerous researches have been carried out at Amboseli ecosystem and other biodiversity regions in Kenya by scientists from different approaches. However, little effort has been made towards a holistic review of the results of these works. My recommendation is that such a review be made because the solution to the complex issue of human-wildlife conflict cannot reside solely in one approach.

To conclude, using PAA to analyse PES has increased the breadth and depth of PES analysis. Depth has been achieved by delving into PES layer by layer, exposing subtle nuances and systematically building knowledge. Each preceding analysis helped to shed more light into subsequent analyses leading to richer and richer knowledge. Breadth has been attained by using a four-dimensional framework to analyse PES in four key policy areas. Connections have been made into these four areas that are often studied separately. By so doing, this combination has delivered a much needed holistic approach that captures the complexity and mess of the social, cultural and political environments that PES operates in.

This thesis recommends some areas for further study. First, the combination of PAA and PES has proved very effective for studying PCF and my suggestion is for this combination to be put to further testing by future research. The second area concerns the PCF funding arrangement. Keeping in mind that payments are dependent on donor funding, it would be interesting to carry out a more in-depth study of the donors, including former financiers and why they pulled out of the project. A third, area of research would be conducting a comparative study of various PES-like initiatives in Kenya and the region. This could be taken a step further into comparing PES-like initiatives in the regions with other conservation initiatives.

Appendices

Appendix 1: Interview guideline

On history / existence

1. When did you come to Mbirikani? (What attracted you)
2. What is the summary of your history at Mbirikani?
3. How would you describe the period since the Predator Compensation Fund was implemented?

On actors, power/resources, rules and discourse

1. Please give a summary of the Predator Compensation Fund agreement. How was the agreement formed? (negotiating process, who was included, who were the signatories, definition of predator, definition of livestock, definition of Mbirikani community)
2. Are you part of the agreement? (May I get/see a copy of the agreement?)
3. What role did / do you play in the agreement?
4. What is your contribution to the Predator Compensation Fund? (monetary, expertise, ideology, influence)
5. Who are the other players / stakeholders in the Predator Compensation Fund? What is their role? How do you get involved with the local community? With the national government? With international partners?
6. Of these, who are your partners? What criteria do you use for selecting partners? Are they all official partners?
7. What conditions do you have for other partners in the Predator Compensation Fund agreement? What would happen if they failed to meet these conditions?
8. What conditions do other actors expect you to keep? What would happen if you failed to meet these conditions?
9. Who are the most powerful actors in the arrangement? Who has the most influence and why do you think so? Who has the least influence?
10. Does the current arrangement reflect these power relations - in other words, were these powerful actors able to develop the arrangement according to their own views, interests, or discourses?
11. How is the agreement carried out in day-to-day operations? How is monitoring done and by who?
12. Did the Predator Compensation Fund agreement change in any way with your entry?
13. What flexibility does it have? How are changes / amendments undertaken?
14. Are there unwritten rules that you expect from each other?
15. Are there important national, regional or local laws that have influenced the shape of the arrangement?
16. Why did you choose to develop a fund, why not enforce the law more strongly?
17. What would you like changed, if at all, in the Predator Compensation Fund agreement?

18. What determines the success or failure of such an arrangement?
19. What is your evaluation of the PES arrangement at Mbirikani? Why do you think this fund is (un)successful?
20. In your opinion, what is the future of the Predator Compensation Fund at Mbirikani?
21. Do you foresee funds running out in the future? How far is that future? What impact do you think this will have on Mbirikani?

Specific additional question to MPT:

1. What is the organisational structure of MPT (there is ODWT lodge, Maasai Preservation Trust originally OI Donyo Wuas Trust, Predator Compensation Fund, Living with Lions? others?) How do these relate to the Predator Compensation Fund?

Specific additional to Kenya Wildlife Society:

1. What is the connection between the revenue sharing programme at Amboseli National Park and the Predator Compensation Fund at Mbirikani?
2. How is the government of Kenya involved with the PES arrangement at Mbirikani?
3. What national or local government legislation is pertinent in the PES situation at Mbirikani? (Can I get a copy of this document?)
4. Would you recommend such an arrangement to be expanded into KWS National parks? Why or why not?

Specific additional Mbirikani community

1. What is the history of conservation at Mbirikani?
2. Do you feel adequately represented in the PCF arrangement? Why or why not? If not, how what improvements would you like to see?

Appendix 2: List of Interviews

Date	Organisation	Type
Fri. 21 Oct.	Conservation International	Skype Interview
Tue. 1 Nov.	Mbirikani Group Ranch Member Employee of Mbirikani Preservation Trust Member of Mbirikani Group Ranch Member of Mbirikani Group Ranch (as an inheritance from husband) Employee of Centre for Wildlife Studies	Personal Interview Personal Interview Personal Interview Personal Interview Personal Interview
Wed. 2 Nov.	Husband is member of Mbirikani Group Ranch Elder and Member of Mbirikani Group Ranch Employee of Mbirikani Preservation Ranch Mbirikani Preservation Trust 3 Employee of Centre of Wildlife Studies Employee of Centre for Wildlife Studies	Personal Interview Personal Interview Personal Interview Personal Interview Personal Interview
Thur. 3 Nov.	Visitor to Mbirikani Group Ranch Member of Mbirikani Group Ranch and employee of Centre for Wildlife Studies	Personal Interview Personal Interview
Fri. 4 Nov.	Founder and Trustee of Mbirikani Preservation Trust Employee of Mbirikani Preservation Trust	Personal Interview Personal Interview
Mon. 7 Nov.	Employee of Centre for Wildlife Studies	Personal Interview
Tue. 8 Nov.	Trustee of Mbirikini Preservation Trust and former MGR official 4 of Mbirikini Group Ranch Elder and member of Mbirikini Group Ranch Member of Mbirikini Group Ranch Employee of Kenya Wildlife Services - Amboseli National Park Employee of Moi University and Centre for Wildlife Studies	Personal Interview Group Interview Personal Interview Personal Interview Personal Interview Personal Interview
Wed. 9 Nov.	Administrative Chief, Mbirikini Location and member of Mbirikini Group Ranch Member of Mbirikini Advisory Committee and former MGR official Chairman, Mbirikini Group Ranch Committee Administration Police, Mbirikini Area	Personal Interview Personal Interview Personal Interview Personal Conversation
Thur. 10 Nov.	Member of Mbirikini Group Ranch Committee	Personal Interview
Mon. 14 Nov.	African Centre for Conservation	Personal Interview
Wed. 16 Nov.	African Wildlife Foundation	Personal Interview
Thur. 24 Nov.	Anonymous tour operator Member of Group Ranch in Kitengela, near Nairobi	Personal Interview Personal Interview

Appendix 3: Copy of Predation Incident Log (September 2009)

PREDATOR COMPENSATION FUND
PREDATION INCIDENTS LOG FOR THE MONTH OF 2009

Date & time of Kill	Date & time reported to M/base	Reported by	Date & time reported to Fred & V.O	Date & time verified	Place/area of livestock kill	Owner	Livestock & No.	Predator	Loss type	Comments
10/09/09	10/09/09	Owner	11/09/09		koosikitok	Molomeh Leinka	2 short	Cheetah	lost	
10/09/09	10/09/09	owner	11/09/09		koosikitok	Naomi John	2 short	Jackle	lost	
10/09/09	11/09/09	NKREU	12/09/09		NAMEROK	NILANG OLOSIEKU	2 Sheat	hyena	lost	
11/09/09	10/09/09	JEREMAH	12/09/09		ILCHALAI	MERIZET MURUMPAH	1 Sheat	hyena	lost	
11/09/09	11/09/09	METIANKI SINHA SCOU	12/09/09		NASIPA	NKONGU AN MAKARI	1 Sheat	Sheat Jackle	lost	
11/09/09	11/09/09	MAPA OLPANTO OWHAI	12/09/09		KOISHA LENKOROTI	MPAPA OLPANTO	1 Sheat	hyena	lost	
12/09/09	12/09/09	WIKSON	13/09/09		KATIPAN OLMASIKA MOROSI	KILIPA MWASHA	1 Sheat	Cheetah	lost	
12/09/09	12/09/09	WIKSON	13/09/09		ENANRIRINGORI	ELISHA BACKSON	1 Donkey	hyena	lost	
12/09/09	12/09/09	LESINKO	13/09/09		Obali	METIANKI SAMPU	3 Sheats	hyena	lost	
13/09/09	13/09/09	Owner	13/09/09		NASIPA	NIAWASA LOIPITARI	1 Sheat	Jackle	BAO BAMA	
13/09/09	13/09/09	Owner	14/09/09		Kotisha	Nialamia OLCHALAI	3 sheats	hyena	lost	
						Mingati				

References

List of documents from the field:

1. **ACC** (2009): "The impact of the 2009 drought on wildlife, livestock and tourism in the Amboseli ecosystem: recommendations for prompt action and ecosystem restoration." Proceedings of the Amboseli ecosystem workshop Serena lodge, Amboseli, 9th December 2009.
2. **Chepkwony R.** (n.d.)a. "Community engagement and other strategies in Lion conservation: Mitigating Human-lion Conflict in Amboseli Ecosystem." Lecture Notes of KWS Amboseli National Park (obtained on Wed. 9 November 2011).
3. **Chepkwony R.** (n.d.)b. "Wildlife Conservation & Management in Amboseli National Park: Challenges and their potential solutions." Lecture notes of Amboseli National Park (obtained on Wed. 9 November 2011).
4. **Kenana L. and Mwinzi C.** (2010). "An evaluation of the successes of the Predator Consolation scheme in Amboseli Ecosystem". For KWS, supported by African Wildlife Foundation. Version 06082010.
5. **KWS MOU** (2006): "Memorandum of Understanding on the Provision of Sustainable Natural Resource Management in the Amboseli Ecosystem". (MOU between Kenya Wildlife Services and 5 Group Ranches).
6. **Large carnivore site meeting minutes** (2011): "Amboseli- West Kilimanjaro – Masai steppe cross border, andscape proceedings of the carnivore conservation". Minutes of meeting held on June 29th to June 30th 2011 at Amboseli Serena lodge.
7. **Mbirikani Group Ranch / Predator Compensation Fund Analysis** for July & August 2010 (no. of livestock killed, claims, predator incidents per predator species, compensation value)
8. **MGR Constitution** (2008): "The Constitution & Rules of Mbirikani Group Ranch."
9. **Minutes of the First MPT Education Committee Meeting** held on 7 October 2011 at The Trust Office Mbirikani.
10. **Minutes of Mbirikani Group Ranch Special Meeting** held on 6 June, 2005 at Mbirikani Centre.
11. **MPT Funding proposal to tour operators** (2010): "Funding of MPT's Wildlife Protection Program." 'to persuade tourism operators in the Amboseli region to contribute their "fair share" to the cost of PCF.' Attached to the proposal is a letter drafted by MPT for Dr. Julius Kipngetch, Director, Kenya Wildlife Service to Tourism Operators of the Greater Amboseli Region, (collected on 9 November 2011).
12. **PCF Agreement** (2010). "Mbirikani Predator Compensation Fund."
13. **Predator Incidents Log** for the month of September 2009 (1 page).
14. **Preliminary report** on herding practices in Enduimet Area Tanzania (Replicating the case Imbirikani and Olgulului/Olalrrashi Group Ranches in Kenya), 30 October 2011.

List of websites

1. African Wildlife Foundation (AWF) website (accessed February 2012):
www.awf.org
2. African Conservation Centre (ACC) website (accessed June 2012):
<http://conservationafrica.org/en/>
3. Amboseli Trust for Elephants (ATE) website (accessed April 2012):
<http://elephanttrust.org/>
4. Big Life Foundation website (accessed December 2011):
<http://www.biglifeafrica.org/>
5. Central bank of Kenya website (accessed December 2011):
<http://www.centralbank.go.ke/>
6. Conservation International website (accessed August 2011):
http://www.conservation.org/FMG/Articles/Pages/maasai_kenya_lions_march_09.aspx
7. Great Plains website (accessed April 2012):
<http://www.greatplainsconservation.com/odl/index.html>
8. International Livestock Research Institute (ILRI) website (accessed July 2012):
<http://www.ilri.org/>
9. Kenya Tourism Board website (accessed August 2011):
http://www.magicalkenya.com/index.php?option=com_frontpage&Itemid=1
10. Kenya Wildlife Services website 2012 (accessed August 2011):
<http://www.kws.org/>
11. Maasai Art and School Agency International website (accessed May 2012):
<http://www.maasaiart.co.uk/library.html>
12. Maasai Association website (accessed August 2011):
<http://www.maasai-association.org/maasai.html>
13. Maasailand Preservation Trust (MPT) website (accessed August 2011):
<http://www.maasailandpreservationtrust.com/aboutmpt.html>
14. National Geographic Society website (accessed September 2011):
http://blogs.ngm.com/blog_central/2010/06/guarding-lions.html
15. Panthera NGO website (accessed September 2011 and August 2012):
<http://www.panthera.org/species/lion>
16. San Diego Zoo website (accessed August 2011):
<http://www.sandiegozoo.org>
17. Science mag website (accessed April 2012):
<http://www.sciencemag.org/content/280/5368/s-scope.full>
18. Standard digital newspaper (accessed March 2012):
<http://www.standardmedia.co.ke/?articleID=2000053389&pageNo=3>
19. Tigris Foundation website (accessed May 2012):
<http://www.tigrisfoundation.nl/cms/publish/content/showpage.asp?pageID=54>

Government of Kenya (GOK) documents

1. Wildlife Bill (2010): "The Wildlife (Conservation and Management) (Amendment) Bill, (2007 Rev. 2010)."
2. **The Land (Group Representatives) Act** Chapter 287 (1970, Rev. 2010).
3. **Wildlife Act** (2010): Wildlife (Conservation and Management) Act Chapter 376 (1989, Rev. 2010).
4. **Kenya National Tourism Policy**. Ministry of Tourism and Wildlife, May 2006.
5. **Kenya Vision 2030** (2007).

List of Citations

- Akama, J. S.**, (1996). "Western environmental values and nature-based tourism in Kenya." Tourism Management **17**(8): 567-574.
- Alitsi, E.**, (2002). "Important environmental treaties and conventions Kenya is signatory to: A report on civil society review of the implementation of agenda 21 in Kenya." Kenya NGO Earth Summit, Feb. 2002.
- Allen, D.W.**, (2012) The institutional revolution: measurement and the economic emergence of the modern world: Markets and Governments in Economic History. University of Chicago Press.
- Arts, B. and Goverde H.**, (2006). "The Governance Capacity of (new) Policy Arrangements: A Reflexive Approach Institutional Dynamics in Environmental Governance." Institutional Dynamics in Environmental Governance. B. Arts & P. Leroy, Springer, Netherlands: 69-92.
- Arts, B. and Tatenhove J.**, (2004). "Policy and power: A conceptual framework between the 'old' and 'new' policy idioms." Policy Sciences **37**(3): 339-356.
- Arts, B., Appelstrand M., Kleinschmit D., Pülzl H., Visseren-Hamakers I., Eba'a Atyi R., Enters T., McGinley K. and Yasmi Y.**, (2011). "Discourses, actors and instruments in international forest governance." Embracing complexity: Meeting the challenges of international forest governance. Global assessment report of the United Nations Forum on Forests (UNFF), Session 9 (24 Jan–4 Feb 2011), UN Headquarters, New York City, Chapter 4: 57-73.
- Arts, B., Leroy P. and Van Tatenhove J.**, (2006). "Political Modernisation and Policy Arrangements: A Framework for Understanding Environmental Policy Change." Public Organisation Review **6**: 93-106.
- Bachrach P. and Baratz M.S.**, (1962). "Two Faces of Power." The American Political Science Review **56** (4): 947-952.
- Bachrach, P. and Baratz M.S.**, (1963). "Decisions and Nondecisions: An analytical framework." The American Political Science Review **57** (3): 632-642.
- Bachrach, P. and Baratz M.S. (eds)**, (1970). Power and poverty. New York, Oxford University Press.
- Baldwin, D.A.**, (2002). "Power and international relations." W. Carlsnaes, T. Risse and B. A. Simmons (eds.), Handbook of International Relations. London:

SAGE: 177–189.

- Barnes, J., Burgess J. & Pearce D.,** (1992). "Wildlife Tourism." In Economics for the wilds: wildlife, wildlands, diversity and development. T.M. Swanson & E. Barbier. Earthscan: 136-151.
- Boelens, R.A.,** (2008). The rules of the game and the game of the rules: normalization and resistance in Andean water control. Wageningen University: 3-22.
- Brennan, G. and Buchanan J.M.,** (1985) The Reason of Rules, Constitutional Political Economy. Cambridge University Press
- Brockington, D. and Igoe J.,** (2006). "Eviction for Conservation: A Global Overview." Conservation and Society **4**(3), Sept. 2006: 424-470.
- Brockington, D. and R. Duffy** (2010). "Capitalism and Conservation: The Production and Reproduction of Biodiversity Conservation." Antipode **42**(3): 469-484.
- Brockington, D.,** (2004). "Community Conservation, Inequality and Injustice: Myths of Power in Protected Area Management." Conservation and Society. **2**(2): 411-432.
- Bruner, E.M.,** (2001). "The Maasai and the Lion King: Authenticity, Nationalism, and Globalization in African Tourism." American Ethnologist **28**(4): 881-908.
- Büscher, B.,** (2012). "Payments for ecosystem services as neoliberal conservation: (Re)interpreting) evidence from the Maloti-Drakensberg, South Africa." Conservation and Society **10**: 29-41.
- Cleaver, F.,** (2002). "Reinventing institutions: Bricolage and the social embeddedness of natural resource management." European Journal of Development Research **14**(2): 11-30.
- Clegg, S. R.,** (1989). Frameworks of Power. London: Sage.
- Dahl, R.A.,** (1961). Who Governs? Democracy and Power in an American City. New Haven: Yale University Press.
- Dahl, Robert A.,** (1957) "The Concept of Power." Behavioural Science **2**(3): 201-215.
- Ellickson, R.C.,** (1991). Order without law: How Neighbors Settle Disputes. Cambridge, Mass. Harvard University Press.
- Elliot, J. & Mwangi M.M.,** (1998). "Developing Wildlife Tourism in Laikipia Kenya – Who Benefits?" Laikipia Wildlife Economics Study: Discussion Paper CEC-DP. African Wildlife Foundation, Conservation, Economics and Commerce Programme (January) **3**:1-13.
- Engel, S., Pagiola S. and Wunder S.,** (2008). "Designing payments for environmental services in theory and practice: an overview of the issues." Ecological Economics **65**: 663–674.
- Ens, E.J.,** (2012). "Monitoring outcomes of environmental service provision in low socio-economic indigenous Australia using innovative CyberTracker Technology." Conservation and Society (**10**):42-52.
- Fisher, B., Kulindwa K., Mwanyoka I., Turner R.K. and Burgess N.D.,** (2010). "Common pool resource management and PES: Lessons and constraints for water PES in Tanzania." Ecological Economics **69**(6):1253-1261.
- Frost, P.G.H. and Bond I.,** (2008). "The CAMPFIRE programme in Zimbabwe:

- Payments for Wildlife Services.” *Ecological Economics* **65**:776-787.
- Gichohi, H.W.**, (2003). “Direct Payments as a Mechanism for Conserving Important Wildlife Corridor Links Between Nairobi National Park and its Wider Ecosystem: The Wildlife Conservation Lease Program.” Conference Paper, 5th World Parks Congress, Durban, South Africa: 1-8
- Giddens, A.**, (1984). *The constitution of society*, Polity Press, Cambridge.
- Grieg-Gran, M., Porras I. and Wunder S.**, (2005). “How can market mechanisms for forest environmental services help the poor? Preliminary lessons from Latin America.” *World Development* **33**(9): 1511-1527.
- Groot, K.**, (2011). *Payment for Environmental Services (PES) from Tourism: A realistic incentive to improve local livelihoods and sustain forest landscapes in Viet Nam’s northern highlands*. Wageningen University: 1-22.
- Hajer, M., and Versteeg W.**, (2005). “A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives.” *Journal of Environmental Policy Planning* **7**: 175-184.
- Hazzah, L.N.**, (2006). *Living Among Lions (Panthera Leo): Coexistence or Killing? Community Attitudes Towards Conservation Initiatives And The Motivations Behind Lion Killing In Kenyan Maasailand*. University Of Wisconsin-Madison: 1-162.
- Hazzah, L., Mulder M.B., and Frank L.**, (2009). “Lions and warriors: social factors underlying declining African lion populations and the effect of incentive-based management in Kenya”. *Biological Conservation* **142**: 2428-2437.
- Helmke, G., and Levitsky S.**, (2006). *Informal Institutions and Democracy: Lessons from Latin America*. The Johns Hopkins University Press. Baltimore: 4-34.
- Landell-Mills, N. and Porras I.T.**, (2002). “Silver bullet or fools’ gold? A global review of markets for forest environmental services and their impact on the poor.” International Institute for Environment and Development (IIED), March. London.
- Langlois, Richard N.**, (1993). “Orders and Organizations: Toward an Austrian Theory of Social Institutions,” in Bruce Caldwell and Stephan Böhm, eds., *Austrian Economics: Tensions and Directions*. Dordrecht: Kluwer Academic Publishers.
- Lee, E., Leimona B., Noordwick M., Van Agarwal C. and Mahanty S.**, (2007). “Payments for environmental services: introduction to feasibility, supplier characteristics and poverty issues.” Insight: notes from the field. : RECOFTC, Vol. 2. World Agroforestry Centre ICRAF and Winrock International India WII, Bangkok: 5–17.
- Lescuyer, G., Karsenty A. & Eba’a Atyi A.**, (2009). “A New Tool for Sustainable Forest Management in Central Africa: Payments for Environmental Services.” In *The Forests of the Congo Basin : State of the Forest 2008*, C. de Wasseige, D. Devers, P. de Marcken, R. Eba’a Atyi, R. Nasi, P. Mayaux (Eds.), Luxembourg: 127-140.
- Liefferink, D.**, (2006). “The Dynamics of Policy Arrangements: Turning Round the Tetrahedron in Institutional Dynamics in Environmental Governance.”

- Institutional Dynamics in Environmental Governance. B. Arts and P. Leroy (eds.), Springer, Netherlands: 45–68.
- Luke, S.**, (1974). Power. A Radical View. London: Macmillan.
- Manor, J.**, (2001). “Center-state relations”. In The success of India's democracy. Atul Kohli (ed). Cambridge University Press: 78-102.
- Milne, S. & Niesten E.**, (2009). “Direct Payments for Biodiversity Conservation in Developing Countries: Practical Insights for Design and Implementation.” Fauna & Flora International, Oryx, UK **43**(4): 530-541
- Milne, S.**, (2007) “Monitoring the Socio-economic Impacts of Conservation Incentives Agreements in Cambodia.” Consultancy Report, Conservation International, Washington, DC, USA.
- Miranda, M., Porras I.T. & Moreno M.L.**, (2003). “The social impacts of payments for environmental services in Costa Rica: A quantitative field survey and analysis of the Virilla watershed.” International Institute for Environment and Development, London.
- Muruthi, P.**, (2005). “Human Wildlife Conflict: Lessons Learned From AWF’s African Heartlands.” AWF Working Papers. July 2005: 1-12. Nelson, F., Foley C., Foley L.S., Leposo A., Loure E., Peterson D., Peterson M., Peterson T., Sachedina
- Nelson, F., Foley C., Foley L.S., Leposo A., Loure E., Peterson D., Peterson M., Peterson T., Sachedina H. and Williams A.**, (2009). “Payments for Ecosystem Services as a Framework for Community-Based Conservation in Northern Tanzania.” Conservation Biology **24**(1): 78-85.
- Ngetich, J.**, (2011). “Lion-proof homes to save king of the jungle from herders’ spears.” Daily Nation. June 10 2011.
- Nonga, F.N.**, (2011). “Are Payments for Environmental Services (PES) an opportunity for relieving countries of the Congo basin from poverty?” Journal of Sustainable Development in Africa **13**(3): 40-58.
- North, D.**, (1995). “The New Institutional Economics and Third World Development” in J. Harriss, J. Hunter and C. Lewis (eds.) The New Institutional Economics and Third World Development. London: Routledge.
- Odongo, P.**, (2012). “Death of lions a big loss, says Wekesa.” In Daily Nation 20 June 20 2012.
- Ogeto, M.**, (2007). Herding Efficiency as a Factor in the Human-carnivore Conflict in Kenya: A Comparative study of the Laikipia and Mbirikani Group Ranches. London South Bank University.
- Okello, M. M. and Kiringe J.W.**, (2004). “Threats to Biodiversity and their Implications in Protected and Adjacent Dispersal Areas of Kenya.” Journal of Sustainable Tourism **12**(1): 55-69.
- Okello, M.M.**, (2005). “Land Use Changes and Human–Wildlife Conflicts in the Amboseli Area, Kenya.” Human Dimensions of Wildlife **10**(1): 19-28.
- Ostrom, E.**, (1990). Governing the commons: The evolution of institutions for collective action. Cambridge University Press. Cambridge. Chapter 2: 29-57.
- Pagiola, S.**, (2003). “Can Programs of Payments for Environmental Services Help

Preserve Wildlife?" Convention on International Trade in Endangered Species of Wild Fauna and Flora. Workshop on Economic Incentives and Trade Policies. World Bank. Geneva (December):1-22.

- Pagiola, S., Arcenas A. and Platais G.,** (2005). "Can Payments for Environmental Services Help Reduce Poverty: An Exploration of the Issues and the Evidence to Date from Latin America." World Development **33**(2). February 2005. The World Bank. Washington, DC, USA: 237-253.
- Patterson, B.D., Kasiki S.M., Selempo E. and Kays R.W.,** (2004). "Livestock predation by lions (*Panthera leo*) and other carnivores on ranches neighboring Tsavo National Parks, Kenya." Biological Conservation **119**(4): 507-516.
- Pejovich, S.,** (1999). "The effects of the interaction of formal and informal institutions on social stability and economic development." Journal of Markets and Morality **2**(2): 164-81.
- Preston College,** (2006). "A Case for Indigenous Knowledge-Based Conservation: Amboseli." Written by students and faculty of Prescott College Presented to Olkajiado County Council, Amboseli (August 4).
- Rametsteiner, E.,** (2009). "Governance Concepts and their Application in Forest Policy Initiatives from Global to Local Levels". Small-scale Forestry **8**(March): 143-158.
- Rodriguez, S.L.,** (2007) "Perceptions and attitudes of a Maasai community in southern Kenya regarding predator-damage compensation, wildlife conservation and the predators that prey on their livestock." School for International Training in Brattleboro, VT, USA.
- Rojas, M., and B. Aylward.,** (2003). What are we learning from experiences with markets for environmental services in Costa Rica? A review and critique of the literature. International Institute for Environment and Development, London.
- Sindiga, I.,** (1984). "Land and Population Problems in Kajiado and Narok, Kenya." African Studies Review **27**(1): 23-39.
- Sommerville, M., Jones J.P.G., Rahajaharison M. and Milner-Gulland E.J.,** (2010). "The role of fairness and benefit distribution in community-based Payment for Environmental Services interventions: A case study from Menabe, Madagascar." Ecological Economics **69**(6):1262-1271.
- Stokes, B.,** (1981). Helping Ourselves: Local Solutions to Global Problems. WW Norton & Co.
- Swallow, B., Meinzen-Dick R. and Van Noordwijk M.,** (2005) "Localizing Demand and Supply of Environmental Services: Interactions with Property Rights, Collective Action and the Welfare of the Poor." Working Paper 42. Washington, DC : CGIAR Systemwide Program on Collective Action and Property Rights:1-33.
- Taraya, G. N.,** (2004) The Legal Perspectives of the Maasai Culture, Customs, and Traditions." Arizona Journal of International & Comparative Law **21**(1): 183-222.
- Thouless, C.R.,** (1994). "Conflict between humans and elephants on private land in northern Kenya." Oryx, **28**: 119-127.

- Thuy, P.T.H.U., Ha H.M. and Campbell B.M.,** (2008). "Pro-poor payments for environmental services : challenges for the government and administrative agencies in Vietnam." Public Administration Development **28**:363-373.
- Tome, A.S.,** (2008). "Indigenous and local communities concerns and experiences in promoting, sustaining and safeguarding their traditional knowledge, traditional cultural expressions and genetic resources." Experiences from the World Intellectual Property Organisation pilot training program on intellectual Property and cultural documentation. Intergovernmental committee on intellectual property and genetic resources. Thirteenth session, Geneva (October 13 to 17).
- Toogood, M.,** (2012). "Placing the Maasai." Making Sense of Place. Heritage Matters. Boydell and Brewer, Woodbridge: 261-270.
- Van der Duim, V.R.,** (2010). Safari: A journey through tourism, conservation and development. Inaugural lecture upon taking the post of Special Professor of Tourism and Sustainable Development. Wageningen University. 9 December 2010.
- Van Tatenhove, J., Arts B., and Leroy R., (eds),** (2000). Political Modernisation and the Environment: The Renewal of Environmental Policy Arrangements. Springer.
- Wayumba, G.,** (2004). "A Review of Special Land Tenure Issues in Kenya: The Case of Group Ranches." Department of Surveying, University of Nairobi: 1-11.
- White, A. and Martin A.,** (2002). Who owns the world's forests?: Forest tenure and public forests in transition. Forest trends.
- Woodroffe, R. & Frank L.G.,** (2005). "Lethal control of African lions (*Panthera leo*): local and regional population impacts." Animal Conservation **8**: 91–98.
- Wunder S., Engel S. and Pagiola S.,** (2008) Taking stock: A comparative analysis of payments for environmental services programs in developed and developing countries. Ecological Economics **65**: 834-852.
- Wunder, S.,** (2005). "Payments for Environmental Services: Some Nuts and Bolts." Occasional Paper No. 42. CIFOR, Bogor: 1-24.
- Wunder, S.,** (2006). "Are Direct Payments for Environmental Services Spelling Doom for Sustainable Forest Management in the Tropics ?" Ecology and Society **11**(2).
- Wunder, S.,** (2007). "The efficiency of payments for environmental services in tropical conservation." Conservation Biology **21**:48–58.

Additional Readings

- Benda-Beckmann, F. von.,** (2002) "Who's Afraid of Legal Pluralism?" Journal of Legal Pluralism and Unofficial law **47**: 37-82.
- Brandon, A.,** (2007). The dual nature of parks: attitudes of neighbouring communities towards Kruger National Park, South Africa. Environmental Conservation. **34**:236-245.
- Dickman, A.J., Macdonald E.A. and Macdonald D.W.,** (2011). "A review of financial instruments to pay for predator conservation and encourage human–carnivore

- coexistence." Proceedings of the National Academy of Sciences **108**(34): 13937-13944.
- Ferraro, P.J. and Kiss A.**, (2002). "Direct Payments to Conserve Biodiversity." Science **298**(5599): 1718-1719.
- Griffiths, J.**, (1986). "What is legal pluralism?" Journal of Legal Pluralism and Unofficial Law **24**(1):1-56.
- Helmke, G. and Levitsky S.**, (2004). "Informal Institutions and Comparative Politics: A Research Agenda." Perspectives on Politics **2**(4): 725-740.
- Kibugi, R.M.**, (2009). "A failed land use legal and policy framework for the African commons: Reviewing Rangeland Governance in Kenya." Journal of Land Use **24**(2):309-336.
- Kimani, K. and Pickard J.**, (1998). "Recent Trends and Implications of Group Ranch Sub-Division and Fragmentation in Kajiado District, Kenya." The Geographical Journal **164**(2): 202-213.
- Kiringe, J.W. and Okello M.M.** (2005). "Use and availability of tree and shrub resources on Maasai communal rangelands near Amboseli, Kenya." African Journal of Range & Forage Science **22**(1): 37-45.
- Li, T.M.**, (2007). "The will to improve." Governmentality, development, and the practice of politics: 1-30.
- MacLennan, S.D., Groom R.J., Macdonald D.W. and Frank L.G.**, (2009). "Evaluation of a compensation scheme to bring about pastoralist tolerance of lions." Biological Conservation **3**:1-10.
- Okello, M.M. and Kioko J.M.**, (2010). "Contraction of Wildlife Dispersal Area in Olgulului – Ololorashi Group Ranch Around Amboseli National Park, Kenya." The Open Conservation Biology Journal **4**:34-45.
- Pattanayak S.K.**, (2010). "Show me the money: do payments supply environmental services in developing countries?" Review of environmental economics and policy **4**(2).
- Western, D.**, (1982). "Amboseli National Park: Enlisting Landowners to Conserve Migratory Wildlife." Ambio **11**(5): 302-308.
- Wishitemi, B. and Okello M.M.**, (2003). Application of the protected landscape model in southern Kenya. Parks **13**(2):12-21.
- Wishitemi, B. and Okello M.M.**, (2003). "Application of the Protected Landscape Model in Southern Kenya." IUCN, Gland, Switzerland. Produced by the Naturebureau, UK. Accessed from http://cmsdata.iucn.org/downloads/parks_13_2.pdf#page=14 05.07.12.

