

The Governance of Commons in
National Parks:
Plurality and Purpose

Julia C W Aglionby

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PhD (Law) Thesis Abstract

Effective governance is key to the successful management of national parks and is particularly critical for commons in protected areas. This research explores how governance can be strengthened on commons in national parks to improve the delivery of multiple ecosystem services. Empirical data is presented from two case studies; Danau Sentarum, Indonesia and The Lake District, England. Appreciative Inquiry is used to discover commoners' stories, design future options and consider them in the context of the plural legal and other normative orders in force. These highlight the strong motivation of commoners to govern for the purpose of delivering provisioning services that provide them with financial benefits and for which they have a cultural connection. The cases studies both reveal the difficult task of delivering conservation outcomes when no beneficial interest accrues to the provider, when property rights are uncertain or when there is no positive correlation between the provisioning service and biodiversity.

The analysis uses three frameworks; Tamanaha's typology of Legal Pluralism, Ostrom's Institutional Analysis of Common Property Resources and Armitage et al's Criteria for Adaptive Co-management. This tri-faceted process assesses these complex socio-ecological systems demonstrating that in neither case study will current governance structures deliver the full breadth of public and private ecosystem services society seeks. Three opportunities for strengthening governance are identified; 1) enhance linkages between the plural normative orders for the effective enforcement of rules, 2) manage access to common property resources to provide legal certainty regarding rights and responsibilities and 3) ensure the Ecosystem Approach incorporates property rights to harness the motivation of commoners as primary managers.

Dedicated to the memory of and guidance from

*my father; Francis John Aglionby
and
my great-aunt; Janet Maria Vaughan*

*'Dost thou love life, then do not squander time,
for that is the stuff life is made of'*

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List of Abbreviations

ADAS	Agricultural Development Advisory Service
AI	Appreciative Inquiry
CA	Commons Act
CIFOR	Centre for International Forestry
CL	Common Land
COP-CBD	Conference of Parties – Convention for Biological Diversity
CRA	Commons Registration Act
CROW	Countryside and Rights of Way Act
Defra	Department for the Environment, Food and Rural Affairs
DOC	Dissolved Organic Carbon
DSNP	Danau Sentarum National Park
DSWR	Danau Sentarum Wildlife Reserve
EA	Ecosystem Approach
ESA	Environmentally Sensitive Area
FCC	Federation of Cumbria Commoners
FFI	Flora and Fauna International
HLS	Higher Level Stewardship
IUCN	International Union for the Conservation of Nature
LDNP	Lake District National Park
LFA	Less Favoured Area
Menhut	Menteri Kehutanan (Ministry of Forestry)
NE	Natural England
NELMS	New Environmental Land Management Scheme
NERC	Natural Environment, Research and Communities
NGO	Non-governmental Organisation
OLD	Operation Likely to Damage
PES	Payments for Ecosystem Services

SAC	Special Area of Conservation
SCaMP	Sustainable Catchment Management Planning
SK	Surat Keputusan (Decision)
SSSI	Site of Special Scientific Interest
UELS	Uplands Entry Level Stewardship
UK-ITFMP	UK Indonesia Tropical Forestry Management Programme
UU	United Utilities
WES	Wildlife Enhancement Scheme
WHS	World Heritage Site

Chapter 1: Introduction

The Research Problem

- 1.1.1 A significant proportion of national parks are managed landscapes where for centuries farmers and fishers have in common harvested primary products. This creates a tension between the communities who live in and around these protected areas, and depend on these private goods for their livelihood, and other stakeholders who seek to manage non-marketable public goods including biodiversity, water quality, carbon storage and public access. The purpose of this thesis is to explore the tension between the delivery of public and private ecosystem services¹ from a legal and institutional perspective.
- 1.1.2 Following from the 1992 Earth Summit in Rio considerable effort has been expended by the international community to address the challenge of managing protected areas through: the Conferences of the Parties of the Convention on Biodiversity (COP-CBD), the International Union for the Conservation of Nature (IUCN) with its network of protected areas, the Ramsar Convention and its network of wetland sites and the development of Indigenous People's and Community Conserved Areas (ICCAs). The effectiveness of current management of protected areas has been questioned, with Leverington et al² concluding only 22% of protected areas have sound management and that, 'protected area management leaves a lot to be desired... about 42% have major deficiencies'.³ Effectiveness of governance was highlighted by Leverington et al as a key factor in overall effectiveness of protected area management.
- 1.1.3 Governance is the rules and institutional structures that frame and determine management.⁴ Whether governance is considered effective depends on the

¹ Ecosystem services are the benefits provided by ecosystems that contribute to making human life both possible and worth living. Examples of ecosystem services include products such as food and water, regulation of floods, soil erosion and disease outbreaks, and non-material benefits such as recreational and spiritual benefits in natural areas. UK NEA Definition <http://uknea.unep-wcmc.org/EcosystemAssessmentConcepts/EcosystemServices/tabid/103/Default.aspx> accessed 07/10/13.

² F Leverington et al., 'A Global Analysis of Protected Area Management Effectiveness' (2010) 46.

³ *ibid* 694.

⁴ see 3.2.14.

outcomes sought. In assessing whether governance is effective three matters should be considered: are the outcomes appropriately set, is the institutional framework designed to deliver the outcomes sought and are the rules implemented or merely on paper? In this thesis governance is considered effective if it allows people to continue to exercise their property rights to meet livelihood needs without compromising the flow of other ecosystem services for which the site is designated. As neither property rights nor ecosystem services are static concepts governance is a dynamic evolving process.

- 1.1.4 A feature of many managed national parks is that the right to use resources is held in common by multiple users: they are common property resources.⁵ Furthermore there are multiple different legal and regulatory systems (normative orders) that govern the utilisation of resources in designated sites. The picture is complex⁶ and becoming more so as population growth increases the demand for natural resources.
- 1.1.5 The IUCN's best practice guide on Governance in Protected Areas makes clear the risk to the planet and humankind from ineffective governance systems.⁷ This is not a new recognition and builds on the call by the Convention on Biodiversity's Conference of Parties in 2008 (CBD-COP 9) to strengthen the governance of protected areas taking account of local communities.⁸ This international agreement is not yet reflected in national policies⁹ where it is needed to deliver change in practice and so improve outcomes. From this lack of effective policy a primary research question was identified; 'How to strengthen the governance of common land in national parks to improve the delivery of ecosystem services?' This is the subject of this thesis.

⁵ G Borrini and A Kothari and G Oviedo, *Indigenous and Local Communities and Protected Areas : Towards Equity and Enhanced Conservation : Guidance on Policy and Practice for Co-managed Protected Areas and Community Conserved Areas* (.IUCN--the World Conservation Union 2004) 7.

⁶ G Borrini-Feyerabend and H Jairath, *Sharing Power: Learning-by-doing in Co-management of Natural Resources Throughout the World* (.International Institute for Environment and Development London 2004). XXXI.

⁷ G Borrini-Feyerabend et al., *Governance of Protected Areas: From Understanding to Action* (IUCN 2013)116.

⁸ CBD-COP 9 decision IX/18 invites Parties to: 6(a) Improve and, where necessary, diversify and strengthen protected-area governance types, leading to or in accordance with appropriate national legislation including recognizing and taking into account, where appropriate, indigenous, local and other community-based organizations.

⁹ For example see Natural England's The new England Biodiversity Strategy (Biodiversity 2020) and the Delivery Plan which has no reference to governance of designated areas only governance of the delivery process http://www.naturalengland.org.uk/Images/NEB-PU27-05_tcm6-27842.pdf accessed 09/10/13.

- 1.1.6 The impact of ineffective governance is a loss of ecosystem services, habitats and biodiversity and this is known to be continuing even within protected areas and designated sites.¹⁰ The impact of this on residents within and dependent on these resources is also of concern as they enter a vicious cycle of increasing extraction and declining yields. Alternatively communities are relocated or constrained in what they harvest by national legislation in the interests of conserving biodiversity.¹¹ This often has little reference to the historic use of the site or the wider ecosystem services that flow from the protected area including cultural and provisioning services. The work of the Millennium Assessment from 2003 changed the emphasis of the COP-CBD placing the Ecosystem Approach, and hence humankind, at the heart of biodiversity policy.¹² The challenge is implementation as national and international level governments rely on specific legal orders. They often fail to recognise the centrality of land tenure, whether customary or formal, to the effectiveness of governance of national parks. Furthermore land tenure itself is not a fixed concept but influenced by the plethora of government and non-government interventions through statute and regulations, development assistance, agricultural support, conservation agreements and the markets; all forms of normative orders. This is particularly conspicuous on commons compared with land under single occupation.
- 1.1.7 The governance and management of commons in protected areas too often delivers neither conservation or livelihood objectives by failing to take account of the complexity of the normative orders in force.¹³ Since 2008 there has been an increase in understanding of this situation by social scientists as the work of Ostrom and her colleagues progressed to incorporate the complexity of social and ecological systems into the analysis of common property institutions. Governments and international institutions wedded to the ecosystem services approach have not paralleled this progression and still fail to incorporate legal rights, responsibilities, motivations and incentives into planning the delivery of ecosystem services.

¹⁰ NS Sodhi et al., *Biodiversity and Human Livelihoods in Protected Areas: Case Studies From the Malay Archipelago* (.Cambridge University Press 2008)10.

¹¹ Borrini and Feyerabend (n6).

¹² "The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way." <https://www.cbd.int/ecosystem/> .

¹³ OJ Wilson and GA Wilson, 'Common Cause or Common Concern? The Role of Common Lands in the Post-productivist Countryside' [1997] 55.

- 1.1.8 This is the background against which the thesis sits. A thesis grounded in the reality of legal pluralism, diverse ecosystem services and community managed cultural landscapes. At the same time the research is embedded in the latest theoretical developments in legal pluralism, institutional analysis and adaptive co-management. By actively bringing together theory and practice the research delivers outputs that capture complexity at the local level while contributing to the existing body of research.
- 1.1.9 Specific research gaps addressed are the identification of the drivers that affect the nature and success of governance on common land in national parks and how such governance may be strengthened taking into account these drivers.

Research Approach

- 1.2.1 In order to address the research problem and contribute to the debate the thesis presents empirical data from two national parks; the Lake District in England and Danau Sentarum in Indonesia. In both cases there are a number of similarities; natural resources have been utilised for generations, communities have developed common property governance systems that manage the day-to-day production of provisioning services, and biodiversity is designated at a national and international level. Finally in neither case does the government have the capability or capacity to manage the resources themselves for however many laws are enacted or regulations laid down it is the actions of communities on the ground that determines the current and future condition of the resources.
- 1.2.2 Aside from the contrasting physical, social and political geography there are three key differences between the legal orders in the two case studies. These are: who the common property rights are vested in, the role of economic instruments and the underlying ownership of the land. In Indonesia the land is state owned, rights to exploit natural resources are held by the community and national legislation allows new residents to access resources. Contrastingly in England common land is privately owned, common rights are limited in number and held by individuals and economic instruments are widely used. These disparities are an advantage in considering the wider implications of the field data. Where the conclusions are the same from the two case studies they are

likely to be applicable to common land in other national parks while where they are different the defining characteristics are clearly identifiable.

- 1.2.3 In collecting the data particular attention has been paid to the fact that the researcher's presence was an intervention in itself and that the quality of the data collected would be enhanced if the processes were empowering and perceived as of value by the participants. To this end the method of Appreciative Inquiry (AI) was adopted. The key feature of AI is that it seeks to look for what works and build on that in planning change.
- 1.2.4 The research problem was divided into three specific questions;
 - A. What are the land tenure and governance systems currently operating and the ecosystem services delivered?
 - B. What are the key variables and drivers in current governance systems?
 - C. Within existing legislative and policy frameworks how can governance systems be strengthened to enhance the future flow of ecosystem services?
- 1.2.5 The complexity of the normative orders and the wide range of ecosystem services influenced the method adopted to analyse the data and explore the research problem. The existence of multiple interacting normative orders pointed to legal pluralism as the initial framework for analysis while the lack of capacity from law enforcers suggests the need for empirical data collection to examine how these legal orders are implemented and enforced in practice. This allows the examination of 'law in action' as well as 'law in books'. What actually happens? How do communities, civil servants and NGOs use the law and other normative orders in the field?
- 1.2.6 Categorising the plural normative orders identified in the field with Tamanaha's legal pluralism framework¹⁴ was an essential first step but was not sufficient to answer the research problem. This was achieved by drawing on recent theoretical developments in the institutional analysis of common property resources and adaptive co-management to undertake detailed analysis of the data and so propose how governance can be strengthened.

¹⁴ BZ Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' (2008) 30.

Research Findings

- 1.3.1 Shared findings from both sites demonstrated the commonality between two protected areas in spite of contrasting legal systems and geographical location. Commoners in both sites take huge pride in their local governance institutions that focus on the delivery of provisioning services. They rely on partnership with other organisations to enforce rules relating to ecological objectives. In both sites the commoners are producers of primary products with tight margins; the commoners are strongly focused on providing a livelihood for their family, not on delivering diffuse non-marketable ecosystem services. Maintaining good neighbourhood is considered an essential role of commoners associations and valued more highly, in many instances, than compliance with association rules. Furthermore communication by conservation agencies to commoners is poor and was demonstrated by commoners' weak understanding of biodiversity and other environmental objectives. The enforcement of national legislation by conservation agencies is lax.
- 1.3.2 The differences in the normative orders and nature of the resource harvested in the two sites did highlight significant differences. The flow of many regulatory and supporting ecosystem services in Danau Sentarum is still declining while in the Lake District it is stable or increasing. This is due to the existence in the Lake District of agri-environment contracts that pay commoners to alter their management practices. As important is that grazing pressure in the Lake District has an upper limit set by the number of common rights but there is no such limit in Danau Sentarum. Until communities can limit immigration and the volume of fish harvested they will not be in a position to sustainably manage their natural resources.
- 1.3.3 While the synergies between governance for conservation and livelihood may appear stronger in the Lake District there is more intrinsic motivation to protect biodiversity and water quality in Danau Sentarum. This is because commoners in Danau Sentarum directly harvest and sell a natural resource. Fish yields depend on healthy fish stocks which depend on high water quality and good quality forest habitats for spawning. Conversely sheep production in the Lake District is not positively linked to biodiverse habitats and ecosystems but rather

agriculturally productive grazing. This means there is limited incentive for commoners associations in the Lake District to enforce rules that deliver ecological objectives as enforcement by local institutions could upset good neighbourhood while not bringing any livelihood benefits.

Contributions to the Research Field

1.4.1 The objective of this research thesis is to contribute to the debate on how governance of common land can be strengthened to improve ecosystem services in National Parks. Given the poor management of protected areas this is essential and urgent if these highly valued resources are to be well managed into the future.

1.4.2 The in depth field work in two locations was designed to provide an original contribution by addressing the complexity of normative orders and their impact on governance of commons in national parks. The analysis was structured so it not only contributed to our knowledge of these two sites but also could contribute to the wider debate. The results revealed that a proper understanding of the plural normative orders at play in any situation is essential to understanding the drivers that affect the delivery of ecosystem services.

Primary drivers include:

- the nature of the resource being harvested,
- the motivation and incentive for commoners to enforce their own rules,
- the ability of local institutions to limit the amount of resources being harvested,
- access to government environmental contracts
- the level of enforcement by government conservation bodies of their own regulations, and
- the willingness of the state to support enforcement by local governance institutions

1.4.3 The data and analysis have highlighted that it is naive to expect the ecosystem approach will deliver environmental objectives without consideration of the social and legal systems in force. Explicit attention is required to the capacity of

local governance institutions, property rights, regulatory systems, interactions with government conservation bodies and the motivation of commoners to self-govern. In short there are inadequate mechanisms to reward those who maintain the flows of ecosystem services that accrue to third parties.

1.4.4 This research used a number of theoretical frameworks to address the research problem. The insufficiency of any single framework demonstrates the complexity of the topic but the benefit is the richer insights that multiple analyses of the same data provide. These are expanded on in Chapters 8 and 9. Particular attention is given to enhancing the capacity of local governance through ratification of current rules by external bodies to improve enforcement and the change in status of a voluntary commoners association to a statutory body.

1.4.5 The common findings of the contrasting case studies allow generalisation of three requirements for effective governance of common property resources in National Parks. These are that commoners must: be motivated to deliver public as well as private goods, have the authority to limit access to resources and have support in enforcement from other normative orders and institutions. While each national park is different and there will be other specific requirements without these three ecosystem services will continue to decline. The requirement for motivation to deliver public goods is a particular finding of this research and an area that warrants further research.

Organisation of the Thesis

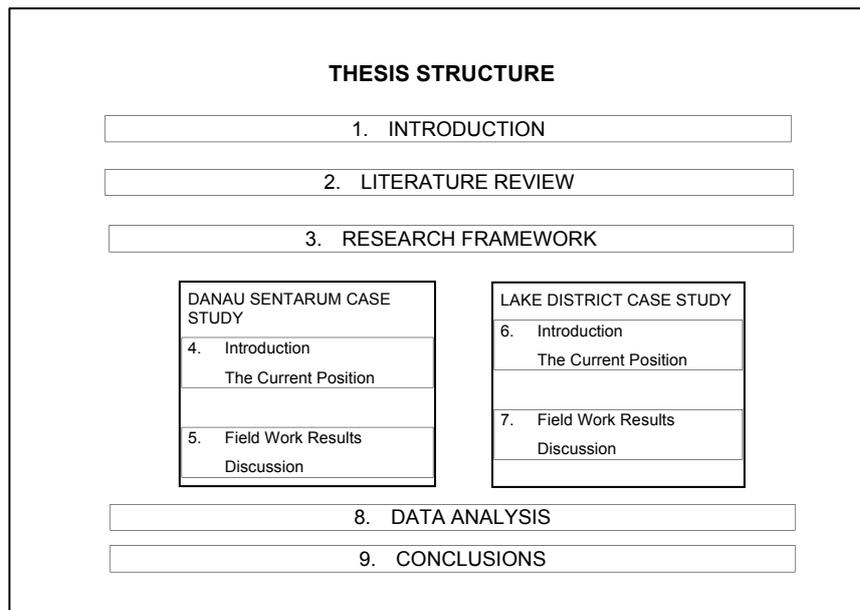


Fig 1.1 Thesis Structure

- 1.5.1 The thesis is presented in 9 chapters as set out in fig 1.1. Following this Introduction is the Literature Review in Chapter 2 which considers research relevant to the key themes and questions. Chapter 3 describes the Research Framework explaining the paradigm adopted, the methodology used, data collection methods and the analytical frameworks.
- 1.5.2 The data in regard to Danau Sentarum is presented in Chapters 4 and 5, with Chapter 4 being current position from secondary sources while Chapter 5 presents the results collected in the field. Chapters 6 and 7 follow the same format for the Lake District.
- 1.5.3 In Chapter 8 the data from the two case studies is drawn together for a comparative analysis using three theoretical frameworks; Legal Pluralism, Institutional Analysis of common property institutions and Adaptive Co-management. The Conclusion in Chapter 9 addresses the research questions and the research problem and highlights the contributions of the thesis to the wider body of knowledge as well as areas where further work is required.
- 1.5.4 In summary this thesis addresses the issue of the governance of common land in National Parks from a legal perspective with a focus on communities in the case study areas of the Lake District in England and Danau Sentarum in

Indonesia. This allows consideration of community governance arrangements from the perspective of resources users whose views are then placed within the wider governance arrangements in each country. Three theoretical frameworks are used to analyse the effectiveness of current governance and identify opportunities for improving governance to deliver a sustainable flow of ecosystem services.

Chapter 2: Literature Review

Introduction

- 2.1.1 This review appraises literature relevant to the research problem from the considerable work undertaken on the governance of commons in protected areas. Key concepts and themes addressed by previous research are explored and the research problem placed in context of those debates and the identified gaps in research. The aim of this chapter is to show how this thesis will advance knowledge on the delivery of ecosystem services in national parks in the light of previous work.
- 2.1.2 The research uses an epistemological approach that knowledge is subjective and socially constructed as it is defined by experience and context. This leads to the adoption of the participatory paradigm developed by Heron and Reason.¹ Further discussion of, and justification for, this approach is given in 3.1.8. Adopting the approach of inductive reasoning this thesis uses two case studies to explore the research problem in the contrasting legal jurisdictions of England and Indonesia hence this review gives particular attention to literature relevant to these countries and sites.
- 2.1.3 Commons are complex social and ecological systems and in addressing the research problem the literature from several disciplines is examined. The first section of the review categorises the literature by discipline with the literature relating to both case study sites and their jurisdiction examined. Next the review considers the key themes relevant to the research and looks at how that layering and interaction affects outcomes in the field. Field based situations require multiple and overlapping concepts to be considered simultaneously but it is worthwhile examining the theoretical debates separately so that in analysing results the underlying tensions can be isolated and considered.

¹ J Heron and P Reason, 'A Participatory Inquiry Paradigm' (1997) 3 *Qualitative inquiry* 274.

2.1.4 As the research for this thesis was undertaken through empirical data collection a brief review of methodological approaches is provided. The final section of the review looks at the factual data available to support the research.

Disciplines, Themes and Debates

2.1.5 The baseline position on common land for each case study is reviewed for four subjects:

- Property Rights Law
- Governance Systems
- Utilisation of Natural Resources
- Ecological Habitats and Processes

2.1.6 Four themes have been identified as current in the literature and relevant to the research question:

- Governance with plural legal frameworks
- Dynamic approach to property rights and obligations
- Integration of community institutions with state structures
- Ecosystem approach to delivering conservation

2.1.7 There are many debates around the subject of governing common land but three questions arise from the gaps identified have been chosen as particularly pertinent to the research problem:

- Are property rights on commons fixed or dynamic?
- Should governance institutions for commons in national parks be voluntary or statutory?
- What motivates commoners to govern for the public good?

Property Rights on Commons

2.2.1 The law governing property rights on Commons is an anachronism. It is as though history has been captured and frozen at different times on different commons. The two case studies countries, England and Indonesia, provide interesting comparators for as their history is varied so the development of

property rights regime also varied. The variation across commons even under a single jurisdiction is also wide due to the inconsistency in the implementation of legislation² and the role of local customary law.³ This section explores current literature on the subject.

Property Rights Theory

2.2.2 In the field of commons management Schlager and Ostrom⁴ define a property right as; the 'authority to undertake particular actions related to a specific domain' and they identify five features of property rights (see below) that enable the nature of the right to be assessed and the user to be categorised. The more features a person has the stronger their right is. It is effectively a spectrum as Quinn⁵ describes in the context of the English uplands, from access being the weakest right and alienation being the strongest.

Access: The right to enter a defined physical property.

Withdrawal: The right to obtain the "products" of a resource

Management: The right to regulate internal use patterns and transform the resource by making improvements.

Exclusion: The right to determine who will have an access right, and how that right may be transferred.

Alienation: The right to sell or lease either or both of the above collective-choice rights.

2.2.3 Schlager and Ostrom associate the first two with typical users of commons: authorised users. The next three rights are for collective management on commons. An authorised user may have the right to participate in management, exclusion and alienation by working with other authorised users or they may not depending on the nature of the rights. Those with all five rights are owners. Those without the right of alienation are proprietors;

² The ability to create statutory schemes of regulation under the Commons Act 1876 was only adopted on 36 of more than 7000 common land units see: GD Gadsden, *The Law of Commons* (Sweet & Maxwell 1988) Appendix 8 438.

³ In England the use of customary law for common land as implemented by Manorial Courts was effectively ended by the abolition of copyhold tenure in 1925 see: *ibid* 236 but due to the lack of a statutory alternative most common land has its own voluntary management regulations. In Indonesia customary law (adat) retains an active parallel legal role to national legislation.

⁴ E Schlager and E Ostrom, 'Property-Rights Regimes and Natural Resources: A Conceptual Analysis' (1992) 68 *Land Economics* 249 250-251.

⁵ CH Quinn and MS Reed and K Hubacek, 'Property Rights in UK Uplands and the Implications for Policy and Management' (paper presented at IASC Conference Cheltenham 2008) 4.

those without the right of exclusion are claimants and with either of the first two are an authorised user.

- 2.2.4 The approach adopted by Schlager and Ostrom takes the same approach as Honore⁶ who defines ten rather than five characteristics of ownership. Rodgers⁷ concludes that this approach leads to a static view of property rights which does not reflect the way rights are being altered by the use of public law instruments and policy as society addresses increasing environmental degradation and pressure on natural resource use. Neither does it capture the dynamic interaction between property rights and environmental legislation or instruments.
- 2.2.5 This bundle of rights theory is not universally acknowledged as appropriate; Arnold⁸ concludes that it is too reductionist and fails to place property law in relationship to the environment the rights exist in and the web of human relations between those who use the property. The work of Arnold on property as a web of interests is particularly relevant to the governance of commons. Property law Arnold argues is about 'things' and the relationships between people who use these 'things'. This he comments echoes back to Leopold's land ethic that property rights holders require a sense of place to develop a sense of stewardship for the environment. Many commoners recognise that their sense of identity is tied up with their common rights: being a commoner defines them.⁹
- 2.2.6 To develop new ideas it is useful to look back. Coyle and Morrow¹⁰ provide a thorough discussion of western philosophers' work on property rights and the environment and also follow the attempts and limitations of common law to address environmental problems and the more recent restriction of individual rights by public statutory law. This resulted from a recognition of environmental problems as diffuse societal externalities rather than a matter to be resolved between two parties through a court action. The link

⁶ T Honore, 'Ownership' in *Making Law Bind: Essays Legal and Philosophical* (Oxford University Press 1987) 107ff.

⁷ C Rodgers, 'Nature's Place? Property Rights, Property Rules and Environmental Stewardship' (2009) 68 *The Cambridge Law Journal* 550-553.

⁸ CA Arnold, 'The Reconstitution of Property: Property As a Web of Interests' (2002) 26 *Harvard Environmental Law Review* 281.

⁹ See for example John Clare's poem, 'The Mores' in J Clare and J Bate, *I Am: The Selected Poetry of John Clare* (Farrar, Straus and Giroux 2003).

¹⁰ S Coyle and K Morrow, *The Philosophical Foundations of Environmental Law: Property, Rights, and Nature* (Hart Pub., 2004) 9-60.

between human well-being and environmental outcomes continues today as a policy debate through the Ecosystem Approach described in 2.6.17-2.6.21.

2.2.7 In particular Coyle and Morrow show how concepts of property were originally based on moral and theological values and only more recently have been reduced to bundles of rights where utilitarian approaches are adopted in decision making.¹¹ They distinguish between private and public law and the rise of the latter, a form of collective control, being a critical development in constraining private rights. Returning to Schlager and Ostrom's five characteristics it is as though even in non common property situations society is adopting the rights of management and exclusion through the enactment of laws such as Wildlife and Countryside Act 1981 and the Countryside and Rights of Way Act 2000. On common land the issue is that there are now two mechanisms for management: local community governance structures and state conservation agencies.

2.2.8 Rodgers¹² concludes property rights are no longer static but dynamic and need to be recognised as such otherwise there will be a permanent tension between policy, public law and private law; this ties in well with Arnold's web of interests. Meizen-Dick and Pradhan¹³ provide an eloquent discourse on the subject clearly stating how legal pluralism requires a dynamic approach to property rights as rights and responsibilities under one legal order will be different from another but all orders operate over the same resources. This subject is returned to in 2.6.2 to 2.6.6.

Property Rights on English Common Land

2.2.9 Gadsden's¹⁴ seminal work, now updated,¹⁵ provides a thorough exposition on the legislation and common law of rights of common from the thirteenth century until 2006. Common land in England is land¹⁶ owned by one person over which one or more people have rights to harvest a

¹¹ *ibid* 15, 88.

¹² Rodgers (n7) 573.

¹³ RS Meizen-Dick and R Pradhan, *Legal Pluralism and Dynamic Property Rights. CGIAR Working Paper 22* (ICRAF 2002) 2.

¹⁴ Gadsden (n2).

¹⁵ EF Cousins et al., *Gadsden on Commons and Greens* (Sweet & Maxwell 2012).

¹⁶ Law of Property Act 1925 s205.

resource e.g. through rights of grazing, turbury or estovers. Common rights are classed as incorporeal hereditaments¹⁷ i.e. are intangible but alienable. Since 28th June 2005 common rights attached to other land, the dominant tenement, cannot be severed.¹⁸

2.2.10 Grazing rights on English common land became quantified and capped by virtue of the Commons Registration Act 1965.¹⁹ There is no ability for the owner or the other commoners to require a commoner to adjust the level of grazing to ensure sustainable use though the state can if the land is designated as a Site of Special Scientific Interest (SSSI). The owner's surplus grazing is only available to the owner if there is enough grazing to satisfy all the common rights.²⁰ The fixed and inflexible position of the last forty years is not representative of the last eight hundred years. Winchester describes the closer relationship between rights of use, carrying capacity and a collective approach to management enforced through manorial courts.²¹ This golden age of good neighbourhood did not last and by the late 18th century Straughton²² shows that the effective collective management of common land and enforcement of levancy and couchancy in England had ceased. As the Royal Commission highlighted in 1958²³ common land urgently needed legislation to clarify who held rights. Without this the Royal Commission predicted effective management was unlikely to be achieved resulting in further degradation of common land.

2.2.11 The outcome of this report was the Commons Registration Act 1965 that required all rights of common to be registered and quantified. The registers not only provided a snapshot of who claimed rights at that time but also

¹⁷ W Blackstone and B Field, *Commentaries on the Laws of England* (J. Grigg 1827) Book 2 Chapter 3.

¹⁸ Commons Act 2006 s9.

¹⁹ CP Rodgers, 'A New Deal for Commons? Common Resource Management and the Commons Act 2006' (2007) 9 *Environmental Law Review* 25 33 though the judgement in *Dance v Savery* (, 2011) requires us to consider the context at the time of the registration as the rights may be split across more than one common.

²⁰ In practice there is often no surplus as most commons have common rights registered in excess of their carrying capacity but the calculation, definition and use of surplus grazing is fraught with uncertainty see: Cousins (n15) 5.04-06.

²¹ AJL Winchester, *The Harvest of the Hills: Rural Life in Northern England and the Scottish Borders, 1400-1700* (Edinburgh University Press 2000) 148-151.

²² EA Straughton, *Common Grazing in the Northern English Uplands 1800-1965* (The Edwin Mellon Press 2008) 108.

²³ *Royal Commission on Common Land 1955-58* Her Majesty's Stationery Office 1958 87.

crystallised the number of common rights for the foreseeable future creating, as Rodgers points out, as many problems as it resolved.²⁴

2.2.12 The other matter to note is that while common rights may be quantified on the commons register they do not exist in a regulatory, legislative or economic vacuum. As McGillivray and Holder point out the combination of private and public law governing commons results in complexity and uncertainty.²⁵ These exogenous factors create an environment of legal pluralism and commoners in England have in the last ten years often chosen to limit the exercise of their private rights for up to ten years in response to these external drivers.²⁶ Not only do these schemes limit grazing but also they change the drivers on local governance.

2.2.13 None of these legal texts indicate the extent to which the exercise of common rights over the last 20 years has been adjusted by management agreements firstly with the Ministry of Agriculture Food and Fisheries and more recently through the government's conservation agency, Natural England.²⁷ The agreements control management on common land usually by reducing sheep numbers for a set period in exchange for an annual financial payment. The purpose is to deliver improvements in vegetation and so protect and increase biodiversity.

2.2.14 The agreements follow the voluntary principle explained by Rodgers²⁸ and while they do not confiscate rights they represent a significant shift in the management of common land and how the government conceives its rights over and duties towards property of high environmental value.²⁹ Rodgers recognises the shift from the purely private, to private rights with management rules dictated by the collective public interest. Short considers this shift from a management standpoint discussing the multi-functional demands on common land.³⁰ What is fascinating and considered in this

²⁴ CP Rodgers et al., *Contested Common Land* (Earthscan 2010) 195-196.

²⁵ D McGillivray and J Holder, 'Locality, Environment and Law: The Case of Town and Village Greens' (2007) 3 *International Journal of Law in Context* 1 3.

²⁶ The key driver has been the introduction of agri-environment schemes e.g. the Environmentally Sensitive Area scheme and subsequently the Environmental Stewardship scheme www.naturalengland.org.uk.

²⁷ Environmental Stewardship is the current English scheme see <http://www.naturalengland.org.uk/ourwork/farming/funding/es/default.aspx>.

²⁸ Rodgers (n7) 139.

²⁹ McGillivray and Holder (n25) 6.

³⁰ C Short, 'The Traditional Commons of England and Wales in the Twenty-first Century: Meeting New and Old Challenges' (2008) 2 *International Journal of the Commons* 192 206.

thesis is the interaction between the plural orders of property rights, statute, contractual agreements and customary law as explored by Pieraccini.³¹

2.2.15 More recently commoners have during negotiations for agri-environment schemes been asking Natural England what happens if a negotiated voluntary settlement cannot be achieved on a SSSI. In that situation the commoners revert to statute law regarding operations liable to damage on SSSIs. s28 of the Wildlife and Countryside Act 1981 (as amended) is the relevant authority and the first step is to investigate if there is an existing consent to graze. Most commoners did not obtain written consent to graze on notification, though they continued grazing at pre-notification levels. When a voluntary scheme expires they are vulnerable as Natural England do not recognise implicit consent as a legal concept. A commoner still owns their right to graze but cannot exercise them on a SSSI without consent from Natural England as grazing is an operation likely to damage.³²

2.2.16 The first legislation on commons after 1965 was the Commons Act 2006 and while it makes no fundamental changes to the register of common rights it does allow for the exercise of common rights to be managed through statutory commons councils.³³ It also furthers government policy to protect the environment through constraining the use of private property rights as commons councils are required to have regard to public interests such as nature conservation, landscape, archaeology and access³⁴ though they are not classified as a government body by s6 of the NERC Act 2006. Commons council once established will be able to restrict the use of common rights and bind all rights holders by a majority vote for instance to reduce stocking levels. This would further erode the notion of fixed rights. This move towards a dynamic property rights regime is a significant shift for the owners of common rights and takes common rights further away from complying with Honore's ten rights associated with ownership.³⁵

³¹ M Pieraccini, 'Sustainability and the English Commons: A Legal Pluralist Analysis' (2010) 12 Environmental Law Review 94 97.

³² Operations Likely to Damage for the Skiddaw Group SSSI
<http://www.sssi.naturalengland.org.uk/Special/sssi/old/OLD1002461.pdf> accessed 23/09/13.

³³ Commons Act 2006 s31(4)(a).

³⁴ Commons Act 2006 s31 (7).

³⁵ Honore (n6).

Property Rights in Indonesia's Protected Areas

2.2.17 The legal framework for Indonesian commons within protected areas

reflects its history as a Dutch colony from the 1600s until 1942 during which time all forest land was the property of the State. Indonesia's immense size and ethnic diversity are also relevant. In practice as Lindsey³⁶ explains in his key work 'Indonesia: Law and Society' legal pluralism existed under Dutch rule as customary law (*adat* and *syariah*) operated alongside colonial legislation.

2.2.18 Independence changed little as the Indonesian constitution³⁷ also vested all natural resources and land in the state effectively ignoring traditional tenure arrangements governed by *hukum adat* (traditional law). As Marr explains this lack of recognition of *adat* rights as ownership rights continues in all forestry legislation from independence until now including the most recent Forestry Law in 1999.³⁸ All protected areas including national parks are designated as state forest land.³⁹ More recently the Ministry of Forestry has formally recognised the contribution of community management systems in protected areas through a decree⁴⁰ allowing for the establishment of collaborative management institutions for protected areas but these confer no ownership rights.

2.2.19 Legal pluralism was further increased by regional autonomy leading to additional layers of public law instruments and increased inconsistencies between different state legal orders. Of particular significance in protected areas is the lack of legitimacy of *adat*⁴¹, which weakens its efficacy as a governance system. Where *adat* remains strong such as in the case study site, Danau Sentarum,⁴² property rights are governed by *adat*. The

³⁶ T Lindsey, *Indonesia: Law and Society* (Federation Press 2008) 97.

³⁷ Undang-undang dasar Republik Indonesia 1945 Artikel 33(3) The Indonesian Constitution.

³⁸ C Marr, 'Forests and Mining Legislation in Indonesia' in T Lindsey (ed), *Indonesia: Law and Society* (2nd edn Federation Press 2008) 253.

³⁹ JM Patlis, 'What Protects Protected Areas? Decentralisation in Indonesia, the Challenges Facing Its Terrestrial and Marine National Parks.' in NS Sodhi et al. (eds), *Biodiversity and Human Livelihoods in Protected Areas: Case Studies From the Malay Archipelago* (Cambridge University Press 2007) 409.

⁴⁰ P.19/Menhut-II/2004 Collaborative Management in Protected Areas.

⁴¹ Patlis (n39) 416.

⁴² W Giesen and J Aglionby, 'Introduction to Danau Sentarum National Park, West Kalimantan' [2000] Borneo Research Bulletin 5 20; Y Yasmi et al., 'Conflict Management Approaches Under Unclear Boundaries of the Commons: Experiences From Danau Sentarum National Park, Indonesia' (2007) 9 International Forestry Review 597 600.

alternative Moeliano⁴³ concludes is that the protected areas become open access and environmental degradation ensues. This is due to the state being distant and having no effective control over resource extraction yet *adat* has no legitimacy as a valid alternative.

2.2.20 *Adat* is not a homogenous set of rules covering the country but is often specific to a locality. It covers all types of issues from marriage, family disputes and religion to agriculture, fishing and land tenure.⁴⁴ There are *adat* leaders and courts are convened when required. In most areas *adat* is a series of oral traditions and rules handed down from one generation to another even where they are highly structured as in Kei.⁴⁵ Written versions if they exist at all often only arose as the outputs of academic or conservation project research.⁴⁶

2.2.21 Rights to access resources in Indonesian protected areas are therefore non statutory and dynamic; the flexibility of *adat* allows for the introduction of new regulations as needed. Eghenter details how *adat* evolved to include rules for biodiversity conservation in Kayan Menterang, a National Park in Kalimantan.⁴⁷ Here *adat* leaders have worked with National Park management to develop community management structures using the *adat* structures as a base to build upon.

2.2.22 The fundamental difference between Indonesian *adat* in Kalimantan and English rights on common land is that in Indonesia the rights are vested in the community and allocated to individuals, often on a temporary basis, while in England common rights are owned by individuals, are enduring and are alienable if not attached to other land. In practice though both require collaboration between the multiple users of the same resource and have developed through community governance institutions described in 2.3.13 and 2.3.22.

⁴³ M Moeliono et al., 'Hands Off, Hands On: Communities and the Management of National Parks in Indonesia.' in *Biodiversity and Human Livelihoods in Protected Areas: Case Studies From the Malay Archipelago* (Cambridge University Press 2008) 181.

⁴⁴ T Lindsey, *Indonesia: Law and Society* (Federation Press 2008) 4 notes the existence of 300 discrete cultures that can be grouped into 19 main categories.

⁴⁵ C Thorburn, 'Adat Law Conflict and Reconciliation: The Kei Islands' in T Lindsey (ed), *Indonesia: Law and Society 2nd Ed* 117.

⁴⁶ E Harwell, *Law and Culture in Resource Management. Consultant's Report to Indonesia-UK Tropical Forestry Management Programme Project 5: Conservation* (Wetlands International 1997) 38.

⁴⁷ C Eghenter, 'What Is Tana Ulen Good For? Considerations on Indigenous Forest Management, Conservation, and Research in the Interior of Indonesian Borneo' (2000) 28 *Human Ecology* 331.

Governance Systems on Commons

2.3.1 GEM-CON-BIO, the EU Project on governance mechanisms to achieve biodiversity conservation, defined governance of biodiversity as; 'the way society at all scales manages its political, economic and social affairs with the aim to **use and conserve** biodiversity.'⁴⁸

2.3.2 The scope of this research is broader than biodiversity but the substitution of 'ecosystem services' for 'biodiversity' amends the above definition to provide a useful definition for the governance of protected areas. This thesis' focus is narrower than all levels of society limiting research to the role of community institutions. In this context Short and Winter in their paper on the governance of English common land provide an alternative definition of governance as:

The decision making structures, mechanisms and systems of administration which influence the operation of management systems. Governance is to do with longer term strategic land management planning whilst management concerns everyday practices.⁴⁹

2.3.3 This section looks at the literature on the theory of institutional sustainability for commons and then specifically at literature on community governance of commons in Cumbria, England and Kalimantan, Indonesia.

Theory of Governance Systems

2.3.4 Many consider the classical work of Ostrom⁵⁰ to be the foundation for setting the conditions for effective common property institutions and these principles have been used to analyse many case studies and researchers have found the model robust.⁵¹ Ostrom's work is based on a rational choice model of institutional analysis and is applicable to a large number of situations from fisheries and irrigation to pastoral grazing and forestry. This

⁴⁸ R Simoncini and G Borrini-Feyerabend and B Lassen, 'Policy Guidelines on Governance and Ecosystem Management for Biodiversity Conservation' (Gemconbio 2008) (original emphasis) <http://www.gemconbio.eu/downloads/booklet_FINAL_Version_20080423.pdf> 5.

⁴⁹ C Short and M Winter, 'The Problem of Common Land: Towards Stakeholder Governance' (1999) 42 *Journal of Environmental Planning and Management* 613 614.

⁵⁰ E Ostrom, *Governing the Commons* (Cambridge University Press 1990) 90.

⁵¹ M Cox and G Arnold and SV Tomás, 'A Review of Design Principles for Community-based Natural Resource Management' (2010) 15 *Ecology and Society* 38 38.

thesis accepts the design principles set out in *Governing the Commons*;⁵² and acknowledges they have been tested empirically in many case studies; but argues that they are not sufficient to deliver an appropriate balance and sustained flow of ecosystem services. With Ostrom's development of the socio-ecological systems framework as described below in 3.3 a more sophisticated approach is possible to placing governance by local communities in context. Brown also reminds us that the use of property rights and enactment of governance is affected by moral values as well as legal rights and formal institutions.⁵³

2.3.5 Relevant to the research problem is not just how local collective action works in the field but how these local institutions can be integrated into other institutional structures that operate different and often hierarchical management structures. In both the case studies the plethora of government institutions are of primary importance. The work of the EU project GEM-BIO-CON looking at Governance and Ecosystem Management for the Conservation of Biodiversity from 2005-2008 examined how governance can be improved to deliver biodiversity. For non-western countries there was a focus on community governance and how government departments interact and work with community organisations. GEM-BIO-CON has produced seven useful policy guidelines for community governance in protected areas that together provide a framework for integrating community governance into conservation initiatives.⁵⁴

2.3.6 The body of research on adaptive co-management is at the centre of how to better govern protected areas. It explicitly recognises the involvement of multiple actors across different scales and that governance must adapt as needed rather than be fixed.⁵⁵ This fits neatly with the concept of dynamic property rights. A similar approach –adaptive collaborative management – has been used in Danau Sentarum and many other tropical forest sites by

⁵² E Ostrom, *Governing the Commons* (Cambridge University Press 1990).

⁵³ K Brown, 'The Role of Moral Values in Contemporary Common Property Enactment' (2006) 60 *Norwegian Journal of Geography* 89 98.

⁵⁴ GEM-CON-BIO, *Biodiversity Benefits from Community Governance: Policy Guidelines for EU Development Policy* (GEM-CON-BIO).

⁵⁵ R Plummer, 'The Adaptive Co-management Process: An Initial Synthesis of Representative Models and Influential Variables' (2009) 14 *Ecology and Society* 24 24.

CIFOR as a research tool to explore the efficacy of adaptive collaborative management.⁵⁶ In the English context Short and Dwyer explored possibilities for co-management in the upland context and concluded co-management must integrate the social and economic interests of pastoralists into conservation schemes.⁵⁷ A group of scholars specialising in adaptive co-management have collectively developed a set of criteria for successful adaptive co-management and this is used in the analysis of the field data.⁵⁸

2.3.7 Brown and Slee as well as Steins and Edwards recognise motivation for governance as a factor in delivering multi-functional outputs.⁵⁹ If institutions are asked to change their purpose e.g. from productivist to conservationist then will they deliver the new services? A local association may be successful in delivering certain provisioning services but not for regulatory services. The author raised this in earlier work⁶⁰ and this thesis provides empirical data to address this matter.

Governance of Common Land in Cumbria, England

2.3.8 Winchester provides a study of common land management systems in Northern England from 1400 – 1700⁶¹ illustrating the central role of the community to effective management of common land. Common land in England is not an example of open access as detailed in Hardin's Tragedy of the Commons.⁶² Instead rights of common are limited and owned.

⁵⁶ CJP Colfer, *The Complex Forest: Communities, Uncertainty, and Adaptive Collaborative Management* (Resources for the Future 2005) 40.

⁵⁷ CJ Short and J Dwyer, 'Reconciling Pastoral Agriculture and Nature Conservation: Developing a Co-management Approach in the English Uplands' (2012) 2 *Pastoralism: Research, Policy and Practice* 13.

⁵⁸ DR Armitage et al., 'Adaptive Co-management for Social-ecological Complexity' (2009) 7 *Frontiers in Ecology and the Environment* 95 101.

⁵⁹ KM Brown and B Slee, 'Salience and Its Implications for Common-Pool Resource Management in Scotland: A Tragedy of a Different Kind' (paper presented to the IASC 2002 Conference, Victoria Falls, Zimbabwe 2002); NA Steins and V Edwards, 'Collective Action in Common-Pool Resource Management: The Contribution of a Social Constructivist Perspective to Existing Theory' (1999) 12 *Society and Natural Resources* 539.

⁶⁰ JCW Aglionby, 'Can Biodiversity, A Public Good, Be Delivered on Common Land Through Management Organisations Founded on Optimising Private Property Rights?' (Presented at the 12th Biennial Conference for the International Association for the Study of Commons, Cheltenham, 2008) <http://iasc2008.glos.ac.uk/conference%20papers/papers/A/Aglionby_104802.pdf> accessed June 25, 2010.

⁶¹ AJL Winchester, *The Harvest of the Hills: Rural Life in Northern England and the Scottish Borders, 1400-1700* (Edinburgh University Press 2000).

⁶² G Hardin, 'The Tragedy of the Commons' 162 *Science* 1243.

2.3.9 In addition common land was frequently until the eighteenth century managed by manorial courts through local byelaws.⁶³ The driving force behind the courts was the lord of the manor with the courts run by the lord's steward primarily to protect his interests rather than as a community governance institution. They were though served by a jury of local men and were used by farmers to bring disputes for resolution. The numerous surviving manor court rolls illustrate the regular passing of fines or amerancements.⁶⁴ Additionally in some areas there were lower courts that had authority from the head court and were run by the local community. Their rulings may or may not have required approval by the head court depending on how they were regulated.

2.3.10 Winchester's conclusion that there was huge variety in governance systems in Cumbria in the early modern period explains why similar variety is found in the current governance of commons as shown in the evidence submitted to the 1958 Royal Commission,⁶⁵ the findings of the Countryside's Management Schemes for Commons⁶⁶ and the Defra commissioned report Agricultural Management of Common Land.⁶⁷ The development of governance systems in Cumbria in the intervening period from 1800 until 1965 is thoroughly covered by Straughton.⁶⁸

2.3.11 The development of English legislation also explains the variation in governance systems for while legislation was enacted from time to time to allow for regulation of common land it was always optional: commons could apply to be regulated but were not required to enter a statutory scheme. The key legislation is described in Gadsden⁶⁹ and includes the Inclosure Acts 1773 and 1845 and the Metropolitan Commons Act 1866 and Commons Act 1876.

⁶³ AJL Winchester, 'Statute and Local Custom: Village Byelaws and the Governance of Common Land in Medieval and Early-modern England' (Presentation to the 12th Biennial Conference of the IASC, Cheltenham 2008) 37.

⁶⁴ CP Rodgers et al., *Contested Common Land* (Earthscan 2010) 97.

⁶⁵ *Royal Commission on Common Land 1955-58* Her Majesty's Stationery Office 1958 239-251.

⁶⁶ R Berger, 'Management schemes for commons. A study undertaken for the Countryside Commission on behalf of the Common Land Forum' (Countryside Commission 1985).

⁶⁷ Land Use Consultants, 'Agricultural Management of Common Land in England and Wales' (Defra 2005) accessed 22 April 2009.

⁶⁸ EA Straughton, *Common Grazing in the Northern English Uplands 1800-1965* (The Edwin Mellon Press 2008).

⁶⁹ Gadsden (n2) 334-376.

- 2.3.12 The legislation covering Dartmoor Commons⁷⁰ does not directly affect the governance of common land in Cumbria but is of relevance as it illustrates how local commons associations can be federated under an over arching or umbrella statutory institution to provide legal authority to strengthen governance. This model was adopted by the Cumbrian case study of the Shadow Commons Council project funded by Natural England.⁷¹
- 2.3.13 Statutory governance in Cumbria ceased in all except four regulated commons in 1925 but voluntary commoners associations have continued to govern common land. There are now approximately 60 separate associations governing over 100,000 ha of common land and in 2003 the Federation of Cumbria Commoners⁷² was formed to share experience between commons, provide protection for commoners, and lobby for agricultural and environmental policy that is appropriate to common land.
- 2.3.14 Many of the 60 associations were formed, reinvented or bolstered in their governance roles by the introduction of the agri-environment schemes in 1993. These allow commoners to collaborate and agree a management plan with the government for a ten year period. The interesting matter from a governance perspective is that commoners have a financial incentive to comply with the rules of the association for if they do not then payments can be withheld.⁷³ In some cases agreement cannot be reached, or takes years to achieve, as consensus among all commoners is required. The constraints of voluntary governance systems are recognised by Natural England as a reason why more common land is in unfavourable condition than land in single ownership.⁷⁴ These failures are though small compared to the number of successful agreements managed by voluntary associations.
- 2.3.15 There is large gap in research on the efficacy of voluntary associations to deliver public as well as private goods and services. The challenge is to filter out the reasons why for instance favourable condition of a SSSI on a common has not been achieved after ten years in an agri-environment

⁷⁰ Dartmoor Commons Act 1985 see Schedule 3.

⁷¹ JCW Aglionby, 'Cumbria Shadow Commons Council Final Report' (H&H Bowe Limited 2009).

⁷² <http://www.cumbriacommoners.org.uk/>.

⁷³ Land Use (n67) 104.

⁷⁴ Natural England, 'State of the Natural Environment 2008' (Natural England 2008) accessed 8 March 2009.

scheme. It may be because the scheme prescriptions were wrong, it may be due to a failure of governance or it may be that recovery is a long process and recovery is occurring but progress is slow though my earlier reflections on practice offer some pointers.⁷⁵

2.3.16 As a result of the Commons Act 2006⁷⁶ statutory governance of common land is an option as statutory commons councils can be established. The opportunities offered by a statutory governance system are explored in this thesis. To date aside from the case study for Natural England there has been limited research on the suitability of Councils.⁷⁷ Furthermore there has been no research on whether or not Councils will enable commoners to meet the multiple functions sought from common land as detailed by Short.⁷⁸

Governance of Common Property Resources in Kalimantan, Indonesia

2.3.17 As *adat* varies considerably across Indonesia this section will be limited to the literature on Kalimantan, which comprises the majority of the island of Borneo. Kalimantan does not have a documented history of *adat* governance systems for common property but anthropological research indicates that *adat* management dates from time immemorial.⁷⁹

2.3.18 In the last twenty years there have been considerable efforts to gather data on community management systems to assist with the management of national parks.⁸⁰ This is on the premise that the integration of local communities into national park management is essential, that moving people out is politically unacceptable and that the state does not have sufficient resources to police their activities. Self-enforcement through

⁷⁵ Aglionby (n60).

⁷⁶ Commons Act 2006 Part 2-Management and for more detail on the likely secondary legislation see Defra's consultation document on the implementation of Part 2 <http://www.defra.gov.uk/corporate/consult/commons-act/consultation-%20doc-commons-councils.pdf>.

⁷⁷ Rodgers (n64) 74-77.

⁷⁸ C Short, 'The Traditional Commons of England and Wales in the Twenty-first Century: Meeting New and Old Challenges' (2008) 2 *International Journal of the Commons* 192 619.

⁷⁹ RL Wadley and CJP Colfer, 'Sacred Forest, Hunting, and Conservation in West Kalimantan, Indonesia' (2004) 32 *Human Ecology* 313 319.

⁸⁰ see C Eghenter, 'Social Science Research As a Tool for Conservation: The Case of Kayan Mentarang National Park (Indonesia)' [2004] *Policy Matters* 224; LS Horowitz, 'Integrating Indigenous Resource Management with Wildlife Conservation: A Case Study of Batang Ai National Park, Sarawak, Malaysia' (1998) 26 *Human Ecology* 371.

traditional management systems is therefore a key management strategy even if these communities have no legal tenure in protected areas.⁸¹

2.3.19 Conservation projects have been important catalysts of research into governance systems as in Danau Sentarum⁸² and Kayan Menterang.⁸³ Elsewhere NGOs with a political agenda have been active in recording and publicising *adat* forest management systems.⁸⁴

2.3.20 In Danau Sentarum Yasmi et al describe the Dyak and the Melayu *adat* systems in relation to resource conflict.⁸⁵ The Melayu are original inhabitants of the Kapuas basin while the Dyak came to Danau Sentarum in waves from Sarawak but have been permanently resident in the area for over 150 years.⁸⁶ Each developed its own systems of *adat*, with religious differences creating a different background against which resource management occurs. The Dyak are Christians with a strong loyalty to their ancestral belief systems while the Melayu converted to Islam from the 17th century onwards.

2.3.21 From 1992-1997 the UK-Indonesia Tropical Forest Management Programme had Danau Sentarum as the focus of its conservation project. Much research came out of this: some is in international journals and books the remainder is in project reports available in Indonesia. It was a bilateral government project and the project staff (including the author) worked with the Indonesian forest service to collect data, undertook conservation activities and prepared a management plan for the site.

⁸¹ JM Pattis, 'What Protects Protected Areas? Decentralisation in Indonesia, the Challenges Facing Its Terrestrial and Marine National Parks.' in NS Sodhi et al. (eds), *Biodiversity and Human Livelihoods in Protected Areas: Case Studies From the Malay Archipelago* (Cambridge University Press 2007) 424.

⁸² GZ Anshari and NW Handayani, *Aturan-aturan Tradisional: Basis Pengelolaan Taman Nasional Danau Sentarum* (Wana Aksara 2005); Y Yasmi et al., 'Conflict Management Approaches Under Unclear Boundaries of the Commons: Experiences From Danau Sentarum National Park, Indonesia' (2007) 9 *International Forestry Review* 597.

⁸³ C Eghenter, 'Social, Environmental and Legal Dimensions of Adat As An Instrument of Conservation in East Kalimantan' in FM Cooke (ed), *State, Communities and Forests in Contemporary Borneo* (ANU E Press 2005).

⁸⁴ S Masiun, 'Dayak NGO Responses to National Legal and Policy Frameworks Affecting Adat Governance in Indonesia' (IASC 2000) 3.

⁸⁵ Y Yasmi et al., 'Conflict Management Approaches Under Unclear Boundaries of the Commons: Experiences From Danau Sentarum National Park, Indonesia' (2007) 9 *International Forestry Review* 597

⁸⁶ RL Wadley, 'The History of Displacement and Forced Settlement in West Kalimantan, Indonesia' in D Chatty and M Colchester (eds), *Conservation and Mobile Indigenous Peoples: Displacement, Forced Settlement, and Sustainable Development* (Berghahn Books 2002) 322.

- 2.3.22 As part of this project, effort was made to collect and record the rules of traditional resource management systems⁸⁷ and the spatial areas to which they applied, the work areas (*wilayah kerja*).⁸⁸
- 2.3.23 Danau Sentarum is divided into over 45 work areas each with its own set of rules for resource use which are enforced by the head fisherman or village head (if there is one). The literature on adat shows that it can be adaptive to changes in the environment whether physical, social and technological. For instance research found that many communities have rules about *jermal*, a fine static nylon fishing net, and also restrictions on chainsaws.⁸⁹
- 2.3.24 The Indonesian government in 2004 recognised that communities can play a key role in managing protected areas through their decree on co-management.⁹⁰ This is a key step in allowing adat systems to evolve and work in partnership with protected area forestry officers to deliver public benefits and meet livelihood needs. The community boards set up in Kayan Menterang provide a model, though these predated the ministerial decree.
- 2.3.25 While co-management was proposed and explored in Danau Sentarum it has not yet been implemented so there is no literature on the success or otherwise of such an approach. Research has explored how *adat* can address resource management conflicts and demonstrates how communities can become engaged in working through environmental problems,⁹¹ which makes it clear that a thorough understanding of *adat* systems is essential for resolving resource management disputes.
- 2.3.26 The Centre for International Forestry (CIFOR), a CGIAR research institution, has used Danau Sentarum as one of its sites for its Forests and Governance programme working in collaboration with Yayasan Riak Bumi a local NGO. The project, 'Promoting Good Governance of Danau

⁸⁷ J Aglionby, 'Final Report of the Associate Professional Officer (Environmental Economist) Project 5 Conservation' (UK-Indonesia Tropical Forestry Management Programme 1995) 11.

⁸⁸ RL Wadley et al., 'The 'Social Life' of Conservation: Lessons From Danau Sentarum' (2010) 15 Ecology and Society 39 38.

⁸⁹ J Aglionby, 'Final Report of the Associate Professional Officer (Environmental Economist) Project 5 Conservation' (UK-Indonesia Tropical Forestry Management Programme 1995).

⁹⁰ P.19/Menhut-li/2004 2004.

⁹¹ Y Yasmi et al., 'Conflict Management Approaches Under Unclear Boundaries of the Commons: Experiences From Danau Sentarum National Park, Indonesia' (2007) 9 International Forestry Review 597 607.

Sentarum National Park under Decentralization' used participatory action research (PAR) tools,⁹² and produces accessible newsletters.⁹³

Resource Utilisation

Pastoral Commoning in Cumbria

- 2.4.1 The primary use of common rights in Cumbria is for grazing sheep though some ponies and cattle are also grazed. The amount and type of grazing that occurs is affected by economic and policy drivers affecting the flow of environmental goods and services. These include the vegetation and wildlife on the land as well as the quality and quantity of water running off and the carbon storage capacity of the land.⁹⁴
- 2.4.2 Literature on resource use derives from two main perspectives, farming research and nature conservation research. They have different agendas with the former focusing on optimising production and supporting farming businesses and the later on delivering conservation objectives.
- 2.4.3 There is limited literature on optimal grazing of common land but Straughton and Winchester describe instances of overgrazing from common land in manorial records.⁹⁵ While biodiversity of vegetation was not a concern these records indicate farmers were aware of the agricultural carrying capacity of common land.
- 2.4.4 In 2004 the Federation of Cumbrian Commoners produced a guideline of best practice for stock and grazing management⁹⁶ but this does not attempt to define sustainable grazing levels. Condliffe⁹⁷ describes the impact of policy on grazing levels and how they increased significantly from 1950 – 2000 as a result of the incentives of agricultural support, in particular headage payments. From 1995 the first Environmentally Sensitive Area schemes were introduced trying to correct this incentive but

⁹²http://www.cifor.cgiar.org/publications/pdf_files/research/governance/DSNPpresentation_for_Turkey_CCA_Workshop.pdf.

⁹³ http://www.cifor.cgiar.org/Research/Governance/Projects/danau_sentarum.htm.

⁹⁴ I Condliffe, 'Policy Change in the Uplands' in *Drivers of Environmental Change in Uplands* (Routledge 2009) 71.

⁹⁵ AJL Winchester and EA Straughton, 'Stints and Sustainability: Managing Stock Levels on Common Land in England, C. 1600-2006' (2010) 58 *Agricultural History Review* 30-31.

⁹⁶ Federation of Cumbria Commoners Guide of Good Practice Stock and Grazing Management <http://www.cumbriacommoners.org.uk/2007/html/guides.html>.

⁹⁷ Condliffe (n94) 67.

it was not until 2005 that headage payments stopped.⁹⁸ More recent data from Defra's annual June survey data⁹⁹ indicates that sheep numbers have reduced substantially since foot and mouth, the removal of headage payments and the introduction of environmental stewardship.

2.4.5 The research of Gardner et al¹⁰⁰ at two upland ADAS government stations looks carefully at the choices upland farmers can make with regard to grazing moorland and the impacts of government support payments on the economics of upland farming. Their conclusion that upland farming is financially dependent on government support schemes is echoed by the National Trust's research into 60 of their tenanted farms¹⁰¹ and by the Lake District National Park Partnership Report into Profitable Farming.¹⁰²

2.4.6 Natural England's predecessor, English Nature, produced a number of documents on sustainable grazing as part of their Sustainable Grazing Initiative Project 2001-2004 as they sought to bring large areas of moorland designated as Sites of Special Scientific Interest into favourable condition.¹⁰³ This and their more detailed Upland Management Handbook¹⁰⁴ provide specific guidance on stocking rates for the restoration and maintenance of different upland habitat types. Almost all common land in Cumbria falls into the upland category. The guidance given in these publications is focused on sustainability from the perspective of vegetation not the sustainable agricultural carrying capacity.

2.4.7 In 2008 The Pastoral Commoning Network undertook research for Natural England that provides detailed information on past, current and perceptions of future grazing patterns on actively grazed common land.¹⁰⁵ The conclusion was that the number of commoners actively grazing has

⁹⁸ Condliffe (n94) 74.

⁹⁹ Defra Livestock Data 1866-2012 accessed 25/09/13 at <http://webarchive.nationalarchives.gov.uk/20130103014432/http://www.defra.gov.uk/statistics/foodfarm/landuse/livestock/junesurvey/junesurveyresults/>.

¹⁰⁰ SM Gardner and A Waterhouse and CNR Critchley, 'Moorland Management with Livestock: The Effect of Policy Change on Upland Grazing, Vegetation and Farm Economics' in A Bonn et al. (eds), *Drivers of Change in Upland Environments* (Routledge 2009).

¹⁰¹ *Impact of CAP Reform on the English Uplands. A National Trust Discussion Paper* National Trust 2005.

¹⁰² Profitable Farming in the Lake District National Park A report for the LDNP Partnership undertaken by the Centre for Rural Economy, Newcastle University (forthcoming).

¹⁰³ English Nature, 'Sustainable grazing in the English uplands' (English Nature 2004) accessed 15 June 2010.

¹⁰⁴ J Backshall et al., *The Upland Management Handbook* (English Nature 2001).

¹⁰⁵ Pastoral Commoning Partnership and H&H Bowe, *Trends in Pastoral Commoning (NECR001)* Natural England 2009.

decreased and is predicted to decrease further over the next twenty years. This research is therefore similar in conclusion to general research on the future of livestock farming in the uplands as shown by Burton et al.¹⁰⁶

2.4.8 Grazing levels on common land have declined significantly since 1993¹⁰⁷ when commons started to enter agri-environment schemes and in Cumbria sharp decreases were seen post foot and mouth when English Nature entered into a range of schemes with farmers to reduce stock numbers to allow vegetation recovery. These included purchase of common rights, capital payments for five year reductions and upgrading of ESA schemes and have resulted in for disruption of hefting and traditional management.¹⁰⁸

Resource Utilisation in Danau Sentarum, Kalimantan

2.4.9 A large number of different resources are harvested from Danau Sentarum making the situation more complex than English common land. Good baseline data from the 1990s is available as the UK-ITFMP undertook considerable research into patterns of resource use by local communities in the area that was Danau Sentarum wildlife reserve (DSWR).¹⁰⁹

2.4.10 The most detailed data is in project reports but useful summaries are available in the 2000 issue of the Borneo Research Bulletin dedicated to Danau Sentarum.¹¹⁰ This includes articles on fishing, rattan, honey, turtles and data on patterns of resource consumption. These articles are by consultants and researchers who worked on the project over extended periods during the project. The economics of resource utilisation in DSWR including a comparison of the financial value of different resources used is provided by Aglionby¹¹¹ who also collected baseline data on populations, resource use and resource governance in 42 communities in DSWR.¹¹²

¹⁰⁶ R Burton et al., 'Social Capital in Hill Farming' (International Centre for the Uplands 2005) 14.

¹⁰⁷ Pastoral Commoning (n105).

¹⁰⁸ RSPB, 'Changing livestock numbers in the UK Less Favoured Areas /an analysis of likely biodiversity implications' (RSPB 2012).

¹⁰⁹ Danau Sentarum Wildlife Reserve was extended from 80,000 ha to 132,000 ha when the area was declared as a National Park in 1999 by decree SK34/Kpts-II/1999.

¹¹⁰ Borneo Research Bulletin Vol 31 2000.

¹¹¹ J Aglionby, 'Community Management of Danau Sentarum Wildlife Reserve' in K King and W Giesen (eds), *Incremental Costs of Wetland Conservation* (Wetlands International 1997).

¹¹² Aglionby (n87).

2.4.11 As only three of the 42 villages in the wildlife reserve boundary were Dyak communities they were less researched under the UK-ITFMP. Useful data is provided by Wadley who lived in an Iban community on the periphery of DSNP.¹¹³

2.4.12 More recently the threat to DSNP has come in part from the conversion of lands immediately surrounding the park to oil palm plantations.¹¹⁴ As well as potential downstream effects on habitats, land conversion will increase demand on DSNP and this is explored in this research through the field interviews.

Ecological Habitats and Processes

2.5.1 One of the key targets of this research on improving governance is delivery of public goods and services through the conservation of natural ecological processes and habitats. This requires a clear understanding of what the current resource base is and how environmental change and human pressures affect habitats. No primary research in this area was carried out for this thesis but existing literature informed the design of empirical data collection on governance systems.

Ecosystem Services

2.5.2 Internationally there has been a shift from biodiversity and habitat conservation to adopting an ecosystems approach focusing on ecosystem services. Rather than relying on the intrinsic value of biodiversity conservation, an ecosystems approach integrates conservation of natural resources with sustainable development objectives as indicated in the Convention on Biodiversity (CBD).¹¹⁵ The United Nations Secretary-General established the Millennium Ecosystem Assessment programme in 2004 whose objective, “was to assess the consequences of ecosystem change for human well-being and the scientific basis for action needed to

¹¹³ Wadley and Colfer (n79).

¹¹⁴ L Yuliani et al., 'Biofuel Policies and Their Impact on Local People and Biodiversity: A Case Study From Danau Sentarum' (2010) 41 Borneo Research Bulletin 109.

¹¹⁵ Conference of Parties – Convention of Biodiversity (COP-CBD).

enhance the conservation and sustainable use of those systems and their contribution to human well-being.”¹¹⁶

- 2.5.3 In England this shift has occurred as well.¹¹⁷ Defra is implementing the ecosystem services programme which has commissioned a number of research projects to explore the ecosystems approach, value ecosystem services and to develop ways of incorporating an ecosystems approach into policy and schemes such as environmental stewardship.¹¹⁸
- 2.5.4 Ecosystem services are the processes by which the environment produces resources utilised by humans such as clean air, water, food and materials.¹¹⁹ They include supporting services, provisioning services, regulating services and cultural services.¹²⁰
- 2.5.5 At an international level the IUCN’s Commission on Ecosystem Management categorised the 12 principles of the ecosystem approach, as identified by the CBD, into 5 steps and reported case studies provide practical guidance on implementing the ecosystem approach.¹²¹ In this report Shepherd identified the role of institutions as a gap in the 12 principles for delivering an ecosystems approach.¹²² If an ecosystems approach is to be adopted it must be capable of being integrated into existing institutional structures; there is no clean drawing board on which it can be laid. It concludes that the Ecosystems Approach while useful in analysing problems will only be effective in delivering solutions if all key stakeholders buy into the process.¹²³
- 2.5.6 Kayoi, Wells and Shepherd provide a case study from Indonesia and demonstrate that while national forest policy has not yet adopted an ecosystems approach steps can be made at the provincial level to address

¹¹⁶ Millennium Assessment, *Ecosystems and Human Well-being* (Island Press 2005).

¹¹⁷ CT Reid, 'The Privatisation of Biodiversity? Possible New Approaches to Nature Conservation Law in the UK' (2011) 23 *Journal of Environmental Law* 203 219.

¹¹⁸ S O’Gorman and C Bann, 'Valuing England’s Terrestrial Ecosystem' a report to Defra' (Jacobs 2008); R Haines-Young and M Potschin, 'The Ecosystem Concept and the Identification of Ecosystem Goods and Services in the English Policy Context. Report to Defra (NR0107)' (University of Nottingham 2007) .

¹¹⁹ <http://www.ecosystems-services.org.uk/ecoserv.htm>.

¹²⁰ Millennium Assessment, *Ecosystems and Human Well-being* (Island Press 2005).

¹²¹ G Shepherd, *The Ecosystem Approach Learning From Experience* (IUCN 2008).

¹²² *ibid* 18.

¹²³ *Ibid* 20.

poverty and social justice through forest management.¹²⁴ This is on the premise that sustainable forest management will not occur without improved livelihood standards. They use the case of Papua as a resource rich province with high levels of poverty (in many ways similar to Kalimantan) to demonstrate the role of community based management of forests as a necessary step in delivering effective forest management both for commercial and protected forests.

- 2.5.7 The delivery of ecological goods and services has therefore moved from a process based on biological and physical sciences to integrated management where conservation and development objectives are considered together.

The Ecology and Ecosystem Services of Common Land in The Lake District, Cumbria

- 2.5.8 An overview of the ecology of the Lake District is provided by the Cumbria Fells Natural Character Area Profile.¹²⁵ Within this the majority of the Lake District High Fells Special Area of Conservation is common land.¹²⁶ The Lake District is the most mountainous of England's national park and therefore provides habitats rarely found elsewhere in England. The Lake District fells are nationally significant for montane habitats, blanket bog, upland calcareous grassland, upland heathland and rivers and streams.

- 2.5.9 The Biological Survey of Common Land provides specific data on the biology of Cumbrian Common Land; this was a national project commissioned by English Nature and provides detailed information on England's Common Land on a county by county basis.¹²⁷

- 2.5.10 Until 2007 Natural England focused on habitat conservation and in particular conserving habitats designated as SSSI. With the shift in focus at a policy level to the Ecosystem Approach there is more emphasis on conserving the full range of public goods and services that the uplands

¹²⁴ M Kayoi and A Wells and G Shepherd, 'Indonesian Papua: Poverty and Natural Resources' in *The Ecosystem Approach Learning From Experience* (IUCN 2008).

¹²⁵ Natural England, 'National Character Area 8: Cumbria High Fells' (Natural England 2012) accessed 10 April 2013.

¹²⁶ Land with the highest international designation of Special Area of Conservation <http://www.jncc.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0012960>.

¹²⁷ Aitchison J and K Crowther and M Ashby and L Redgrave, *The Common Land of Cumbria. A Biological Survey* Department for Environment, Transport and the Regions and Rural Surveys Research Unit, University of Wales, Aberystwyth 2000.

produce. Examples are Natural England's Upland Futures project¹²⁸ and the Climate Change Character Area Project. The Cumbria Fells report for the latter provides a summary of the public goods and benefits and how these are likely to be affected by the predicted changes in the climate over the next 50 years.¹²⁹

2.5.11 The Upland Futures project developed a vision for the uplands as it might be in 2060 looking at the range of ecosystem services that flow from the uplands.¹³⁰ Reid, the project lead from Natural England, wrote with others¹³¹ on ecosystem services as the new rationale for conserving upland environments and her team have produced a series of posters outlining some of these services as a first step in acknowledging that conservation of the uplands needs to be made relevant to society. They suggest that achieving a sustainable flow of services is more likely if society and stakeholders recognise and value the multiple benefits upland management delivers.

2.5.12 The Upland Vision was withdrawn as a policy document in 2012 as Natural England recognised it was not a vision shared by farmers and private landowners and therefore alienated them from their 'customers'¹³² but many of the principles remain current in conservation policy for common land in the Lake District. Government's commitment to deliver the targets in: Biodiversity 2020, Lawson's vision¹³³ and the Water Framework Directive¹³⁴ is driving support for farmers that focuses on biological and physical environmental deliverables rather than cultural landscape, communities or businesses.

¹²⁸ Natural England, 'Ten principles to guide our approach to securing the future of England's upland environment' (Natural England 2008).

¹²⁹ Natural England, 'Responding to the impacts of climate change on the natural environment: The Cumbria High Fells' (Natural England 2009) accessed 17 October 2013.

¹³⁰ N England, 'Vital Uplands A 2060 vision for England's upland environment' (Natural England 2009) now withdrawn from Natural England's website but can be accessed at <http://www.jmt.org/assets/john%20muir%20award/vital%20uplands%20a%202060%20vision%20for%20england%20s%20upland%20environment.pdf>.

¹³¹ A Bonn and M Rebane and C Reid, 'Ecosystem Services' in T Allot and K Hubacek and J Stewart (eds), *Drivers of Environmental Change in Uplands* (Routledge 2009) 448.

¹³² <http://www.fwi.co.uk/articles/12/04/2012/132370/natural-england-scraps-50-year-vision-for-uplands.htm> .

¹³³ JH Lawton et al., 'Making Space for Nature: a review of England's wildlife sites and ecological network: Report to DEFRA' (2010) 66.

¹³⁴ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

The Ecology of Danau Sentarum National Park, Indonesia

2.5.13 The baseline ecology was well surveyed under the UK-ITFMP. Giesen spent a year surveying the site and preparing a report to justify this major conservation project.¹³⁵ Aside from project reports, data on the ecology is also well reported in the first special issue of the Borneo Research Bulletin as referenced in 2.4.10. This covers flora and vegetation, wildlife, birds, proboscis monkeys, crocodiles and orangutan. Detailed surveying of the fish species for which the lake systems are internationally renowned was undertaken during the project by Kottelat and his results including four new species are summarised in the article on wildlife by Jeanes.¹³⁶

2.5.14 Since 1997 there has been less ecological research in Danau Sentarum but there has been continued work on the impact of fire on the landscape. Dennis led this working closely with local communities and using GIS data to address the causes and effects of fires in Danau Sentarum that are a major threat to the ecology of the site.¹³⁷ Ecological work otherwise has focused on the declining orangutan population whose decline is being accelerated by the development of palm oil plantations and logging.¹³⁸ There has been work on carbon storage undertaken by Anshari demonstrating the enormous volume of carbon stored in the peat soils.¹³⁹

¹³⁵ Giesen W, *Danau Sentarum Wildlife Reserve - Inventory, Ecology and Management. Report commissioned by World Wildlife Fund for Nature* PHPA 1987.

¹³⁶ K Jeanes and E Meijaard, 'Danau Sentarum's Wildlife Part 1 and 2' (2000) 31 Borneo Research Bulletin 150.

¹³⁷ R Dennis and A Erman and E Meijaard, 'Fire in the Danau Sentarum Landscape' (2000) 31 Borneo Research Bulletin 123.

¹³⁸ M Ancranes, 'Consultancy on Survey Design and Data Analysis at BKNP, Indonesia. Report to WWF Germany' (2006).

¹³⁹ G Anshari et al., 'Environmental Change and Peatland Forest Dynamics in the Lake Sentarum Area, West Kalimantan, Indonesia' (2004) 19 Journal of Quaternary Science 637.

Research Themes

2.6.1 This thesis will focus on four themes which are introduced here.

Governance with plural legal frameworks

- 2.6.2 Accepting legal pluralism, the co-existence of two or more sets of rules,¹⁴⁰ is a necessary approach to addressing the governance of common land subject to state controls and community management. This is because legal pluralism, as von Benda-Beckmann comments, explicitly recognises that one person can be subject to multiple sets of rules in the same geographical location and that there is not a clear hierarchy of which set takes precedence.¹⁴¹ As Holder and Flessas state the legal instruments commons are subject to challenge traditional hierarchical legal orders.¹⁴² In both case studies in this thesis there are local community regulations, statutory laws, and international laws and regulations and within each of these categories there are conflicting laws and regulations. As Reid¹⁴³ says conservation law in the UK is fragmented and the position is no better in Indonesia.¹⁴⁴
- 2.6.3 Legal pluralism came to prominence through anthropologists responding to the friction between traditional and colonial laws. Griffiths in his seminal paper¹⁴⁵ explains that early scholars still considered state law had primacy i.e. were centrist in philosophy and were concerned with resolving the conflicts between statutory and non formal systems. Griffiths' changed this and others and Merry¹⁴⁶, von Benda-Beckmann¹⁴⁷ and more recently Melissaris¹⁴⁸ built on this work and with increasing radicalism challenge this belief to adopt a normative approach that does not give primacy to state law.

¹⁴⁰ J Griffiths, 'What Is Legal Pluralism' (1986) 24 J. Legal Pluralism 1.

¹⁴¹ F von Benda-Beckmann, 'Who's Afraid of Legal Pluralism' (2002) 47 J. Legal Pluralism & Unofficial L. 37.

¹⁴² JB Holder and T Flessas, 'Emerging Commons' (2008) 17 Social & Legal Studies 299 301.

¹⁴³ CT Reid, 'The Privatisation of Biodiversity? Possible New Approaches to Nature Conservation Law in the UK' (2011) 23 Journal of Environmental Law 203 206.

¹⁴⁴ Lindsay (n36).

¹⁴⁵ Griffiths (n140).

¹⁴⁶ SE Merry, 'Legal Pluralism' (1988) 22 Law & Society Review 869.

¹⁴⁷ F von Benda-Beckmann, 'Comment on Merry' (1988) 22 Law and Society Review 897.

¹⁴⁸ E Melissaris, 'The More the Merrier? A New Take on Legal Pluralism' (2004) 13 Social & Legal Studies 57.

- 2.6.4 Legal pluralism is becoming more accepted as a methodological tool of analysis, see Berman,¹⁴⁹ as its advantages are recognised and legal centralism too often fails to deliver. This is particularly in the age of overlapping global legal orders. For instance in addition to the customary law - state law dichotomy legal pluralism is now used for addressing conflicts between national and international legal systems. Natural resource managers have also adopted pluralism as an appropriate framework to analyse problems of multiple regulatory systems over one resource as shown by the work of Woolenberg.¹⁵⁰
- 2.6.5 In regard to common land legal pluralism requires an acceptance of multiple regulatory systems over the same area of land and resources. Some of these regulations may not be considered as laws and in this thesis will be referred to as normative orders. In effect they act as legal orders as they provide the framework within which individuals make decisions on how to use resources and non-compliance results in sanctions.
- 2.6.6 The majority of the research on legal pluralism is fascinating but being descriptive fails to provide a structure for analysis, ordering and comparison of field evidence and hence pointers for future management and policy. This is where the work of Tamanaha¹⁵¹ is considered a major breakthrough acting as a bridge between the common sense philosophy and natural justice of anthropologists and the logical practice of positive lawyers. This thesis therefore adopts Tamanaha's typology of normative orders as one of the analytical frameworks for the field data analysis.¹⁵²

A Dynamic approach to property rights and obligations

- 2.6.7 Adopting legal pluralism means a dynamic approach to property rights is inevitable as property rights under one order will conflict with those under another order. Adjustments will be made in practice even if not formally. Rodgers¹⁵³ demonstrates this, showing that European schemes and national nature conservation designations can result in changes to private

¹⁴⁹ PS Berman, 'Global Legal Pluralism' (2007) 80 Southern California Law Review 1155 1188.

¹⁵⁰ E Woolenberg and J Anderson and C Lopez, *Though All Things Differ: Pluralism As a Basis for Cooperation in Forests* (CIFOR 2005).

¹⁵¹ BZ Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' (2008) 30 Sydney L. Rev. 375.

¹⁵² *ibid* 397.

¹⁵³ Rodgers (n7) 138.

property rights. The clash of different legal codes can result in both temporary and permanent changes in property rights. For instance a Site of Special Scientific Interest (SSSI) designation imposes permanent restrictions on the use of a resource while an agri-environment management agreement under an EU regulation will be for a set period.

2.6.8 The literature can be separated into two categories: that which celebrates the benefits of dynamic property rights from a normative stance, and that where a more positive legal approach is used to demonstrate that fixed rights are in practice malleable and thus more complex than at first sight.

2.6.9 In the first category is the work of the anthropologists and institutional social scientists from the field of developing countries research and includes the von Benda-Beckmanns¹⁵⁴ and Meizen-Dick and Pradhan.¹⁵⁵

2.6.10 In the second category is the research of environmental lawyers including Arnold¹⁵⁶ and Rodgers whose studies relate to western jurisdictions with a traditional reliance on a single legal code, statutory law. Both of these criticise the static bundle of rights approach of Honore and Schlager and Ostrom as does Gray¹⁵⁷ a clear and vocal opposer of the permanency of property rights. Arnold adopts the metaphor of a web of interests reconnecting the object of property with the various people that have an interest in it and comments on the need for an adaptable approach to property if government regulation is to be effective.¹⁵⁸ Rodgers proffers a new paradigm for the English situation; dynamic *property management rules* that constrain how property can be used though property remains as quintessentially private though subject to the public interest (quasi-private).¹⁵⁹

2.6.11 Both groups recognise the need to be aware of the complexity of property rights in relation to environmental resources and that it is this complexity,

¹⁵⁴ F von Benda-Beckmann and K von Benda-Beckmann, 'How Communal Is Communal and Whose Communal Is It Anyway? Lessons From Mingankabau' in *Changing Properties of Property* (Berghahn Books 2006).

¹⁵⁵ RS Meizen-Dick and R Pradhan, *Legal Pluralism and Dynamic Property Rights. CGIAR Working Paper 22* (ICRAF 2002).

¹⁵⁶ CA Arnold, 'The Reconstitution of Property: Property As a Web of Interests' (2002) 26 *Harvard Environmental Law Review* 281.

¹⁵⁷ K Gray, 'Property in Thin Air' (1991) 50 *Cambridge Law Journal* 252 252.

¹⁵⁸ *Ibid* p289.

¹⁵⁹ Rodgers (n7) 570.

both ecological and institutional, that demands a dynamic forward looking approach.

Integration of community institutions with state structures

2.6.12 Political scientists led by Ostrom have published widely on the stability of community structures to manage common property resources. Ostrom's Nobel Prize for Economics in 2009 testifies to the wide recognition and impact of this work and that of the International Association for the Study of Commons (IASC) established by Ostrom. The main thrust of her departments work ('The Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis') is that common property resources need not be privatised in order to be managed sustainably.¹⁶⁰

2.6.13 Two main limitations of Ostrom's early work are identified by Agrawal.¹⁶¹ Firstly it fails to place community structures within the wider institutional and regulatory structures affecting the common property resource; and secondly it does not give due attention to the flow of ecological goods and services and the nature of the resource being managed. The impression given is that if a local community is left to get on with management and follows the principles then successful management will follow.

2.6.14 Ostrom and her followers recognised these criticisms¹⁶² and in the last years of her life she worked extensively with colleagues on addressing them through adopting the approach of the socio-ecological system.¹⁶³ Her 2009 Science article recognises the complexity of the ecological and institutional setting in which local common property institutions operate and the need for a common framework for analysing case studies.¹⁶⁴ McGinnis,

¹⁶⁰ Ostrom (n52) 182.

¹⁶¹ A Agrawal, 'Common Resources and Institutional Sustainability' in E Ostrom and T Dietz and N Dolsak (eds), *The Drama of the Commons* (National Academy Press 2000).

¹⁶² PC Stern et al., 'Knowledge and Questions After 15 Years of Research' in *The Drama of the Commons* (National Academy Press 2002).

¹⁶³ JM Anderies and MA Janssen and E Ostrom, 'A Framework to Analyze the Robustness of Social-ecological Systems From An Institutional Perspective' (2004) 9 *Ecology and Society* accessed December 15, 2012.

¹⁶⁴ E Ostrom, 'A General Framework for Analyzing Sustainability of Social-ecological Systems' (2009) 325 *Science* 419.

Frey and others worked with Ostrom to take forward these ideas¹⁶⁵ and are continuing to do so following her death in 2012.¹⁶⁶

2.6.15 Berkes has written clearly on the need for treating commons as multi-scale concerns and the importance of vertical and horizontal linkages in implementing adaptive management in response to the dynamic nature of institutions.¹⁶⁷ This thesis aims to address the gap in the literature on how to create vertical and horizontal linkages between institutions.

2.6.16 The literature and commentary devoted to the legal standing of common land governance bodies focuses on the following questions. Do they have statutory powers and if so can they be enforced? Who has legal tenure of the resources they manage? How is local governance affected by other bodies and drivers? When examined through the lens of legal centralism the efficacy of local governance often appears weak as demonstrated by the Royal Commission Report on English Common Land in 1958.¹⁶⁸ In Indonesia similar failings have been widely reported though there the focus is often on tenure as unlike English Common Land Indonesian commons in protected areas are state owned.¹⁶⁹

Is the Ecosystem Services approach appropriate to common land in protected areas?

2.6.17 Traditionally protected areas were managed through a positivist paradigm based on biological sciences focused on delivering the pure conservation outcomes of protecting biodiversity and natural habitats. The exclusion of humans was the preferred option to managing conflict between resource use and conservation.¹⁷⁰ In the last fifteen years there has been a shift to incorporate social objectives and human needs into protected area management to meet livelihood needs. The “Ecosystem Approach” is an extension of this and was given international credence by its incorporation

¹⁶⁵ M McGinnis and E Ostrom, 'SES Framework: Initial Changes and Continuing Challenges' SES Framework: Initial Changes and Continuing Challenges accessed December 12, 2012.

¹⁶⁶ UJ Frey and H Rusch, 'Using Artificial Neural Networks for the Analysis of Social-Ecological Systems' (2013) 18 Ecology and Society 40.

¹⁶⁷ F Berkes, 'Rethinking Community-based Conservation' (2004) 18 Conservation Biology 626.

¹⁶⁸ *Royal Commission on Common Land 1955-58* Her Majesty's Stationery Office 1958 106.

¹⁶⁹ C Marr, 'Forests and Mining Legislation in Indonesia' in T Lindsey (ed), *Indonesia: Law and Society* (2nd edn Federation Press 2008) 251.

¹⁷⁰ M Moeliono et al., 'Hands Off, Hands On: Communities and the Management of National Parks in Indonesia' [2008] Biodiversity and human livelihoods in protected areas: case studies from the Malay Archipelago 165 181.

into the Convention on Biodiversity at the fifth Conference of Parties.¹⁷¹ The Ecosystem Approach is defined by Smith and Maltby¹⁷² as a “strategy for the management of land, water and living resources that promotes conservation in an equitable way.” The twelve principles of the ecosystem approach were adopted by the Conference of the Parties (COP) in 2000.¹⁷³ It does though pose a dilemma: what is the optimal range of ecosystem services from any particular resource? Who decides and who bears the costs of delivery? The growing work on PES explores this.

2.6.18 Integral to the ecosystem approach is that it is anthropocentric focused on the needs of humans; physical, mental and spiritual. The Millennium Ecosystem Assessment has pushed the framework of ecosystem services to achieve the Ecosystem Approach and continuing COPs have endorsed this approach as a means for effective delivery of the goods and services that society values.¹⁷⁴ The weakness of the EA were highlighted by Hartje et al¹⁷⁵ and include:

- Limitations of valuations methods
- Difficulty in framing multiple objectives
- The narrow and fixed remits of institutions
- Scientific and policy uncertainties

2.6.19 An additional weakness identified by Shepherd¹⁷⁶ and particularly relevant to this study is the lack of attention given to property rights. This is considered as a major omission and an area where this research aims to contribute.

¹⁷¹ CBD-COP 5 Decision V/6, 2000 <https://www.cbd.int/decision/cop/default.shtml?id=7148>.

¹⁷² RD Smith and E Maltby, 'Using the Ecosystem Approach to implement the CBD: A global synthesis report drawing lessons from three regional pathfinder workshops,' (Royal Holloway Institute for Environmental Research 2001) accessed 25 March 2009 64.

¹⁷³ Decision V/6, Annex 1 CBD COP-5 Decision 6 UNEP/CBD/COP/5/23.

¹⁷⁴ COP 9 Decision IX/7 “The ecosystem approach remains a useful normative framework for bringing together social, economic, cultural and environmental values. The needs are to translate this normative framework into methods for further application which are tailored to the needs of specific users”.

¹⁷⁵ V Hartje and A Klaphake and R Schliep, *The International Debate on the Ecosystem Approach: Critical Review, International Actors, Obstacles and Challenges* (BfN-Federal Agency for Nature Conservation-Germany 2003).

¹⁷⁶ G Shepherd, *The Ecosystem Approach Learning From Experience* (IUCN 2008) 20.

2.6.20 These weaknesses are true; but all approaches have limitations and the EA has strengths as detailed by Smith and Maltby¹⁷⁷ and Haines-Young.¹⁷⁸ Summarised these include:

- A dynamic approach that responds to change in knowledge and circumstances
- That multiple interests are explicitly recognised
- Traditional knowledge as well as scientific knowledge is valued
- With a focus on people engagement is more likely.

2.6.21 In conclusion the international acceptance of the Ecosystem Approach and the clear human needs centred focus make it a useful framework in which to consider the multi functional demands on common land.

Methodological Approach

2.7.1 The research problem under investigation is characterised by; complexity, multiple perspectives and the divergent values of the subjects. The aim of the thesis is to collect data that is verifiable and reliable but also rich and multi-layered. Heron and Reason¹⁷⁹ extended the earlier work of Guba and Lincoln to develop an offshoot of the constructivist paradigm appropriate to such situations: the Participatory Paradigm. Guba and Lincoln¹⁸⁰ later incorporated the Participatory Paradigm into their typology of paradigms as further discussed in Chapter 3. Steins and Edwards used and recommended the social constructivist paradigm in the context of multi-functional commons.¹⁸¹ Holder and Flessas stress the necessity of an inter-disciplinary approach and the benefits from using case studies.¹⁸²

2.7.2 In all research the final use of the data affects the research tools chosen but even when the primary objective is academic many researchers now

¹⁷⁷ Marr (n169).

¹⁷⁸ R Haines-Young and M Potschin, *Upland Ecosystem Services. Report to Natural England. Coordination Contract. NE Project Code: PTY02/10/002.27. CEM Report No 10* (Centre for Environmental Management 2009).

¹⁷⁹ J Heron and P Reason, 'A Participatory Inquiry Paradigm' (1997) 3 *Qualitative inquiry* 274.

¹⁸⁰ EG Guba and YS Lincoln, 'Paradigmatic Controversies, Contradictions, and Emerging Influences' in *The SAGE Handbook of Qualitative Research* (Sage Publications 2005) 106.

¹⁸¹ NA Steins and V Edwards, 'Collective Action in Common-Pool Resource Management : The Contribution of a Social Constructivist Perspective to Existing Theory' (1999) 12 *Society & Natural Resources* 539

¹⁸² Holder and Flessas (n142) 308.

accept that their mere presence in the field is an intervention that will affect those communities and the nature of the data collected.¹⁸³ This accords with the constructivist paradigm as outlined in Chapter 3. The nature of knowledge collected and hence the answers to the research problem depend on the experiences of the subjects and the researcher. There are three key schools of literature relevant to the methodological approach adopted and here follows a brief commentary on the key works relevant to them.

Farmer First

2.7.3 Parallel to the paradigm development described above Robert Chambers led a movement summed up by the title of his seminal book, *Farmer First*.¹⁸⁴ This turned upside down the positivist approach until then dominant in agricultural research in developing countries and sought to place farmers at the centre of research and as participating subjects rather than sources of data. Chambers' subsequent book, 'Challenging the Professions,' pointed out how the traditional positivist approach to research in rural communities failed to collect appropriate data and deliver outcomes that met the needs of the poorest because researchers rarely went anywhere near the poorest.¹⁸⁵ In order to implement Farmer First Chambers and others in particular his colleagues at the Institute for Development Studies and the International Institute for Environment and Development (IIED) worked with practitioners and academics to borrow, develop, test and disseminate methods and research tools that were consistent with a Farmer First philosophy. While many of these approaches and their associated tools became prominent first in the developing world they are now commonly used in land management research in the UK.¹⁸⁶

¹⁸³ This is often called the Hawthorne Effect after the results in HA Landsberger, *Hawthorne Revisited: Management and the Worker, Its Critics, and Developments in Human Relations in Industry* (ERIC 1958).

¹⁸⁴ R Chambers and A Pacey and LA Thrupp, *Farmer First; Agricultural Innovation and Agricultural Research* (IT Publications 1989).

¹⁸⁵ R Chambers, *Challenging the Professions: Frontiers for Rural Development* (Intermediate Technology Publications 1993).

¹⁸⁶ C Prell et al., 'If You Have a Hammer Everything Looks Like a Nail: Traditional Versus Participatory Model Building' (2007) 32 *Interdisciplinary Science Reviews* 263.

Participatory Action Research:

2.7.4 Participatory action research (PAR) focuses heavily on the poor and oppressed and uses techniques to enable these groups to be active participants in research that can result in action to improve their conditions. It has grown from its original politicised mission to a mainstream method for engaging marginalised groups alongside institutional stakeholders to improve management through an iterative cycle of reflection, planning, action and monitoring.¹⁸⁷ As Montero stresses if PAR is to be successful then the quality of the participation is critical and so is the need for the researcher to accept and take on board the ontological underpinnings of multiple realities. In broadening its mission PAR is now used among multiple stakeholders not just the poor and oppressed recognising the value of the techniques for engaging all stakeholders in action research.

Appreciative Inquiry

2.7.5 Both Farmer First and PAR arise from the standpoint that there is a problem that research and interventions can solve and that problem identification is part of the cycle. Appreciative Inquiry, an organisational development approach developed by Cooperrider takes the opposite view that there is good in every system and that building on the positive aspects of a system will engage participants with the process fully and joyfully so resulting in more positive outcomes and solutions.¹⁸⁸

2.7.6 The use of Appreciative Inquiry is appropriate where the participatory paradigm is adopted and it is accepted knowledge is heterogeneous and created through experience i.e. socially constructed.¹⁸⁹ Yuliani¹⁹⁰ has used AI in one of the field sites, Danau Sentarum, to explore governance issues and has found it an enabling approach that develops rather than destroys adaptive capacity and resilience in complex socio-ecological systems. AI is discussed in detail in Chapter 3.

¹⁸⁷ The series Participatory Learning and Action now publishing its 60th issues demonstrates the range of work and action in the developing and western world using PAR. www.planotes.org.

¹⁸⁸ D Cooperrider and DD Whitney and J Stavros, *The Appreciative Inquiry Handbook: For Leaders of Change* (Berrett-Koehler Store 2008).

¹⁸⁹ J Reed, *Appreciative Inquiry: Research for Change* (Sage 2007) 55.

¹⁹⁰ EL Yuliani and H Adnan and Y Indriatmoko, 'The Use of Appreciative Inquiry as a Tool for Enhancing Adaptive Capacity in Natural Resources Management' (IASC 2008).

Research Debates and Gaps

2.8.1 There are numerous gaps in our knowledge regarding governing common land. This thesis identifies three questions as particularly pertinent to commons in national parks. Exploring these gaps explicitly ensures this research contributes something new to our body of knowledge and in due course may improve the efficacy of delivering a suite of ecosystem services from land with complex regulatory and governance orders. The questions are as follows:

Are property rights on commons fixed or dynamic?

2.8.2 The literature in this chapter indicates the *de jure* position is that property rights in the two case studies are fixed but the *de facto* reality is they are dynamic. This is because individuals and communities respond to external drivers and the plural legal and other normative orders that affect their property rights. For positivist legal scholars commons being complex are rarely studied in depth being messy and complex situation therefore. This problem can though be addressed by a structured analysis of the plural normative orders. Furthermore by adopting an interpretative participatory paradigm this research explores how local governance institutions can be explicit in their management of this reality and work with other stakeholders to enable governance to reflect the *de facto* position.

Should the management of commons be statutory or voluntary?

2.8.3 There is no consensus on how local community governance should be nested in the plethora of other government and non-government institutions involved in the management of common land in protected areas. While there will be no one correct answer this research explores the costs and benefits of different positions on the continuum from voluntary to statutory management schemes.

What Motivates Commoners to Govern for the Public Good?

2.8.4 The gap between the *de facto* and *de jure* position is also wide with regard management by local commons associations. Commoners may agree certain governance arrangements and rules but are they implemented and enforced in practice? What motivates commoners to design and enforce

governance at the local level and how can this be supported by other normative orders? Steins and Edwards have urged researchers to undertake more work in this area for complex multi-functional common property resources.¹⁹¹ What is the role of financial incentives, otherwise known as payments for ecosystem services, in providing public goods? How does society balance these against commoners' livelihood interests that are primarily private goods? There is a significant gap in understanding in what drives the evolution of governance systems in areas where commoners producing ecosystem services are not the beneficiaries and in particular where commoners are running marginal businesses and for whom livelihood matters are a priority. This research seeks to contribute to the knowledge on this area.

Summary

2.9.1 This literature review has indicated the spread of disciplines that need to be considered in addressing the research question, from ecosystem services and biodiversity, to property rights and institutional governance. This is the reality of the management of common land in National Parks. There is exciting work being undertaken in this field with much new cross-disciplinary work that is enabling theoretical models to better represent real situations. While the volume of work and its breadth can seem overwhelming, the review has enabled a focus to be obtained and a clear gap to be identified in what can at first glance be a crowded field of case studies on common property resource management.

2.9.2 The three questions raised in 2.5 above can be summarised as a clear need for research to understand:

- a) the motivation of commoners to deliver both private and public ecosystem services; and
- b) the interactions between normative orders operating in a site;

so that adaptive multi-layered governance across orders, institutions and scales can be designed and implemented. This is the gap this thesis addresses.

¹⁹¹ NA Steins and V Edwards, 'Collective Action in Common-Pool Resource Management: The Contribution of a Social Constructivist Perspective to Existing Theory' (1999) 12 *Society & Natural Resources* 539 555.

Chapter 3: The Research Framework and Process

Background

- 3.1.1 This chapter commences by discussing the theoretical framework underpinning this research and then explains the research process adopted to collect the empirical data including the ethical considerations, sampling and data analysis.
- 3.1.2 This thesis on the governance of common land in protected areas explores the research problem from the standpoint of the multiple legal and regulatory systems in operation. As the research requires consideration of legal, biological and economic systems a positivist paradigm may at first sight be considered appropriate. On closer examination it became clear that while a positivist paradigm might be used effectively to research the component subjects it is not appropriate for exploring the research problem that can be summarised as 'developing governance'. This conclusion is supported by the findings of Steins and Edwards.¹
- 3.1.3 Why is this and why is it important to be clear about the approach adopted? Clarity at the start makes framing the research problem and data analysis more rigorous particularly as there is no definitive answer to the problem. Instead this thesis aims to contribute to our knowledge on delivering ecosystem services on common land. The theoretical framework in which it does this is important but before discussing the paradigm I lay out the principles underlying the research as it is from these that the theoretical framework arose. In this sense a pragmatic approach has been taken where the research question is central and the approach and methods chosen are those that best contribute to answering the question.
- 3.1.4 Firstly individuals and communities are at the heart of management decisions on commons. To understand governance respect for communities and a willingness to work with them is vital for it is the individuals and groups who take practical management decisions on a daily basis who determine the

¹ NA Steins and V Edwards, 'Collective Action in Common-Pool Resource Management : The Contribution of a Social Constructivist Perspective to Existing Theory' (1999) 12 Society and Natural Resources 539.

delivery of ecosystem services. This principle suggests a people centred approach is a necessary approach for the research and so empirical data collection with participants as co-researchers was chosen to investigate the research problem.

- 3.1.5 Secondly there are numerous layers of regulations and laws in force over commons and while in theory there is a hierarchy of rules, laws and statutes, in practice, the primacy of any particular law will depend on the circumstances in situ and the level of active enforcement. Furthermore voluntary agreements between government and commoners are a key driver for management and while these are not law they are often an enforceable contract. This research recognises that all systems of rules, or normative orders, that are used in governing natural resources whether voluntary contracts, agreed local by-laws, acquired property rights or imposed statute need to be considered in analysing governance systems. This principle demands the use of legal pluralism as an approach.
- 3.1.6 Thirdly there are facts about ecological systems and methods of production that in this thesis are taken as “given” due to the volume of objective evidence and peer reviewed papers drawing the same conclusions. In particular it is accepted that while natural systems provide a range of ecosystem services there is inter-connectedness between them so that the provision of one may have positive or negative effects on the provision of another. For instance high levels of fish harvests will reduce the diversity of fish stocks. This indicates that there are choices to be made on the range of ecosystem services to be delivered and that while the biological and physical sciences parameters determining the possible range are objective the decision as to where on that continuum delivery should be is subjective. The optimal position depends on the values ascribed to the different services in that specific location. Furthermore the provision of these services is often a side effect of other management decisions not an active decision by the commoners.
- 3.1.7 In short the underlying science and law is commonly regarded as a matter of fact while management is a matter of practice by multiple heterogeneous groups and individuals whose decisions on resource use are a construct of their background and experiences. A simple example illustrates this:

On the same piece of common land farmers value their legal rights to turn out sheep on their common while civil servants value their duties to enforce legal statutes and designations for conservation and concurrently the owner of the sporting rights values his right to burn the vegetation to maximise grouse numbers.

- 3.1.8 The research adopts a worldview that there are multiple “truths” resulting from multiple perspectives and in order to understand governance systems on common land input from these multiple perspectives is needed. The use of the word truth is deliberate for from the perspective of the holder of a particular view they often believe that they are right. In negotiations the key is not to force others to change their minds but to encourage an acknowledgement that other people with rights or duties related to common land may have a different but equally valid “truth”. The best way to achieve this is through the participative paradigm. This was developed by Heron and Reason² and has been recognised by Guba and Lincoln³ as a useful world view or paradigm.
- 3.1.9 The participative paradigm provides the philosophical framework. In terms of legal theory the framework used in this research is Legal Pluralism and with regard the development of governance systems the framework is Adaptive Co-Management building on the institutional and socio-ecological systems work of Ostrom’s Workshop School. These frameworks are all compatible and work together. The next sections outline the frameworks and their use in this research.

The Participatory Paradigm

- 3.1.10 In understanding any paradigm Crotty’s⁴ scaffold is a useful diagrammatic approach to explaining the research approach behind the research tools and ensuring the methods and research tools used in data collection are appropriate to the research approach. This is applied research and the objective of this section is to describe the framework but not to dwell on the

² J Heron and P Reason, 'A Participatory Inquiry Paradigm' (1997) 3 Qualitative inquiry 274.

³ EG Guba and YS Lincoln, 'Paradigmatic Controversies, Contradictions, and Emerging Influences' in N Denzin and Y Lincoln (eds), *The SAGE Handbook of Qualitative Research* (Sage Publications 2005) 98.

⁴ M Crotty, *The Foundations of Social Research: Meaning and Perspective in the Research Process* (Sage Publications 1998) 4.

detail or to offer comparisons of this approach with others. This is in part because all paradigms being models are of necessity a simplification of the real world and therefore inadequate. Understanding the paradigm adopted helps the reader to understand the approach taken and why it is valuable and assists in the interpretation of the results.

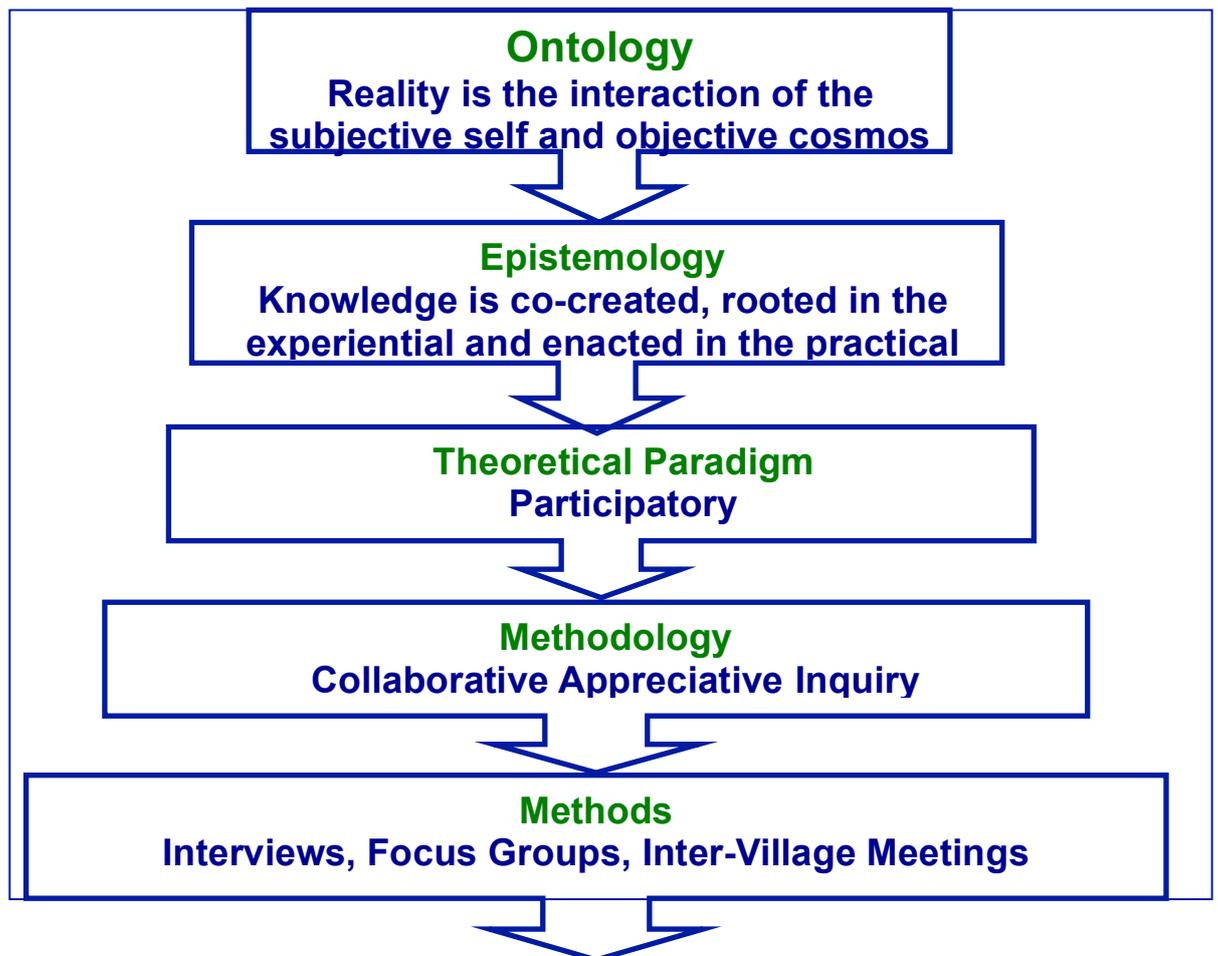


Figure 3.1: Research Framework Scaffold (after Crotty)

3.1.11 Starting at the top of Figure 3.1, “What is the researcher’s view of the nature of social reality or their ontology?” In the participatory paradigm Heron and Reason argue that the world or cosmos exists and relationships between people exist, these are objective observable facts but reality is our subjective or personal experience of these objective facts. For example in a National Park there may be 25 commoners associations and a range of stakeholders in each association but the reality of the relationships between these groups is not a known or accepted fact. A group of farmer commoners will have a different

version of reality to the National Park staff. Neither is wrong or right because both are real. This approach is helpful in researching complex subjects such as this research problem as immediately you accept there is not a single objective truth to be discovered. Social scientists call this a subjective-objective ontology, our knowledge is created by our views of the objective but as we are all different our interpretation of the objective – knowledge - will be a construct of our experiences.

3.1.12 Moving down a step on the scaffold in Figure 3.1 the way humans create knowledge (the epistemology) in the participatory paradigm flows quite naturally from the chosen nature of social reality. Knowledge is subjective as reality depends on each party's relation with the objective and is not a static state as we are not static nor are our relations with others. We do not find the answer but look for trends and themes which can then be used to provide approaches to solving specific questions at specific points in time.

3.1.13 It is at this point the role of the researcher should be acknowledged. We interact with a social situation but our understanding of what we meet is shaped by where we as researchers have come from. The findings or knowledge created by this research will arise from the continually changing relationship, or “dance” between the researcher, their background and mind, and the world or cosmos in which they are undertaking research.

3.1.14 Given the view of social reality and knowledge described above the most suitable research approach is the participatory for if reality depends on who you are then you will obtain a fuller understanding or knowledge if all key parties to a research problem participate in exploring the research question. Instead of being the subject of research the participants have the status of co-researchers. Inevitably this is messy but the complex is messy and over simplification risks simple and mistaken answers.

3.1.15 Robert Chambers and others in ‘Farmer First’ wrote a seminal text on participatory research in the agricultural development world.⁵ His main thesis was that unless you put the farmer and his views at the centre of research you

⁵ R Chambers and A Pacey and LA Thrupp, *Farmer First; Agricultural Innovation and Agricultural Research* (IT Publications 1989).

were unlikely to find effective solutions. This spawned a huge development of Rapid Rural Assessment (RRA) techniques and then Participatory Rural Appraisal (PRA) and on into Action Research. As a practitioner and researcher I have been much influenced by and used this work over the last twenty years though did not find it effective in delivering meaningful answers. In part this was because too often the outcome was a series of solutions that “others” would be expected to resolve which often were unrealistic so resulting in a victim mentality by the researched.

3.1.16 In summary the participatory world view is considered most appropriate for the complex multi-partite research questions but its success in answering the research problem depends on the choice of methodology. In this research Appreciative Inquiry (AI) through case studies is the chosen methodology adopted as it is participative and positive aiming to empower all parties involved leaving them at the end of the research enabled to take forward solutions. The appreciative inquiry approach is explained from paragraph 3.2.22 and the specific methods or tools thereafter.

Legal Pluralism

3.1.17 National Parks are multi functional, have multiple outputs and multiple users. Common Land within national park has multiple users with a range of rights and duties derived from a number of different legal orders. Capturing this complexity and letting it express itself through the research is essential.

3.1.18 Multiple sets of rules governing the same piece of common land include public legislation, private property rights, contractual agreements, community rights and customary rights as well as non-sanctioned utilisation. All these rules and regulations except the non sanctioned (illegal) will be considered as normative orders for this research using the framework of legal pluralism in contrast to the standard hierarchical approach of legal centralism. Woodman neatly summarised the approach by saying; “Legal pluralism may be said to exist whenever a person is subject to more than one body of law.”⁶

⁶ GR Woodman, 'Legal Pluralism and Justice' (1996) 40 Journal of African Law 157 157.

3.1.19 The reason for adopting legal pluralism is that the hierarchy legal centralism promotes is not observable in either case study site nor is it on many commons as illustrated by the work of Rodgers et al.⁷ The relationship between different legal orders or spheres is dynamic and changes according to the policies of government and the socio-economic and political context of the site at any point in time. For instance according to a legal centralist approach Danau Sentarum National Park should not have communities living in the majority of the National Park. The reality is that the National Park Authority does not enforce that legal power and the use of resources is primarily governed by customary institutions. The use of legal pluralism allows the empirical data collected to be effectively analysed. As Griffiths' says; "Legal pluralism is the fact. Legal centralism is a myth, an ideal, a claim, an illusion."⁸

3.1.20 This research problem requires a legal framework that acknowledges that complexity and allows the interactions between different legal orders to be recognised looking for areas of fruitful collaboration to develop governance.

3.1.21 Wollenberg⁹ discusses the use of legal pluralism with regard to forest governance and notes that the use of legal pluralism does not mean the rejection of all hierarchy with regard to differing legal orders and suggests three ways that differences in precedence can be resolved;

- Precedence of one order over another can occur due to an institution having more power e.g. the state and so are able to enforce "their" law
- Precedence of one order can be a de facto position due to context e.g. where commons associations rules are the management tool either where the nominally more important state does not have the resources to enforce their law or chooses not to
- The linking of laws through the ratification of one legal order by another which is becoming increasingly common. This is a key focus of this research as it is this interaction between orders where opportunities often arise.

⁷ CP Rodgers et al., *Contested Common Land* (Earthscan 2010) 10.

⁸ J Griffiths, 'What Is Legal Pluralism' (1986) 24 *J. Legal Pluralism* 1 4.

⁹ E Woolenberg and J Anderson and C Lopez, *Though All Things Differ: Pluralism As a Basis for Cooperation in Forests* (CIFOR 2005) 36-27.

3.1.22 With regard to data analysis the initial tool used in this research is that advanced by Tamanaha.¹⁰ His categorisation of normative orders allows a categorisation of plural orders that is critical to a meaningful analysis of the field data.

3.1.23 Legal Pluralism is not by itself enough to complete the analysis, interpret the data and answer the research problem. Legal Pluralism focuses on rules while governance is more than rules and one of the criticisms of legal pluralism is that it has not yet focused adequately on the linkages and interactions between different institutions that create the laws and how relationships between these institutions can be enhanced. This is illustrated by Woolenbergs last point and is why the frameworks of socio-ecological systems and adaptive co-management are also used in the data analysis.

Ostrom's Design Criteria and Socio-Ecological Systems

3.1.24 Ostrom's design criteria for robust governance of common property resources and the framework for socio-ecological systems are both part of the institutional school and are referred to in the literature review. They are used as analytical tools as they contribute significantly to understanding the research question as to what drivers affect current governance and the provision of ecosystem services.

Adaptive Co-Management

3.1.25 Adaptive co-management seeks to link learning and collaboration to facilitate effective governance appropriate to a specific place and encourage organisations of different scales to work together.¹¹ It acknowledges there are enormous uncertainties associated with resource management on common land and therefore management systems should be sufficiently flexible to be able to respond when the unexpected happens. We do not know how ecosystems or communities will respond to changes in policies, rules or management, in short any governance system should be adaptive and responsive to change and learn from it. Furthermore it should encourage

¹⁰ BZ Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' (2008) 30 Sydney L. Rev. 375 397.

¹¹ P Olsson and C Folke and F Berkes, 'Adaptive Co-management for Building Resilience in Social-ecological Systems' (2004) 34 Environmental Management 75 87.

collaboration between all parties involved in the management of a resource whether local communities, policy makers, civil servants or scientific advisors through horizontal and vertical linkages. Stringer et al through examining three case studies using adaptive co-management conclude that flexible participation is required to acknowledge and sharing different types of knowledge.¹² This is critical to minimising trade-offs and developing shared understanding to collectively govern multi-functional socio-ecological systems.

3.1.26 The objective of using the adaptive co-management framework for the analysis in this research is to consider how governance in the two case studies can result in more stable and resilient socio-economic and ecological systems. Armitage et al have identified ten conditions for successful adaptive co-management and these criteria are used to analyse the empirical data collected from the case study sites.¹³

The 10 Criteria for Successful Adaptive Co-Management

1. Well-defined resource system
2. Small-scale resource use contexts
3. Clear and identifiable set of social entities with shared interests
4. Reasonably clear property rights to resources of concern (eg fisheries, forest)
5. Access to adaptable portfolio of management measures
6. Commitment to support a long-term institution-building process
7. Provision of training, capacity building, and resources for local-, regional-, and national- level stakeholders
8. Key leaders or individuals prepared to champion the process
9. Openness of participants to share and draw upon a plurality of knowledge systems and sources
10. National and regional policy environment explicitly supportive of collaborative management efforts

Fig 3.2 Ten conditions for Adaptive Co-management from Armitage et al.

¹² LC Stringer et al., 'Unpacking Participation in the Adaptive Management of Social-ecological Systems: A Critical Review' (2006) 11 Ecology and Society 39 39.

¹³ DR Armitage et al., 'Adaptive Co-management for Social-ecological Complexity' (2009) 7 Frontiers in Ecology and the Environment 95 101.

3.1.27 The advantage of Adaptive Co-management is that it specifically builds in the need for collaboration between institutions and seeks to deliver sustainable ecosystems and sustainable common property governance institutions developing creative tension between these two goals.

The Research Process

3.2.1 The research process is set out in figure 3.3., this is linear for clarity, while in practice findings at each stage filtered back into earlier steps allowing iterative improvements. The research process was responsive as open-ended questions are used and the answers were unpredictable.

The Research Problem

3.2.2 The Research Problem outlined in the Chapter 1 is;

**How to Strengthen the Governance of Common Land in
National Parks to improve the Delivery of Ecosystem Services?**

3.2.3 The research problem was selected due to the researcher's experience over 15 years working in the field dealing with the tensions between those with private property rights on common land and Conservation Bodies charged with protecting the public interest.

3.2.4 This research makes a unique contribution in seeking out some of the more thorny issues in the delivery of ecosystem services on common land exploring the reality of governance in the field rather than relying on theoretical hierarchies of legal order. These issues include motivation, dynamic property rights and statutory versus voluntary governance institutions. In neither case study site has this approach been taken and while the issues are well known to managers they are rarely managed with through systematically and explicitly acknowledging land tenure and resource utilisation whether *de jure* or *de facto*.

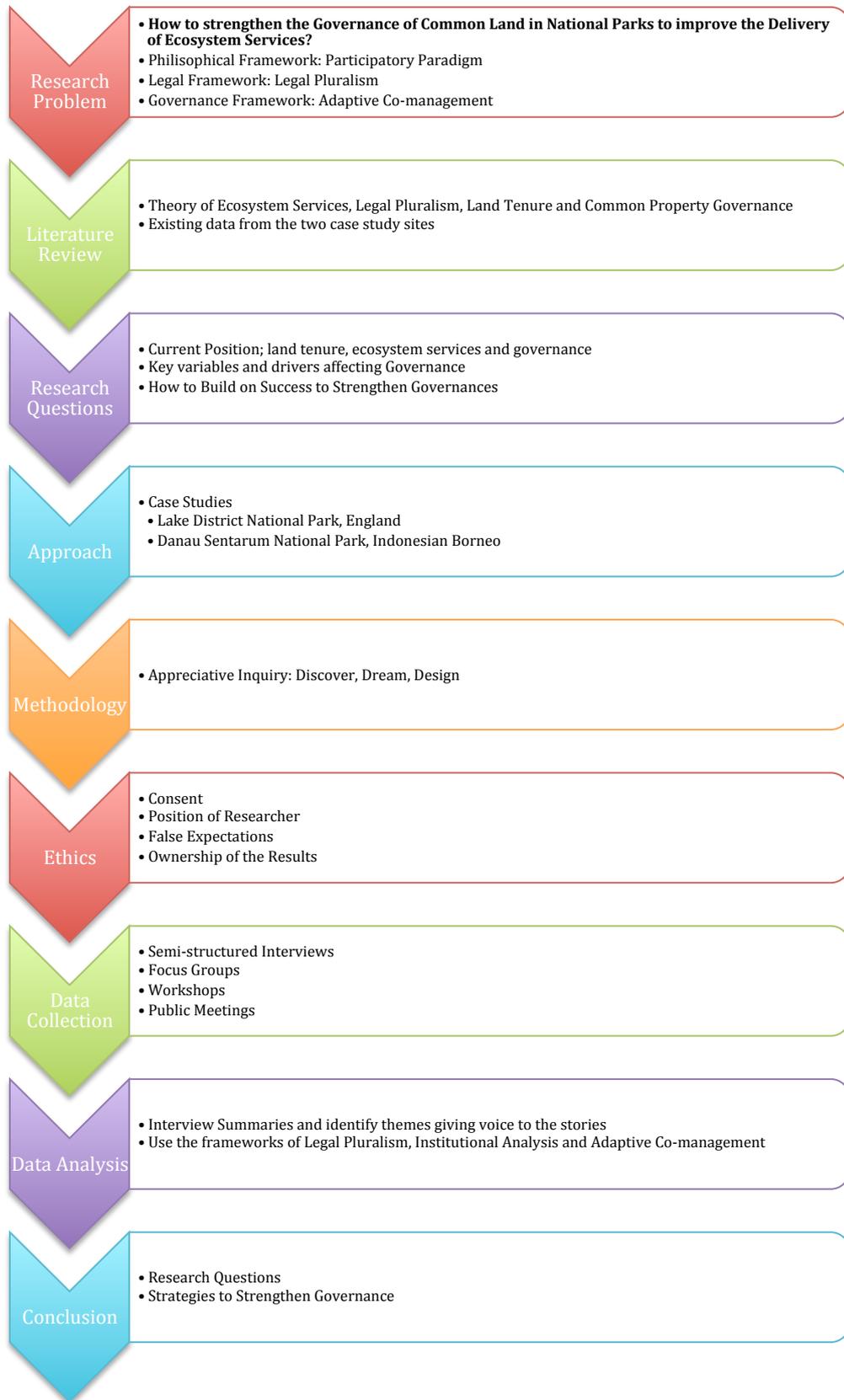


Figure 3.3: Research Process

The Literature Review

3.2.5 This is presented in Chapter 2 and provides an overview of key literature relevant to the research problem and identifies gaps in knowledge this research contributes to.

Defining the Research Questions

3.2.6 This research examines the legal and institutional frameworks in each site and how governance could be strengthened to improve the delivery of ecosystem services. In particular it considers management by local communities working in partnership with government.

3.2.7 In order to address the research problem a framework of questions was used to provide a structure and focus. The specific questions addressed by the empirical data collection fall into three parts;

- A) What is the current position with regard to land tenure and governance systems currently operating and the ecosystem services delivered?
- B) What are the key variables and drivers in current governance systems?
- C) Within existing legislative and policy frameworks, how can governance systems be strengthened to enhance the future flow of ecosystem services?

3.2.8 In order to frame the research and analysis definitions and outlines of how key terms are used in this research are given below:

LAND TENURE

Land tenure is the relationship, whether legally or customarily defined, among people, as individuals or groups, with respect to land. ...Rules of tenure define how property rights to land are to be allocated within societies.....land tenure systems determine who can use what resources for how long, and under what conditions.¹⁴

¹⁴ FAO, *Land Tenure and Rural Development: FAO Land Tenure Studies 3* (FAO 2002) 7.

- 3.2.9 This research is about mankind's relationship with natural resources in national parks and in particular on resources where there are rights held in common with others, common land. Land Tenure underpins this relationship and over time societies have developed various systems for defining these rights. Understanding these relationships and rights is critical to discussing governance.
- 3.2.10 Land Tenure can be envisaged rather like a Geographical Information System (GIS) with a series of layers, including; legal ownership, legal leases, profit a prendre rights often held in common, customary use right and rights allocated by statute to individuals e.g. access.¹⁵
- 3.2.11 Over arching these rights are the statutes and regulations that constrain how the right is exercised e.g. pollution legislation and protected area status designation.
- 3.2.12 Alongside these are the economic instruments that provide incentives to rights holders to alter how they exercise their rights. The rights holder(s) and usually the government enter into a contractual arrangement where financial compensation is paid to the rights holder in exchange for agreeing to change their land management practices. In effect this is state payment for ecosystem services. Tamanaha classifies these as 'Functional Orders' as they are constructed for a specific purpose.¹⁶
- 3.2.13 The classification that is used in the analysis of land tenure is Tamanaha's which brings together land tenure and other normative orders:¹⁷
- Official or positive legal systems including:
 - Private Property rights
 - State Statutes and Regulations
 - Customary or Traditional Law
 - Economic Norms

¹⁵ An example is the rights of access for walkers granted by the Countryside and Rights of Way Act 2000.

¹⁶ BZ Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' (2008) 30 Sydney L. Rev. 375 399.

¹⁷ This varies from M Pieraccini, 'Sustainability and the English Commons: A Legal Pluralist Analysis' (2010) 12 Environmental Law Review 94 who uses also three legal spheres but separates the property rights into customary and formal and conflates Public Law and Regulations with Economic Instruments.

- Functional Norms or Agreements
- Community & Cultural

3.2.14 This research differs from that on the delivery of ecosystem services on non common land due to how the tenurial system affects governance. Where property rights are vested in a single owner, or even an owner and tenant, the relationship is relatively straightforward. In short a governance system for day-to-day management is not required as the manager is a single legal entity. This research recognises that governance is at the heart of delivering ecosystem services on common land in National Parks due to the multiple legal entities with rights over the same land.

GOVERNANCE

Governance is the decision making structures, mechanisms and systems of administration which influence the operation of management systems. Governance is to do with longer term strategic land management planning whilst management concerns everyday practices.¹⁸

3.2.14 There is a large body of research on ecosystem services; this is outlined in Chapter 2 and then specifically for each case study in Chapters 4 and 6.

ECOSYSTEM SERVICES

Ecosystem services are the processes by which the environment produces resources utilised by humans such as clean air, water, food and materials.¹⁹ They include supporting services, provisioning services, regulating services and cultural services.²⁰

¹⁸ C Short and M Winter, 'The Problem of Common Land: Towards Stakeholder Governance' (1999) 42 Journal of Environmental Planning and Management 613 614.

¹⁹ <http://www.ecosystemservices.org.uk/ecoserv.htm>.

²⁰ Millennium Assessment, *Ecosystems and Human Well-being* (Island Press 2005).

Research Question Boundaries

3.2.15 In order to ensure focus within the research problem boundaries and imitations to the research were set. These are:

- ❖ The field work is limited to two case studies sites:
 - Danau Sentarum National Park, West Kalimantan, Indonesia
 - Lake District National Park, Cumbria, England
- ❖ The research only explored options available under current legislation and regulations
- ❖ The research used current scientific evidence with regard ecosystem services, field work at improving governance but no new research was undertaken on the delivery of ecosystem services
- ❖ The research promotes options for strengthening governance but did not test any of the options.

Research Approach

Case Studies

3.2.16 The approach for this research is the case study with two locations chosen to explore the research problem. The case study approach was chosen to allows in depth exploration of the research problem using real world data and real groups of people and it allows the research subjects to be active participants in exploring the research problem rather passive providers of data.

3.2.17 By using two case studies from different continents, Europe and Asia, a comparison is made between two sites with common characteristics but differing physical, political and social geography as well as legal systems. While it would be rash to draw global generalisations from two case studies they do allow testing of the methods and a comparison between two contrasting areas with a common underlying challenge. The case studies were the Lake District National Park in Cumbria, England and Danau Sentarum National Park in West Kalimantan, Indonesia. For both case studies

- they are located in National Parks,
- primary production is the mainstay of those with rights over the common property resources,
- there are well developed community governance systems in use, and
- there are multiple legal systems in force in both case study areas.

3.2.18 These common characteristics enable the researcher to see the value of drawing wider conclusions from these cases and is discussed in Chapter 9.

Data Type

3.2.19 Qualitative data collection was used as the participatory paradigm requires people to be at the heart of the research process. If you seek to analyse data quantitatively then you have to collect data in a manner that fits your numerical analysis requiring a rigid and prescribed approach rather than allowing the researcher to adapt to the circumstances that arise during the data collection process. The chosen method, Appreciative Inquiry, can be undertaken with a number of tools and those used are described next but pre set interview questions with constrained answers are never part of the process as the aim in the interviews is to entice the person to share their story as part of the process of exploring the research problem. The researcher is required to be reflexive responding to the situations that arise as this research is about inquiring into a question rather than testing a hypothesis.

3.2.20 30 people were interviewed in the Lake District and 52 in Danau Sentarum ensuring the sample size is small enough to remain close to the data and allow the richness and complexity of the findings to be retained. Due to the complexity of the issues outliers are interesting and do not want to be lost through statistical analysis.

3.2.21 The use of the qualitative methods does not mean all numerical approaches have been rejected as will be seen in how themes were prioritised and choices made where counting and voting were used. As Blaxter et al²¹ point

²¹ L Blaxter and C Hughes and M Tight, *How to Research* (Open University Press 2006) 199.

out the real world is not divided between the qualitative and quantitative, the key is the approach underpinning the method which being participatory demands a qualitative approach but using numerical analysis and approaches where appropriate. For instance real life policy development intervened in the Lake District case study. Shortly before the first set of interviews was started the author was awarded a government contract to appraise if Cumbrian commoners wanted to establish a statutory Commons Council for Cumbria including the whole of the case study site. This required testing for real the research question so that it was no longer appropriate to run some of the planned activities in parallel as the participants would have considered them pointless. Due to the larger geographical scale and short time horizon of the contract a voting system was used which allowed numerical analysis.

The Research Method - Appreciative Inquiry

3.2.22 Appreciative Inquiry (AI) was originally developed as an organisational development technique by Cooperrider²² the method and its associated tools have been used by companies, community groups, government agencies and environmental organisations to build partnerships and relationships for the more effective delivery of multiple objectives. At the simplest level, it is as its name suggests, a method of inquiry based on appreciation. In practice, if properly conducted, it can be far more, inspiring individuals and organisations to value themselves and implement change in a sustainable manner. It works on the premise that problem solving as an approach often fails as it encourages people to blame others for their situation and therefore look to others to solve the problems. Instead AI encourages a sense of self worth and so enables the design and implementation of action through the recognition of common desires.

3.2.23 From the theoretical perspective there are five principles for AI developed by Cooperrider:

- Constructivist–Interpretation of facts establishes multiple truths

²² D Cooperrider and DD Whitney and J Stavros, *The Appreciative Inquiry Handbook: For Leaders of Change* (Berrett-Koehler Store 2008) 8.

- Simultaneity –Inquiry and Change are not separate stages
- Poetic –authoring for accessibility – story telling
- Anticipatory–The way you think of the future affects the outcome
- Positive–Engages people and leads to effective involvement

3.2.24 Appreciative Inquiry works through a four-step process of Discovery, Dream, Design and Deliver. During these stages individuals and communities have the opportunity to discover and explore what is good, dream about where they would like to be, design how to reach their dream and then initiate delivery of the dream. The actual tools used to implement the process will vary according to the task and outputs expected. In this case where AI is a research methodology and the researcher can make no commitment to follow on work the process must be carefully framed to avoid false expectations.

3.2.25 A question often asked is; ‘Is AI a valid research method? And, ‘How can the researcher be a facilitator of AI and also an objective researcher?’ The participative paradigm adopted suggests that in this type of work no researcher is truly objective and should recognise the impact their experiences and background have on their research. AI makes this explicit rather than providing a gloss of objectivity through the use of statistics and quantitative data; another advantage of its use. As an individual who has worked with and is known to both case study communities complete objectivity could never be claimed but this knowledge, insight and shared experience can be seen as an advantage as long as an analytical approach is used to the interpretation of the data.

3.2.26 Reed has written critically on the use of AI as a research tool.²³ She acknowledges that its use as a research methodology is an evolving area that has a valuable contribution to make to developing research practice and knowledge. This is particularly true when research is specifically looking at how participants with differing perspectives are seeking to construct a positive future together.²⁴ She also comments on the use of AI in comparative case

²³ J Reed, *Appreciative Inquiry: Research for Change* (Sage 2007).

²⁴ Reed (n23) quoting S McNamee on page 194.

study research as in this research, the value of AI is that it encourages similarities and differences to be identified. While this may limit the drawing of generalised conclusions it reduces the risk of over simplification and encourages the recognition of the topic as complex.

3.2.27 Reed's discussions and conclusions while drawn from research in health care can be extrapolated to the governance of common land. As with health care the management of natural resources involves multiple stakeholders with the core user, the commoner, analogous to a patient in being marginal in society without the financial or political power to influence policy and legislation. By making the most marginal central to the research, as co-researchers, commoners are not only given a voice but also, in the best possible outcome, acquire the confidence and skills to engage with other stakeholders to take forward joint management. In this respect AI is similar to participatory action research where the research has a bias towards delivering change.

3.2.28 The defining feature of the practical application of AI is that it is inquiry or planning that values success and Malcolm Odell²⁵ has summarised it in two laws;

1. 'What we seek is what we find', and,
2. 'Where we think we are going that is where we end up.'

3.2.29 Integrity is essential to research when working with marginalised communities and AI has the advantage that it effectively ensures the research process is ethical as every stage seeks to empower those involved in a sustainable way such that they can take forward their plans without depending on external involvement. It takes communities away from the victim mentality and dependence on aid and government support and encourages all stakeholders to work within what is possible given existing regulatory and financial constraints. In carrying out the work Odell highlights three principles that guide the activities using Appreciative Inquiry in the field.²⁶ They are:

1. If we look for problems then we will find problems;

²⁵ M Odell, 'Appreciative Planning and Action' in SA Hammond and C Royal (eds), *Lessons From the Field: Applying Appreciative Inquiry* (Thin Book Publishing Company 2001) 133.

²⁶ *ibid.*

2. If we look for success then we will find success;
3. If we have faith in our dreams then we will find miracles.

The Appreciative Inquiry Process

- 3.2.30 Figure 3.4 illustrates the cycle used in AI. The first stage before entering the cycle of AI is to *Define* the topic of inquiry and this is analogous to defining the research problem. In a research project where the research problem is predefined this is essential and it is important to make it clear to the participants.
- 3.2.31 Once this is done then the cycle can begin and it starts with the *Discover* phase when the purpose is to find out what works well, what has succeeded and what is the 'peak' experience of the individuals involved in relation to the topic of inquiry. This has two purposes; it makes the participants feel valued and encouraged by someone listening to the stories of what has worked for them and provides the researcher with essential information on what has worked well in that community as well as inevitably some activities that were not so successful. There are several methods for undertaking the Discover stage, that most commonly used is individual interviews which was the primary method adopted here.
- 3.2.32 Continuing on from the Discover phase is the *Dream* phase where participants are asked to consider their goals for a specified time in the future e.g. five years, and asked the three things they might change in order to reach their goals. Again the focus is on positive action to reach personal goals though all within the framework of the topic defined. A range of methods can be used here from open-ended questions to drawing and mind mapping exercises or tables. The dreams can be divided into a number of themes related to the research questions in order to provide focus. The tools used vary according whether the dreaming is undertaken through a group exercise or on a one to one basis. It proved useful to have a range of tools so that the researcher can respond to the local circumstances and who presents themselves. Once a number of goals have been collated a process

of categorisation and prioritisation can be used to reduce the goals to a realistic number.

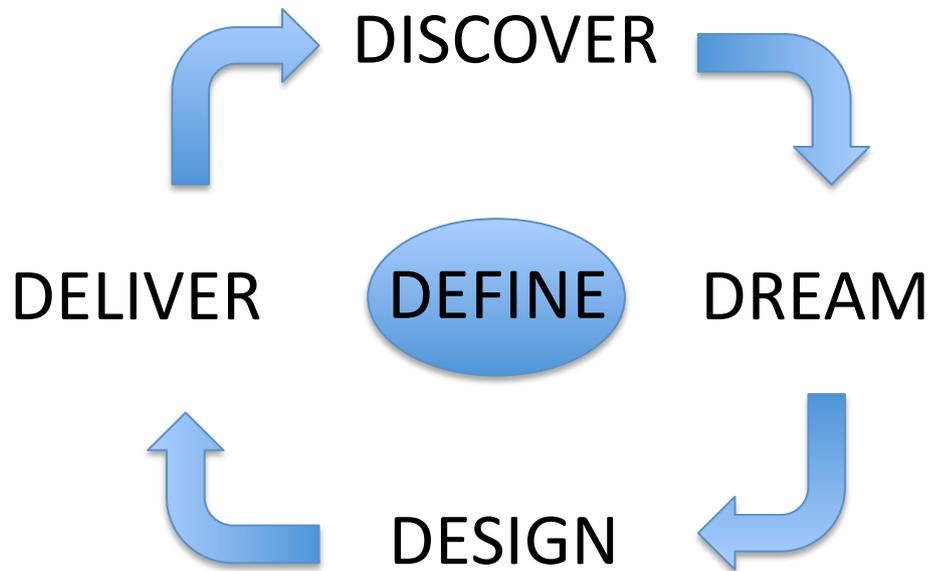


Figure 3.4: Appreciative Inquiry Cycle

3.2.33 In the third phase the emphasis is on *Design* or planning actions to deliver the identified dreams. This is an activity which benefits from the preceding phases as participants are in a positive frame of mind and are also aware of what works and where they would like to be. It is best undertaken as a group particularly with a research topic such as the governance of common land that requires the involvement of multiple people. The researcher is acting as a facilitator to enable the participants to develop initiatives and strategies to meet their goals and then these are reviewed and validated as part of the process.

3.2.34 The fourth stage in Appreciative Inquiry is *Delivery* though in research projects this is not usually undertaken as part of the research. This raises ethical concerns common to other applied research of raising expectations that cannot be fulfilled. In this case this was addressed by putting in place measures to allow the communities in both cases to take forward their actions as part of the action planning in the Design process and through other initiatives the researcher and her field team are involved in.

Criticisms of Appreciative Inquiry

- 3.2.35 AI is an approach while not a panacea for researching change was chosen because it: allows non-judgemental inquiry into multiple systems, accepts multiple truths, builds partnerships and so is effective for research exploring change. There are some criticisms levelled at AI and it is worth addressing these to assess whether they are perceived or actual and if actual how can they be mitigated. Reed has explored these in some detail.²⁷ The primary concerns relate to the objectivity of the research process and validity of the data collected. For instance one critique is that using the positive principle may give a partial account of the situation; the researcher only looks at what works and not what has not worked.
- 3.2.36 The experience in these case studies is that inevitably the negative emerges as well but it is the process of seeking the positive that makes AI a powerful research tool in seeking answers to how governance can be improved. The research is not looking to find out which changes will fail so it is essential is inquiring into change that will succeed. This criticism can be addressed by noting the negative points that arise in the process and making sure they are not swept aside and furthermore validating the data collected through triangulation. With regard to the question of objectivity it is important to note that the paradigm adopted is the participatory paradigm with a subjective-objective view of knowledge. All knowledge is the individual's subjective view of the objective so there is no attempt to seek one objective answer but rather to recognise the range of views among key stakeholders and then bring these together to discern the most appropriate way forward.
- 3.2.37 The position of researcher is another concern for objectivity but again this is easier if you adopt the position that knowledge collected through the research will inevitably differ according to who you collect it from and who does the collecting. We are all a product of our background and experiences and will therefore respond differently to the information provided. Furthermore the mere action of arriving in a community to undertake

²⁷ J Reed, *Appreciative Inquiry: Research for Change* (Sage 2007) 77-87.

research is an intervention that will result in knowledge provided being adapted according to the participants' response to the intrusion. I was acutely aware that I have professional work experience in both locations and these could influence my response to information. Being aware of this risk is the first step and allows for action to be taken by seeking validation particularly in areas where particular bias may exist.

3.2.38 Validity, or whether the data reflects accurately conditions in the field is a critical point. If the data is invalid the whole exercise is pointless. Any source of data if collected in isolation can be queried and data from AI is no different but also no worse. In this case various approaches have been adopted. Firstly the literature review enabled data from these and other sites to be collected and examined so that the researcher had adequate background. Secondly the number of interviews undertaken in each site was sufficient to ensure that the vast majority of the themes would be captured and finally the participative approach with widespread discussion and review of the findings in group sessions allows for the data to be prone to scrutiny and validation during the data collection process.

Ethics

3.3.1 The ethical dimension of the research was developed following the Newcastle University Faculty of Humanities, Arts and Social Sciences ethics approval process and the Faculty gave full ethics approval. As part of this a commitment was made to follow the Socio-legal Studies Association (SLSA) Statement of Principles for Ethical Research.²⁸ This section explains how ethical matters were addressed in principle. More details are provided in the respective chapters.

Consent

3.3.2 The two case studies required quite different procedures for obtaining consent. The relationship between the researcher and the researched is one that requires consideration so that the researched do not feel obliged to participate.

²⁸ *Socio-legal Studies Association (SLSA) Statement of Principles for Ethical Research (Jan 2009)*
http://www.slsa.ac.uk/images/slsdownloads/ethicalstatement/slsa%20ethics%20statement%20_final_%5B1%5D.pdf.

In Cumbria the researcher works professionally on all the common land units participating in this study. Separating this work from her professional work, was important. Similarly when working in Indonesia in the 1990s as part of a UK aid programme the researcher had specific funds at her disposal. In this instance it was made very clear that this was a separate activity with no per diem's or participation incentives.

3.3.3 In Cumbria the first point of contact was the Chairman or Secretary of the commoners association who was contacted by phone and then by letter to outline the research. If they were interested in proceeding then each individual commoner was written to several weeks ahead of the field work asking if they wished to participate with a proposed appointment for the interview and an information sheet was provided (see Appendix D). Only in one case were there more commoners than was required for the sample and in that case the Association had a meeting without the researcher to ask who would be interested in taking part. In the week before the interviews each participant was contacted by telephone to confirm if they wished to participate and if the appointment time was convenient. This multiple stage process ensured there were plenty of opportunities for participants to withdraw. In one case a Chairman agreed for his common to take part but was replaced and the new committee decided they did not want to participate. In other cases individual commoners declined to take part, some just hours before the interviews. While from a logistical perspective this was inconvenient from an ethical perspective it was good as it indicated the process allowed for informed consent and withdrawal.

3.3.4 In Indonesia a different approach was required due to there being no post or email and limited mobile phone coverage. Instead the research team, including a local NGO and national park rangers, called on each of the selected villages in the first week of the field visit and met with village leaders to explain the process and seek their co-operation. Again an information card was provided that had been approved by the partner NGO and National Park Authority. At that point a date for the fieldwork was agreed and the village elders were asked to seek volunteers. When the team arrived in the village we drew together a list of participants and visited all in their homes providing them with

the information sheet and giving an opportunity to participate or not. Wherever possible potential participants were given 24 hours to consider whether or not to participate though in some cases they were keen to start the process straight away.

3.3.5 In Indonesia consent was also required from the Danau Sentarum National Park Authority and the researcher was appointed as a visiting researcher at the Centre for International Forestry, Bogor, Indonesia who also scrutinised the proposal. In order to explain the research aims and obtain consent a reconnaissance visit was made in May 2009. The researcher had lived and worked in the Danau Sentarum for eighteen months as a British government environmental economist from 1994-1995 so was well known to the Forest Department but inevitably staff had changed and the pre-visit ensured the consent, confidence and participation of the national park staff. This was critical to ensuring ownership of the process and outcomes by the authority.

3.3.6 In neither case study was it culturally appropriate to seek written case for the individual interviews though verbal consent was recorded contemporaneously at the start of each interview.

The Raising of False Expectations

3.3.7 This project fits into ongoing activities being undertaken by government departments, NGOs and international research and development institutions. Care was taken to explain the project to all the communities, government and NGOs. Life is not neat and in rural areas communities are familiar with handling overlaps between various aspects of their work, community and home. From an ethical perspective this can be complicating but also advantageous. It is complicating as the participants may not be sure why the researcher is there, "Which hat are they wearing today?" Will there be any financial benefits? This was handled by use of a clear information sheet which stressed the individual nature of the research and the linkage with Newcastle University. The advantage arises because the researcher and the team do have other hats and can take forward issues raised. In Indonesia the second stage of the field research was all about taking forward the outcomes, none required any material funding and all key parties were present. In Cumbria the

strengthening of governance is a very live issue with the establishment of a Commons Council on the table and as it transpired a formal consultation became part of this research.

Will the research accurately reflect the full range of views and if not then will the results be valid?

3.3.8 In field work there will always be views that are not captured and you do not know what you do not know. The key test is that if the views are presented back to the community and other stakeholders are they considered valid and a reasonable interpretation of the situation? Also the actual process used through group sessions enabled validation to take place during the fieldwork. the findings were triangulated by comparison with other studies in the literature and from the researcher's professional experience as well as well regarded members of the wider community.

3.3.9 Bias was minimised by stratifying the sample to include men, women, the younger generation and those with responsibilities; i.e. officers of the association or village. This was easier in Indonesia where the population from which the sample was drawn was larger and women were more active in using the common resources. In Cumbria women were not keen to participate and as in Indonesia rarely attended village meetings.

3.3.10 Anonymity of the data is important as participants may be more open if they are assured their comments will not be linked to their name. The individual data was anonymised though the village / community is identified and there will be cases where it will be possible by the context to deduce who the participant is e.g. head of village etc. No guarantee of confidentiality of the village was made though participants in villages were informed their name would not be used.

Vulnerable Groups

3.3.11 Rural producers in remote locations are poorer than those in urban areas and many have lower levels of formal education and limited influence over decision making processes. Efforts were made to explain this is a research project and there are no direct short term outputs for them. In both locations there is

currently a strong drive from the national park authorities and local communities to work together so there is no risk to vulnerable group's livelihoods or welfare from the use of data unless an individual's activities are illegal.

Ethical Risks associated with the Researcher's Background

3.3.12 The author is aware that she is part of a complex environment of stakeholders and institutions. In Indonesia though well known to the stakeholders she was only in the field for a relatively short period. This imposes risks and obligations to be sensitive to the impact of the work and where it sits in relation to other work so not to frustrate or disturb the works of others. Academic objectivity is retained through using clear frameworks against which to assess the outputs of the data collection and by use of the socio-legal code of ethics for research.

How can the participants (co-researchers) be given ownership of the process and the findings?

3.3.13 In both sites communities have been extensively involved in the production versus conservation debate and are key partners for government in managing both National Parks. The use of Appreciative Inquiry to build on existing adaptive collaborative management was deliberate to engender ownership and build capacity.

3.3.14 A full understanding of the aims of the project was essential for this research as participants were driving and shaping the data collection through the iterative methods used. All the ethical commitments such as information sheets were central to ensuring the outcomes are of practical relevance and benefit to the communities as well as contributing to research. Participation that is informed, willing and preferably enthusiastic is likely to yield more valuable findings for the community and the research.

3.3.15 The research also sought to explore horizontal collaboration between stakeholders involved in traditional management structures at the local level and the vertical collaboration between traditional institutions and government

agencies at local, national park and regional / national levels. Both these types of collaboration build networks promoting ownership of the outcomes.

Data Collection: Sampling Method

3.4.1 Sampling took place at three levels in this research:

1. The case study National Parks;
2. The commons within each National Park;
3. The participants for each common.

Choosing the case study National Parks

3.4.2 At all levels systematic purposeful sampling was used as the method. The research was planned as being multi-country and the two case studies sites were chosen due to the large range of ecosystem services provided and long standing community governance systems.

3.4.3 The first case study site is the Lake District National Park in Cumbria, England (LDNP) which has a large area of common land, approximately 25% by area while in the second case study, Danau Sentarum National Park in West Kalimantan (DSNP), all the land and water bodies in the National Park is common land.

Sampling the commons within each National Park

3.4.4 The aim in each case study was to have either contiguous or closely proximate units so that there were connections between the common land units and so that there were shared issues on the provision of ecosystem services. Ecosystem services are best addressed from a landscape scale approach considering management at a larger scale than one village's area.

3.4.5 Initially the plan was to have three units in each site but Riak Bumi, the Indonesian NGO assisting in the research in Danau Sentarum, advised including one community belonging to the minority tribal group in the Park. This ensured differences in governance approaches were captured; therefore four communities were included; three contiguous Melayu villages and one Iban Dyak village. In the second stage of the research the Dyak village was dropped while two other villages on the Tawang were added.

- 3.4.6 In the LDNP there is no cultural diversity among the different commons and so only three communities were required. Those that participated were Mungrisdale (three common land units), Caldbeck (two common land units) and Matterdale (a single common land unit). Mungrisdale and Caldbeck are contiguous while Matterdale is separated by a major road but is part of the same river catchment as the southern part of Mungrisdale Common.
- 3.4.7 An additional consideration was to choose communities that had not been over studied and therefore a conscious effort was made to avoid commons that had been the target of recent research studies or development activities. This was considered important to avoid research fatigue.

Selecting participants from each Common Unit

3.4.8 The aim for each village was to have a cross section of the type of commoners and four categories were used to classify the participants. With a larger pool this was easier to be precise about in Indonesia but the structure used in both sites was common. The target was to have three participants from each of the following categories:

1. Community Elders / Association Officers;
2. Active Users – heads of households;
3. Active Users – younger generation;
4. Women.

3.4.9 While women were not restricted from the first three groups in both case studies women usually have a hidden role in governance and in resource use. More women are involved actively fishing in DSNP than women in the LDNP are involved in shepherding. Conversely in some commons associations in the LDNP women hold an officers position (usually the Secretary) while in DSNP they never do. In DSNP it is unheard of for women to attend association meetings while in the LDNP it is merely rare.

3.4.10 So why include women at all? The reason is that in both case studies they have a significant role in the management of the household finances. In both sites the individuals are not running large businesses but are run as partnerships between members of a household and the women have

considerable influence in the decisions made at the household level as to how resources are utilised.

Field Work

3.5.1 The details of the fieldwork are included in the individual chapters on each case study. A summary of the tools is provided in Fig 3.5.

Research Tools	<u>Appreciative Inquiry Phase</u>
❖ Scope the Questions ➤ With co-researchers	Discover
❖ Individual Interviews ➤ Semi structured ➤ Open questions ➤ Interview summary sheet	Discover
❖ Intra-village Focus Groups ➤ Within sub groups ➤ Between sub groups	Dream
❖ Inter-Village Workshops ➤ AI Workshop in Danau Sentarum ➤ Commons Council Consultation in the Lake District	Design

Fig 3.5 Research tools used in each stage of the AI cycle

Discover

3.5.2 The primary form of data collection was individual semi-structured and open question interviews in order to gauge what is best about how natural resources are governed and to identify common themes. Fieldwork proposals were prepared to ensure consistency between the interviews and in addition the key questions were written in the rear of a note book so they could easily and unobtrusively referred to during the interview.

3.5.3 All interviews were recorded with consent, only two participants refused to be recorded out of over 80 interviews. Once the interview had been completed

then an interview summary sheet was filled in to collate the data.²⁹ This was particularly important in Indonesia where there were two interview teams.

Dream

- 3.5.4 This was carried out in several ways. Firstly at the end of each individual interview the participant was asked to consider what they would like the position to be in 5 to 10 years time and what things they could change to achieve this. The dream phase was continued in the focus groups where participants worked as a group to consider how where they would like to be and how they might get there. Where the number of participants was sufficient to allow smaller groups to work together i.e. just women, or just young people this was undertaken first before bringing all the categories or participants together in an intra village meeting. These were held during the same week as the individual interviews. Visual techniques were used to record the information in these focus groups using large pieces of paper. These included grids and participatory ranking systems.
- 3.5.5 In Indonesia an inter-village workshop was held where participatory techniques were used to develop dreams or goals, share these, prioritise and categorise the information in preparation for the design phase. The position in Cumbria was different as national legislation had already been enacted for the formation of a new governance mechanism, statutory Commons Councils, and therefore a consultation procedure was held along more traditional lines as is described later.

Design

- 3.5.6 The design phase was carried out in Indonesia through an inter village workshop in March 2011 as is described in Chapter 5. In Cumbria the design phase was carried out through consultation with the Federation of Cumbrian Commoners, Natural England, Defra, public meetings with owners and commoners as described in Chapter 7.

²⁹ Copies of the blank summary sheet are provided in Appendix E. An Indonesian version was used in Danau Sentarum.

Delivery

3.5.7 While delivery was outside the remit of this thesis in Indonesia an action plan for delivery was prepared and agreed among the key stakeholders and distributed to all those participating. In Cumbria a report of the design phase was distributed to all participating associations and made available online on the Federation of Cumbria Commoners website.³⁰ The Commons Council project is being taken forward by the Federation of Cumbrian Commoners.³¹

Data Analysis

3.6.1 The purposes of the data analysis is to extract the information relevant to the research questions and then interpret it to enable the research problem to be addressed. Initially a sift of the data was required to separate the data relevant to the research problem though even the less relevant data provided context and background that was useful in making sense of the findings.

3.6.2 'Making sense' is the key phrase and in order to make sense a structure was required. The research questions provided a structure so when data was collected relevant to a particular question that was allocated to that question. In addition three frameworks were adopted to make sense. These arose out of the literature review and are Legal Pluralism, Institutional Analysis and Adaptive Collaborative Management.

3.6.3 Reed recommends the use of shared data analysis and reflection by the researcher on the stories gathered through the AI interviews. She also refers to the mystique of making sense of data and that while the data is messy there is a need to be purposeful and clear about the process.³² Data collection and analysis are not sequential steps for as soon as data collection had started the process of analysing it started.

3.6.4 For instance in Indonesia where we were working as two teams we would meet each morning to discuss the interviews carried out the day before which enabled the data collection process to be reviewed and to ensure the correct

³⁰ <http://www.cumbriacommoners.org.uk/category/cumbria-commons-council-consultation>.

³¹ The researcher is a co-opted member of the Federation of Cumbrian Commoners committee.

³² J Reed, *Appreciative Inquiry: Research for Change* (Sage 2007) 137-154.

mix of participants was achieved. Information from these meetings was also recorded allowing emerging and common themes to be identified.

3.6.5 In Cumbria the author undertook all interviews herself. This had the advantage that there was continuity and consistency across the interviews but the disadvantage that there was no team to share the initial data analysis with or to facilitate the group meetings. In the Commons Council consultation that substituted for the Design phase the work was undertaken in collaboration with the administrator of the Federation of Cumbria Commoners and this allowed discussion of emerging themes.

3.6.6 It is convenient to consider data analysis in two parts, that occurring alongside or as part of the fieldwork and that undertaken by the researcher at a later date.

Part 1: Collaborative data analysis during the fieldwork

3.6.7 Phase 1 Field Work: Discover and Dream in Indonesia and Cumbria

- Complete the interview summaries
- Use these to decide on the key themes for the focus groups
- Use focus groups to validate or amend the key themes identified
- Undertake a ranking exercise to prioritise actions

3.6.8 Phase 2 In Indonesia Continuous data analysis took place over the two day intensive workshop and after it finished debriefing sessions were held with the facilitation team.

3.6.9 In Cumbria the geographical area covered for the design phase was increased to include all associations in Cumbria that wished to take part. A more formal approach of distribution of an initial consultation document at a public meeting was followed by an analysis of the issues raised and an amendment of the proposed arrangements that was then voted on. This data was then analysed quantitatively.

Part 2: Post Fieldwork Data Analysis

3.6.10 The second part of the data analysis was the review of the raw data and extracting the relevant data to answer the research questions.

3.6.11 Appreciative Inquiry data analysis is at heart interpretative and seeks to answer two questions:³³

- What works well?
- What helps that to happen?

3.6.12 The purpose of the analysis of the *Discover* phase was to give voice to the information or stories that individuals have told in the semi structured interviews. The aim of the interpretation and presentation of the data is to be transparent so that the manner in which the data is projected is authentic and valid. The iterative and collaborative nature of the fieldwork and analysis sought to minimise any significant variation as validation and corroboration were built into the process. A range of voices and stories with different themes emerged, the data analysis sought to assess whether these are consistent or contradictory and through the purposeful sampling the range of participants ensured that the results are representative of the communities and the case study.

3.6.13 The answers to the two questions above go a long way to address research questions A and B i.e. what is the current position, and the drivers and variables that cause that to happen. Guest et al's³⁴ work indicates that a sample size of 12 interviews is sufficient for data saturation to occur so the empirical data collected in each of the case study sites through interviews should ensure all the primary themes central to the research problem were covered. This gives confidence that the findings can be generalised to the case study areas though local differences will always occur.

3.6.14 The analysis focused on identifying all the themes that emerged through repeated reading of transcripts of the interviews. These were read in the

³³ J Reed, *Appreciative Inquiry: Research for Change* (Sage 2007) 149.

³⁴ G Guest and A Bunce and L Johnson, 'How Many Interviews Are Enough? : An Experiment with Data Saturation and Variability' (2006) 18 *Field Methods* 59.

original language (English or Indonesian) except when in Iban where they were translated into Indonesian. The interview summary sheets were also invaluable for capturing key points post interview. A systematic approach to identifying and capturing the themes from the transcripts was used with themes assigned to one of four topics on inquiry. From these collated themes word clouds were created to give visual expression to the data and a selection of quotes from the transcripts were used to highlight key themes.

3.6.15 Research Question C was addressed by incorporating the data from the *Design* phase into the outcomes from A and B. In the *Design* phase participants created and responded to options to strengthen local governance. Collaborative analysis took place during the meetings and workshops then from these common themes were identified to develop strategies to strengthen governance.

3.6.16 Chapter 8 presents the data analysis using the three frameworks. The Legal Pluralism framework is a typology and from this visual pictures of the relative importance of the different orders were constructed. With regard governance the data from each case study was assessed against the criteria for robust common property institutions in socio-ecological systems and the criteria for adaptive co-management.

3.6.17 The output from the analysis from the three frameworks and the word clouds from the individual interviews provide the objective foundation on which the research problem is discussed in Chapter 9.

Summary

3.7.1 This chapter outlines the research problem and research questions in the light of the literature review in Chapter 2. The theoretical framework and the participative paradigm approach adopted are justified and this is used to explain the choice Appreciative Inquiry as the method to collect data in the two field sites. The outline of the data analysis methods give an overview of how the research problem of Strengthening Governance on Common Land in National Parks is addressed in a verifiable, accurate and ethical manner.

Chapter 4: Danau Sentarum National Park

The Current Position

Why is Danau Sentarum 'Special'?

- 4.1.1 Danau Sentarum in West Kalimantan has a number of characteristics that make it unique as a National Park and its physical geography has created a landscape found rarely elsewhere in the world. The centre of the park is a series of seasonal fresh water lakes surrounded by extensive swamp forest. This dramatic open landscape is fringed by hills covered in higher peat and dry rainforest. The majority of swamp forests globally and particularly in south-east Asia are coastal while Danau Sentarum is over 700 km up the River Kapuas from Pontianak. The only similar site in Asia is the Mahakam Lakes but these are ecologically degraded. Internationally the most comparable site is the Varzea swamp forests in Amazonia also characterised by stunted dwarf swamp forest.
- 4.1.2 The underlying hydrology and the relatively good condition of the habitats result in Danau Sentarum hosting many species not found or rarely found elsewhere. The designated park of 132,000 ha is an extensive area and more than 500 species of plants have been identified.¹ The forest is flooded for much of the year by seasonal lakes where water levels can vary by up to 12 metres; these support a high diversity of fish and in 1995 211 species were identified by Kottelat and Widjanarti.² The lakes play an essential role in regulating water flow by buffering the River Kapuas thus reducing flooding along the longest river in Indonesia.³ Reptilian and amphibian fauna include crocodiles, turtles monitor lizards and snakes and the number of bird species recorded is 237.⁴ With the exception of proboscis monkeys and the orangutan, information on mammals is

¹ W Giesen, 'Flora and Vegetation of Danau Sentarum: Unique Lake and Swamp Forest Ecosystem of West Kalimantan' (2000) 31 Borneo Research Bulletin 89.

² M Kottelat and E Widjanarti, 'The Fishes of Danau Sentarum National Park and the Kapuas Lakes Area, Kalimantan Barat, Indonesia.' (2005) 13 The Raffles Bulletin of Zoology Supplement 139.

³ O Klepper and AW Bureau, 'A hydrological model of the upper Kapuas River and the Lake Sentarum wildlife reserve' (Directorate General of Forest Protection and Nature Conservation: Asian Wetland Bureau (AWB)-Indonesia 1994).

⁴ S van Balen and RH Dennis, 'Birds of Danau Sentarum' (2000) 31 Borneo Research Bulletin 336.

limited.⁵ This site of high biodiversity is home to a population of 10,284 people who depend on its natural resources for their livelihoods.⁶ Their customary forms of governance and management have evolved over several hundred years and are in themselves of value as cultural heritage.

The Study Sites

4.2.1 Three of the four study sites are in close proximity on the River Tawang, a major tributary of the River Kapuas. It is the main thoroughfare in Danau Sentarum and hence these communities are relatively accessible once in the park. The communities in these sites are Muslim with strong links to the sub-district towns on the Kapuas. The fourth site Empaik provides a contrast being a Dyak Community in the north-western fringes of the National Park.

Pengembung

4.2.2 Pengembung village is located on the edge of the River Tawang shortly before the river opens out into the main series of lakes. The villagers come from the sub-district (*kecamatan*) of Selimbau. Pengembung has been a settled village for over thirty years; its residents originate predominately from Selimbau on the River Kapuas though many of those with young families have lived most of their lives in the village.

4.2.3 Administratively the village has the status of sub-village (*dusun*) and sits under the village (*desa*) of Sekulat in the centre of the National Park. There is a proposal to form a new sub-district, Kecamatan Danau Sentarum and for Pengembung to have *desa* status. The administrative status of a settlement is critical for the flow of funds from local government to communities for schools, village administration, health care etc. The community has a basic private primary school, two mosques and is a thriving centre for the trade of fish. As there is no secondary school many children move back to Selimbau and stay with family to attend secondary school returning to Pengembung from time to time and in particular during the dry season.

⁵ AC Sebastian and RH Dennis, 'Proboscis Monkeys in Danau Sentarum National Park' (2000) 31 Borneo Research Bulletin 359.

⁶ Y Indriatmoko, 'Rapid Human Population Growth and Its Impacts on Danau Sentarum' (2010) 41 Borneo Research Bulletin 101 103.

4.2.4 There are over 100 families living permanently in the village, an increase of over 50% from the mid 1990s. The houses are all built on stilts with a main raised “street” linking the houses. All families fish unless they are traders. Several families have attempted to diversify into rubber and vegetables but these initiatives have not been successful as the crops have either been flooded or eaten by animals. Several women run small shops meeting local demands for rice, sugar, oil as well as sweets, snacks and there is one café. Geographically the working area or common land of Pengembung has boundaries with six other villages including Pemerak and Kenelang.

Pemerak

4.2.5 The settlement of Pemerak is approximately 6 km down stream from Pengembung. The houses are floating houses tied to trees on the shore. Pemerak still perceives itself as a seasonal village with most families having their main home in Suhaid. There is no school, mosque or other facilities except one floating shop though in 2010 during the fieldwork it had almost no stock due to a shortage of funds. The number of families has increased from 19 in 1994 to 47 families in 2010 with the rearing of fish in cages being the main reason given for the increase in population. A number of the families are not originally from Suhaid and are resident all year in Pemerak having come into the park as economic migrants. Pemerak is called as a *rukun* (small settlement) not being a separate *desa* or *dusun* and the inhabitants are registered with a *desa* in Suhaid.

Kenelang

4.2.6 Kenelang is a large settled village of over 120 families which has houses on both sides of the River Tawang. The houses are all built on stilts with central gangways linking the houses. Traffic between the two sides of the village is by boat. There are two mosques, a government funded primary school and many small shops. There is also a health centre with two nurses though limited facilities. In terms of local administration Kenelang is a *dusun* though the *desa* office is based in Kenelang and includes Kenelang and Empanang, both under the sub-district of Suhaid. In the 1990s Kenelang was known as being a centre for unauthorised logging to supply the sub-district but this has reduced

considerably over the last 15 years as the enforcement of illegal logging as increased.

Empaik

4.2.7 Emapik, a sub-village (*dusun*) in the sub-district of Badau, is located on the far north west of Danau Sentarum National Park near to the Malaysian border. It is a small village of 33 families, a substantial increase from the 19 families recorded in 1994. There has been considerable intervention from agricultural development projects, local logging firms and pressure to sell land for palm oil. The villagers are predominately Iban Dyaks, their religion is Christianity practiced alongside strong traditional beliefs and customary practice. There is a primary school in the village and the village head is well educated. The village has resisted efforts from palm oil companies to sell their land for development though a number of the residents travel to work on nearby plantations and there is some export of wood from the village to build infrastructure in the plantation. Initiatives undertaken by a local NGO, Riak Bumi, include a community radio project and a rubber planting project. The majority of the community practice shifting agriculture and many men are absent from the village working away usually in Malaysia though the new oil palm plantations have provided opportunities more locally. There are also a number of fish ponds where fish are being reared both for consumption and for the ornamental fish trade. There is very little use of the lakes for fishing except in the dry season and then plant based poisons are often used to kill fish in a localised area. This can cause friction with Malay communities particularly when there is no prior warning.

Land Tenure

4.3.1 The Indonesian legal system until 1998 presented a façade of a centralised framework of statutory legislation closely controlled from Jakarta. This held together a fragile nation whose boundaries relate to the extent of Dutch colonial power at the outbreak of World War II rather than a state based on ethnicity, language, geography or economy. Underneath that façade was a dancing mass of intertwined complex legal systems from the customary, *adat*, to Dutch colonial laws and post independence constitution and legislation.⁷ From 1999 the

⁷ T Lindsey, *Indonesia: Law and Society* (Federation Press 2008) 8.

position became even more complicated as the end of Suharto's presidency and the subsequent era of *reformasi* introduced decentralisation ceding legal, regulatory and perhaps most importantly revenue raising powers to the Districts (*Kabupaten*).

- 4.3.2 *Hukum adat* (customary law) has long governed the use of natural resources, mediated disputes between individuals, and addressed minor crimes and is based on oral rules enforced by community elders and leaders.⁸ If matters can be resolved in a local community then recourse to state law can be avoided. Moreover, many matters are not addressed by state law in ways appropriate to specific communities' culture or religious beliefs.
- 4.3.3 Pluralism is at the heart of land tenure in Indonesia and the overlapping layers of laws provide opportunities to the well and less well intentioned to achieve their objectives. Often the result is inertia, sometimes conflict and more often an excuse to do exactly what the individual, company or organisation desires as there is always a legal framework to utilise and support one's actions. While that can be perceived as a negative, with strong leadership communities and organisations can move forward to deliver successful outcomes by stepping deftly between the various frameworks. In Danau Sentarum this pluralism has been both restricting and enabling depending on the specific issue.

Property Rights

- 4.3.4 The administration of private property rights in Indonesia is complex with a national system of registering title and property transaction overlying traditional and religious systems for inheritance and transfer. In Danau Sentarum formal property rights registerable by individuals do not exist within the national park boundary as it is State Forest land. The situation in the surrounding buffer zone is less clear where concessions akin to leases have been granted for development such as palm oil plantations.⁹
- 4.3.5 Historically those with property rights deriving from customary law, *adat*, were not encouraged to register them and in many cases these rights have been lost as title to their land was registered by other claimants. *Adat* claims can be

⁸ T Lindsey, *Indonesia: Law and Society* (Federation Press 2008) 5.

⁹ L Yuliani et al., 'Biofuel Policies and Their Impact on Local People and Biodiversity: A Case Study From Danau Sentarum' (2010) 41 *Borneo Research Bulletin* 109 122.

personal or more often are communal, *hak ulayat*, as in Danau Sentarum, but *hak ulayat* cannot be registered and as a result of the Basic Agrarian Law¹⁰ and the Forestry Law¹¹ all *adat* rights are subject to the national interest. In practice *hak ulayat* at field level is the legal framework that governs the utilisation of natural resources in Danau Sentarum and a useful definition can be found in the Agriculture Ministerial Regulation SK 5/1999 at section 1.1 as quoted in Bakker;

Hak ulayat and similar adat law community constructs (hereafter called hak ulayat), are rights that according to adat law are enjoyed by a specified adat law community to a specified territory that is the everyday environment of its members to exploit the profit of its natural resources, including land, in the aforementioned territory, for the benefit of their survival and daily needs, which are made clear by physical and spiritual relations of descent between the aforementioned adat community and said territory.¹²

- 4.3.6 This definition refers to the territory and this is critical as it indicates the community has control over a certain area and the word *ulayat* derives from the Arabic word for “controlled or ruled area”.¹³ SK5/1999 attempts to integrate adat legal systems into state legal systems but the difficulty for all communities resident in national parks, and those planning its pragmatic management is that *hak ulayat* rights are overridden by state legal rights. Burkard¹⁴ suggests that it is easier to find a legal basis to implement community management of natural resources through Acts concerned with community welfare and development than those concerned with Natural Resource Management. Fieldwork findings for this research reflected this whereby more effective legal ratification for customary natural resource management comes from local government regulations than the Danau Sentarum National Park Management Unit.
- 4.3.7 As far as communities are concerned in day-to-day management they continue with their utilisation of customary legal practice which evolves over time to reflect changes in the economy, size of communities and introduction of new

¹⁰ Act No. 5 of 1960 Re The Basic Provisions Concerning the Fundamentals Of Agrarian Affairs.

¹¹ Law 41 of 1999 on Forestry (Kehutanan).

¹² L Bakker and M Osseweijer, 'Politics or Tradition' in GA Persson (ed), *Reflections on the Heart of Borneo* (Trobenbos International 2008) 141.

¹³ R Haverfield, 'Hak Ulayat and the State: Land Reform in Indonesia' in T Linsey (ed), *Indonesia: Law and Society* (Federation Press 1999) 45.

¹⁴ G Burkard, 'Locating Rural Communities and Natural Resources in Indonesian Law' (2009) 91 Development-Organization-Interculturalism. Supplement 25 15.

technology whether fishing gear, motorised craft or the availability of chainsaws. Each village has its own area, *wilayah kerja*; work area or territory; over which its customary rules, *hak ulayat*, are enforced for natural resource management. In the Melayu fishing villages these rules are more commonly referred to as fishing rules (*peraturan nelayan*) distinguishing them from customary laws concerned with religious, family or criminal matters. The person in charge of these is the Head Fisherman (*Ketua Nelayan*) who is a different person to the administrative village head though in small communities without *desa* or *dusun* status they may carry out both roles or at least act as a conduit of information to the village head (*kepala dusun*).

- 4.3.8 As part of the UK-ITFMP project extensive work on recording *hak ulayat* boundaries and codifying the associated rules¹⁵ was undertaken as well as attempts to establish conservation management practices based on the *wilayah kerja* and existing rules. This process was not a research exercise but a project activity to develop effective conservation management; one among many initiatives to increase conservation awareness among local communities. Harwell¹⁶ notes that one result of the codifying process was to increase the scope the rules covered. A stronger conservation ethic appeared than had probably been present before as communities sought to be seen as conservation “stewards” with the hope in some cases this would solidify their claims and increase support from the conservation project.
- 4.3.9 Harwell¹⁷ highlights the work of Dennis explaining the complications and issues raised from the mapping process. Concerns were raised that by documenting boundaries on paper a particular position was confirmed, perhaps unwittingly favouring one side over another, where a village’s territory is disputed. In particular there can be different boundaries for different resources and different cultural groups can claim different boundaries. For instance in Danau Sentarum where Iban boundaries overlap with Melayu boundaries one community or the

¹⁵ Aglionby J, Final Report of the Associate Professional Officer (Environmental Economist) Project 5 Conservation UK-Indonesia Tropical Forestry Management Programme 1995 and Heri V, Laporan Data Hukum Adat: Berupa Peraturan Nelayan di Kawasan Suaka Margasatwa Danau Sentarum Report on adat law in DSNP as part of the UK-ITFMP, Asian Wetland Bureau 1996.

¹⁶ E Harwell, 'The Social Life of Boundaries: Competing Territorial Claims and Conservation Planning in the Danau Sentarum Wildlife Reserve, West Kalimantan, Indonesia' in M Dove and PE Sajise and AA Doolittle (eds), *Beyond the Sacred Forest: Complicating Conservation in Southeast Asia* (Duke University Press 2011) 198.

¹⁷ *ibid* 198-199.

other claim supremacy. Furthermore the mapping of the ancient Melayu sultanates by the Dutch colonial officers resulted in one boundary though the modern district boundaries while based on these sultanates do differ. Tension can arise in areas where maps and therefore perceived boundaries change over time e.g. between Kelenang and Pulau Majang / Empaik. Overall these cases are a minority rather than the norm and in some cases the disputes have been ongoing for generations.

4.3.10 In many cases the boundaries are relatively fluid so fishing in the neighbouring village's territory is allowed if the visitor asks for consent and complies with that community's rules. However as demand for fish has increased, both through population increase and a rise in external buyers, communities become less tolerant of visitors harvesting resources in their area. Haverfield considers that *hak ulayat* gives rights to use resources to fulfil subsistence needs but 'not for trading purposes or individual enrichment.'¹⁸ In Danau Sentarum where fish is the only food resource which has to be traded to buy rice then this interpretation of *hak ulayat* if strictly enforced is not effective as some trading is needed to fulfil subsistence needs. What has changed is a move from a subsistence to a consumer economy with increased aspirations not only for the original residents and their descendents but also economic migrants who have settled in the park. This provides huge challenges to governance via *hak ulayat* systems.

4.3.11 Fishing rules are an active form of management and are highly valued by local communities as demonstrated in the findings from the interviews and appreciative inquiry workshop in Chapter 5. They are also recognised and ratified by local government via Kapuas Hulu District regulation No. 8 2009 (PerDa 8/2009), Protection and Conservation of Fish Resources in Public Waterways in Kapuas Hulu. Section 15 states;

15(1) With the aim of utilising fish resources which is wise and guarantees the sustainability of continuing fish yields and avoids the extinction of fish in the inland waterways of Kapuas Hulu each community is allowed to make customary rules local rules or local guidance as long as they do not conflict with national legislation.

¹⁸ R Haverfield, 'Hak Ulayat and the State: Land Reform in Indonesia' in T Lindsey (ed), *Indonesia: Law and Society* (Federation Press 1999) 45.

- 15(2) Each person or legal entity resident in the area of the customary law and people who visit the area must comply with the customary law or local guidance which is made by the community in that area
- 15(3) Government respects each customary law or local guidance made by communities as long as the customary law or local guidance does not conflict with rules and legislation of a higher rank.¹⁹

Statutory Law

- 4.4.1 National statutes and regional legislation largely determine the management of Danau Sentarum. Although there is a gulf between the written law and its implementation, a clear understanding of the legal framework explains much of the history of management in protected areas.²⁰
- 4.4.2 The Indonesian government's Forest Protection and Nature Conservation directorate has not had sufficient staff or facilities to fully implement conservation management at DSNP, but even a "paper" park has its advantages. The very designation of Danau Sentarum as first a wildlife reserve and then a national park has limited development and commercial extraction of natural resources in the area. Decree SK757/Kpts/Um/10/1982 made Danau Sentarum a wildlife reserve in 1982, and SK 34/Kpts-II/1999 created the national park in 1999. These decrees cannot be considered in isolation but must be viewed in connection with the law and regulations covering national parks.
- 4.4.3 The 1994 international designation of DSNP as a Ramsar site (a wetland of international importance) has also brought benefits, releasing funding streams that otherwise would be less accessible. Furthermore, it raises the profile of DSNP internationally and brings pressure on the Indonesian government both within the Ministry of Forestry and in the regional government to provide funding and staff for the protection of Danau Sentarum. It further discourages decisions that would adversely affect its condition. This has affected some decisions on oil

¹⁹ Translated by the author.

²⁰ JM Patlis, 'What Protects Protected Areas? Decentralisation in Indonesia, the Challenges Facing Its Terrestrial and Marine National Parks.' in NS Sodhi et al. (eds), *Biodiversity and Human Livelihoods in Protected Areas: Case Studies From the Malay Archipelago* (Cambridge University Press 2007) provides a thorough overview of the legislation affecting National Park management in Indonesia.

palm plantations, as detailed by Heri et al. although concessions have been awarded in surrounding areas.²¹

National Forestry Legislation

- 4.4.4 The Indonesian Constitution of 1945, as amended, grants the Indonesian state control and ownership over all natural resources. More particularly, all land declared as forest is state owned and under the management of the Ministry of Forestry. The current primary law governing forest management is the 1999 Forestry Law, which replaced the 1967 Forestry Law. The 1999 law acknowledges that the forest estate is declining and requires sustainable management; it also requires management for both current and future generations, by implication adopting the Ecosystem Approach as required by the Convention on Biological Diversity. Article 1, Section 11, of the 1999 law defines nature conservation forest areas, including national parks, as “a forest with specific characteristics, having the main function of protecting life-supporting systems, preserving species diversity of plants and animals, and sustainable use of biological resources and their ecosystem” (Forestry Law UU41/1999).
- 4.4.5 The 1999 Act also allows some state forests to be *adat* (customary) forests if traditional rights have been continuously exercised and the use is consistent with the objectives of the forest area. Achieving formal recognition of *adat* rights in national parks is difficult in practice in part because Article 37 of the 1999 Act states that traditional management practices must not conflict with the designation of the forest as Conservation or Protection Forest.²²
- 4.4.6 Conservation forests are under the control of the Ministry of Forestry. This means local government has no jurisdiction within Danau Sentarum, which has in the past resulted in difficulties in meeting local communities’ socioeconomic needs. Field Work in 2010-2011 indicated this less of a problem since decentralization perhaps because local government ignores the Park Management Unit though protected areas officially create a black hole in the administrative map of local government. Local governments have three options:

²¹ V Heri and L Yuliani and Y Indriatmoko, 'Interacting Threats and Challenges in Protecting Danau Sentarum' (2010) 41 Borneo Research Bulletin 74.

²² Law 41 of 1999 on Forestry (Kehutanan) Art 37(2).

(1) ignore communities resident in a national park; (2) treat the villages as if there were adjacent to the conservation area and build schools and clinics outside the park; or (3) provide some resources to the permanent settlements inside the park – an option that makes officials uncomfortable. The second and third options represent the strategies used by the *kabupaten* (district) of Kapuas Hulu for communities in DSNP. Significant efforts have been made since 1993 to increase coordination and understanding with the government of Kapuas Hulu. One limitation is that the national park headquarters is in Sintang, several hundred kilometres from Putussibau, the administrative capital of Kapuas Hulu district. The journey to Putussibau takes more than six hours by speedboat but it can be reached in four hours by road from Lanjak road conditions permitting.

4.4.7 The lack of socioeconomic support has disadvantages to communities but can be an advantage for the retention of forest. The policy of decentralisation²³ allowed local government to grant small concessions of up to 100 ha for local needs but only in areas under its jurisdiction. Because DSNP remains under the control of central government, local government cannot grant logging concessions within the park, but its authority in the buffer zone is less clear. DSNP's buffer zone of 65,000 hectares is thought by some to be part of the conservation area, but concessions have been granted, with significant impacts on the national park.

4.4.8 Administratively, Danau Sentarum may be a protected area under national regulation, but in practice it is part of a continuum of forest. Its boundary is in most places not apparent with the forest just outside the park managed in the same way as that just inside demonstrating protected area boundaries have little significance for local communities. Furthermore, the demand for land for oil palm plantations in the buffer zone has increased pressure on DSNP. Not only would such development increase demand for timber and non-timber forest products from within DSNP but clearing the forest for plantations would damage the park's water quality.²⁴ The debate over oil palm concessions and who receives its benefits has been heated and has raised the profile of natural resource

²³ Decentralisation has been the major driver of reform in Indonesia since 1999. The initial two decentralization laws, Law No. 22 of 1999 on Regional Government, and Law No. 25 of 1999 on Central-Local Fiscal Balance, as amended, were the basis for this policy.

²⁴ Yuliani (n9) 124.

conservation. The status of the buffer zone as a conservation forest remains disputed, with both regional and central governments claiming authority.

- 4.4.9 As a result of the work started on the United Kingdom–Indonesia Tropical Forestry Management Programme (UK-ITFMP) and continued by Riak Bumi and CIFOR, as well as the activities in Bentung-Kerihun National Park, the government of Kapuas Hulu is aware of the area's importance for conservation and declared itself a conservation district in 2003.²⁵ This public statement is a significant step forward, but it is a major task with financial opportunity costs as the district will incur financial costs if it limits development.

Ecosystem Services currently delivered

- 4.5.1 Danau Sentarum is designated nationally and internationally for its biodiversity but is valued for the varied services it provides. The benefits of these services accrue to a diverse group of people; residents of the national park, populations living in the surrounding towns, communities downstream along the River Kapuas and to the wider society in south-east Asia and beyond. There are trade-offs to be made between certain services in that the extraction of certain provisioning services e.g. timber can have a deleterious effect on the supply of other services e.g. carbon storage. Furthermore the exploitation of certain services can have a degrading affect on biodiversity for instance as certain fish species become rare or extinct. So the balance between ecosystem services is complex, no effort is made to quantify the services except to draw on existing data. Due to the diffuse nature of the benefits a total summation of the service is not helpful for management planning as local residents perceive the resources from their own perspective not those of other beneficiaries. This is consistent with the Ecosystem Approach as advocated by the World Resources Institute where the need to analyse ecosystems on a macro and micro level is a key principle as is the need to recognise trade-offs between services and the involvement of all stakeholders.²⁶

²⁵ SK Bupati Kabupaten Kapuas Hulu No. 144 2003.

²⁶ WR Institute, *World Resources, 2005: The Wealth of the Poor: Managing Ecosystems to Fight Poverty* (World Resources Inst 2005) 82.

Provisioning Services

- 4.5.2 A study for the Global Environment Facility estimated the value of the annual gross benefits for the provisioning services at \$2.6 million in 1995; this included fish for human consumption, both caught in the wild and reared in cages, ornamental fish, timber for use within the park, turtles, honey, rattan and swift nests.²⁷ 80% of this value was fish for human consumption. Those sampled were also asked about trends in yields over the previous five years of fish, honey, wood and rattan and the vast majority said yields were declining.
- 4.5.3 Dudley analysed the fisheries sector in more detail and estimated from data collected that the total catch was in the order of 10,400 tonnes per year with a variance from year to year of approximately 25%.²⁸ This variance is a result of the unpredictable rise and falls in the water level of the lakes. The period of intense fishing is the dry season but some years there is no dry season and yields are much lower. Many residents now depend on the rearing of fish in cages as an income source and a savings bank; small fish are caught throughout the year and fed to carnivorous fish in cages adjacent to their houses. This practice is widespread in the three Melayu villages in this study while in Empaik there are fish ponds though the fish kept there have a vegetarian diet so there is no impact on fish stocks.
- 4.5.4 Since 1995 there have been sustained efforts to grow the honey industry with the price per kilogram being increased ten fold as a result of improved harvesting techniques, marketing and organic certification. The driver for this project was both to improve livelihoods and to motivate local residents to protect the forest from fire as their yields of honey are dependent on a healthy forest. Conservation of the forest and pride among local residents is the primary output as the total contribution to livelihood requirements will remain low due to the low proportion of total income earnings from honey comprises; the 1995 data concluded honey comprised 1% of the income from provisioning services.
- 4.5.5 The 1995 data only valued resources that are sold or have a market price and therefore did not include a value for the waterways used by local communities

²⁷ J Aglionby, 'Community Management of Danau Sentarum Wildlife Reserve' in K King and W Giesen (eds), *Incremental Costs of Wetland Conservation* (Wetlands International 1997) 50.

²⁸ RG Dudley, 'The Fishery of Danau Sentarum' (2000) 31 *Journal Source: Borneo Research Bulletin* 261.

for drinking, washing and as a sewer. This is an essential provisioning service from DSNP as there is no water treatment or potable water supply and residents boil water for drinking and cooking. This water is taken from the same part of the river used to wash and defecate. As the population increases so does the risk of disease. There is no hard data though water borne diseases were reported by interviewees to be more common in the dry season when the current is reduced and the river can flow in reverse.

Regulatory Services

- 4.5.6 Danau Sentarum is of regional significance in terms of its regulation of the water of the River Kapuas. No economic valuation has been undertaken but a hydrological model estimated 25% of the peak flow of the R. Kapuas flows upstream into Danau Sentarum so reducing incidents of flooding downstream.²⁹ Similarly periods of low flow are avoided in dry periods by up to 50% of the water in Danau Sentarum flowing back out into the Kapuas ensuring water is available for transport, maintenance of fish stocks and water for livelihood needs.
- 4.5.7 The other primary regulatory function of Danau Sentarum is climate regulation through carbon storage. Anshari estimates the total carbon storage at 33.5 million tonnes with a variation of 1000-4000 t/ha depending on peat depth.³⁰ The carbon stored in the peat soils of Danau Sentarum is in the order 10 times that stored in the above ground vegetation of the tropical swamp forest.

Cultural Services

- 4.5.8 Danau Sentarum has a rich cultural history and is a living and working cultural landscape. The two main communities, the Melayu and Iban, have contrasting cultures arising from differences of history, religion, land use, economic activities and geography. Traditional methods of land use, and the management of the fisheries resource are under threat due to inward migration and a move from a subsistence to a cash economy. This has been accelerated by the adoption of outboard motors, more prevalent since the 1970s and as well as vastly

²⁹ O Klepper and AW Bureau, 'A hydrological model of the upper Kapuas River and the Lake Sentarum wildlife reserve' (Directorate General of Forest Protection and Nature Conservation: Asian Wetland Bureau (AWB)-Indonesia 1994).

³⁰ GZ Anshari, 'Carbon Content of the Freshwater Peatland Forests of Danau Sentarum' (2010) 41 Borneo Research Bulletin 62 71.

improved communications since the late 2000s when mobile phone communication became possible.

- 4.5.9 Visitor numbers to Danau Sentarum are low, fewer than 100 foreign visitors each year, though there are a significant number of day visitors from the towns surrounding the national park. The main group of visitors from outside the area are recreational fishermen. Very few stop in the villages used in this case study.

Supporting Services

- 4.5.10 Supporting Services are the natural activities that support the provision of other ecosystem services. In a forested environment such as DSNP photosynthesis is key to underpinning other services and it is the dead trees and associated vegetation that are central to the formation of the peat soils. Water cycling occurs at an atmospheric level and through the buffering hydrological systems. These supporting services are being reduced as changes in habitats through fire, pollution, unsustainable harvesting and degrading land use practices are continued. The impact of this reduction in supporting services is that in due course the provisioning and regulatory services provided will decline.

Summary of Ecosystem Services from Danau Sentarum

- 4.5.11 Danau Sentarum is a highly valued ecosystem being internationally and nationally designated for its biodiversity. The good and services it provides are important to its resident population, to sub-district towns surrounding the park and regionally in terms of the fish trade and the regulatory services it provides. Access to and governance of these resources is critical in an area of high economic and population growth as well as high levels of poverty.
- 4.5.12 Currently the trade-offs between the various services are inadequately managed with significant degradation of ecosystems occurring through pressures of population, commercialisation and pressures on resources from communities surrounding the national park.³¹ While governance at a local level is sophisticated and multi-generational in its application the primary drivers for local governance are social harmony and equitable access rather than environmental sustainability.

³¹ Heri (n21) 74.

Current Commons Management

Park Management

4.6.1 Management of DSNP is under the DSNP Park Management Unit (Unit Pelaksana Teknis) which was established on 1 February 2007 by Ministerial Decision P.03/Menhut-II/2007. The Park Management Unit is responsible for managing the national park and enforcing legislation to prevent illegal resource extraction and activities. In 2009 the unit's staff numbered 22, compared with two stationed in Danau Sentarum in 2005. The main office is based at Sintang over 200 km from the national park. Forest police officers are stationed in the sub-district towns of Semitau, Selimbau and Lanjak though these are also outside the National Park itself. The only staff based in the National Park are those at the Field Research Centre in Bukit Tekenang and at the Guard Post at Kenelang. There is a forest fire response unit based in Semitau also under the park management unit of the DSNP and in the dry season those staff spend more time in the actual park.

Economic Instruments

4.6.2 There are no economic instruments available to Park Management Units to change patterns of resource use. Instead conservation projects and smaller initiatives funded by international government and non-government donors have been used in Danau Sentarum to encourage a change in behaviour. These do not require a contract between the donor and the recipient but are delivered as technical assistance. In the last 10 years the majority of the projects have been led by Riak Bumi, an NGO, rather than by the Park Management Unit. These projects have included:

- Development of a honey industry through technical assistance in harvesting and processing techniques, marketing and organic certification;
- Tree planting in areas that have been burnt to encourage reforestation and habitats for fish breeding;
- Micro-hydro turbine installation in one village;
- Ecotourism initiatives including development of orchid gardens;
- Environmental education to demonstrate links between livelihood and quality of natural habitats to encourage sustainable resource use;

- Capacity building for governance by local communities and dispute resolution services through mediation.

Community Governance: Wilayah Kerja: The Spatial Implementation of Hukum Adat

- 4.6.3 The 1994–1995 survey of villages in Danau Sentarum revealed that each village had its own rules governing the harvesting of resources and its own *wilayah kerja* (resource utilization area; literally, “work area”) to which those rules applied.³² This geographical aspect of customary law represents a change from earlier times when the Kapuas kingdoms had control over their subjects but not the land.³³
- 4.6.4 In DSNP today, with some exceptions, communities allow outsiders to enter and fish or harvest other resources. This is subject to them following the the rules of that area (*peraturan nelayan* (fisher’s rules)) for that work area (*wilayah kerja*). Access is therefore not closed but managed by area specific rules. It is not known when this change occurred but the practice is estimated to be at least two generations old. The fisheries service may have had a role in the transition, since in the 1950s–1970s it conducted extension work that strengthened the role of the head fisher or *ketua nelayan* in each settlement. In 1994 and 1995 Dennis and Erman mapped the *wilayah kerja*, and data on the customary rules was collected on a number of occasions by Aglionby, Heri, Harwell, and Anshari et al.³⁴
- 4.6.5 Each ethnic group has its own system of *adat* in force across the national park so when disputes occur between people of different ethnic groups a problem arises; which *adat* system should be used? Yasmi and others researched this question in relation to poisoning incidents which kill fish downstream.³⁵ Their

³² J Aglionby, 'Final Report of the Associate Professional Officer (Environmental Economist) Project 5 Conservation' (UK-Indonesia Tropical Forestry Management Programme 1995).

³³ RL Wadley, 'The History of Displacement and Forced Settlement in West Kalimantan, Indonesia' in D Chatty and M Colchester (eds), *Conservation and Mobile Indigenous Peoples: Displacement, Forced Settlement, and Sustainable Development* (Berghahn Books 2002) 317.

³⁴ Aglionby (n32) and V Heri, 'Laporan Data Hukum Adat: Berupa Peraturan Nelayan di Kawasan Suaka Margasatwa Danau Sentarum' (Asian Wetland Bureau 1996) and E Harwell, *Law and Culture in Resource Management. Consultant's Report to Indonesia-UK Tropical Forestry Management Programme Project 5: Conservation* (Wetlands International 1997) and GZ Anshari and NW Handayani, *Aturan-aturan Tradisional: Basis Pengelolaan Taman Nasional Danau Sentarum* (Wana Aksara 2005).

³⁵ Y Yasmi, (Wageningen University, Wageningen 2007).

conclusion was that good negotiation between head fishers was the key to reaching settlements and preventing the escalation of disputes. In addition, clear boundaries between communities assist in conflict resolution.

- 4.6.6 Participatory management based on *adat* was initiated by UK-ITFMP, but due to changes in staff and policies was not continued resulting in a lost opportunity.³⁶ Since UK-ITFMP ended, the legislative position nationally and locally has altered. The 1999 Forestry Law can promote community-based forest management because it gives greater recognition to *adat* rights and *masyarakat hukum adat* (customary law communities). It does not give title to *adat* rights, but rather gives communities the right to manage resources and this right is subordinate to the national interest.³⁷ However, this recognition does not extend to conservation forests such as Danau Sentarum.
- 4.6.7 In 2004 a ministerial directive on collaborative management in protected areas was issued (P.19/Menhut-II/2004) that formally allows local communities, as well as other parties, to be co-managers in protected areas including national parks. By formally recognizing the role of communities, this decree offers a new *de jure* paradigm for co-management in DSNP. Like the 1999 Forestry Law, the decree does little to recognise *adat* rights as tenure and is broad in its guidelines.³⁸ It does however recognise that communities living in protected areas are dependent on the natural resources in their locale.

³⁶ G Claridge, 'Community-based conservation management at Danau Sentarum Wildlife Reserve (West Kalimantan, Indonesia): lessons learned from the Indonesia-UK Tropical Forest Management Programme, Conservation project and guidelines for the future' (Consultancy report. Bogor: Indonesia-UK Tropical Forest Management Programme: Project 5 - Conservation, ODA / Wetlands International 1997).

³⁷ C Marr, 'Forests and Mining Legislation in Indonesia' in T Lindsey (ed), *Indonesia: Law and Society* (2nd edn Federation Press 2008) 261.

³⁸ M Moeliono and E Purwanto, 'A Park in Crisis: Local Governance and National Policy' (paper presented at IASC Conference Cheltenham 2008) 14.

Governance in Case Study Villages

4.7.1 This section looks at the governance systems for natural resource management in the case study villages currently and over the last 20 years. This provides an overview while detailed findings from the field research are given in Chapter 5 with the analysis of the interviews.

Pengembung

4.7.2 Pengembung has rules for natural resource utilisation that focus on fisheries and the rules emphasise two aspects, firstly how access to fishing is divided up during the dry season through a system of draws or lotteries. This is a means for distributing the prime places for catching fish and secondly the management of outsiders. When the water level is high there are fewer conflicts and more space though yields are lower. Pengembung also has rules about the harvesting of timber and rattan.

4.7.3 The governance of natural resources is managed by the Head Fisher. This position had in 2010 been vacant for several months, as they could not agree between two candidates who took differing views towards the use of fine mesh nets. One was keen to ban them, the other to keep them. The vacancy had arisen as the previous incumbent had been appointed *Kepala Dusun* (Village Head). The men can all attend the meetings but no women attend. Most women did not perceive this as a problem although the women actively fish. Voting is not used for decision making in Pengembung instead a decision is taken when there is consensus hence the impasse over the choice of head fisherman. There is also a treasurer who collects and keeps the money raised in the dry season and this money is used to assist people in the community often through micro-loans when people are sick or need to purchase new fishing gear.

4.7.4 With regard their boundaries with other villages they have no disputes and there is an annual meeting between the Head fisherman of Pengembung with his counterpart from the neighbouring settlement of Sumpak as the boundary swaps from one side of the river to the other on an annual basis.

Pemerak

- 4.7.5 Pemerak is a different type of community being more of a semi permanent settlement than a village. While there are families who live in Pemerak full time there is much more movement to and from Desa Madang Permain in the sub-district town of Suhaid where most families have their main home as there are no facilities in Pemerak. The head fisherman and the secretary live in Suhaid coming to Pemerak usually only in the dry season. This is resented by some of those residing more permanently in Pemerak who consider there is little active governance. Several complained about the lack of enforcement of rules and that a revision of the rules is required to manage fine meshed gear. There was repeated concern that there is an increase in the use of electricity as a means to catch fish by people coming in fast speed boats from Suhaid who could not be caught.
- 4.7.6 There is an annual meeting for all fishers where the rules are discussed. Majority voting is used to make rules and participants said this enables effective decision making. There are formal rules and then also internal custom and practice e.g. about the times of day nets should be lifted. There is a procedure for handling breaches of rules from warnings and fines by the Head Fisherman to referring the case to the Head of *adat* in the *desa* village. The last resort option is handing the case to the police. One permanent resident said after three warnings a repeat offender could be excluded from the village though that sanction had not yet been imposed. There are no boundary disputes with neighbouring villages.
- 4.7.7 There was no recent set of written rules available so the rules collected in 1994 were discussed. There were some rules that had changed, for instance they said they no longer required rules about commercial logging as that was no longer an issue with timber extraction for local needs permitted with the consent of the head fisherman. With regard offences using poison and electricity to catch fish they had concluded that such cases should be handed straight over to the police and pursued through national legislation

Kenelang

4.7.8 Kenelang is a large village and the administrative centre for a wider area of Desa Laut Tawang. The village head, *kepala desa*, and the sub-village head, *kepala dusun*, are resident in the village but the governance of fishing is separate from the administrative running of the village. In addition to the head fisherman there is a committee of officers who run the fisheries including a secretary and treasurer. In 2010 the committee was replaced by a group of enthusiastic young men with a higher than average level of education exemplified by the new Head Fisherman, a qualified teacher, who works as a fisherman due to a lack of teaching jobs. The community had in 2010 agreed a revised set of fisheries rules which had been typed up and circulated widely to neighbouring villages and to the sub-district head (Camat) in Suhaid. It had not been sent to the Park Management Unit or to the police. This committee was voted in by a majority and was operating but there was no consensus over the appointments and there remained a degree of unease in the community. There are no recent written rules about natural resource use except fishing. The rules on timber and non timber forest products recorded in 1996 by Heri are still current but clearly were not seen as important.

Empaik

4.7.9 Empaik is an Iban village with a different system of customary law and no head fisherman. Instead there is a head of customary law, the *tembungung adat*, and a village head, *kepala dusun*. Empaik's use of natural resources is land based focusing on shifting cultivation and the *kepala dusun* said there was no need to involve their community in discussions relating to fishing areas, *wilayah kerja*, as they only fish infrequently and then usually only for home consumption. The Iban and other Dyak tribes have a long history of sophisticated management of natural resources though many of these practices are not written down. Traditionally *adat* that is written revolves around offences within society but in 2007 Empaik was a signatory to an agreement between all Iban communities along the border of West Kalimantan. This covers 73 types of offences and the respective fines and sanctions and the rules are considered strong and effective as fines have been imposed through *adat* courts including for illegal logging.

Some of these offences relate to natural resources and are listed here using the numbers in the list of rules;

- 43 Felling timber in someone else's territory
- 46 Using poison (natural or man made) or electricity for fishing in the wrong place or causing the death of caged fish
- 50 Burning forest on purpose
- 51 Burning forest by accident

4.7.10 The community in Empaik hold meetings when there is an issue to discuss. For instance when the village was asked to sell land for oil palm the *Kepala Dusun* called a meeting and the villagers concluded that it was not in their long term interest to sell their land so decided not to progress negotiations.

Past Efforts to Improve Natural Resource Management through Governance

4.8.1 The recent history of Danau Sentarum is scattered with initiatives to improve the governance of natural resources in the national park so to deliver environmental outcomes and livelihood benefits. These aim to encourage collaboration both between villages and between villages and the government conservation agencies. These in most cases have been catalysed and funded by NGOs and some have met with more success than others. The oft repeated story is that due to lack of continuity of each project there is little to show in terms of continuing initiatives, improved livelihoods or enhanced environmental quality. This section will focus on three different initiatives to demonstrate efforts to improve governance to enhance ecosystem services:

- A customary law treaty to resolve a crisis;
- Establishment of a field level management structure;
- Combined community and forest police patrols.

An Adat Treaty to Resolve a Crisis

4.8.2 The traditional use of poisonous plant extracts, *tuba*, for fishing by Iban Dyak communities has become an increasingly contentious issue as the Melayu have increased the numbers of caged fish they rear. In 1994 the situation escalated when potassium cyanide was used, instead of the plant based *tuba*, to

devastating effect on down stream Melayu communities. The Dyak were immediately blamed and justice sought resulting in a crisis situation that threatened peace and required the involvement of high level officials. In response the Dyak community retorted that the increasing use of fine meshed nets (*jermal*) all year by the Melayu was wrecking greater devastation on fish stocks and that these should be banned. The situation became so tense the Vice-Governor flew in by sea plane to preside over the signing of an adat treaty (*kesepakatan adat*) prohibiting the use of *jermal* and poison.

- 4.8.3 The signing ceremony was tense bringing both communities into the same space and the atmosphere was heightened by the collapse of the Head of Adat from the Melayu community during the ceremony. This was seen by some as a warning that the agreement was not appropriate and they were being forced to sign by the presence of the vice-governor with the added complication that many Melayu Head Fishermen were not invited to the event. The author was present during these events and in analysing them from the perspective of different stakeholders concluded that for the treaty to take effect a three-pronged approach of awareness raising, renegotiation and ratification of the treaty as a bye-law would be required.³⁹ In summary the intervention of the Vice-Governor was welcomed but the process ultimately was not successful in changing governance systems due to the rushed nature of drafting the agreement and the lack of resources allocated for its implementation.
- 4.8.4 Harwell reflected on the events and concluded that the event was seen to be an intrusion of outsiders into local affairs and sovereignty.⁴⁰ The UK-ITFMP conservation project Harwell perceived was cast by the Dyak elite as favouring the Melayu over themselves so providing a reason to turn against the project. This may have been a tactic by the Dyak elite to continue using unregulated damaging fishing techniques. Yasmi considered the matter and concluded the main stumbling block in reaching an agreement was that the use of *tuba* is permitted under Dyak customary law yet prohibited under Melayu customary

³⁹ J Aglionby, 'Final Report of the Associate Professional Officer (Environmental Economist) Project 5 Conservation' (UK-Indonesia Tropical Forestry Management Programme 1995) Vol 2 22.

⁴⁰ E Harwell, 'The Social Life of Boundaries: Competing Territorial Claims and Conservation Planning in the Danau Sentarum Wildlife Reserve, West Kalimantan, Indonesia' in M Dove and PE Sajise and AA Doolittle (eds), *Beyond the Sacred Forest: Complicating Conservation in Southeast Asia* (Duke University Press 2011) 207.

law. The conflicting rules reflect cultural differences and inevitably result in difficulties in achieving an agreement.⁴¹

Establishment of a field level community management structure

4.8.5 In 1994 during the UK-ITFMP's survey of current natural resource management practices it became clear that:

- Government funds and human resources for the protection and management of Danau Sentarum are limited;
- There is a sizeable population who depend on the natural resources of the protected area;
- Local communities possess a wealth of knowledge about the area;
- Local communities have a customary management system based on delineated geographical areas and rules.⁴²

4.8.6 The project therefore decided to develop a community conservation management system through grouping villages and their work areas into management units (*kelompok*) based on rivers as the natural communication routes. This was decided with considerable input from the individual communities to advise which village should be in which unit taking account of ethnic, historical and administrative ties as well as geography. Local communities were eager to take part and put huge efforts to organise social events alongside the meetings.

4.8.7 This system was nurtured for eighteen months but after a change in personnel the project decided not to take the initiative forward though this decision was later criticised by the project auditors as a lost opportunity.⁴³ The initiative required external support for arranging meetings, paying for transport costs and documentation and to continue would have required the commitment of funds by the statutory conservation body at the end of UK-ITFMP.

⁴¹ Yasmi (n35) 115.

⁴² Aglionby (n15).

⁴³ G Claridge, 'Community-based conservation management at Danau Sentarum Wildlife Reserve (West Kalimantan, Indonesia): lessons learned from the Indonesia-UK Tropical Forest Management Programme, Conservation project and guidelines for the future' (ODA / Wetlands International 1997).

4.8.8 There were other factors why the work was not continued, but one was the lack of *de jure* status of communities. Locally the conservation agency (Balai Konservasi Sumber Daya Alam, KSDA) supported establishing community management units but the minister of Forestry could not authorise making community groups conservation managers while Danau Sentarum was still a wildlife reserve.⁴⁴

4.8.9 With the benefit of hindsight even if the initiative had continued until the end of the project in 1997 it is unlikely to have continued subsequently as there were no staff resident in DSNP from 1997 until 2007.

Integrated Community and Forest Police Patrols

4.8.10 From 2010 to 2011 the NGO Flora and Fauna International (FFI) developed a partnership between the Park Management Unit forest police and local communities through a community ranger scheme. A *Satuan Pengamanan Intensif* (SPI) or Intensive Protection Unit was established to patrol and monitor the park with the primary focus of improving prospects for orangutan conservation through forest protection. Three community members accompanied by one member of staff from DSNP Park Management Unit patrol the park for 15-20 days per month seeking out illegal activities. This project ran with mixed success with some participants complaining about the terms and conditions of their contract and FFI were concerned that the Park Management Unit was not enforcing the law strongly enough when perpetrators were caught.

4.8.11 The deputy head of the National Park in 2011 was clear that processing cases through the courts is a lengthy and expensive process and it is more effective to use *hukum adat* for initial offences. These cases could be considered then be settled more quickly, cheaply and locally and have the effect of integrating conservation management into customary law.⁴⁵

4.8.12 In 2012 FFI announced they had received a legacy that will be used to continue the SPI programme and have signed a Memorandum of Understanding with the National Park Management Unit to improve law enforcement related to

⁴⁴ J Aglionby, 'Danau Sentarum National Park: A Historical Overview' (2010) 41 Borneo Research Bulletin 20 30.

⁴⁵ Interview by the author with the Head of the National Park in March 2011.

orangutan poaching as well as reduce illegal logging and encroachment in the park. The programme also recognises the significant impact of fires on forest habitat and will include the provision of fire fighting equipment and training in fire-fighting to communities. The ultimate purpose of the project is to secure a forest habitat that is in good condition and well protected so that orangutans can be released there from rehabilitation centres in line with Indonesia government policy to release all orangutans from captivity by 2017.⁴⁶

Links between Local Governance and Government National Park Unit

4.8.12 According to Indonesian legislation governing National Parks there are strict restrictions on the activities of humans in National Parks with extraction and harvesting of resources in most zones not allowed.⁴⁷ The philosophy underpinning the legislation is closer to the American than the English understanding of National Parks. For instance a utilisation zone sounds as though it is an area where resources can be harvested but use is limited to tourist activities. In Danau Sentarum there has always been a more flexible approach taken as there was extensive human settlement at the time of designation as a wildlife reserve. In the 1990s some Conservation Authority staff wished to take a strict line and move the residents out but that was never the majority view.⁴⁸ The change in designation to a National Park in 1999 gave some more flexibility but the extraction of resources is still limited to the buffer zone of the national park.

4.8.13 The policy of the inaugural Head of DSNP Park Management Unit was that communities have a right to live and work in their traditional areas though that immediately makes the basis for enforcement difficult for National Park staff as all activities are in effect illegal so where do forest police draw the line. It is though the only realistic approach as the communities are recognised by local government through the granting of *desa* status within the park boundaries and the development of facilities that flows from this status. This is an area where legal pluralism operates in overlaying but unconnected worlds. A community's primary relationship is with local government administration, which allows the

⁴⁶ <http://www.fauna-flora.org/news/legacy-to-help-wild-orang-utans-in-kalimantan/> accessed 19 April 2012.

⁴⁷ Law No 5 1990 concerning the Conservation of Biodiversity and Ecosystems (undang-undang Republik Indonesia nomor 5 tahun 1990 tentang konservasi sumber daya alam hayati dan ekosistemnya).

⁴⁸ Pers. Comm. Deputy head of West Kalimantan Nature Conservation Agency 1994.

free movement of people throughout the country, and yet the area is a National Park without a defined management plan.

4.8.14 The Minister of Forestry's decree, P.56/Menhut-II/2006, has extended the possibilities for incorporating *de jure* natural resource harvesting as it allows for traditional use zones and special use zones. The former allows for resource harvesting by communities who through historical circumstances are dependent on traditional harvesting. Special use zones are areas where communities are already resident at the time of designation and where infrastructure already exists. It is proposed these will be used in Danau Sentarum but no regulation or management plan confirming the zones has yet been issued. This is in part because extractive use extends across the entire national park except a few small closed lakes. It is therefore difficult to define core zones and other limited use areas, except on a small scale, without leading to conflict with local communities. In effect the whole park would require to be zoned as a special use zone which is not what was intended but reflects the views of some on how special use zones could be used.⁴⁹

4.8.15 While the first Head of the Park Management Unit supported local communities remaining within and managing the national park he spent limited time in the National Park being based in Bogor and Sintang. In 2011 there was an active deputy who was often in Danau Sentarum and believed in the theory of local community management though his personal motivation and drivers are ecology and in promoting the importance of Danau Sentarum on the regional, national and international stage.⁵⁰ Implementation of community-based conservation has also been constrained as until 2010 the Park Management Unit had very few staff and their time was prioritised on developing the organisation and its proposed headquarters. In practice limited resources are allocated to working with communities and park rangers cover large areas. The problem is compounded as only one ranger is trained in community development work and

⁴⁹ A Mulyana et al., 'Establishing special use zones in national parks: can it break the conservation deadlock in Indonesia?' (Center for International Forestry Research (CIFOR) 2010) <http://www.cifor.org/publications/pdf_files/infobrief/001-Brief.pdf>.

⁵⁰ Interview with Budi Suriansyah (Deputy Head, Danau Sentarum National Park) 25th March 2011.

overall the Park Management Unit has a limited budget for fuel and daily field allowances for staff.⁵¹

Links with Local Government

4.8.16 Local government in Danau Sentarum comprises several tiers from the *dusun* (sub-village) via the *desa* (village) and *kecamatan* (sub-district) to the *kecamatan* (district, formerly called regency). At all levels there are paid government officials though the *kepala dusun* and *kepala desa* are not full time. Prior to the 1990s almost all settlements in Danau Sentarum were beneath these tiers and the influence of local government within Danau Sentarum was much less, in fact local government were nervous of providing any services to communities as the message from central government was clear, 'Settlements are forbidden within the protected area boundary and should not be encouraged.'⁵² The political landscape since 1999 with *reformasi* and decentralisation has changed beyond measure. Financial and regulatory powers of the District are significant and District staff are not comfortable being told what to do by the Ministry of Forestry particularly when it constrains their revenue raising opportunities. There is also significant antagonism towards the Park Management Unit who decided to have their headquarters in Sintang, a different District, not in Putussibau, the capital of Kapuas Hulu District.

4.8.17 As a result of decentralisation there is a drive to increase the number of *desa* and *kecamatan* including within DSNP. There has not been a significant increase in government infrastructure though some schools have had more classrooms added. The focus instead has been on upgrading settlements to a formal status and that gives local government a chain to convey and collect information to and from the *kecamatan* and *kecamatan* though officials rarely visit Danau Sentarum except during election campaigns. Looking to the future local government consider Danau Sentarum as a key tourism destination together with Benteng Kerihun National Park. Tourism potential will be greatly increased if the border post at Nanga Badau (near Empaik) is fully opened to international travellers.⁵³ Support from the Ministry of Tourism has also been

⁵¹ Interviews with the Forest Rangers in Danau Sentarum National Park 18th March 2011.

⁵² Meeting with the Deputy Head of the Conservation Authority of West Kalimantan (SB-KSDA) April 1994.

⁵³ Currently the border point is not an official entry point for overseas visitors
<http://www.promotingbali.com/beyond-bali/kalimantan/nanga-badau/>.

forthcoming for the construction of a boardwalk at the field centre, Bukit Tekenang and the District Tourism and Culture Service have conducted training of local residents as tour guides.⁵⁴

4.8.18 The other area where local government has been active is in passing District regulations on fishing as described in 4.3.11 above. While this is a useful regulation the likelihood of its efficacy is limited there has been no support to local communities to disseminate the regulation in a plain fashion or support its implementation. It has left village elders confused as to how they should take the matter forward without causing upset in their community as in effect the rules render a significant proportion of current fishing gear as illegal but does not provide assistance for the purchase of alternative gear.

Conclusion

4.9.1 This chapter has collated the available data until 2010 from fieldwork and secondary sources on natural resources in Danau Sentarum; their utilisation and governance. This provides the context on which to base the fieldwork and address research questions A and B as to current ecosystem services and governance systems and drivers affecting governance.

4.9.2 The data indicates there is a long established pattern of active local management of natural resources. Efforts by NGOs and projects are valuable and appreciated but their continuation is dependent on uncertain external support, funding and expertise. Local government and the park management unit have limited interaction with local communities regarding the governance of natural resources in Danau Sentarum. This overview of the current position is expanded in greater depth in Chapter 5 which describes data collected from the appreciative inquiry process both through individual stories and a workshop to design a way forward.

⁵⁴ Equator Newspaper, Sentarum, Danau Terunik dengan Jenis Ikan Terkaya <http://m.equator-news.com/utama/20120320/sentarum-danau-terunik-dengan-jenis-ikan-terkaya> accessed from internet on 20th April 2012.

Chapter 5: Danau Sentarum National Park: Results

5.1.1 This chapter presents the three stages of fieldwork undertaken in Danau Sentarum National Park in 2010 and 2011. The first stage was individual interviews in four villages which was followed by group discussions in each village. The third stage was a two day inter-village meeting. All field work was undertaken in collaboration with the Technical Unit for Danau Sentarum National Park and with the support of Riak Bumi a non governmental organisation working in the area.

Phase One – Individual Interviews

5.1.2 The purpose of the individual interviews is to provide the reader with an in depth understanding of the themes that arose in each of the four topics investigated; livelihood, environment, governance and partnership. The aim of the data presentation is to let the words of the participants speak for themselves and through the analysis to provide an insight into the frequency of occurrence of the various themes. This reveals the relative importance of these themes and participants motivations in how they use and govern natural resources.

Phase Two- Group Discussions

5.1.3 Group discussions were undertaken at two levels in each village shortly after the individual interviews. This stepped approach from individual discussions to small groups followed by a full village meeting allowed participants to develop a confidence in discussing the topics and by iteration to develop their thinking. The data is presented through a series of tables and the outputs of ranking exercises. Again the aim is for the reader to be able to access this data almost as though they were there and let the data speak for itself.

Phase Three – Inter-village meeting (AI Summit)

5.1.4 The third data set is that from the inter-village meeting held in March 2011 ten months after stages one and two. The process of this activity was as critical as the outcomes and the reporting of the findings aims to both show how the process can work and to illustrate the findings with the purpose of explaining how the governance of common property resources can be strengthened. The

data was returned to the participants as a photo story with associated text and diagrams and flow charts culminating in action plans. This is included as Appendix G.

The Application of Appreciative Inquiry in this Case Study

- 5.1.5 In Danau Sentarum the research was undertaken in a policy vacuum as there was little concurrent activity in this area by the National Park Authority or any NGOs. This ensured a relatively clean slate from which to start the data collection and hence the intended methodology of Appreciative Inquiry could be followed as planned. The Discover phase was undertaken through the individual interviews and the first steps of the inter-village meeting. The Dream phase took place at: the end of the individual interviews; the group discussions; and, the inter-village meeting. The Design phase was touched upon in the village meetings but was primarily addressed through the action planning as part of the inter-village meeting.
- 5.1.6 The individuals recruited to assist at the field level received training at the start of the process as AI was a new method for some staff. The initial plan was for the data collection to be undertaken by the researcher and a field assistant. On arrival in the field it transpired there was a strong desire by the National Park senior staff of the National Park for park rangers to be actively involved in the data collection and to be trained in this approach. This was welcomed and resulted in two teams working in parallel enabling a larger number of participants to be involved. It did though mean that the researcher was not present at all interviews and to maximise consistency of approach a daily team meeting was held to debrief and plan ahead.
- 5.1.7 There were unexpected benefits from a larger team as it enabled more effective facilitation during group meetings than in the Lake District where the researcher was working alone. This was particularly valuable in the inter-village meeting which was significantly enhanced by an energetic and committed team who developed a strong sense of ownership of the process. Overall Appreciative Inquiry was an effective method in Danau Sentarum in enabling the research questions to be addressed in a way that engaged the participants and was seen as relevant to their interests.

Role of the Researcher

- 5.1.8 The researcher had been employed by the UK's Foreign and Commonwealth Office's Overseas Development Administration from 1994-1995 posted to Danau Sentarum as an environmental economist. Living and working in the field site for eighteen months resulted in the formation of close friendships with colleagues and local residents. Since 1995 these relationships have been maintained, particularly with former colleagues, and regular visits to Indonesia were made in the intervening years though none back to Danau Sentarum since 2001.
- 5.1.9 This prior knowledge and access to project documentation provides a rich backdrop and context to the data collected and also enabled access as a trusted person among local communities. The strong bonds with former colleagues also assisted in access to and support from both Riak Bumi and the National Park Unit. These two organisations did not have a close relationship as the former is perceived as pro local community development and the Park Unit as the conservation police.

Individual Interviews

Introduction to the Analysis

- 5.2.1 The analysis reflects the methodology adopted and the specifics of how the data was collected. The interviews were undertaken over a four week period in May 2010 and analysis started from the day after each interview as within twenty-four hours of each interview an interview summary sheet was completed by the interviewer. They would do this while the interview was fresh in their mind and would also listen to the recording of the interview again so to ensure details were included rather than relying on their memory. This summary sheet has the benefit of not only summarising the participant's story but also allows the inclusion of the field team's reflections allowing the incorporation of non verbal data from body language and their home circumstances. The summary sheets were completed in Indonesian or English. Copies were provided to the National Park and Riak Bumi at the end of the field work.
- 5.2.2 In addition to completing the summary the field team, including the boat driver and assistants, met each day to review the previous day's findings and to

consider how best to undertake the interviews and whether we were missing participants from key groups within the village. For instance sometimes we found a participant was not involved with fishing at all but was a trader and in that case an additional participant could be sought.

- 5.2.3 The choice of the participants through structured purposeful sampling with three participants from the four groups of; leaders, fishermen, young people and women was most useful when gatekeepers were keen to include particular people as it ensured a reasonable cross section from the community.
- 5.2.4 The interviews were transcribed by Riak Bumi and where the Iban language was used were translated into Indonesian otherwise typed up as spoken. There were a total of 52 interviews undertaken though two participants declined to be recorded but summary sheets were completed. Each transcript was read and all the themes related to the research questions were identified and categorised into the four topics on inquiry; Livelihood, Environment, Governance and Partnerships.
- 5.2.5 Once this had been completed all interviews were read again and the themes were recorded on a spreadsheet and the number of times a theme occurred was totalled. New themes were added onto the list as they arose. The analysis therefore borrows from the approach of grounded theory¹ where through open coding the list of themes is open rather than closed. Once this had been completed the list of themes was considered and where appropriate themes were conflated to reduce the number of themes to a manageable number. This was done when conflation would not lose information of interest to the specific research questions of this thesis. The final table of themes is included in Appendix F. These themes and the totals were then entered into Wordle² to produce word clouds so visualising the relative frequency different themes arose for each topic.
- 5.2.6 The number of participants at 52 in the Danau Sentarum case study was significantly more than the number of Lake District participants and included data from Empaik, an Iban village, where the economy is based on agriculture rather than fishing. The detailed analysis of the transcripts was therefore limited

¹ MQ Patton, *Qualitative Research and Evaluation Methods* (Sage 2002) 491.

² A computer programme for creating word clouds www.wordle.net.

to Pengembung, Pemerak and Kenelang as that is where useful comparisons could be drawn. The analysis of the Empaik data was limited to a review of the summary sheets and the village meetings and provides a useful contrast of a different culture within close geographical proximity.

Pengembung

The Sample

- 5.2.7 The interviewees chosen were taken from a mixture of people known to the field team and also through snow balling with one person recommending another though some were not interested in participating in which case another participant was sought. The data was collected between the 2nd and 5th May 2010. Conditions were good and as it was the wet season participants had time to engage with the process.
- 5.2.8 During the UK-ITFMP Pengembung had had considerable contact with the conservation project due to its close proximity to the field station. Two villagers were employed on the project as community rangers and initially the project staff moored their houseboat at Pengembung. Since 1997 there has been little contact with the Conservation Authorities and the village has not had any specific activities from Riak Bumi.

Livelihood

- 5.2.9 The participants raised a large number of themes under the topic of Livelihood. Pengembung is a settled village but compared to many of the other villages in the sub-district of Selimbau it is poorly provided with public facilities. Geographically it is at the far extent of the sub-district area. Comments about improving educational opportunities were numerous reflecting that there is only a small school with one classroom. This was built by the local community and is run privately though with some support from local government. The quality of the education provided is perceived as inferior to that in Selimbau and education is only at primary level. Several participants made a direct link between educational and future life opportunities and considered education a passport to alternative employment.

Fig 5.1 Pengembung: Quotable Quotes

Here if you work you will succeed

Yields have declined as gear is more sophisticated

If we don't use rules, matters are confused, and the officers have a headache

Fisheries Service never come here and we depend on the head fishermen

We cannot work alone

We need unity, without unity it is hard

I don't think much about the future, when the sun rises I go and catch fish, I only think about catching fish

We need a lottery system so all fishermen have an equal chance for fishing locations. At the moment a few do not agree and we cannot move forward

Previously locations of jermal nets were held by descent but now we need a lottery system as the population has increased

We need change because the rules we had before are no longer appropriate

The small minority who do not agree must be persuaded

No fish – nothing to eat

We work for our children's future

Our rules on paper are good but the practice in the field we cannot predict because all people are different

5.2.10 With one exception all participants were happy living in Pengembung; many had moved here over the last twenty years and the reason given was that compared with areas outside the National Park it is relatively easy to earn a living here. Everyday you can catch fish even if it is only enough to feed your family. The community has a contented feel about it expressed by some who explicitly mentioned that their happiness derived (in part) from living near friends and family.

5.2.11 That the whole economy is founded on fishing was an over whelming message. Even those who do not fish themselves but are fish traders recognise clearly that fishing is not only the core of the economy but that there is no significant other income source.

- 5.2.12 While fish cages were mentioned by some participants as being important there was a greater focus on the allocation of resources in a time of increasing population and more sophisticated gear. In addition to changes in types of gear many people have a greater quantity of each type leading to a greater intensity of fishing effort e.g. instead of 5 balls of fishing net they have 15. The main focus of the participants at the time of the field work was around the introduction of a lottery for fishing locations; i.e. the spatial allocation of resources. Since 1994 the population has increased from 40 to 74 households while the village's fishing grounds have stayed the same size. Inevitably, particularly in the dry season when the waterways reduce, the demand for particular locations has increased. While a lottery for certain gear was introduced in 1987 for the large fixed *jermal* nets the tradition has been that each family has its own spot which is handed on from generation to generation. The vast majority now say that this diminishes livelihood opportunities for the majority and an annual lottery for *jermal* is needed to give everyone a chance.
- 5.2.13 Other income sources such as honey were considered as seasonal benefits, it is valued but not significant economically. Some participants had been on training courses arranged by Riak Bumi to improve their honey harvesting techniques and marketing but they had not yet implemented these initiatives though recognised the potential benefits. Concern was expressed that co-operative marketing may deliver an improved price but payment was staged and they prefer to receive full payment on delivery.

Governance

- 5.2.14 There was enormous support and interest in rules for the management of the fisheries resource. Very little mention was made of rules for other resources though the head of the honey group said he would like to develop a system of rules for governing the honey industry.
- 5.2.15 The two main issues for Pengembung participants were the rules governing the use of *jermal* in the dry season and the use of fine meshed traps (*bubu warin*). As a result of the dispute over the former there is currently no head fisherman in Pengembung and this overshadowed people's thoughts. While they use a system of voting to decide on the new head fisherman the candidate who received the most votes was not appointed as a significant minority would not

accept his proposal for introducing a lottery for *jermal*. Without the acceptance of the minority; who would no longer have access to their traditional locations; introducing this new rule would be problematic and they were temporarily at a stalemate. This raises interesting points on the role of binding majority voting versus consensus in agreeing rules.

- 5.2.16 Participants were aware that there was a ban on the use *bubu warin* agreed at a meeting at Pulau Majang in 2009 but considered it had not been adequately conveyed to each community such that people are unaware of the legal status of the ruling. Many commented that the use of *bubu warin* should be controlled but the question was how and that it takes time to change rules as people need to replace their gear. There was a lack of clarity as to whether there was yet a firm local rule at Pengembung about not using *bubu warin* though many wanted it banned and said its use had reduced. One women said it was expensive and people were not buying it any more, rather use is limited to those who still have that gear.
- 5.2.17 There was repeated concern expressed that rules were not being enforced sufficiently well and which was not helped by there being no Head Fisherman in post. Other less frequent themes were an understanding that there are different rules for locals and outsiders, that each village has its own rules and that there are different rules for different times of the year. Many mentioned that outsiders must report and obtain permission before fishing in Pengembung's work area (*wilayah kerja*).
- 5.2.18 At the time of the visit the village was unable to provide a written copy of the current rules. While some of the participants' specific knowledge was sketchy on the details of the rules the AI interviews left no doubt that the message was that local governance specific to their locality is essential for maintaining effective working and personal relations between people and for ensuring fair access to resources.

Environment

- 5.2.19 The frequency environmental themes were mentioned by participants was much less than livelihood or governance themes. Most references were related to the impact of particular fishing techniques on fish stocks. The most common

theme was that *bubu warin* is non selective and takes all the young fish so degrading fish stocks. Some specifically mentioned that larger mesh sizes would increase yields. The extinction of fish species from Danau Sentarum was mentioned and the impact of poison and electricity as damaging fishing methods was raised by a minority.

- 5.2.20 Palm Oil plantations around the edge of the National Park were not favoured due to the damaging effects to the lake's water quality and hence fish populations from chemicals in run off. Some noted that logging is now illegal and forests were mentioned again in the context of preventing forest fires.
- 5.2.21 In Pengembung the attitude towards conservation in a broader sense was ambivalent reflected by comments that they have nothing against the National Park if it does them no harm and also by expressing the view that there ought to be financial benefits from conservation e.g. through work or tourism. There was no expression of valuing the landscape or other cultural benefits. With regard other more tangible environmental benefits one noted that the water and air were cleaner here than on the Kapuas. Conversely it was noted that in the dry season the water quality in the river was poor and one participant said that they went to the Field Station at Bukit Tekenang for drinking water.

Partnership

- 5.2.22 Pengembung is a self-contained village and promptings about partnerships were not met with a flurry of suggestions. The over riding theme was a strong desire to have more assistance and cooperation with government agencies. The head of the village was enthusiastic about the proposal for a new sub-district in Danau Sentarum with the hope that by being geographically closer more care would be taken of Pengembung and more money would reach their village for infrastructure projects. Several participants had had no contact with the National Park.
- 5.2.23 Some favoured an agreement between villages on matters such as boundaries and joint rules e.g. over *bubu warin* though they still want to keep their individual village management systems and rules. Several participants recognised that support from local government and or the National Park for

enforcement of rules would be valuable and to address a common concern and help uphold rules.

Pemerak

The Sample

5.2.24 Pemerak has approximately 40 households who have floating houses moored on the banks of the river. A higher proportion of the households are seasonal residents and therefore there were fewer people to choose as participants. The head fisherman and the secretary were in Suhaid, their sub-district town, outside the National Park so a day trip was made there to interview them. Those available were welcoming though somewhat shy as they have had less exposure to external projects. The physical layout of the settlement as a series of unconnected floating houses, rather than houses on stilts connected by walkways, also reduced the nature of the interactions between residents compared with other villages.

Livelihood

- 5.2.25 Of the three villages the participants in Pemerak were the most homogenous in their views. Being a settlement rather than a village their approach is that Danau Sentarum is their place of work for income generation rather than their home although more people are now living at Pemerak all year to feed their caged fish. Often though it was only one or two members of a family that would stay at Pemerak while the rest of the family would be in Suhaid.
- 5.2.26 The most frequent theme in the topic of Livelihood is that, 'Earning a living is easy here.' Several of the participants had moved to Pemerak relatively recently from outside the district as economic migrants and commented that compared with where they had come from opportunities here were much higher. The other theme that was repeated was that fishing is the only livelihood; this is a single product economy with honey providing some seasonal benefits.

Fig 5.2 Pemerak: Quotable Quotes

I am very worried about the future as incomes are reducing each year at
Pemerak

I've never heard of the National Park or even gone to the next village

Whatever problems we have in Pemerak we can always catch enough to
eat and live

Toman (caged fish) are our savings

In the olden days everyone followed the rules now many do not

If there are rules people will not use fishing gear irresponsibly

Rules reduce confusion and lead to a peaceful and contented working
environment

Life is more comfortable here than in Suhaid

If people contradict the rules and no action is taken then others will follow
suit

It is clear that if we keep taking huge amounts of fish then catches will
decline in the future

- 5.2.27 Participants clearly distinguished between fishing for subsistence or to sell fresh, salted or smoked fish and the rearing of fish in cages. Fish cages are seen as important as a form of savings as they are generally harvested at one time leading to a large capital sum that can be used to pay for major expenditure such as building materials for a new house or a new outboard engine. One respondent was planning to use the money for their children's education. All children go to school in Suhaid and they are keen for educational opportunities there to be improved. There was no suggestion that they would like a school in Pemerak.
- 5.2.28 Several of the participants who had been resident for some time noted the increase in population and the decline in fish catch over time. The number of families working at Pemerak has more than doubled since 1994 from 17 to 40 households and four participants referred to the impact of population increase on fish yields now and in the future.
- 5.2.29 Two participants expressed a desire for their children not to be fishermen. The head fishermen had an interesting perspective. He has been in office for many

years but has not lived at Pemerak in recent years only going to the village in the dry season. He was pessimistic about the future and considered fishing alone can not support the increasing population at Pemerak. His solution is for each family to be provided with one hectare in Pemerak's forest that could be converted to provide an alternative livelihood through planting rubber trees.

Governance

- 5.2.30 The participants stressed that rules are important in managing the fisheries and ensuring peace and goodwill among neighbours. Repeatedly the rules prohibiting the use of poison (natural and chemical) and electricity for catching fish were highlighted. The reason given was that these methods, being indiscriminate, kill young fish so reducing fish stocks. These methods will also kill fish being reared in fish cages which represent a family's savings. Pemerak is a small village and relatively quiet yet easily accessible by speed boat. While nobody using electricity had been caught it is thought they come from Suhaid and they use fast boats so that they can get away quickly.
- 5.2.31 While the rules on poison and electricity are aimed at outsiders the primary concern on the management of fishing internally is the use of *bubu warin*, a fine mesh trap. They noted the use of *bubu warin* was already limited in that it can only be used in the main river (S. Tawang) and not used in the small rivers so not to take small fish. Some participants were keen to limit the use even more and have an outright ban.
- 5.2.32 The governance of fishing in Pemerak is not as strong as in the other villages as the Head Fisherman and the Secretary live in Suhaid and rarely come to Pemerak. Several commented on the importance of the role of Head Fisherman particularly in a settlement that does not have a village head. While some said that they needed a stronger leader others support the current incumbent. Enforcement is variable and an increase in enforcement and support from external parties for enforcement was highlighted by the theme that, 'Rules must be upheld.' The system of whole village meetings to discuss rules and fisheries management including the annual lottery for the dry season was popular.
- 5.2.33 The lottery ensures managed spatial distribution of fishing locations rather than a free for all and this is valued. These types of governance measures are seen

as critical for ensuring goodwill between neighbours and to maintain security and peace.

Environment

5.2.34 Again the frequency environmental themes were mentioned was less than the previous two topics. Participants had little awareness of any threats to the environment unrelated to fishing but where the supply of provisioning services (fish) is affected by environmental degradation then there is a strong interest. This is reflected in the majority of the references being concerned with environmental protection to protect young fish stocks and to allow for successful breeding. There was awareness that fine meshed gear that catches all fish degrades fish stocks and that future catches would be enhanced by a change in fishing gear both the type and how it is used. This is because in the dry season when the rivers are smaller in size and the lakes are dry the impact of intensive fishing effort is more damaging. For instance the rules on *bubu warin* at Pengembung allow it to be used in the main rivers but not in the smaller side rivers though many said they would like the use of *bubu warin* to be stopped totally.

Partnership

5.2.35 There was very limited contact by participants with other organisations whether the National Park, NGOs or local government. Women have contact with mobile health services and children attend school out of the National Park in Suhaid but the majority did not even know what a National Park was and some did not even know they lived in a National Park. The main links are with Suhaid, the sub-district town on the Kapuas. All those living at Pemerak are registered as residents of Desa Madang Permai in Suhaid.

5.2.36 Five of the participants highlighted potential benefits if there is support for enforcement of fishing rules from relevant authorities. In particular the view was that external authorities could address the problems of outsiders using electricity and poison in their fishing area. Seven of the participants were keen for more co-operation with and assistance from other parties including other villages, NGOs, local government and the National Park. This was for

assistance with rubber plantations, improving honey harvesting, replanting burnt areas as well as enforcement.

Kenelang

The Sample

5.2.37 Kenelang provided choices and challenges for sampling. With over 120 households there were many people to choose from. The Village Head was very supportive and made suggestions and from these other participants were recruited. The team arrived in the village on the 8th May and interviews were undertaken over a two day period from the 9 to 10th May 2010. 13 people were interviewed by the two teams; four leaders, three fishermen, three young people and three women. The village is located on both sides of the wide Tawang River and participants were drawn from both sides of the village. Conditions were good and the community was welcoming and forthcoming.

Livelihood

5.2.38 The most frequently occurring theme was that Kenelang is an easy place to earn a living. The quality of life in Kenelang is good and everyone can provide for their subsistence needs. Kenelang is also part of Suhaid sub-district and many were aware of the difference in earning opportunities here rather than in Suhaid. In addition to the overall picture the large catches made in the dry season were highlighted as important and a value placed on the rearing of fish in cages as their savings. Kenelang is a vibrant community and several participants indicated they were happy living here both from an economic standpoint and due to being near friends and family. There is a well provided for primary school and children can travel daily to Empanang the next village for middle school though some were restricted by the cost of fuel for the journey. One mother said she was keen for there to be a nursery school indicating the level of aspiration for educational opportunities.

Fig 5.3 Kenelang: Quotable Quotes

As an adat leader I have to be careful with my powers

I get the greatest satisfaction from the dry season when the fish catch is large and we all feel satisfied

Conservation doesn't pay

Repeated infringement of rules leads to a new understanding of acceptable behaviour

Splits in community between those with different fishing gear

Local governance allows for rules that are appropriate to our situation

Any Indonesian who lives here for 6 months can apply for residency status

There are many factors to consider when enforcing rules

Abundant yields in the dry season

Not all people have the same views towards particular rules

I'm happy living in this village as there is plenty of fish in the dry season

Five years ago someone's gear was impounded and they had to pay a fine to reclaim it but have not yet as too embarrassed

The rules must be stricter and the people united

The population here is less than in Suhaid

System of open and closed seasons for jermal is good

People don't have time to look after their children properly; we need a nursery

If you break the rules and are given a sanction don't get angry

5.2.39 A few drew attention to the fact that lotteries were needed for fishing locations due to the increased population and that fish yields have and will continue to decline. Several expressed this view differently by their desire to have opportunities outside fishing and these included a guest house for tourists and the development of handicrafts in particular to provide additional employment for women. In general the view of the participants like to see advances in the village from economic opportunities to education and infrastructure such as mobile phone reception.

Governance

- 5.2.40 Governance was a topical discussion in Kenelang as a new Head Fisherman had been appointed in recent months with a new committee and they are a young team with fresh ideas. The most frequent theme was the need for rules to be upheld but underneath this was thoughtful commentary on the difficulties of doing this in practice and how regional laws should be implemented locally.
- 5.2.41 This was the only village where a copy of the 2009 Fisheries Regulation enacted by the District government was produced detailing the ban on the use of *bubu warin*. It was provided by the village Head of *Adat* but he was confused as to how to implement it given many people still have *bubu warin*. The current arrangement is that *bubu warin* can be used for six months of the year but not for the six months that includes the dry season. The adat leader said care was needed to ensure effective compliance and to avoid disorder arising from disagreement with the rule.
- 5.2.42 Other leaders shared views on the strain of being a leader and how to handle non-compliance with local rules. Often sanctions were not imposed due to consideration of family ties and an understanding most people only infringed rules in order to provide for their family. There were though several cases mentioned when sanctions had been imposed including fines and the seizing of the offender's gear.
- 5.2.43 Decisions on rules were made by majority voting though the votes would be split according the type of gear that individual owned. This has resulted in unhappiness with the new regime by the minority that had been out voted in the recent changes in rules. The consequent split in the community had over spilled into other matters.
- 5.2.44 Significant effort was put into the management of the fisheries resource and a clear understanding that rules are good to assist with equity of access to resources but also to manage fish stocks and this is best achieved though spatial rules regarding what gear can be used where as well as the seasonal restrictions on gear. The number of different themes raised was significant and demonstrates the interest in this topic.

Environment

- 5.2.45 Compared with Pemerak and Pengembung there was a broader range of themes that occurred at Kenelang. Preventing forest fires was the most common by far followed by a number of themes around mesh size and its impact on fish stocks and on species becoming extinct. Another approach put forward for protecting fish stocks was closed lakes, areas where no fishing would be allowed to allow fish stocks to develop unexploited.
- 5.2.46 As at Pengembung palm oil was not favoured due to its environmental impacts. A first time theme was the recent unpredictability of seasons. In recent years there has not always been a dry season which causes severe economic hardship and one participant wondered if this was due to climate change. This was the only environmental theme raised where an exogenous driver was raised.

Partnership

- 5.2.47 Kenelang has a boundary dispute with Pulau Majang the village on its northern boundary. This has arisen as Kenelang uses the old Kingdom of Suhaid boundaries while Pulau Majang uses the current sub-district boundary. The dispute has become quite bitter with Pulau Majang residents confiscating or damaging gear installed in the disputed area. Several participants requested support from the National Park staff to mediate the dispute.
- 5.2.48 A theme that was unique to Kenelang raised by three participants was that they could learn from other villages' rules. One participant was very rude about Pulau Majang but acknowledged that their strict rules on no jermal or fine meshed nets meant they had healthy fish stocks. Leboyan was also put forward as an exemplar.
- 5.2.49 Exchange of information between villages was a common thread of several themes as participants were keen to tell other villages about their rules and to develop an agreement between villages. That their knowledge about the National Park was higher is perhaps a reflection that there was a forest police guard post for several years at Kenelang.

Empaik

The Sample

5.2.50 Empaik is located some two miles from the nearest lake but a proportion of its area is within the National Park boundary and the remainder in the buffer zone. The village has approximately 40 families though many of the men work in Malaysia or in the Oil Palm plantations. The data presents the results from interviews with ten individuals for whom separate summary sheets were completed; three leaders, 3 farmers, 3 women and 1 young person. A further two young people were involved in the focus group and village meeting. The fieldwork was undertaken from 12-14th May 2010. Interesting quotes are included in Fig 5.4 and in Fig 5.5 there is a word cloud that conveys the relative importance of the different themes

Livelihood

5.2.51 The vast majority of participants are enthusiastic about their current livelihood and optimistic for the future due to diversification of agricultural activities. In recent years there has been a programme to plant rubber trees on burnt forest and in addition several families have built fish ponds to rear fish. Other cash crops include pepper. These are additional sources of income to the rice and vegetables grown in their shifting cultivation plots. While receipts from those working in Malaysia are important for many living and working in Empaik was seen as the preferable option. The majority want to stay living in Empaik and for their children to do the same. Two of the young people interviewed were aiming to obtain higher qualifications but even one of these was intending to return once she qualified as a teacher.

5.2.52 Key infrastructure desires were for electricity and better transport links. Few families use their generators due to the cost of fuel and the cost of transport is almost prohibitive due to the poor condition of the road and the cost of fuel.

Governance

5.2.53 The participants were clear that their traditional laws for governing natural resource use are already effective. Due to the agreed and formalised set of rules and sanctions agreed between Dyak communities in the Badau area there

appeared to be little interest in discussing the subject. It was considered a non issue given there was little contention. There was one person who said that there was regular felling of timber for sale to outsiders and that the enforcement of the rules was not adequate. Everyone else consider the rules to be effective, important and adequate. Several mentioned that there had been problems in the past when there were logging concessions in the area but it was no longer an issue.

Fig 5.4 Empaik: Quotable Quotes

It will be good if our area can enter into the National Park if it benefits us; if it does not we do not agree

Compared with travelling to Malaysia it is more pleasant to work in shifting cultivations and rubber gardens and also here we can grow pepper and have fish ponds

It is important Empaik is in DSNP to protect the ecosystems, water and air.

We can harvest rubber while doing other work

Rubber gardens protect land from encroachment

Farming is what makes me happy, it is my whole life. I like it when I have a good rice harvest

I don't know about the future but would like my children and grandchildren to stay here.

Environment

5.2.54 The themes that relate to the environment are focused on the forest and water quality. The threats identified included oil palm, burning and logging. The forest was recognised as a valuable resource and the source of their livelihood. It is valued as a working environment used for shifting cultivation and rubber trees rather than virgin forest. The majority of the rubber trees are though planted in areas where the forest has been burnt. One participant mentioned the importance of protecting wildlife and another of conserving ecosystems. In

recent months the village had been approached by an oil palm company wanting to open a concession in their area but a village meeting was held and Empaik decided that it was not in their medium or long term interest to sell or lease land to an oil palm company.

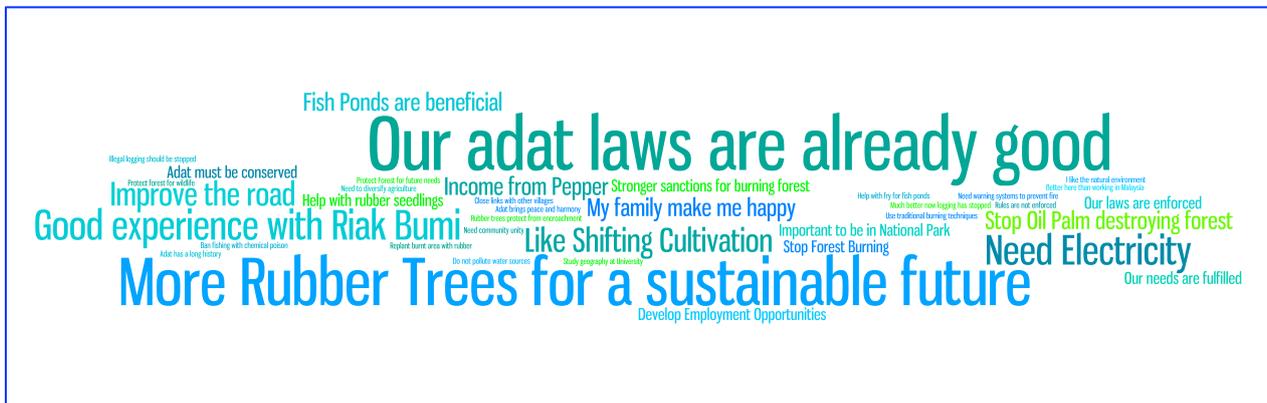


Fig 5.5 Empaik Word Cloud – all four topics combined

Partnership

5.2.55 Relations between Riak Bumi and Empaik have been strong with a number of activities including a community radio station and the planting of rubber on forest areas that have been burnt. This was reflected by the number of people being enthusiastic about Riak Bumi. One participant thought the Riak Bumi staff were National Park staff. Generally there was positive support for the National Park though little contact with park staff except the boundary marker team. Other areas that the participants considered would be useful would be the provision of rubber seedlings and fish fingerlings for their ponds.

Comparison of Interview Results

5.3.1 The themes arising from the three Melayu villages are compared through a series of word clouds where the size of the words represents the frequency with which that theme arises. The themes are divided into the four topics of inquiry; Livelihood, Governance, Environment and Partnership and the word clouds for each village are displayed together with one topic per page. Once these have been discussed this section will compare the situation in the Melayu villages with Empaik, an Iban village.

5.3.2 Appendix F also details the number of times a theme arose in each village. It is advised statistical analysis is not appropriate for this data for while numeric it

arose from semi-structured interviews not questionnaires. The use of word clouds instead allows consideration of data from the semi structured open discussions where the themes that arose were noted and reflect the interests and concerns of the participants.

Livelihood

- 5.3.3 The striking difference between the word clouds is that at Pengembung more themes emerged compared with Pemerak and Kenelang as represented by the total density of the clouds. Common themes arising at all three villages were that earning a living is (relatively) easy in Danau Sentarum, that fishing is the only livelihood and that they would like opportunities outside fishing. Fish cages were proportionately a more important theme in Kenelang and Pemerak compared with Pengembung though they were raised a similar number of times.

Governance

- 5.3.4 The Governance word clouds were busy in all three villages. Overall the themes raised were similar in the three villages with common themes being; rules are good, limit the use of *bubu warin* (fine meshed nets) and rules must be upheld. There was less focus on the spatial allocation of resources via a lottery at Pemerak which has a smaller population than Pengembung and Kenelang. In both Pengembung and Pemerak the importance of rules for maintaining social harmony was expressed while at Kenelang there was more emphasis on the difficulty of enforcing rules given the social ties between families and the need to take into account a family's economic situation.

Environment

- 5.3.5 For the themes classified under 'Environment' the striking difference on first glance is that at Kenelang 'Preventing Forest Fires is the most frequent theme while it rarely arose at Pemerak and Pengembung. Similarly at Pemerak they raised the damage to fish stocks caused by electricity and poison but this did not occur at Pengembung and Pemerak. Otherwise the majority of the themes were related to the impact of fine mesh gear on on fish stocks and fish species that arose in a number of guises.

5.3.6 In none of the villages was there an appreciation expressed of the beauty and high biodiversity of the site for which it is valued nationally and internationally though one person mentioned the weather was cooler compared with outside the park. The only broader environmental theme raised was the water quality and that it is good generally but poor in the dry season. Conservation activities were not seen to bring any direct benefits as there is no employment either directly or via an associated tourism industry.

Partnership

5.3.7 There was considerable diversity among the most frequent partnership theme for each of the three villages. In Pengembung it was, 'We need more assistance and co-operation', though this was also raised in the other three with less frequency. In Pemerak the dominant theme was, 'I have not heard about the National Park', and in Kenelang the themes were more balanced though many themes related to improving liaison with other villages. All three villages expressed the need for support for enforcement of fishing rules, this arose equally in Pengembung and Pemerak and less in Kenelang.

Comparison of Themes raised in the Melayu and Iban Villages

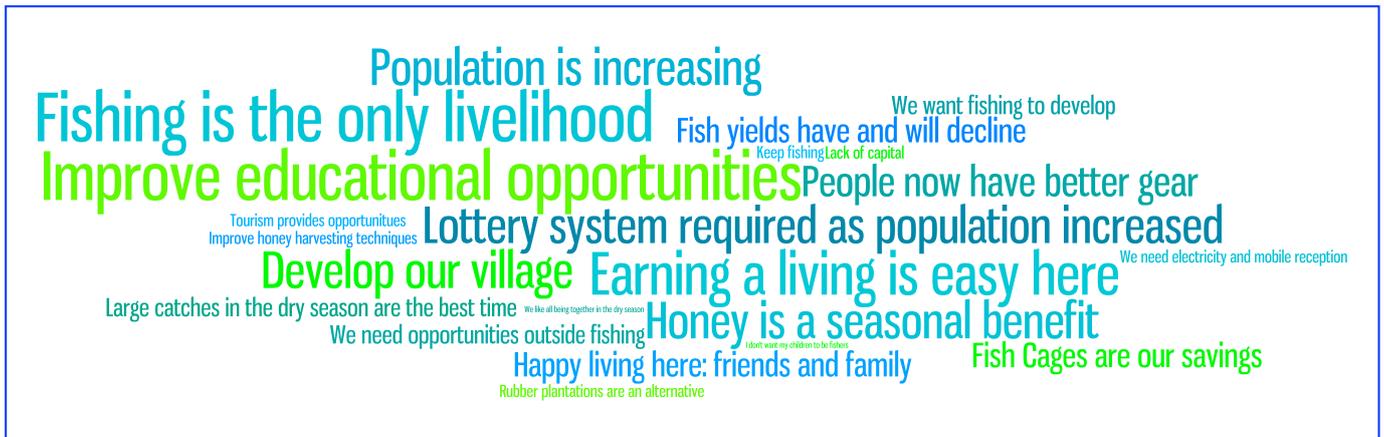
5.3.8 The livelihood themes were quite different in the two ethnic groups due to the contrasting economies of fish and agriculture. What communities shared was an enthusiasm to diversify economic opportunities. While governance stimulated extensive discussion in the Melayu villages in Empaik little interest in discussing the detail was generated except for an enthusiasm for maintaining the status quo. Current arrangements are considered excellent in preserving the traditions of their forefathers yet they can also be adapted to the current situation and changes in economic situation and drivers. On environmental themes participants in Empaik had a much broader awareness of forest ecosystems and wildlife attributable partly to the fact the forest is the source of their livelihood and partly due to extensive work by Riak Bumi in the community. In the Melayu villages the environmental focus was on fish stocks and their habitats reflecting their dependence on natural fisheries. Finally on partnership the contrast in themes reflected the active involvement of Riak Bumi in Empaik and not in the selected Melayu villages. Otherwise like the Melayu villages the

Iban were seeking more development assistance from local government and Riak Bumi.

- 5.3.9 In summary it was illuminating to consider the different approaches by two cultures within the park. Aside from the obvious fact that Empaik's economy is land based and the other villages are fisheries based the primary difference was their approach to customary governance. In Empaik there is satisfaction and confidence with their governance structures that was not apparent in the Melayu villages where populations and pressures on resources appear high with fewer mechanisms to constrain the increasing demand by locals and migrants for resources.

Fig 5.6 Danau Sentarum National Park: Livelihood Word Clouds

Pengembung



Pemerak

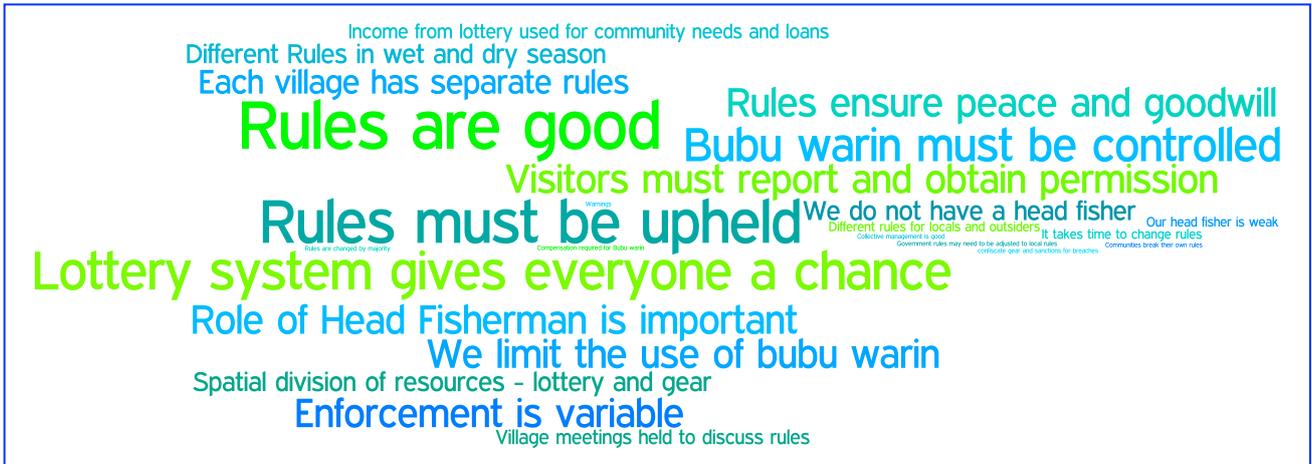


Kenelang

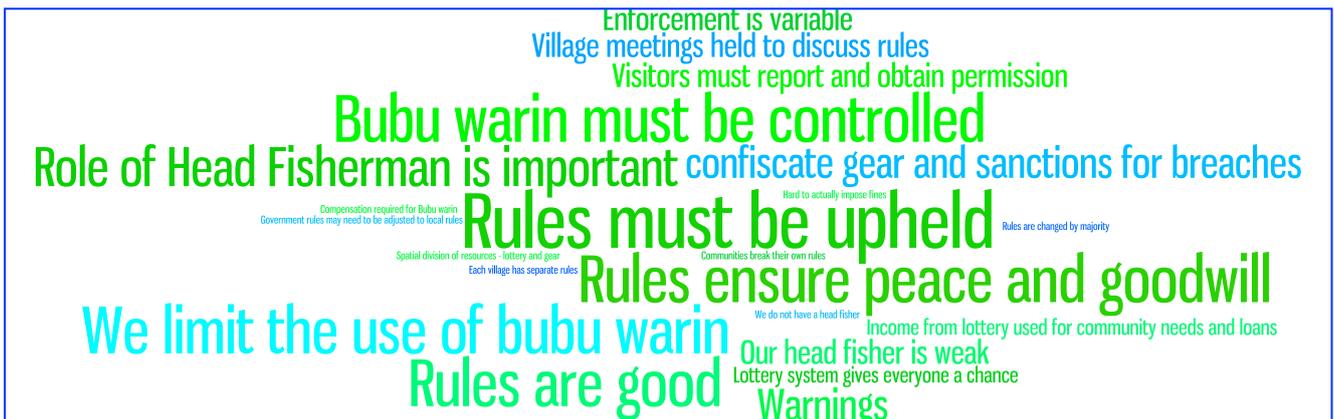


Fig 5.7 Danau Sentarum National Park: Governance Word Clouds

Pengembung



Pemerak

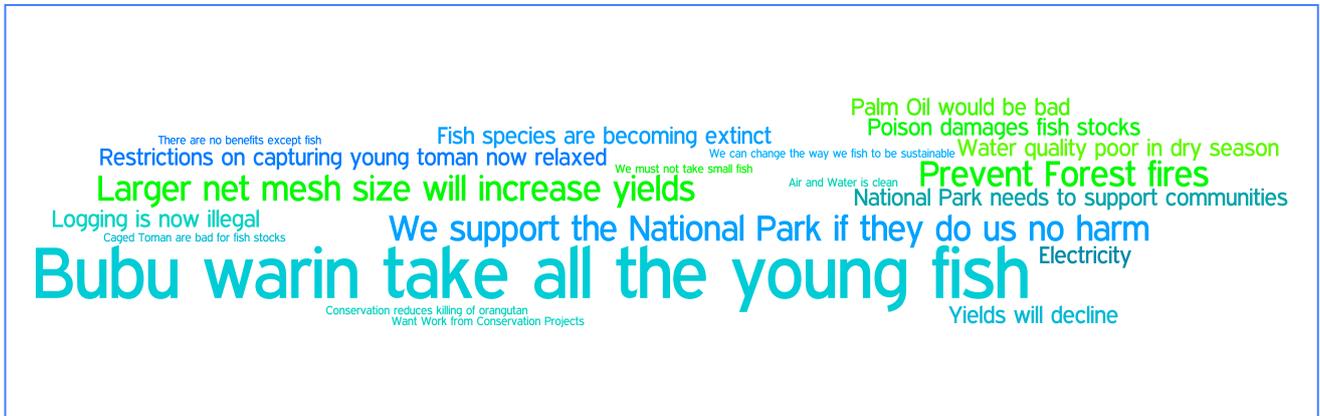


Kenelang

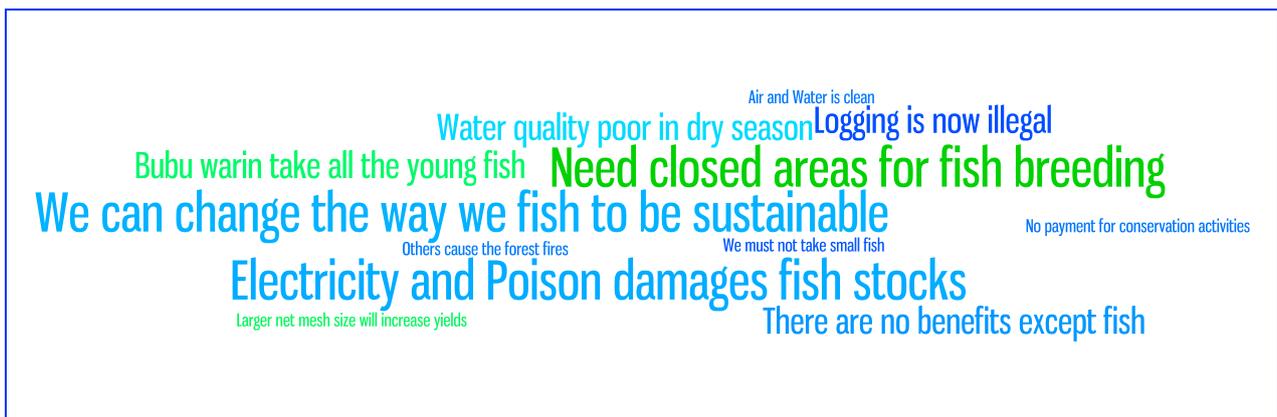


Fig 5.8 Danau Sentarum National Park: Environment Word Clouds

Pengembung



Pemerak



Kenelang

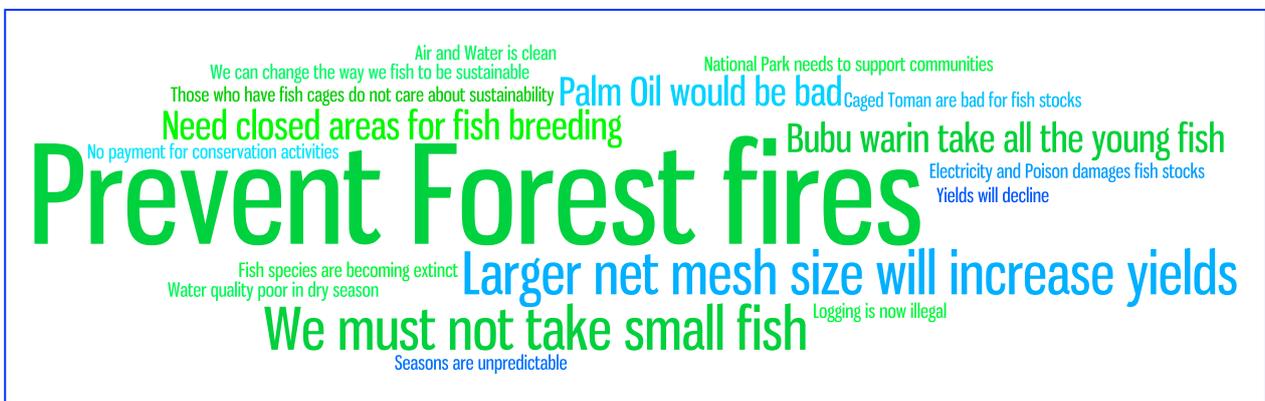
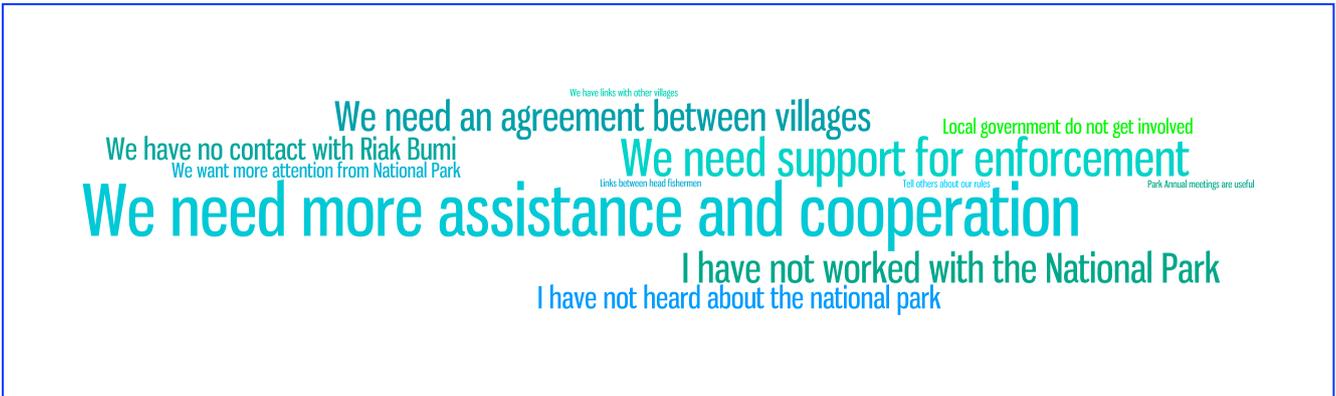


Fig 5.9 Danau Sentarum National Park: Partnership Word Clouds

Pengembung



Pemerak



Kenelang



Village Meetings

Overview

- 5.4.1 This section reports the finding from the group meetings in the villages undertaken in May 2010. Initially small focus groups were held where the Leaders, Fishermen, Women and Youth met separately to consider key issues and then they came together in a whole village meeting. While the latter was intended primarily for those participating in the interviews no one was excluded.
- 5.4.2 The procedure was that after the three people from a group had been interviewed they were brought together to discuss their future hopes and dreams. This was facilitated by the member of the field team who had undertaken those interviews so enabling him or her to draw out the views of participants who were shy in a group session. Usually the facilitator wrote up the discussion on a large sheet of paper as the discussion was unfolding though in some cases the participants were comfortable writing themselves. The discussions were structured around the four topics of Livelihood, Environment, Strengthening Fishing Rules and Cooperation with Others. The primary purpose of this stage was to assess which topics and issues were priorities for the village meeting and to build confidence among the participants for a group session.
- 5.4.3 Once the focus groups had been completed the field team met to decide on the two topics of inquiry which would be considered in the village meeting and which three issues would be ranked for each topic. Bias was minimised in the process of whittling down the topics by having a cross section of people in the team who championed different topics and by having several criteria against which a topic was judged: passion, relevance to the research topic, relevance to the community overall. For instance sometimes a choice had to be made between choosing the issue participants had been most passionate about and constraining the choice to those that were within the scope of the research question. The separate focus groups often discussed different issues so choices were made with an overall objective of ensuring each participant would consider at least some of the issues raised in their focus group had been brought forward to the village meeting to ensure participant engagement while also being of wider interest to the community.

5.4.4 At the whole village meeting the results from each focus group were presented and then the ranking exercise introduced. The meeting was in the evening and the aim was to create an atmosphere that was conducive to open discussion with drinks and snacks being provided. In particular the meeting included women and men which is unusual in these communities and although the women were more silent in the discussions they were active in the ranking game. The ranking exercise was designed such that participants could rank the topics without being dependent on good literacy skills and was also fun to undertake. The issues were ranked for each topic through the use of coloured cards that enabled participants to prioritise each issue. Once the cards had been totalled a discussion was facilitated on why people had voted as they had and how they could take the outcomes forward. A summary of the topics for the four villages is given in Fig 5.10.

	Topic 1	Topic 2
Pengembung	Strengthen Local Rules	Developing Co-operation with others
Pemerak	Sustainable Livelihood	Strengthen Fishing Rules
Kenelang	Sustainable Livelihood	Strengthen Fishing Rules
Empaik	Sustainable Livelihood	Developing Partnerships with others

Fig 5.10 Topics Chosen for Village Meetings

Pengembung

5.4.5 For the first topic of *Strengthening Local Rules* the voting was clear cut; the community desired to develop leadership capacity. This reflected the current vacuum in leadership as the result of an inconclusive selection process. Without a Head Fisherman they were aware that rules would not be enforced and that the evolution of rules according to the wish of the majority was unlikely to be achieved. The second priority was ratification of rules by an authoritative government body. The participants felt that enforcement was difficult and would be strengthened with government ratification and active involvement where necessary providing extra teeth with regard sanctions. The third choice was institutional organisation; some participants in the interviews had raised the view that better governance by the officers was necessary particularly with regard financial management. While of importance the prevailing view of the community was that the other two choices were more critical.

5.4.6 The second topic was *Developing Co-operation with Others*. Here the community voting was by far in favour of developing links with the National Park Staff as its first priority, Local Government apparatus was second choice and Riak Bumi third choice. This outcome perhaps reflects the proximity to Bukit Tekenang, the National Park field centre, and the lack of activity by Riak Bumi in Pengembung though some residents have attended course or meetings elsewhere.

Pemerak

5.4.7 *Building a Sustainable Livelihood* was the first topic and from the three issues Strengthening Rules was the first choice. There was a strong understanding of the need to have and enforce rules to protect fishing catches. The participants felt particularly powerless about people who come from outside and use electricity and poison for catching fish. The damage from these techniques is immediate and visible and it also has potentially devastating consequences for their fish cages where one incident can destroy more than a year's effort and their savings. Seeking opportunities outside fishing was the second choice and protecting the forest from burning the third choice. On the latter point many participants felt powerless against fires, the view was either fatalistic, that they are inevitable in the dry season, or that it is outsiders who cause the fires and they do not have the capacity to extinguish them. With regard opportunities outside fishing several of the participants see their time in Pemerak as short term to earn sufficient capital to start another business or to retire. Others are keen for their children to have alternative employment and this ties in with the demand for greater educational opportunities.

5.4.8 The *Strengthening Fishing Rules* topic produced a surprising outcome as the priority issue was 'creating agreements with other villages'. This had not been predicted as the village is currently relatively less connected with other villages inside the National Park instead maintaining strong links with Suhaid the town outside the park. This choice perhaps reflects their desire to strengthen fishing rules and in particular for *bubu warin* for which a park wide agreement is necessary. There was in Pemerak, and elsewhere, a sub text that we do not want to be the first village to prohibit *bubu warin* though that is their ultimate aim. Strengthening the role of the head fisherman was the second choice and

predictable as he is currently resident outside the park and not active in his duties. Improving relations with the National Park staff was the third choice. They have no active contact with the National Park staff and therefore no positive experiences to build upon.

Kenelang

- 5.4.9 The first topic was *Sustainable Livelihood* and the unanimous choice was to increase the price of fish caught. While this had not been a theme in the interviews it had come out of the focus groups. The village considers fishing to be their livelihood and increased prices will result in a stronger economy. The objective is more sophisticated than waiting for traders to increase the price they offer. They seek to diversify the fish products they offer so to add value to the fish they catch and therefore increase income without having to increase the catch. The second choice was finding livelihoods outside fishing and the third to improve the management of fishing gear. Kenelang is a large village with a range of facilities and government apparatus. While fishing is the heart of the economy diversifying the economy to reduce dependence was common desire.
- 5.4.10 The second topic was to *Strengthen Fishing Rules* and votes were much more evenly split. Working with other parties was the first choice, closely followed by participation by all the community and the third choice was stronger sanctions. Given how close the votes were the community considered all three important. The recent action by the fishing committee to distribute Kenelang's rules in written form to every household and to local government officials demonstrates their understanding for an inclusive and joined up approach to local governance.

Empaik

- 5.4.11 The actions in Empaik under the *Sustainable Livelihood* topic reflected their land based economy. The unanimous choice of rubber as the first priority reflects the enthusiasm of the community for their rubber gardens. Shifting cultivation provides rice, their staple crop, but rubber is seen as the most promising cash crop that is sustainable and makes use of forest land that has been irreversibly destroyed by fire. Fish ponds were the second choice and have grown in popularity in recent years and are also seen as a sustainable

economic opportunity. Generally the fish species chosen are herbivores and while they grow more slowly they provide a protein source and can be sold for cash. Women tended to favour vegetable gardens, again for cash crops such as pepper. The whole emphasis of these choices was focused on building a sustainable income source in the village rather than depending on receipts from work away from the village for cash requirements.

5.4.12 The second topic was *Developing Partnerships with others*. Riak Bumi came out as a clear first choice reflecting all the projects they have run over the years in Empaik and the trust built up with the community. There are no current projects but clearly they would like more. The second choice was government authorities, including the Park Management Unit, and the third choice other local villages. Empaik already has a well established set of *adat* rules covering natural resources agreed between neighbouring villages therefore the sense is that no further action is required on this matter. Social relations between villages are good with significant levels of visiting due to family ties and the annual harvest festival or *garwai* that each village holds and is attended by other villages.

Fig 5.11 Results of Ranking Exercise: Village Meetings- Danau Sentarum May 2010

1. Pengembangan

Strengthen Fishing Rules			Develop Cooperation with Others		
Leadership	Ratification of Rules	Institutional Organisation	National Park Unit	Local Government	NGOs
1. 16	1. 2	1. 0	1. 15	1. 3	1. 0
2. 2	2. 9	2. 7	2. 3	2. 13	2. 1
3. 0	3. 7	3. 11	3. 1	3. 1	3. 16
First Priority	Second Priority	Third Priority	First Priority	Second Priority	Third Priority

2. Pemerak

Sustainable Livelihood			Strengthen Management of Fishing Rules		
Strengthen Rules	Seek Opportunities Outside Fishing	Protect Forest from Burning	Agreements Between Villages	Role of Head Fisherman	Support from Police and National Park
1. 10	1. 3	1. 3	1. 13	1. 1	1. 0
2. 1	2. 9	2. 4	2. 1	2. 13	2. 0
3. 4	3. 2	3. 8	3. 0	3. 0	3. 14
First Priority	Second Priority	Third Priority	First Priority	Second Priority	Third Priority

3 Kenelang

Sustainable Livelihood			Strengthen Fishing Rules		
Increase the Price of Fish	Find Livelihoods outside Fishing	Manage Fishing Gear	Work with Other Parties	Participation of all the Community	Strong Sanctions
1. 13	1. 0	1. 0	1. 9	1. 1	1. 3
2. 0	2. 7	2. 6	2. 0	2. 10	2. 3
3. 0	3. 5	3. 8	3. 4	3. 2	3. 7
First Priority	Second Priority	Third Priority	First Priority	Second Priority	Third Priority

4. Empaik

Sustainable Livelihood			Develop Partnership with Others		
Rubber	Fish Ponds	Vegetable Gardens	Riak Bumi	Government / DSNP Unit	Other Villages
1. 15	1. 0	1. 0	1. 14	5 1	1. 0
2. 0	2. 9	2. 6	2. 1	6 14	2. 0
3. 0	3. 6	3. 9	3. 0	7 0	3. 15
First Priority	Second Priority	Third Priority	First Priority	Second Priority	Third Priority

Appreciative Inquiry Workshop

Background and Preparation

- 5.5.1 Following the first two stages of fieldwork in 2010 a workshop was held in March 2011. Appreciative Inquiry workshops are an opportunity for intensive discussions between people with a common interest though often differing perspectives. They are interactive and quite different to standard workshops held in Indonesia. The method had successfully been used in 2009 in Danau Sentarum National Park.
- 5.5.2 While there were four villages involved in the first two stages it was decided to limit the invitation list to villages on the River Tawang as Empaik is an outlier. While of interest as an alternative governance mechanism its differences would confuse the discussions and the village head in Empaik explicitly said they were not interested in the governance of fisheries. Instead it was decided to invite all the villages along the River Tawang from Pengembung to Empanang, a total of five villages with Sumpak and Empanang being the two villages that had not been included the previous year.
- 5.5.3 Kenelang offered to host the event and provided their new and old village offices for the purpose. The research team arrived in Kenelang a week before the event in order to design the programme, distribute invitations and arrange the logistics. The local community established a committee and a budget was prepared. The costs of the workshop was funded from research funds granted by the Royal Geographical Society's Slawson Award. Formal invitations were printed and hand delivered to the four other villages with eight participants asked from each village as well as staff from local government, the national park and Riak Bumi. The invitation made it clear accommodation and food would be provided and a payment of Rp 100,000 per participant for transport costs and miscellaneous expenses.³

Workshop Activities

- 5.5.4 The workshop took place over two days and there was an intense programme of activities as set out in fig 5.12. Integral to the more formal activities were facilitating and energising games that were designed to encourage participants to

³ Approximately £7 at March 2011 exchange rates.

sub-consciously reflect on the issues being discussed and mentally prepare everyone for the next discussion. The activities were specifically designed to cover the Dream and Design phases of Appreciative Inquiry. The communities had two roles; firstly as co-researchers in addressing the research question and secondly in considering how they might themselves, and in partnership with others, fulfil their dreams. Participants were informed that this was a one off event and that the researcher would not be returning to continue to oversee delivery nor was there a specific budget for delivery so activities and plans should be appropriate within these constraints.

Fig 5.12 Appreciative Inquiry Workshop Programme 19-20 March 2010

1. Introductions, documentation of individual 'peak' experiences and personal hopes for the future.
2. In separate village groups, 'Draw your Dreams' for your village for the next one to three years.
3. Group presentations of these dreams then draw up a list of all the dreams.
4. In a participatory way divide the dreams between short and medium term aims and between those that can be achieved within your own village and those that require partnership with other villages or institutions.
5. Consolidate the twelve dreams into six under two themes of Enforcement and Strengthening of Fishers' Rules.
6. Prioritise the six Dreams through a system of ranking with coloured post-its.
7. In four groups with participants from each village Develop Action Plans for the four most highly ranked Dreams.
8. Each group presents their Action Plan to the participants and the Action Plans are refined.
9. A timetable of activities is developed for three, six and twelve months.
10. The workshop was finished with each person making a written personal commitment as to what steps they would take next.

5.5.5 Furthermore the scope of the discussions were clearly defined and limited to the, 'Strengthening Governance of the Fisheries on the River Tawang'. In the first and second stages discussions had been broader often identifying other rural development and infrastructure needs, in the workshop these were explicitly left to one side.

Identifying and Prioritising Dreams

- 5.5.6 Each of the five communities and the National Park staff were provided with a large piece of paper on which to record their hopes and dreams for the next few years. One group wrote down their hopes and dreams while the others used maps and drawings to pictorially represent their views. Photographs of the results are in Appendix G. Communities were open about their dreams even when they knew this would be contrary to National Park policy. For instance one village said they wanted one hectare of land for every family for rubber tree planting. On the whole the results related to environmental protection linked to the natural resources of fisheries and the forest. Participants identified the importance of the forests as breeding grounds for fish and for honey production and a desire for improved prices for fish. 'Closed Lakes' for spawning grounds were proposed as was co-operation with the National Park Unit and Riak Bumi. The overriding and repeated desire was for continued supply of key provisioning services identified as fish, wood and rattan.
- 5.5.7 The facilitation team identified twelve dreams from this process. Those that were clearly outside the scope of the research questions were not included and all chosen related to the supply of ecosystem services and governance. These were presented to the participants and revisions made before finalising the list. Fig 5.13 is the final list used for the categorisation and priority list.
- 5.5.8 Twelve dreams were too many to address and therefore the facilitators collectively whittled the list to six Dreams. This step was not participatory and decisions were made in accordance with the scope of the research questions and the topic of the workshop as set out in the invitation to the workshop; *Fishing Rules in the utilisation of Natural Resources in Danau Sentarum*. The six Dreams chosen were placed in two groups; Strengthening Fisheries Rules and Enforcement of Fisheries Rules and the participants were asked to rank the different Dreams in order of priority. Photographs of the process are in Appendix G. This ranking process clearly identified the top priority from each topic that would be taken forward in the Design of actions required to achieve the Dreams.

No	Dream
1	Strengthen Fisheries rules and support from other parties
2	Support for fire fighting equipment
3	Develop a communication system with DSNP Staff
4	Re-afforest burnt areas
5	Don't allow fish species to become extinct
6	Guarantee a livelihood for fisheries for future generations
7	Written rules that are ratified by external authorities
8	Cooperation for the enforcement of rules
9	We would like protected Lakes
10	Continued supply of fish, wood, rattan for our benefit
11	Develop a community fire fighting service
12	Better arrangements for fishing gear use in the River Tawang

Fig 5.13 The Twelve Dreams Selected

Strengthening Fisheries Rules			Enforcement of Fisheries Rules		
Prevent the Extinction of Fish Species	Continued Sufficient Supply of Fish, Wood and Rattan	Location of Fishing gear in the River so not to cause disruption	Develop a system of community police and community fire protection with DSNP Unit	Ratification of Rules by an Authorised Institution	Cooperation with other parties for the enforcement of rules
Ranking (green = 1 st priority, yellow = 2 nd priority, pink = 3 rd priority)					
FIRST	SECOND	THIRD	THIRD	SECOND	FIRST
1= 18	1= 10	1= 2	1= 4	1= 2	1= 25
2= 2	2= 10	2= 17	2= 3	2= 25	2= 3
3= 7	3= 13	3= 10	3= 25	3= 4	3= 2

Fig 5.14 Ranking of the Priority Actions

Design Phase – Action Planning

5.5.9 The Design phase used the planning method recommended by ‘The Positive Path’.⁴ This is a form of action planning using a, ‘what–why–where-when-who-how’ planning sequence that has been successfully used in rural India (see Fig 5.15). The participants were divided into four groups with participants from different villages mixed up together and each group assigned one of the four identified priority dreams. Only four were chosen as any more would require commitment to too many activities and focus would be lost. This is also consistent with the AI philosophy that success breeds success and it is preferable to succeed with a few dreams rather than fail trying to address too many at one time.

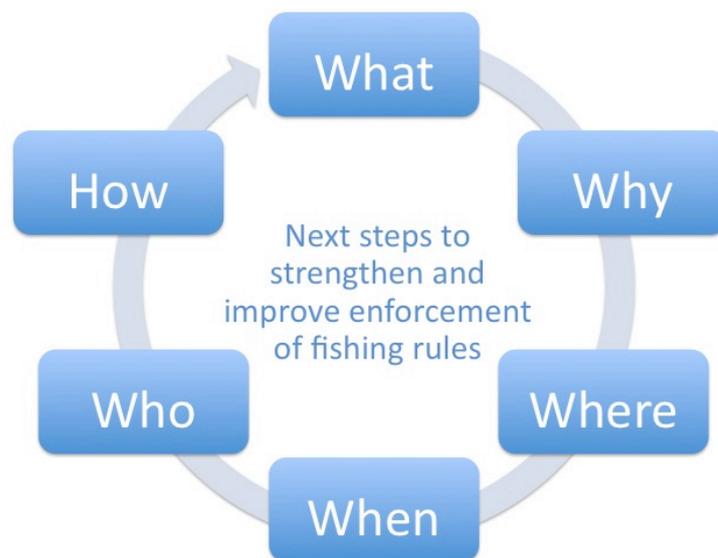


Fig 5.15 Action Planning

5.5.10 Once all groups had completed the six step process they presented their action plan to a plenary session where there was an opportunity to review, amend and refine the proposals.

⁴ G Ashford and S Patkar, *The Positive Path: Using Appreciative Inquiry in Rural Indian Communities* (International Institute for Sustainable Development Winnipeg, Manitoba 2001) 30.

The four priority dreams were:

1. Never allow the extinction of fish species;
2. There is always enough fish, wood and rattan;
3. Fishing rules are ratified by institutions with authority;
4. Cooperation with other parties for enforcement of rules.

5.5.11 The first two dreams concern desires for long term and intergenerational environmental sustainability. This contrasts with the outcomes in individual interviews where there had been greater focus on personal short-term livelihood needs. The second two dreams relate to strengthening enforcement and the common theme here is the identified need for partnership with other parties although each village is itself keen to maintain its individual rules that are specific to its location, circumstances and traditions.

The results are provided as four diagrams; figs 5.16 to 5.19

Fig 5.16 Dream 1 Action Plan

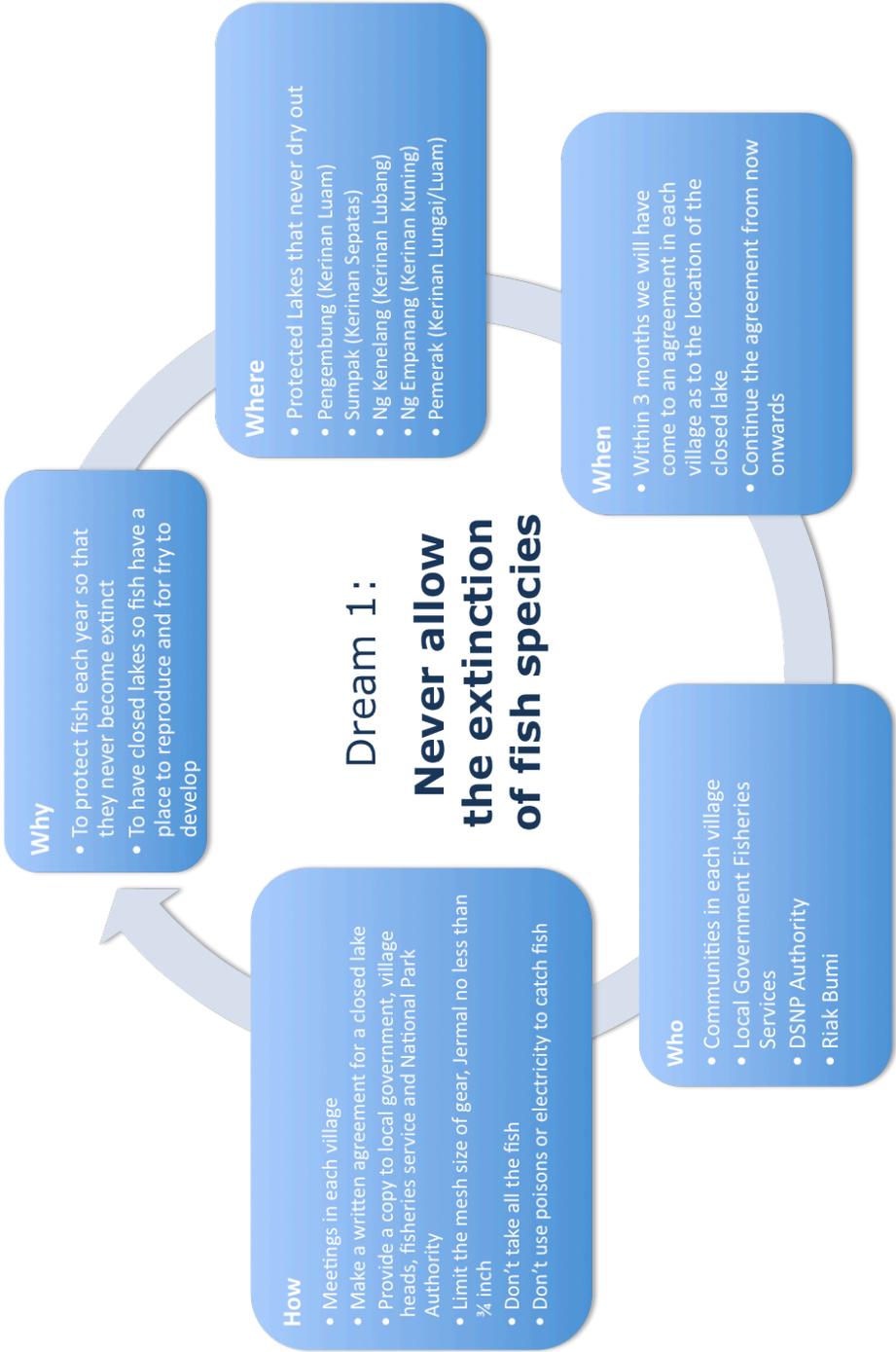


Fig 5.17 Dream 2 Action Plan

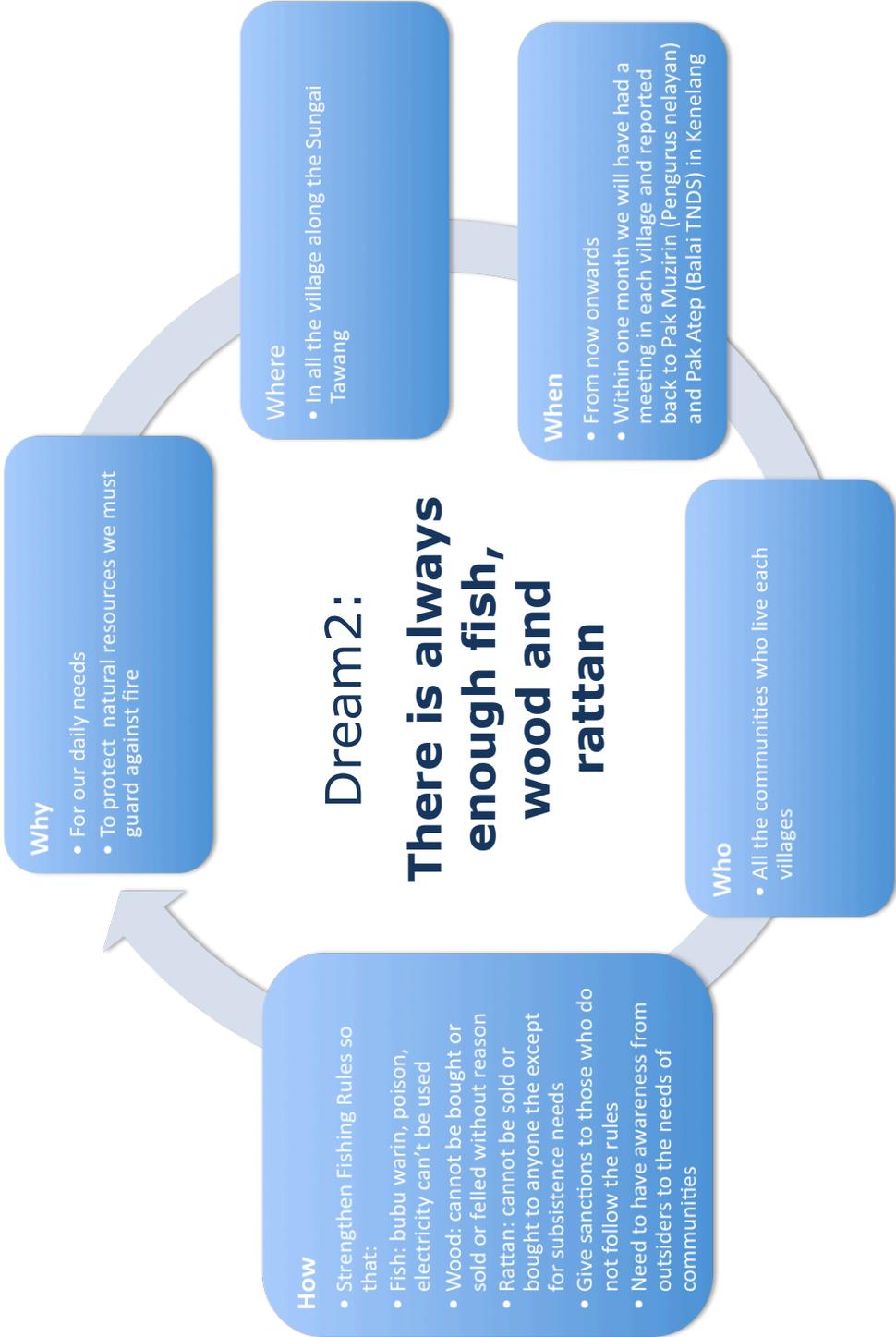


Fig 5.18 Dream 3 Action Plan

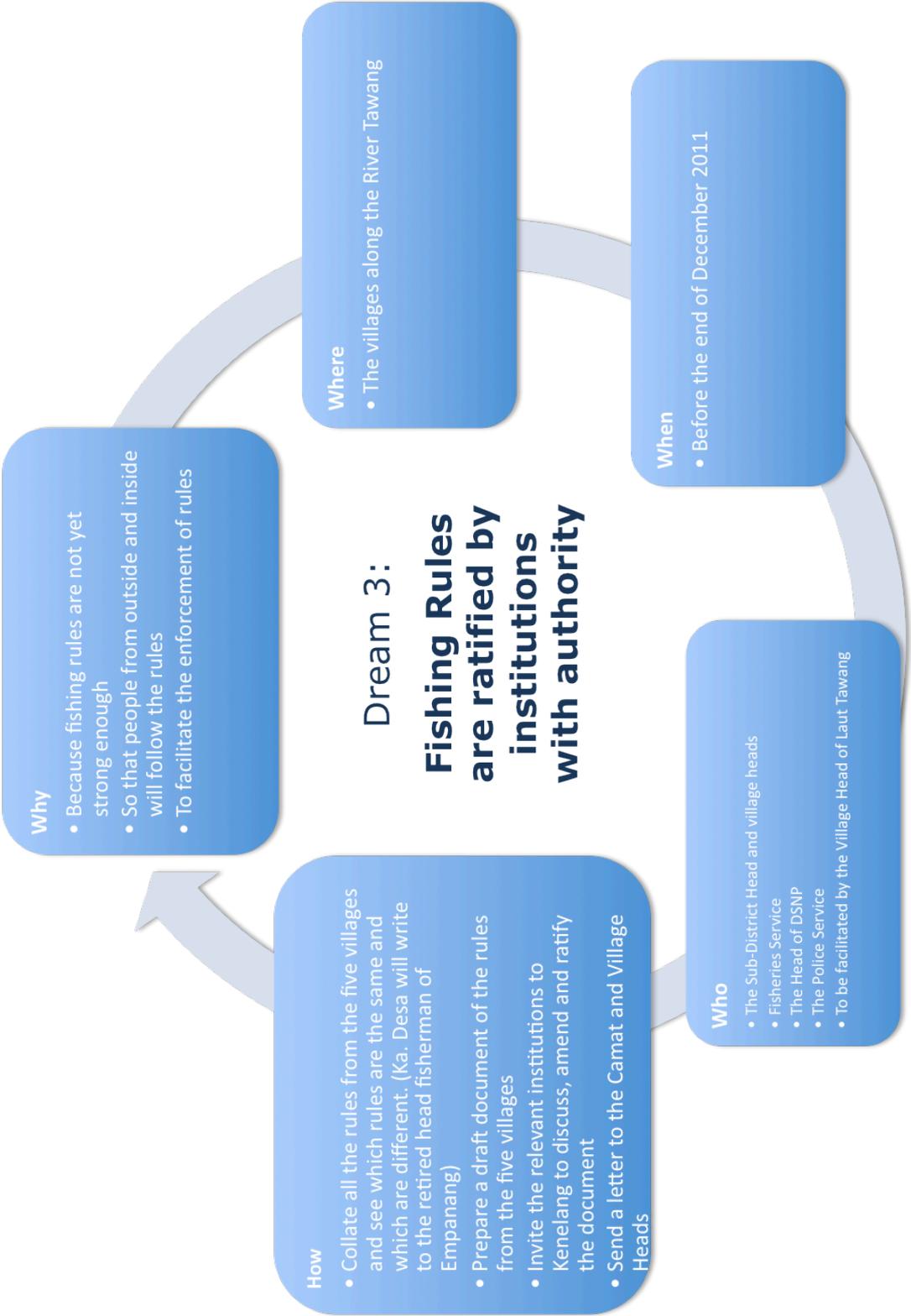
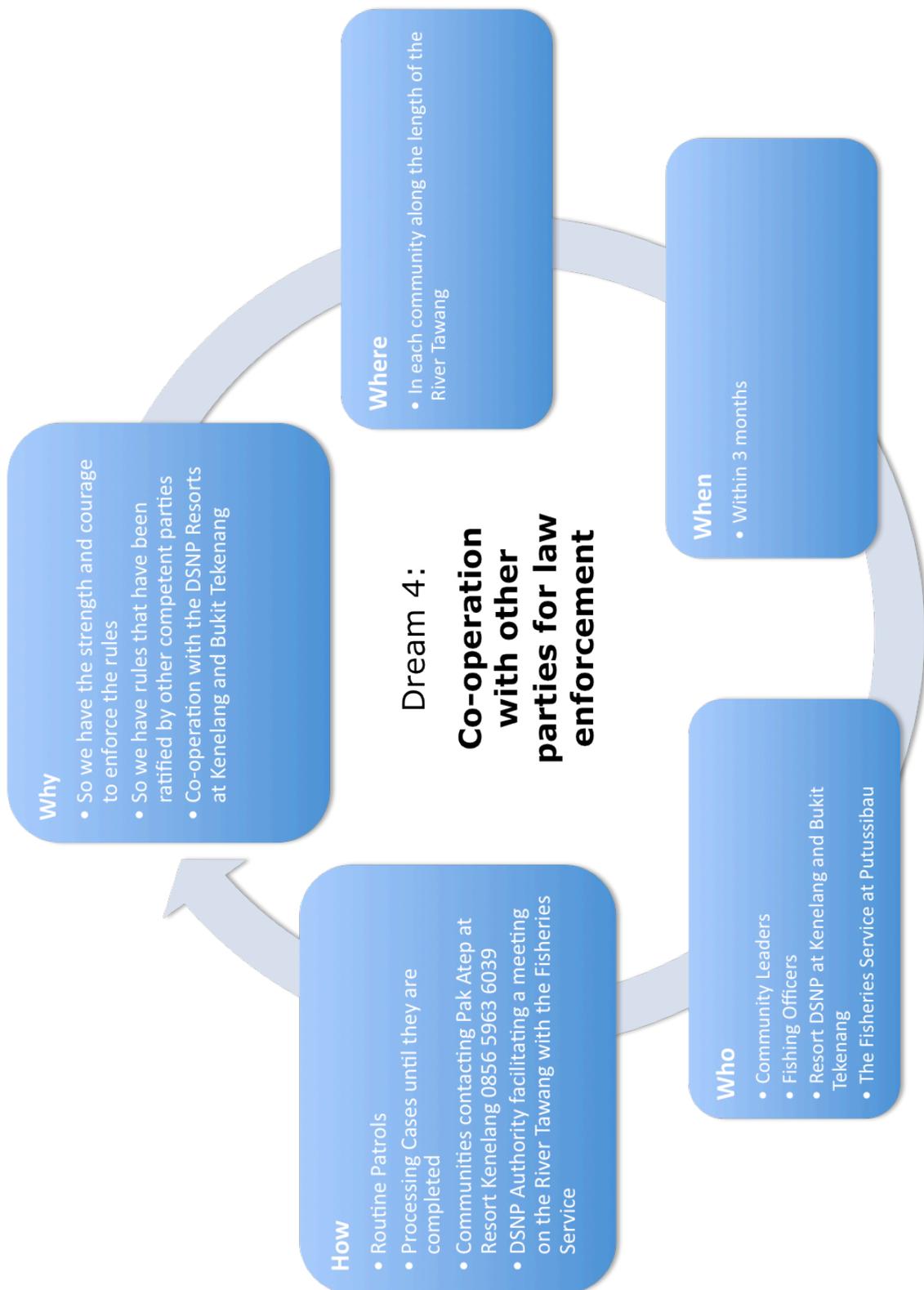


Fig 5.19 Dream 4 Action Plan Next Steps



Next Steps

5.5.1 From the Action plans an action timetable was developed (Fig 5.20) and distributed to all the parties after consultation with the deputy head of the National Park and the Director of Riak Bumi. Separate Lists of actions were developed for the local communities and the National Park Staff.

Time Frame	Action
Within 1 month	Each fishing village to have a meeting to:
	a) Discuss the strengthening of fishing rules and Closed Lakes
	b) Send current fishing rules to Pak Muzirin (fishing officer) and Pak Atep (DSNP Ranger) at Kenelang
1-3 Months	a) Start regular patrols from Kenelang and Bukit Tekenang to build close contact with communities
	b) Agreement for Closed Lakes from each village
3-6 Months	a) Head of Laut Tawang village to collate all the fishing rules and to make a draft document for discussion with stakeholders with authority
	b) DSNP Authority to facilitate a meeting at Kenelang with the Fisheries Service (Mrs Risma)
6-12 Months	Fishing rules which are agreed by each fishing village to be ratified by Sub-District, Fisheries Service and DSNP Authority

Fig 5.20 Next Steps Actions

5.5.2 Actions for Local Communities

- Have a meeting in each fishing village before the end of April to strengthen fishing rules and decide on the protected lakes

- Village Head of Laut Tawang to collate the fishing rules from each fishing village and make a draft document of fishing rules before the end of October 2011
- Invite the Fisheries Service and DSNP Authority to Kenelang to ratify the fishing rules

5.5.3 Actions for the Danau Sentarum National Park Unit

- Visit each village on a routine basis and always call at the home of the Head Fisherman or another officer
- Check that each village has had a fishermen's meeting before the end of April and attend if invited
- Assist the Village of Laut Tawang to prepare the fishing rules document for the five villages.
- Facilitate the attendance of the Fisheries Service at Kenelang before the end of October
- Together with the NGO Riak Bumi facilitate a meeting in the middle of March 2012 to assess the outcome of these activities

Personal Commitments

5.5.4 The final stage of the AI Workshop was for each participant to make an individual commitment as to what they would do next to take the outcomes of the workshop forward and therefore develop ownership of the project. These were written on cards and placed in the centre of the room to be photographed before people took them away with them. Commitments included changing the way they fish and looking after the environment to working with other organisations and spreading the outcomes of the meeting to the other members of the community.

Summary of Emerging Themes

- 5.6.1 The fieldwork undertaken over a ten month period met with enthusiasm and high levels of engagement from the selected local communities. The topic is at the core of their everyday lives and long term future. Fieldwork benefited from the active involvement of both a local NGO and the National Park Authority and provided an opportunity for these two parties to collaborate on an equal footing. Appreciative Inquiry proved to be an energising and empowering process for communities though at some junctures it was necessary to constrain the scope of the discussions to remain with the framework of the research questions.
- 5.6.2 Considering the four topics of inquiry the following conclusions can be drawn. On *Livelihood* the most common themes were that 'Fishing is the only livelihood' and that 'Earning a living in the National Park is easy' compared to in villages outside the park. On *Governance* rules were universally considered 'good'; they maintain peace and goodwill and also there was a strong drive to control the use of fine meshed gear. On *Environment* there was little consistency of themes between villages except an acknowledgement that fine mesh gear damage fish stocks. On *Partnership* the most commonly repeated theme was the desire to have assistance with enforcement of rules and active cooperation from government apparatus. These themes were reflected in the outcomes from the Appreciative Inquiry workshop action plans to; maintain yields of natural resources, a desire to have traditional rules ratified and for multi-partite co-operation on law enforcement
- 5.6.3 To conclude this chapter some reflections on the data are provided and these issues are returned to in Chapter 8 where the data is analysed against established theoretical frameworks.
- 5.6.4 Communities clearly value subsidiarity in setting rules that are relevant to their village and reflective of their socio-economic circumstance and cultural history. That said there was repeated concern about the lack of ability of a community, and more specifically its leaders, to enforce the rules they set both in terms of apprehending the infringer and in imposing penalties. They seek support from government apparatus whether local government or the National Park Unit to provide ratification and enforcement. *Adat* alone is not seem as sufficient to govern natural resources but needs to act in tandem with state legal orders.

- 5.6.5 Another common view is that while villagers want local rules and local management on certain matters they recognise a national park wide policy is required e.g. towards *bubu warin* and other fine meshed fishing gear. Due to the superior efficacy of these gears individuals are not prepared to stop using the gear unless the ban is across the whole area and that the ban needs to be agreed in each village as well as by local government.
- 5.6.6 In most of the case study villages there was a strong sense that discretion was applied to how and when rules were enforced. Community cohesion is critical and local leaders were not going to cause disharmony within the village without good reason particularly if there are extenuating circumstances why an individual may have breached the rules. Furthermore the driver for rule enforcement was often expressed as maintenance of social harmony and equality of access rather than environmental protection.
- 5.6.7 Communities were usually aware of the plurality of rules and regulations controlling natural resource use and this is no different to other areas of their lives where are used to dealing with overlapping responsibilities. The position has exacerbated since the decentralisation of power from Jakarta to the Districts leading to increasing plurality and complexity as district regulations have been afforded more weight. While this is the formal position in practice due to poor communications and a lack of government presence in Danau Sentarum, external rules are often in force on paper but not implemented in practice.
- 5.6.8 Over time if state rules are disseminated and recognised these external rules can act as triggers to change traditional rules and patterns of resource use. One example is the ban on commercial logging which has over the last twenty years been explained to local communities and there have also been high profile arrests resulting in much reduced activity usually only for local subsistence needs to which a blind eye is turned.
- 5.6.9 Interestingly there is overlap in some instances between the different orders as illustrated by the Kapuas Hulu District rules recognising local governance of fisheries resources so long as it does not conflict with state rules. This integration of traditional and state legal systems in a district regulation is a demonstration of the ratification communities are seeking though only in a

general form. Unfortunately the National Park Unit does not appear to have the ability to create such rules as they are still caught in the quandary of wanting to support local communities use of traditional law but not having the legal framework to implement this. A more informal arrangement is instead used where National Park police hand over first time offenders to be tried under traditional law and only press formal charges for repeat offences. This pragmatic solution demonstrates that in both traditional and state legal orders discretion in enforcement is common.

- 5.6.10 One theme that arose repeatedly was the declining fish populations and the impact on livelihood which was also expressed by the need to seek alternative income sources. Despite this compared with areas outside the National Park boundary earning a living in Danau Sentarum is perceived as relatively easy. An individual's perspective on this varied on how long he or she had lived in the national park. These pressures on livelihood were reflections of the pressure on fish stocks and in the AI workshop were translated into governance measures to protect fish stocks and their breeding grounds. The linkage between the well being of ecological habitats and fish yields was well understood. The challenge is the reality of changing rules, implementing the changes and enforcing any new rules.
- 5.6.11 Communities in Danau Sentarum have many challenges on a daily basis with poor facilities for health, education and housing. There was a strong desire to improve their *adat* governance systems for natural resources but a clear recognition that this was unlikely to happen without extensive facilitation from external sources whether government or NGOs such as Riak Bumi.
- 5.6.12 The data presented in this chapter together with that in Chapter 4 provides the building blocks on which to answer the three research questions about current use and how governance of commons can be strengthened. In order to do this it is analysed in Chapter 8 against three theoretical frameworks and compared with the data from the Lake District which is presented in the next two chapters.

Chapter 6

The Lake District National Park: The Current Position

Introduction

6.1.1 This chapter focuses on the current position with regard to the Lake District looking at the whole of the national park and more specifically at the three study commons. The chapter starts with an overview of the National Park and the three study sites then addresses the research question; ‘What is the current position with regard to land tenure and governance systems currently operating and the ecosystem services delivered?’

Why is the Lake District ‘special’?

6.1.2 Understanding what makes a site special is critical to designing governance, as governance does not take place in a vacuum but with a purpose to achieve one or more objectives or a specific assemblage or bundle of ecosystem services.

6.1.3 The Lake District (LDNP) is a national park in the north west of England in the county of Cumbria extending to 229,200 ha. It was designated as a National Park in 1951 but was a much valued and visited area for over 200 years before then. It remains a highly popular destination with over 15 million visitors a year¹ compared with a resident population of 41,000. Wordsworth, and the Romantic movement he led, is credited with raising awareness of this cultural landscape where the interaction over hundreds of years between the land use by humans, the wild landscape and semi-natural habitats has created a unique human ecology.²

6.1.4 The Lake District is famed for the close juxtaposition of mountains and moorland with valley bottom lakes and many smaller tarns occurring at

¹ STEAM data on www.lakedistrict.gov.uk.

² I Thompson, *The English Lakes: A History* (Bloomsbury 2010) 162.

a variety of altitudes. These valleys and lakes arose from the process of glaciation that ended some 10,000 years ago. This left steep sided valleys with low lying land in the bottom where farming communities established fields and steadings with the associated walls that are such a feature of the landscape, as well as an essential management tool. There are 13 main valleys each with their own specific characteristics dictated by the underlying geology, water bodies, ecological habitats and land use.³

6.1.5 The Lake District National Park Authority has identified and defined the special qualities of the park as:⁴

- Unique farmed landscape and concentration of common land;
- History of tourism and outdoor activities;
- Opportunities for quiet enjoyment;
- Open nature of the fells;
- Rich archaeology;
- Distinctive areas and settlement character;
- Celebrated social and cultural heritage;
- Extensive semi-natural woodlands;
- Complex geology and geomorphology;
- Diverse landscape from mountain to coast;
- Nationally important mosaic of lakes, tarns and rivers and coast;
- Wealth of habitats and wildlife.

6.1.6 Seven out of these twelve special qualities arise from past and current use of the natural resources and ecosystems by humans and the Lake District is therefore quite different from National Parks in many other countries which are state owned and designated solely for their natural features. Most national parks are tourist destinations but are rarely

³ Lake District National Park, *Technical Evaluation of the Future World Heritage Nomination for the English Lake District* (Lake District National Park Partnership 2013) 30.

⁴ Lake District National Park, 'Lake District State of the Park 2012' (Lake District National Park Authority 2012) <www.lakedistrict.gov.uk/__data/assets/pdf_file/0011/229997/State-of-the-Park-2012.pdf > accessed 8 November 2012.

designated for that reason and in few national parks are agricultural activities a reason for celebration and distinctiveness. More often such activities are considered detrimental to the “natural” characteristics of the park. In the Lake District the reverse is true whereby it is the cultural landscape created by hundreds of years of farming, woodland management, exploitation of minerals and tourism that make it special and distinctive. For the purpose of this research cultural landscapes are defined as:

Spatially defined units whose character and functions are defined by the complex and region-specific interaction of natural processes with human activities that are driven by economic, social and environmental forces and values.⁵

6.1.7 It is also cultural landscape that is the basis for the World Heritage Site nomination, as set out in the Lake District’s Outstanding Universal Value statement. The summary is worth quoting;

The distinctive farming landscape of the Lake District is of outstanding universal value because its terrain inspired fundamental and worldwide changes in the way humans view, value and conserve landscape. A fusion of mountains, valleys and lakes, each with its own specific character, it is one of the world’s most beautiful areas and the birthplace of what landscape means to the modern world.⁶

6.1.8 Common land is central to this uniqueness as 28% of the Lake District is registered common land⁷ compared with the national figure of approximately 3% of England. It is common land, and its relationship with the in-by land, that creates the distinctive farmed landscape. The Lake District has managed to retain common land where it was enclosed elsewhere in England due to the nature of the farming culture

⁵ Millennium Assessment, *Ecosystems and Human Well-being* (Island Press 2005).

⁶ Lake District National Park, 'The Lake District Statement of Outstanding Universal Value ' <www.lakeswhs.co.uk/documents/LakeDistrictStatementofOutstandingUniversalValue190808.pdf > accessed 18 March 2010.

⁷ Lake District Partnership (n3) 20.

and the low agricultural value of this land limiting opportunities for agricultural improvement. The management systems associated with common land while not static would be recognisable to those farming in Wordsworth's time and before. How effectively common land is governed will determine whether this living cultural heritage and working landscape persists for the next millennia.

- 6.1.9 The National Park is managed by the Lake District National Park Authority, ('the Authority") which works in partnership with other organisations through its "Partnership" to deliver its goals of a prosperous economy, a world class visitor experience, vibrant communities and a spectacular landscape, wildlife and cultural heritage. The Authority covers land in four district councils and has delegated to it the development control and planning decisions as well as management of access of rights of way within the boundary of the national park. Additionally it employs staff to manage visitor experiences, liaise with farmers to enhance access, landscape and habitats and educate and inform the public. The Authority is run by a Board of 22 members with over 200 employees and in addition many members of the public volunteer to undertake environmental work and visitor management.

The Study Sites

- 6.2.1 As described in Chapter 3 a process of Appreciative Inquiry was undertaken with three commoners associations in order to gather detailed data as to how commons are being governed, what works and how it might be improved. They are located in the north of the national park and cover over 8,000 ha of common land, more than 10% of the common land in the national park (see Appendix A).
- 6.2.2 The commons chosen are Caldbeck, Mungrisdale and Matterdale. The first two are the Skiddaw and Blencathra Area of Distinctive Character, often called the Skiddaw Massif while Matterdale is in the Threlkeld and Matterdale Area of Distinctive Character situated at the northerly end of the Helvellyn Ridge. An overview of the landscape, biodiversity

and farming is given in Natural England's publication for Cumbria High Fells.⁸

Caldbeck

- 6.2.3 Caldbeck, CL 20, is the largest of the commons in the study site extending to 3925 ha and situated in the far north-east corner of the LDNP. The commoners live on farms around the fringe of the common; there are 28 active commoners grazing the common and a further 40 commoners who are non-graziers. Each grazier has a separate flock hefted to a specific area through long use. The common is governed by a Commoners Association set up in order to enable the registration of common rights under the Commons Registration Act 1965. The officers of the Association holds and manage the Higher Level and Upland Level Stewardship Scheme.
- 6.2.4 The common is an important part of the village as it extends into the centre of the village of Caldbeck and is divided into two further quite distinct sections, Faulds Brow (533.5ha), a relatively flat lower level area extending to 340 m above sea level and the "High Fell" (3384.8 ha) which rises up to 658m above sea level. All the High Fell is a SSSI and SAC while Fauld's Brow is not designated for biodiversity. The ownership of the common is split between the Lake District National Park Authority, Dalemain Estates and Cumbria County Council.
- 6.2.5 Humans have been active in this area for thousands of years as evidenced by the Bronze Age fort on Carrock Fell. Hutchinson refers to a resting place, or hospice, for travellers in 600 AD and by 1200 AD the village church St Kentigern had been built. Hutchinson also expounds on of the individual sheep walks (hefts) and how they are managed with the enclosed land to create a highly valued farming system;

It would indeed hardly be possible to carry on farms like these, to any good purpose, were it not for this custom; as every particular

⁸ Natural England, 'National Character Area 8: Cumbria High Fells' (Natural England 2012) <<http://publications.naturalengland.org.uk/publication/2229157?category=587130> > accessed 10 April 2013.

flock knows, and is tenacious of, for its own particular walk, or district of pasturages, on the heath. Infinite trouble and confusion are thus prevented: and nothing is wanting to make the system complete, and the parish of Caldbeck one of the first sheep-walks in the kingdom, hardly inferior perhaps to the so celebrated plains of Andalucia, but that, by making their enclosed and cultivated lands cooperate with those of that are unenclosed and waster, they should render, as they easily might do, their flocks of sheep both larger and better.⁹

Agricultural produce from the parish in 1792 was 6924 sheep shorn, 2004 lambs, 38 foals and 381 calves.¹⁰

Mungrisdale

6.2.6 Mungrisdale Commoners Association covers three common land units; Mungrisdale (CL293, 1235.25ha), Bowscale (CL60, 439.50 ha) and Saddleback (CL293, 1082.92 ha). Mungrisdale and Bowscale are in the civil parish of Mungrisdale and Blencathra in the civil parish of Threlkeld. The land lies due south and adjacent to Caldbeck with the River Caldew being the boundary between the two associations and the highest point is Saddleback (Blencathra) at 868m. The three separate common land registers have been managed as a single unit since Mungrisdale Commoners Association was established in 1990. The commons entered the Environmentally Sensitive Area (ESA) scheme in 1998 and the Higher Level Stewardship Scheme (HLS) in 2008. This agreement is managed by the Commoners Association. The ownership of the land is split between three owners, Dalemain Estate, Greystoke Estate and Lonsdale Estate. There are 11 active graziers and over 20 commoners who are not grazing the common though many of them still farm in the parish. All the common land is designated as part of the Skiddaw Fells SSSI and the High Fells SAC¹¹. The water from Mungrisdale is split two ways with the Rivers Glendermackin and Glenderaterra feeding into Bassenthwaite while the Caldew is part of

⁹ W Hutchinson, *The History of the County of Cumberland, and Some Places Adjacent, From the Earliest Accounts to the Present Time* (Carlisle, Printed by F. Jollie 1794) 391.

¹⁰ *ibid.*

¹¹ The Lake District High Fells SAC objectives are set out in http://www.naturalengland.org.uk/Images/UK0012960-Lake-District-High-Fells-SAC_tcm6-32328.pdf.

the Eden Catchment as with Caldbeck Common. The landscape is Rugged/Angular Slate High Fell dominated by Blencathra as one of the most distinctive mountains in the LDNP which is visible to visitors entering the park from the east.

Matterdale

6.2.7 Matterdale Common (CL67, 1054.25 ha) lies to the south of Mungrisdale on the southern side of the A66 and is in the civil parish of Matterdale. It is a regulated common with a Board of Conservators established under the 1876 Commons Act through a scheme of enclosure and regulation finalised in 1882. Prior to regulation the common land extended to 2225 ha but more than 50% was enclosed thus leaving a regulated common of 1054 ha. The Landscape Type is Rugged, Craggy Volcanic High Fell and is characterised by its simple landscape, a mass of blanket bog and heather rising up from the A66 to Great Dodd at 857 metres above sea level, tranquil but with a feeling of wildness due to its isolation. Matterdale Common is owned by the National Trust.

Legal and Normative Orders in The Lake District

6.3.1 The relevant law in the Lake District is considered in the three categories set out in the methodology; property rights (formal and customary), public statutes and regulations and economic instruments.

Property Rights Law

6.3.2 Common rights in England are treated as an interest in “land” under the Law of Property Act 1925¹² and classified as an incorporeal hereditament, a profit à prendre similar to an easement. They are called common rights not because any person is entitled to use the land but because the legal rights to harvest resources are held in common with others over land owned by another party. These rights

¹² Law of Property Act 1925, s 205.

are not owned by the community nor are these commons open access.¹³

6.3.3 For every common land (CL) unit there is a register held by Cumbria County Council. These registers were created following the Commons Registration Act 1965 which required all common land and all rights on common land to be registered, and all grazing rights had to be quantified. Summary data held by Defra for the case study commons is provided at Fig 6.1 There is one section detailing who owns the common another describing the common and a third listing the rights of common. Except with rights held in gross¹⁴ it is not a register of who owns which rights but a register of the rights themselves, which inbye land they are attached to, the number and type of rights. There are five columns in the register;

- Register entry number;
- Date of entry on register;
- Name or person registering the rights;
- Type of rights and numbers where required e.g. for grazing rights;
- Land to which the rights are attached (if applicable).

6.3.4 The registers are important because they determine what can be grazed on each common for only those with registered rights (commoners) can graze on the common and they can only graze the number their registration allows. The exception to this is that the owner of the common land can graze the common subject to leaving sufficient for the commoners.¹⁵ Grazing is the only common right regularly used in the LDNP and as grazing is the main management tool on Lake District commons the way in which a common is grazed determines the quantity and quality of ecosystem services.

¹³ There is recreational open access under CROW Act 2000, pt 1.

¹⁴ Common rights held *in gross* are not attached to land and can be bought and sold freely. For rights in gross the Commons Register provides proof of title.

¹⁵ EF Cousins et al., *Gadsden on Commons and Greens* (Sweet & Maxwell 2012) 5.04.

- 6.3.5 The manner in which registration took place was unsatisfactory both from the environmental and agricultural perspective. Anyone could register common rights and an application was only reviewed in the event it was challenged. In that case the matter went before a Commons Commissioner and depending on the outcome was removed, amended or confirmed. Due to commoners preferring to maintain good neighbourhood and therefore not wishing to challenge their neighbours' applications many applications were finalised despite being excessive in quantum. This was allowed as no proof of numbers had to be provided and until that point many rights were not quantified so title deeds would not have helped. Instead the right to graze was limited by the principle of levancy and couchancy.¹⁶ Nor did the CRA 1965 have any sustainability criteria included e.g. whereby the total number of rights registered should be limited by the grazing capacity of the common. The net result was that some commoners ended up with many more rights than the numbers of sheep they had traditionally grazed. This caused and still causes ill feeling within the farming community particularly among those who considered their forebears were "honest" in their declaration. The matter continues to haunt commons management in the LDNP as government support for farming through the Single Payment Scheme uses the numbers of rights to calculate a notional area of land and hence determine payments. Similarly Environmental Stewardship (ES) often uses the register as a baseline though in that scheme there is the discretion to use other formula as well such as historical grazing levels.
- 6.3.6 High levels of registration led to a position where livestock numbers increased on upland commons encouraged by government support schemes that paid farmers per head of livestock grazed from 1976 – 2004.¹⁷ This was not only ecological overgrazing but also in some cases agricultural overgrazing resulting from over stocking causing

¹⁶ EF Cousins et al., *Gadsden on Commons and Greens* (Sweet & Maxwell 2012) para 2.69.

¹⁷ I Condliffe, 'Policy Change in the Uplands' in A Bonn et al. (eds), *Drivers of Environmental Change in Uplands* (Routledge 2009) 66.

damage to soils, grasslands and heath as well as poor condition of livestock.¹⁸

6.3.7 In addition to over registration the register's value is less than it might be as they do not provide information on who currently owns common rights. In most cases the person who made the registration and whose name is in column three was the owner at the time of registration but since then the land and or rights may have been sold and sub divided and in many cases the individual has died. Tracking who is now the owner of each right is highly time consuming and expensive and often investigations result in dead ends where no owner can be determined.¹⁹ This is a weakness and weakens governance as it can be difficult to produce and maintain a definitive list of who are the commoners and what their rights are. Agreements for management and governance can therefore be challenged and require consensus and clauses that protect all commoners in the event untraced owners appear and utilise their rights.

6.3.8 Part I of the Commons Act 2006 Act sought to rectify some of these limitations. It will not reopen the registers to examine over registrations but it will allow some errors to be corrected and encourage updating where rights under one entry have been apportioned among two or more persons. Furthermore it will allow declarations to be made of the current owner or tenant which will be in a new column 6 on the register. The weakness of this Act is that Part 1 has yet to be rolled out across England except in seven pilot counties. From October 2014 Part 1 will be implemented in Cumbria and North Yorkshire extending the application of Part 1 to 70% of England's common land.²⁰

¹⁸ English Nature, 'Sustainable grazing in the English uplands ' (English Nature 2004) <<http://publications.naturalengland.org.uk/publication/70042> > accessed 15 June 2010 5.

¹⁹ see Defra, 'Project to establish ownership of rights of common on Bampton Common, Cumbria ' (Defra 2008) <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/218790/bampton-final-report.pdf > accessed 15 October 2013.

²⁰ Ministerial Announcement 9 January 2014 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/270537/cla-imp-update-201401.pdf > accessed 10 January 2014.

6.3.9 The section of the CA 2006 already in force is the prohibition on the severance of common rights from the land to which they are attached as from 28th June 2005.²¹ The consequential requirement is that on the apportionment of any dominant tenement land detailed in column 5 of the registers the equivalent and arithmetical apportionment of common rights must occur, even if this results in fractions of rights.

6.3.10 Another complication from the current registration system is the issue of dual registered rights where commoners whose sheep were hefted across two contiguous commons in 1965 made identical registrations on both commons separately as the registers are separately maintained. The question arises as to whether the total number of rights is duplicated or not. *Dance v Savery* 2011 has provided guidance on this matter but not a conclusive position.²² The case concluded the commons registers are the starting point but all are required to look behind the registers at the position before registration to assess the actual entitlement. It may well be the commoner can graze up to the number of rights registered on either commons, or divide them between the two, but cannot not double the total. The number in the register therefore represents a ceiling rather than an entitlement.²³ This is of moderate help and dual registered rights do still cause complication for governance and in particular the structuring of agri-environment agreements on commons when the two Common Land (CL) units are in separate schemes.

²¹ Commons Act 200 s9.

²² *Dance v Savery* [2011] EWCA Civ 125.

²³ EF Cousins et al., *Gadsden on Commons and Greens* (Sweet & Maxwell 2012) 2-67.

Name of common	District or borough	CL registration number	Hectares	Parish	Rights of final	Rights of pasture: final	Estovers: final	Other rights: final	Cross-referenced rights: final	Types of stock referred to in rights of pasture	Other rights referred to in register
Caldbeck Common	Allerdale and Eden	20	3726.75	Caldbeck / Mungrisdale	112	111	11	68	8	Sheep, cattle, horses, geese, turkeys, hens, ducks, pigs.	Turbary (28) Sand (3) Gravel (18) Stone (16) Water (3)
Mungrisdale Common	Eden	293	1235.25	Mungrisdale	18	18		1		Sheep, cattle and horses.	Turbary (1)
Carrock Fell and Mungrisdale Fell.	Eden	60	439.50	Mungrisdale	20	18		7	8	Sheep, cattle and horses.	Turbary (7)
Saddleback	Eden	66	1082.83	Threlkeld / Mungrisdale	24	24	1	5		Sheep, cattle and horses.	Bracken (1) Sand (2) Gravel (2) Turbary (1)
Matterdale Common	Eden	67	1054.25	Matterdale	35	33	0	14	0	Sheep, cattle and horses.	Turbary (14)

Fig 6.1 Data on Study Sites Common Land Units extracted from Defra database

6.3.11 Customary law on Lake District commons is also important as it dictates the practicalities of how a common is managed. There will be variation in customary rules across commons and some are documented and others oral. Rules tend to cover the marking of stock, gathering the common for husbandry tasks, grazing of entire (uncastrated) animals, supplementary feeding and shepherding of sheep. These rules are developed and enforced by the commons association as detailed below.

6.3.12 Tenancies for farms with common rights are granted either under the Agricultural Holdings Act 1986 or the Agricultural Tenancies Act 1995. The former are life tenancies, and in some cases offer succession rights, while the latter are usually for a fixed term often 10-15 years. Many landowners in granting tenancies under the 1995 Act include restrictive clauses e.g. limiting sheep numbers, requiring entry into an agri-environment scheme or dictating the landlord's share of the agri-environment monies. Furthermore on many tenanted farms there is a landlord's flock, an arrangement whereby a set number of sheep are let with the farm and the same number must be returned to the landlord at the end of the tenancy. If a tenant is going to change his flock numbers then it is not a decision he can necessarily make alone as alterations to the landlord's flock and the tenancy agreement may also be required.

6.3.13 A tenant clearly does not have the freedom to alter how they graze commons in the same way as an owner occupier and will always be aware how a change in the management of the common may affect subsequent rent reviews.

Public Statute and Regulations

6.3.14 The Wildlife and Countryside Act 1981 (as amended) is the principal environmental statute affecting commons in the National Park as it protects species and habitats primarily through the establishment of a network of Sites of Special Scientific Interest. Over 18% of the LDNP is designated as a SSSI but many of these sites are contiguous with non

SSSI land over which farmers are strongly encouraged to manage in a manner consistent with delivering favourable condition on SSSIs. Two of the three study sites chosen for this research are SSSIs while Matterdale is a County Wildlife Site.

6.3.15 The designation of a common as a SSSI fundamentally restricts the freedom of the owner of the common land and the commoners from exercising their property rights as they wish due to the consent procedure for any activity classified as an operation likely to damage (OLD). When a SSSI is proposed all those with a property interest in the site must be notified which includes a list of OLDs that cannot be undertaken without consent.²⁴ Once a SSSI is designated Defra, through its executive agency Natural England, has a statutory duty to ensure the interest features for which the site is designated are protected and that favourable condition is sought. To this end biodiversity takes priority over other outputs such as food production, cultural landscape and grouse shooting. On many sites grazing was consented at the level at the time of notification and this often failed to deliver favourable condition. Natural England usually seeks to deliver favourable condition through entering into voluntary agreements as described in 6.3.24. If this is not successful they can offer a formal management scheme on the commoners and owner which if ignored results in a management notice being served.²⁵ As a last resort Natural England can compulsorily make payments to modify existing consent or even acquire the land.²⁶

6.3.16 The Countryside and Rights of Way (CROW) Act 2000 is primarily concerned with providing open access to open moorland.²⁷ This gives the public pedestrian access to all common land though many commons already had either *de jure* or *de facto* access rights prior to the Act.²⁸ Therefore the impact on governance of common land or

²⁴ WCA 1981 (as amended) s28 (4)(b).

²⁵ WCA 1981 (as amended) s28J and s28K.

²⁶ WCA 1981 (as amended) s28M and s28N.

²⁷ Countryside and Rights of Way Act 2000 s2.

²⁸ Law of Property Act 1925 s193; Commons Act 1899; National Trust Act 1907 s29.

ecosystem services was negligible. The CROW Act also substantially amended the WCA 1981 strengthening the SSSI system.

6.3.17 The Natural Environment and Rural Communities Act 2006²⁹ (NERC Act 2006) covers many aspects of the protection of ecosystems, the natural environment and management of rural affairs. The sections of most relevance to common land are s40 and s41 which concern the protection of biodiversity and the requirement for the government to create and maintain lists of priority species and habitats that require protection.

6.3.18 The Commons Act 2006 has three Parts, the first allows for some updating and corrections to the 1965 Registers, the second concerns the management of commons through the establishment of commons councils and powers of last resort for agricultural management and the third the regulation of works on commons.

6.3.19 Part II is of major significance to the research question as the ability to establish statutory commons councils which came into force in 2010³⁰ has the potential to change the face of commons governance due to the ability to adopt rules via majority voting and to enforce breaches of the rules through the courts in a manner akin to bye-laws.

6.3.20 Part III updated the regulations for works on commons but has little impact on governance except that it makes it more likely that works undertaken without consent will be contested as the powers to challenge are available to all while previously under the Law of Property Act they were limited to local authorities.

6.3.21 The Lake District National Park was designated in 1951 and its operation is governed by the National Park and Access to the Countryside Act 1949 as amended e.g. through the Natural Environment and Rural Communities Act 2006 (NERC) and the Environment Act 1995.³¹ It is run by a National Park Authority that is

²⁹ National Environment and Rural Communities Act 2006.

³⁰ The Commons Councils (Standard Constitution) (England) Regulations 2010.

³¹ The Environment Act 1995 s61 amended the purposes of National Parks; (a) of conserving and

obliged to manage the park with regard to the two objectives of public enjoyment, and conservation of natural beauty and also seeks to foster the economic and social well-being of resident communities.³² Under the Wildlife and Countryside Act 1981³³ the National Park Authority is required to consult the Conservation Body (Natural England) and with local authorities on many matters. The Environment Act 1995³⁴ enacted the Sandford Principle³⁵ that where management cannot resolve tension between public enjoyment and conservation then priority is given to conservation.

6.3.22 The Water Framework Directive³⁶ requires the United Kingdom government to achieve good ecological status of waterways by 2015. This has resulted in a subtle change of emphasis under the Higher Level Stewardship Schemes but will be at the heart of the New Environmental Land Management Schemes (NELMS) as one of the two priority objectives. The first schemes will commence on 1st January 2016 and the detailed targets have yet to be published.

6.3.23 The other primary objective of NELMS is delivering Biodiversity 2020³⁷ the government's policy on halting the decline of habitats and species. This aims to ensure the UK meets its obligation under the Habitats Directive³⁸ and the Birds Directive³⁹ regarding management of Natura 2000 sites. These are known in the UK as Special Areas of Conservation and Special Protection Areas. Biodiversity 2020 seeks the ambitious target of ensuring 50% of all SSSIs are in favourable condition and 95% in at least unfavourable recovering condition. These

enhancing the natural beauty, wildlife and cultural heritage of the areas; and (b) of promoting opportunities for the understanding and enjoyment of the special qualities of those areas by the public.”

³² Environment Act 1995 s 62(1).

³³ 1981 s281.

³⁴ Environment Act 1995 s62.

³⁵ The Sandford Principle arose from Lord Sandford's review of National Parks in 1974.

³⁶ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 Establishing a Framework for Community Action in the Field of Water Policy.

³⁷ Defra, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' (2011) <www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services > accessed 25 August 2011.

³⁸ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) 1992; Council Directive 2009/147/EC on the Conservation of Wild Birds 2009.

³⁹ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) 1992.

targets are not legal requirements of the EU but stem from the EU biodiversity strategy which sets EU targets for the protection and conservation of biodiversity and to improve ecosystem services.⁴⁰ England's Conservation Body, Natural England, also has obligations under the NERC Act to protect and deliver favourable condition on SSSIs as well as conservation more generally.⁴¹

Economic Instruments and Impact on Governance of Common Land

6.3.24 Economic instruments are a key driver in influencing the behaviour of commoners in the Lake District and also the governance of common land. The main instrument is agri-environment schemes currently known as Environmental Stewardship and administered by Natural England. The scheme exists at two levels, Entry and Higher Level Stewardship (ELS and HLS) and the ELS also has an uplands stream, UELS, which is applicable to all the land in the LDNP. UELS pays farmers to maintain traditional farming systems and associated landscape features including hefted native breed flocks. HLS seeks recovery of habitats and associated species. HLS is particularly targeted at SSSIs and priority habitats as defined in the UK Biodiversity Action Plan which have legal priority through the s41 of the NERC Act 2006. The HLS pays farmers to deliver particular outcomes evidenced through indicators of success; payments and expectations are consequently higher than UELS. When a common enters the HLS it is usually in a combined UELS/HLS scheme though there is some underpinning of the HLS with the UELS to prevent double payments. UELS only agreements last five years while an HLS or combined UEL/HLS has a ten year term. The legal basis for these two schemes is the Rural Development Regulations.⁴²

6.3.25 UELS and HLS replaced a previous set of instruments, the Environmentally Sensitive Area (ESA) scheme and the Wildlife

⁴⁰ *Our Life Insurance, Our Natural Capital: An EU Biodiversity Strategy to 2020 (COM (2011) 244 final)*.

⁴¹ Natural Environment and Rural Communities Act 2006 s2, J Lunt and K Lischak, 'Natural England – a New Dawn' (2008) 20 Environmental Law and Management 246.

⁴² Council Regulation (EC) No. 1698/2005 of 20 September 2005 on Support for Rural Development by the European Agricultural Fund for Rural Development.

Enhancement Scheme (WES). The Lake District ESA was established in 1993 with the first commons coming into schemes in 1995 and the scheme closed to new entrants in 2004. Due to the schemes lasting ten years the final agreements expire in 2014. The WES was a scheme established by English Nature to deliver favourable condition on SSSIs either as a stand alone scheme or as a top up to ESA.

6.3.26 According to the 2010 Defra Observatory Report on the Uplands income from agri-environment schemes comprised 18% of gross farm income in the Lake District and Solway LFA area.⁴³ A report for the Lake District National Park Partnership in 2013 concluded the gross farm revenue for an average Lake District farm is £106,013 including agri-environment income of £18,130 leaving net drawings after costs of approximately £8,572.⁴⁴ Agri-environment schemes may be classified as voluntary by Defra and Natural England but the reality is they are essential to deliver a positive income for the business.

6.3.27 Furthermore where land is designated as a SSSI Natural England can under the Wildlife and Countryside Act 1981 require management that delivers favourable condition.⁴⁵ Interestingly even for land not designated as a SSSI but adjacent to a SSSI Natural England have the authority to impose conditions on a UELS agreement to ensure the SSSI is not at risk of damage.⁴⁶ This is particularly relevant for Lake District commons where many common land units are unfenced from each other and run contiguous to other common land units (CLs) that have a SSSI designation.

6.3.28 The linkage between economic instruments and commons governance is strong and these instruments or agri-environment schemes have been the key driver in establishing new commoners associations and

⁴³ L Clothier and E Finch, 'Defra Agricultural Change and Environment Observatory Research Report No. 20' (Defra 2010)
<http://archive.defra.gov.uk/evidence/statistics/foodfarm/enviro/observatory/research/documents/upland_s2010.pdf > accessed 7 January 2011.

⁴⁴ D Harvey et al., 'Farming & Farm Forestry in the Lake District' (A report commissioned by the Lake District National Park Partnership, 2013).

⁴⁵ WCA 1981 s28J.

⁴⁶ Natural England, *Entry Level Stewardship Environmental Stewardship Handbook 4th Edition* (Natural England 2013) para 5.4.16.

the formalising and reinvigoration of existing associations. The reason is because an agreement with Natural England for an HLS/UELS agreement can only be signed by one person, usually the chairman of the Association. To bind the remaining parties Natural England require an internal agreement between the commoners and landowners party to the scheme to be drawn up and signed to ensure delivery of the agri-environment scheme and an agreed distribution of the payments.⁴⁷

6.3.29 The interesting development arising from entry into ESA/HLS/UELS and the associated internal agreements is that the role of commoners associations has changed. Instead of being focused on maintaining good neighbourhood through rules on day to day livestock management the commoners association has taken on a role of delivering other ecosystem services, notably ecological restoration of vegetation through the management of sheep levels, and in some cases the establishment of woodland. The commoners' association has to deliver the management prescriptions agreed with Natural England through the scheme and in return receives a set sum of money each year. This money is distributed to the parties in accordance with the internal agreement and subject to compliance with the terms of the scheme and the internal agreement. Agreeing the distribution of the money is often a challenging process.

6.3.30 The schemes have been successful in the LDNP where there is 81,000 ha of common land and approximately 35 commoners association. In 2011 90% of CL units over 100ha in the LDNP are party to an agri-environment scheme⁴⁸ and over 95% by area. As a result of this the stocking levels on common land has reduced by around 50%, see figure 6.3.

⁴⁷ Natural England, 'Common Land and Shared Grazing Supplement ' (Natural England 2011) <<http://www.naturalengland.gov.uk/ourwork/farming/funding/es/agents/default.aspx> > accessed November 2011.

⁴⁸ Data from Federation of Cumbria Commoners and www.natureonthemap.org.uk, Natural England's mapping site.

Ecosystem Services currently delivered

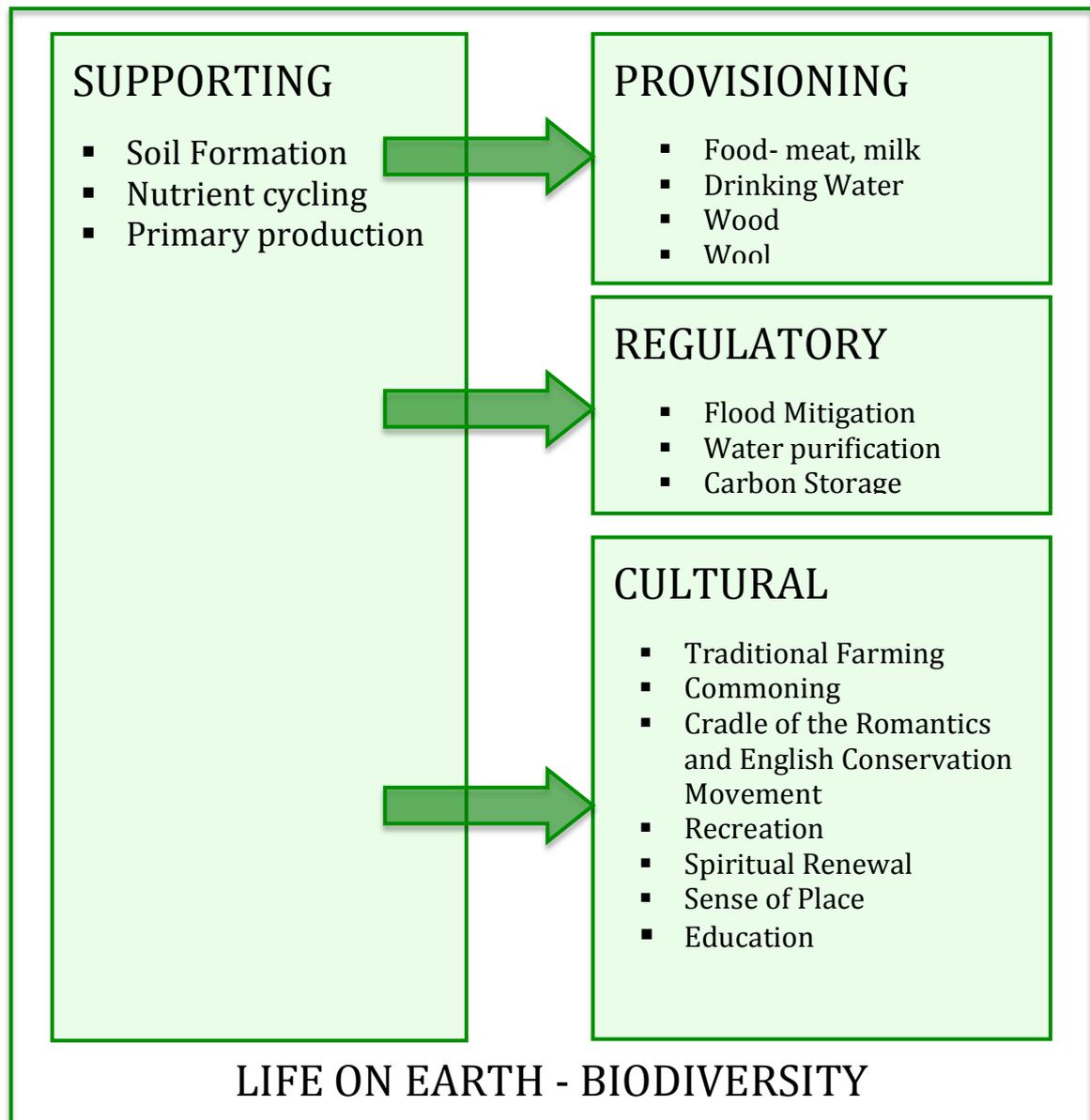


Fig 6.2 The Primary Ecosystem Services provided in the Lake District National Park using the Millennium Assessment Framework

6.4.1 Given the purpose of this research is to look at how the flow of ecosystem services from common land can be improved it is critical to understand what ecosystem services are currently delivered from the LDNP. This is challenging as there is a huge bundle or assemblage of different ecosystem services which cannot simply be summed to give a total of which some can be valued in monetary terms while others

cannot. Some services confer benefits on specific people others are more diffuse and there will be winners and losers from whatever suite is decided as optimal. In addition each national park has specific characteristics that it is designated for and the choices as to the appropriate suite of ecosystem services are dictated by that designation. For instance the appropriate assemblage for the Lake District, a cultural landscape, will not be the same as for Danau Sentarum, a Ramsar Site. Furthermore there is not a simple relation between ecosystem services. Some are positively correlated with each other; increasing carbon storage generally results in increased water quality. Others are negatively correlated, so high stocking rates can reduce water quality though the relationship as often in upland systems is complex. For instance when sheep are reduced wild mammals may take their place mitigating any impact.⁴⁹

6.4.2 This research question looks at the role of governance of common land as a driver in the output of ecosystem services, what is the current position and what changes should and can be delivered in the Lake District? The Ecosystem Services framework provided by the Millennium Assessment is used and the benefits (ecosystem services) humans receive from ecosystems in the Lake District are summarised in Fig 6.2. Biodiversity is not a service in itself but underpins many other services. For each category a general overview of the Lake District is provided before focusing on the specific common land units researched in this study.

6.4.3 Lamb and beef are the primary food outputs from the LDNP; this research will focus on lamb for with the exception of 30 cows Caldbeck there is no cattle grazing on the commons. Defra's 2010 June census data gives a figure of 306,725 lambs under one year on commercial holdings in the Lake District. One quarter of these will need to be kept for replacements so the lamb output can be estimated at 230,000

⁴⁹ A Sturdee et al., 'Water Quality and Cryptosporidium Distribution in An Upland Water Supply Catchment, Cumbria, UK' (2007) 21 Hydrological Processes 873.

lambs which at 18kg dead weight would contribute 4,140 tonnes of lamb per annum; UK domestic consumption in the first quarter of 2011 was 16,000 tonnes⁵⁰ and extrapolating from this would suggest the Lake District produces 6.25% of the nation's current lamb consumption. In addition the older ewes taken off the hill are sold to more productive units lower down the hill and produce lambs there. June census data collected by Defra shows in Fig 6.3 that ewe numbers have reduced significantly over the last 10 years but are still well above the average from 1905 till 1975.

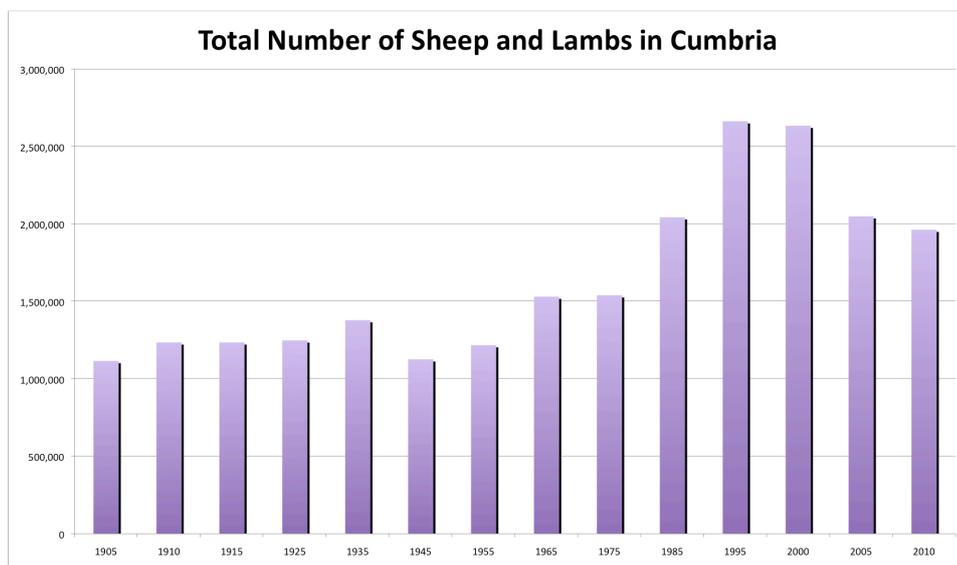


Fig 6.3 Change in Numbers of Sheep from 1905 to 2010⁵¹

6.4.4 On Caldbeck, Mungrisdale and Matteredale Commons ewe numbers have dropped significantly since the mid 1990s, see Fig 6.4, the average reduction across the three commons is 45%. This has reduced the output of lambs though off-wintering (the removal of sheep from the common at winter) required by the schemes mean many more twins are born so offsetting somewhat the loss in output of lamb. Current maximum ewe numbers on the commons total approximately 10,000 ewes producing approximately 8,000 lambs for the fat or store market.

⁵⁰ data from Eblex sheep market outlook;
http://www.eblex.org.uk/documents/content/publications/p_smo_april_2011.pdf.

⁵¹ Graph was drawn by the author using Defra's June census data www.gov.uk.

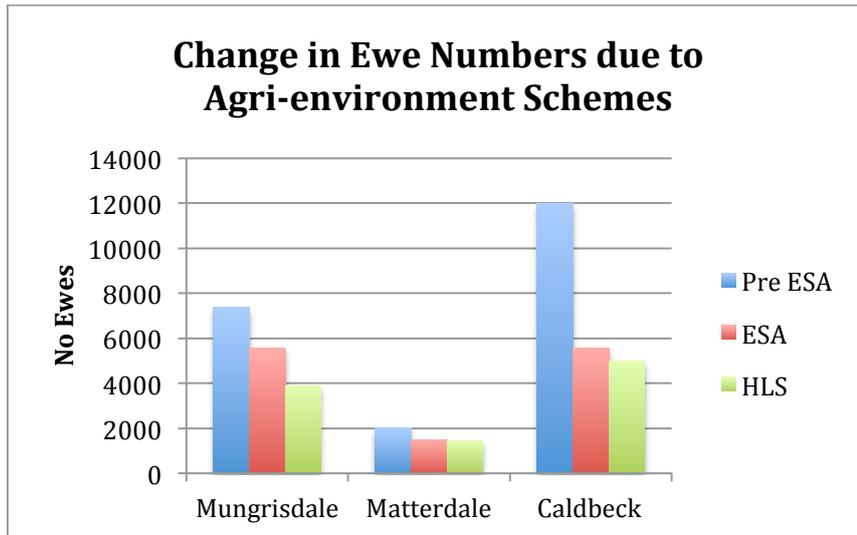


Fig 6.4 Change in ewe numbers on the commons for the different schemes

6.4.5 70% of the UK's water comes from the uplands⁵² and the LDNP is particularly important for supplying the more populated areas in the north-west such as Manchester and Cheshire. Land management practices can affect the quality of the water leading to United Utilities, the north-west water utility company, investing in improving the quality of the water at source as an alternative to improving quality in treatment works. This is currently through the SCaMP project with United Utilities working with their tenants to block drainage channels (grips) on moorlands and providing incentives to reduce sheep and cattle numbers so to reduce erosion and sediment as well as the dissolved organic carbon (DOC) which affects colouration. Currently United Utilities only undertake this work on their own land so this does not affect the three sample commons.

6.4.6 In the Lake District and Solway LFA area 11% of the area is woodland; 8% coniferous plantations and 3% native woodland. The majority of the Forestry Commission woodlands are now managed as sustainable woodlands rather than commercial felling with a focus on tourism activities, conservation and conversion to native woodlands as trees

⁵² Natural England, 'Vital Uplands A 2060 vision for England's upland environment' (Natural England 2009).

are felled. There is no commercial forestry on the three commons. Mungrisdale had 60 ha planted in 2009 scattered as small areas of native woodland and on Caldbeck there are also small new native woodlands and enclosures totalling 35 ha. None of these are managed for provisioning services rather for regulatory services and to increase biodiversity.

- 6.4.7 Wool prices have been low for many years but from 2009 to 2011 they have doubled due to the reduced imports from Australia and the increased demand. New initiatives to use wool for insulation have also helped. The most common sheep breed in the Lake District is the Swaledale with a fleece of approximately 2kg per fleece. With 355,000⁵³ adult sheep (ewes and hogs) the wool clip from the LDNP is approximately 710,000 kg per year. There are 14,000 adult sheep on the three commons in the study including hogs so the annual wool clip from these commons is approximately 28,000 kg with a value of 130 pence per kilo in September 2011 making a gross value of £36,400, small but the income does now cover the shearing costs.
- 6.4.8 Regulatory services are those that confer resilience to natural systems by regulating service supply that supports well being and health and include flood mitigation, water purification and carbon storage.
- 6.4.9 Bulky vegetation slows run off from the hills and the more the flashiness⁵⁴ of water flow can be reduced the higher the opportunity to mitigate flooding and its severity. Climate change is likely to result in more extreme events and therefore efforts are being made to increase the structure of vegetation and establish woodland to slow run-off. The data is contradictory as to the impact of reductions in sheep numbers in achieving this aim though there is clear evidence for the positive effects of woodland.⁵⁵ The reduction in grazing pressure seen over the last twenty years would be expected to mitigate floods though the most

⁵³ Calculated by adding together the Defra June Census Data for 2010 for breeding ewes and other sheep over one year in the LDNP.

⁵⁴ 'Flashiness' is a hydrological term that measures the rapidity and change in water flow in rivers.

⁵⁵ S Broadmeadow and T Nisbet, 'Opportunity Mapping for Woodland to Reduce Flooding in the River Derwent' (2010).

extreme flood events have been over the last 6 years. It may be that the very high levels of rainfall in short periods of time landing on soaked ground with shallow soils of the steep hills of the Lake District mean that changing the vegetation structure will not have a significant effect on flood events. What is a more accepted problem is the impact on water quality of soil erosion associated with flash floods.⁵⁶

6.4.10 While water is a key provisioning service the role of common land in regulating the quality of water is more complicated to measure and enhance. *Cryptosporidium* is a well known pathogen usually traced to sheep and cattle grazing near water sources; and in particular water inlets. Reducing the risk of pollution by pathogens remains a key objective of water companies as is reducing Dissolved Organic Carbon (DOC) and its impact on colouration. DOC colouration is expensive to remove in treatment works while reducing it at source is a cheaper option and this aim is a primary driver for changes to land management practices. Again evidence is unclear as to the correlation between grazing levels and level of DOC. Many assume an inverse correlation though research by Worrall shows no correlation.⁵⁷ Initial monitoring from the SCaMP project initiated by United Utilities indicates a slight decline in DOC however states there is no evidence that changes in grazing levels alone will reduce colouration.⁵⁸ The main improvement is where exposed peat is restored and where grips are blocked. On Matteredale some exposed peat areas have been fenced off for natural restoration but there are no grips on any of the three sites.

6.4.11 In the last five years the role of soils and woodlands of the LDNP in storing carbon has become more appreciated for two reasons. Peat soils store a significant amount of carbon and can if well managed sequester carbon. Conversely if poorly managed there is a net loss which increases carbon emissions. Peat soils in the Lake District are

⁵⁶ *ibid* 14.

⁵⁷ F Worrall and A Armstrong and JK Adamson, 'The Effects of Burning and Sheep-grazing on Water Table Depth and Soil Water Quality in a Upland Peat' (2007) 339 *Journal of Hydrology* 1.

⁵⁸ United Utilities, 'SCaMP Report Year 4 on semi-natural grassland though improving blanket bog condition: Restoring Drained And Grazed Moorlands – Early Responses To Change' (United Utilities 2010).

estimated to store 22.9 million tonnes carbon.⁵⁹ A report on the carbon stored in Cumbria's woodlands⁶⁰ has also been completed increasing data to assist planning to enhance this ecosystem service.

6.4.12 Current evidence is poor on how changes in grazing levels will affect carbon sequestration on semi-natural grassland though improving blanket bog condition can convert a site from a net emitter of carbon to a net sequester. The IUCN have produced a Peat Carbon Code as a precursor to developing markets for carbon storage between businesses and landowners.⁶¹

Cultural Services

6.4.13 Above all the Lake District is a cultural landscape, over 5,000 years of human intervention has not left a single square metre undisturbed by man. There is an abundance of biodiversity, nationally important ecosystems and priority habitats but all are sculpted by the nature of man's past and current land management practices. Many ecosystems are at an arrested stage of natural succession but are still valued. The cultural landscape is though much more than that. It is the cross-generational persistence of farmers using traditional farming practices that maintains a landscape that is beloved by residents and visitors alike despite numerous shocks of disease and economic depression. It is this unique human ecology, people living and working in the landscape that Wordsworth celebrated and still remains as the basis for World Heritage Site nomination. Cultural Landscape is an assemblage or bundle of ecosystem services including: traditional farming; commoning; the built heritage; the history of the conservation movement and tourism; education; sense of place; recreation and spiritual refreshment.

⁵⁹ Lake District National Park, 'Carbon in the Lake District Landscape' <www.lakedistrict.gov.uk/caringfor/projects/carbon/carbonlandscape > accessed 16 October 2013.

⁶⁰ Sandwood Enterprise, 'A Carbon Account for the Woodlands in the Lake District National Park' (Cumbria Woodlands 2012) <http://www.lakedistrict.gov.uk/__data/assets/pdf_file/0007/277585/A-Carbon-Account-for-the-Woodlands-in-the-Lake-District-National-ParkFINAL.pdf > accessed 17 October 2013.

⁶¹ IUCN, 'Peatland Code' (IUCN 2013) <<http://www.iucn-uk-peatlandprogramme.org/peatland-gateway/uk/peatland-code/code> > accessed 14 October 2013.

Supporting Services

6.4.14 Supporting Services are the ecosystem services that are necessary for all other ecosystem services including soil formation, nutrient and water cycling and the provision of habitats. Activities that protect our underlying resources such as water and soil will ensure that these supporting services continue to be provided. Some authors include genetic diversity⁶² i.e. biodiversity as a supporting service though in this research the approach of the Millennium Assessment that it is separate is adopted.

Biodiversity

6.4.15 While biodiversity is not itself an ecosystem service the presence of biodiversity creates other ecosystem services; for instance the biodiverse woodlands of Borrowdale contribute to reducing the rate of run off so mitigating floods as well as providing cultural services. The The Economics of Ecosystems and Biodiversity (TEEB) project concludes that in the same way a diverse portfolio of investment assets increases resilience to shocks, so reducing risk, likewise biodiverse ecosystems do the same to ecological systems on which ecosystem services are dependent.⁶³ The question is how much biodiversity is needed and if you continue to raise biodiversity standards does it reduce the flow of some ecosystems services such as provisioning services?

6.4.16 Biodiversity is a major driver in determining land use on commons in the LDNP. There are 41,500 ha of SSSI in the LDNP and the majority of this is common land. 91.8% of SSSIs in the Lake District are in favourable or recovering condition as at September 2011. The 46% reduction in sheep numbers shown in fig 6.4 has been required to achieve favourable condition on SSSIs and on Biodiversity Action Plan priority habitats such as Blanket Bog.

⁶² P Kumar, *The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations* (UNEP/Earthprint 2010).

⁶³ *ibid* 95.

- 6.4.17 As aforementioned Caldbeck and Mungrisdale are predominately SSSIs. While Matterdale is not a SSSI over half the common is a County Wildlife Site due to the blanket bog and upland wet flush habitats.
- 6.4.18 While many ecosystem services are not paid for in the market place it has been biodiversity that attracts the funding, as despite considerable efforts on developing payments for ecosystem services there has been little transfer of funds from private companies to farmers. The water companies have led the way but they are prohibited by OFWAT rules from making revenue payments to land owners.
- 6.4.19 In 2011 the UK published three key documents that affect government policy towards biodiversity. The National Ecosystem Assessment⁶⁴ presented scientific data on the nation's ecosystems and the urgent need to halt the decline in ecosystems and biodiversity. The Lawton Report, 'Making Space for Nature'⁶⁵ called for *bigger, better and more joined up* nature and recommended nature improvement areas (NIAs). This approach is influencing the development of the new mid-tier landscape scale tier of the NELMS. The third document was Biodiversity 2020 referred to in 6.3.23.

Commons Associations Governance Systems

- 6.5.1 Written evidence for the history of governance systems for commons in the England dates back to the Statute of Merton in 1285 and Manor Courts were known to be functioning in the LDNP in the 1520s from Eskdale Manorial records⁶⁶ and the Eskdale Twenty-Four Book of 1587. These set out bye-laws for the management of the common lands and continued to be used into the twentieth century. Manorial Courts often run by the Steward of the Manor were concerned with all the business of the manor, not just the common. During the medieval period until the 1750s the focus of governance was on good

⁶⁴ UNEP, *UK National Ecosystem Assessment: Synthesis of the Key Findings* (UNEP-WCMC 2011).

⁶⁵ JH Lawton et al., 'Making Space for Nature: A Review of England's Wildlife Sites and Ecological Network' Report to DEFRA' (2010).

⁶⁶ CP Rodgers et al., *Contested Common Land* (Earthscan 2010) 93.

neighbourhood but from the 1750s onwards the activities of manor courts declined⁶⁷ during the age of agricultural improvement and by the end of the eighteenth century few were effective. They officially became redundant through the passing of the Law of Property Act in 1925 abolishing copyhold tenancies which had been one of the major commercial drivers for maintaining manor courts. That said collaborative management of common land never ceased with the every day practical co-operation required between neighbours to gather and shepherd sheep on common land. What seems to have declined is formal governance including the willingness to police the common and impose punishments or fines in the event of rules being breached.

6.5.2 The late 20th century has seen a resurgence in the governance of commons with active commoners associations on over 35 commoners or graziers associations in the LDNP all with formal constitutions and management agreements as a result of the ESA and UELS/HLS schemes. An earlier driver for some uplift in the interest of commons governance was the Commons Registration Act 1965 which prompted some commons to resurrect or form associations to manage the registration of the rights. Chapter 7 details the results from the AI process investigating the success of current governance and opportunities for the future improvements.

Caldbeck

6.5.3 Caldbeck Commoners Association is a large association with over 70 members though less than half are actively grazing the common and the non graziers rarely attend the meetings. Since entry of the common into the HLS/UELS scheme the owners are members of the Association. The officers include a Chairman, Secretary and Treasurer and membership is open to all owners of common rights. It is professionally run with the secretary a well known agricultural solicitor

⁶⁷ EA Straughton, *Common Grazing in the Northern English Uplands 1800-1965* (The Edwin Mellon Press 2008) 134-142.

who lives in the village. The Association has had to address a number of difficult management issues on this common which is highly accessible due to a road running through the Low Fell (Fauld's Brow). These management challenges include; restocking after foot and mouth, disputes over location of hefts and the unauthorised grazing of ponies.

- 6.5.4 Restocking after foot and mouth was a major commitment by commoners and coincided with the negotiation of an ESA and WES agreement with English Nature and the abortive application for a fence to divide Caldbeck from Uldale Common. Negotiations were prolonged and contentious and the Association worked hard to achieve a positive outcome and in 2003 an ESA/WES was completed. This scheme paid the commoners to restock at levels lower than their pre foot and mouth levels to numbers determined by English Nature to allow restoration and recovery of the SSSI. In addition English Nature paid the commoners shepherding payments to reheft their sheep.
- 6.5.5 In 2008 Natural England concluded that the stocking levels on Fauld's Brow were too high due to one grazier relocating his heft from the High Fell to Fauld's Brow. After discussions failed to rectify the situation Natural England withheld payments and as a result the Association eventually found a resolution. Again this resulted in a breakdown in local relations that has taken time to heal.
- 6.5.6 For the last thirty years there have been difficulties with ponies illegally grazing the common due to the owner of the ponies holding no common rights. The herd was not managed and ponies bred so eventually there were more than 100 animals. The commoners were involved in extensive discussions regarding the ponies as evidenced by their minutes but had no powers to take action. The LDNPA undertook a castration programme that reduced population growth but the problem continued. In 2010 the matter was suddenly resolved when the RSPCA in conjunction with the police arrested the owner and

removed the ponies on animal welfare grounds. Sadly the owner took his own life later than day.

6.5.7 Management of public access remains a continual challenge both for casual recreational use and organised events. There is an Uldale and Caldbeck Commons Executive Committee that meets twice a year to discuss matters of concern to both sets of commoners and the LDNPA as owners of both commons.

6.5.8 The Association previously had a committee to undertake the majority of the business of the Association but this proved to be unpopular and now all commoners are invited to all meetings. In 2009 the longstanding Chairman resigned due to a perception by him of a lack of confidence in his leadership. The Association considered appointing an external chairman but eventually the commoners concluded the current Chairman was the best person for the job and he remained in post; there has been no change for the last ten years.

Mungrisdale

6.5.9 In 1990 an association was set up to cover Mungrisdale, and Bassenthwaite Commons but from the start Bassenthwaite Commoners rarely attended. This association was superseded by the Mungrisdale Graziers Association that entered an ESA scheme in 1998 and is now the effective management body for the three commons of Bowscale, Mungrisdale and Saddleback. The Association has a Chairman, Secretary and Treasurer and its original constitution set out in the internal deed underpinning the ESA document was amended and updated in 2008 with entry to the HLS and again in 2010 when a combined UELS/HLS was entered into. The Association meets regularly and takes a firm line that participation in the agri-environment scheme is for active graziers only.

6.5.10 Mungrisdale Commoners Association has been active in undertaking tree planting extending to 60 ha under their HLS/UELS. While this is the role of the owner two of the three owners are inactive and

consented the Association to undertake these works. The third owner is active in the restoration of a juniper stand on the common. The planting of the new woodland was a condition of the HLS which is challenging for an Association where the owner with the rights to plant trees is inactive. Fortunately the owners were willing for the commoners to undertake the works which require active annual management to ensure the continued growth of the trees in most exposed locations subject to snow and landslips.

Matterdale

6.5.11 Matterdale is a regulated common under the 1876 Common Act with a Board of Conservators and a scheme of regulation awarded in 1882.⁶⁸ Current governance is by both the Conservators and the graziers association. The latter hold the UELS/HLS agreement though the officers of the two groups are identical. The Board of Conservators still have an annual general meeting and manage the wider business of the common including liaising with the landowner and neighbouring landowners. The majority of problems concern fences not being kept stockproof between the common and adjacent forestry plantations. The reason the Board of Conservators does not hold the UELS/HLS agreement is that the commoners decided that only graziers are eligible for payments under the scheme. This was achieved through a separate management group so that only graziers vote on matters concerned with the UELS/HLS though they use the same bank account. Non grazing stint holders are able to lease their stints to grazing commoners in exchange for a proportion of the payment received as a rent.

Federation of Cumbria Commoners and Shadow Commons Council

6.5.12 The Federation of Cumbrian Commoners (FCC) was established in 2003 to be a voice for commoners, to promote active commoning and

⁶⁸ CRO Carlisle QRE/1/136 Matterdale Award 1882.

increase awareness and understanding of commoning. The FCC additionally on request acts as a sounding board and a clearing house for difficulties that arise within commoners associations. Sometimes these are internal matters that require a knowledgeable third party and on other occasions there are issues with third parties unauthorised use of the common. The FCC has an actively managed web page and a part time administrator as well as a committee with members representing groups of commons.

6.5.13 The FCC is not a statutory body but a constituted voluntary association with over 500 members. It has no powers but considerable influence through lobbying and collaboration with government organisations e.g. Defra, Natural England and the Rural Payments Agency (RPA). Its initial activity focused on producing guides for Good Practice for the Management of Common Land. The publishing of the draft Commons Act in 2005 catapulted the FCC into the national limelight as over 30% of England's registered common land is in Cumbria and they led lobbying on amendments Cumbrian commoners sought.

6.5.14 In 2008 Natural England let a contract to H&H Bowe Limited undertaken by the author to explore whether Cumbria would be interested in establishing a Commons Council under Part II of the Commons Act 2006. As the Regulations were not yet in force the project was called a Shadow Commons Council. This work was undertaken in close collaboration with the FCC as the current umbrella institution for all commons associations. The outcome of the consultation was that there was significant interest in a Council with two significant caveats, the costs were too high and there appeared to be no way to dissolve a Council if it was not bringing benefits. One question arose as to whether the FCC would still exist if a Commons Council was established or whether it would be redundant. It was concluded that it would be beneficial to maintain rather than disband the FCC as a non-statutory body which may be more appropriate for lobbying.

6.5.15 The Commons Council option is discussed in depth in chapter 7 describing a further and more formal consultation undertaken on establishing a Cumbria Commons Council in 2010-11. The author in collaboration with the administrator of the FCC split the County and the results have been integrated into this thesis.

Relationships Between Local Governance, Government and Non Governmental Organisations

6.5.16 Commoners Associations are not independent institutions divorced from other social, economic and regulatory frameworks. They provide governance at the local level but as already noted the structure and form of this governance is highly influenced by government statute, policy and targets. The major driver on local governance has since 1995 been the entry of commoners associations to agri-environment schemes. The relationship with the National Park is also a consideration and these two are addressed in more detail below. Other government organisations concerned with land use regulation are the Rural Payments Agency and the Environment Agency but neither of these have had any material influence on governance.

6.5.17 Non-governmental organisations are also active in the Lake District and tend to engage when change is occurring. For instance Friends of the Lake District objected to the fence between Caldbeck and Uldale Commons and they are a consultee on all woodland planting and fencing in the Lake District. The National Trust only tends to become involved when their ownership interest is affected or their tenants are commoners. They therefore have an interest in Matterdale but not on the other commons in this case study.

6.5.18 Natural England as the government's conservation body is responsible for enforcing the SSSI and SAC legislation as well as for delivering and administering agri-environment schemes. Each common which has an agri-environment scheme will have a Natural England advisor responsible for their agreement who is the main point of contact. In addition where the common has any land designated as a SSSI then

there will be a SSSI officer responsible for monitoring the condition of the SSSI and delivering favourable condition.

6.5.19 Natural England's staff have limited time available to interact with agreement holders and therefore while contact by the advisor is frequent during negotiations it usually ceases once the agreement is signed. Exceptions are where there are specific capital works or modifications to the agreement that require their involvement, or as and when breaches occur.

6.5.20 The negotiation of an agri-environment scheme on a common is a major task usually taking nine to twelve months and is often the trigger for a revised constitution and rules. The structure of the association needs to be appropriate to deliver the terms of the scheme agreed with Natural England. Natural England produces guidance on the structure of associations and internal agreements on their web page.⁶⁹ Commoners are advised to and usually do appoint an independent facilitator (often a chartered surveyor) to negotiate terms between the commoners and owner and with Natural England. Solicitors are instructed to draft the internal agreement. All three of the study sites used the author as the independent facilitator.

6.5.21 Compliance with the terms of the agreement is undertaken by the RPA during inspection visits that are undertaken at random intervals and they liaise with the Natural England officer in the event of breaches. Usually less than 24 hours notice is given of an inspection and there is rarely contact between the commoners and the inspector. Reports of the inspection may be returned to the agreement holder if issues have arisen; often these concern slight errors in the mapping. The RPA also have responsibility for making the payments on Natural England's approval.

6.5.22 The SSSI officer will undertake or commission a condition assessment of the SSSI at least every six years, rarely are the commoners

⁶⁹ Natural England (n47).

informed this is being undertaken nor are the results sent directly to the commoners. The results are available at www.magic.gov.uk. Further comments on Natural England's role and how their staff are perceived by the commoners are provided in Chapter 7 with the results from the interviews.

6.5.23 The National Park has a limited mandate to be involved in the governance and management of the common as their only regulatory role is with regard to planning and right of ways. As there is almost no development on common land planning is rarely an issue though they are consulted in the event a fence or woodland is proposed prior to an application to the Secretary of State. Furthermore the Local Access Forum sits under the umbrella of the LDNPA and they are statutory consultees on any works such as fencing that affect open access land designated under the CROW Act. The LDNPA employ Rangers and one has a specific remit for commons though most commoners rarely meet Rangers or other LDNPA staff unless it is in connection with their own in-by-land and Rangers therefore have no impact on governance except on Caldbeck where the National Park staff play an active role with regard to their interest as owners of the common.

6.5.24 The National Park Authority has responsibility for preparing and implementing the management plan⁷⁰ and policies for the Lake District to protect and enhance the special qualities of the park. This they do through the Lake District Partnership, a group of 23 bodies that meet regularly and work together to deliver the planned outputs. By creating ownership of the plan among all these bodies the aim is that outcomes are much more likely to be delivered effectively and efficiently. The Federation of Cumbria Commoners has a representative on the Farming and Forestry Task Force which reports to the Partnership.

⁷⁰ 'Lake District National Park Partnership Plan, 2010' www.lake-district.gov.uk.

Summary

6.6.1 This chapter has provided an overview of common land in the Lake District case study with particular attention to the legal and institutional arrangements and the ecosystem services provided by the site. This provides part of the answer to the research question as to current governance arrangements and ecosystem services provided by the Lake District Commons. Ecosystem services are broad ranging and highly valued locally, nationally and internationally and common land is at the heart and central to this value.

6.5.25 The data has shown that a range of organisations affect the delivery of ecosystem services in the Lake District and that a range of policies from government act as drivers for local governance. This chapter has provided the background data and context against which the fieldwork can be considered. In particular this chapter has shown the primary driver of agri-environment schemes in establishing and shaping governance systems on commons. Following from this a key question explored in Chapter 7 is how do commoners govern their commons and what is their motivation and views towards the delivery of ecosystem services that accrue to the public? This is required to answering Research Question B as to the drivers for governance and how it can be made more effective.

Chapter 7: The Lake District: Results

Introduction

- 7.1.1 This chapter presents the findings of the empirical data collection in the Lake District National Park to explore the research problem, 'How to strengthen governance of common land in national parks in order to improve the delivery of ecosystem services?' The empirical data collection was undertaken in three parts and the chapter is structured accordingly.
- 7.1.2 Part 1 was individual interviews with a sample of commoners from the three commoners associations under investigation, Caldbeck, Mungrisdale and Matterdale. The aim of these interviews was to *Discover* what works well in the governance of common land and what motivates commoners in their management of common land, as individuals, and as a collective. Part 2 was meetings for each association to consider where they would like to be in five to ten years time and what steps might be required to achieve this *Dream*. Part 3 was to explore the response to a new governance institution; Commons Councils. The purpose was to assess whether commoners considered a Commons Council would be an appropriate structure to enhance governance and if so consider its *Design*.
- 7.1.3 The presentation of the data separates the three study sites (Commoners Associations) so allowing a more thorough analysis of the data collected.

The application of Appreciative Inquiry in this case study

- 7.1.4 This fieldwork took participants through the AI steps of *Discover*, *Dream* and *Design* to explore the research problem. As with many applied research projects planning a methodology on paper is straightforward relative to implementing it in the field where the complications of real life intervene. Fieldwork therefore was responsive to the circumstances in each commoners association and was not undertaken in a policy vacuum. This latter point meant that the method used in the third phase of *Design* was designed to dovetail with a formal consultation initiated by Natural England in the autumn of 2010 to assess support for the Establishment of a Commons Council for Cumbria. As the researcher was undertaking the consultation jointly with the Federation of

Cumbria Commoners' administrator this consultation has been used with Natural England's consent as Part 3 of the research.

7.1.5 A more formal process of participative and iterative planning was used for this third phase of the fieldwork in the Lake District compared with the AI workshop in Danau Sentarum. This was due to the need to include many more commoners associations than the three study sites and also the procedural requirements of the Commons Council regulations. The benefit of the research being undertaken as part of this policy process is that the data collected is real with commoners being asked to decide there and then whether or not they wanted to be part of a statutory governance institution. Furthermore the work covered the whole county and therefore the data collected was of wider geographical reach than the three study sites used in Part 1 and 2 of the fieldwork.

Role of the Researcher

7.1.6 The researcher works as a rural practice chartered surveyor at the auction market in Carlisle specialising in common land and upland matters and at the time of the research was instructed by all three of the study site commons associations with regard to their agri-environment schemes. Through this professional relationship trust had been established between the commoners and the researcher. Furthermore the researcher is a committee member of the Federation of Cumbria Commoners and has been active lobbying on commoning issues over the past six years. The researcher is therefore perceived as 'pro-farmer' though had also been instructed as a negotiator by Natural England and United Utilities. This gives breadth to her perspective across the issues of conserving biodiversity and ecosystem services in traditional hill farming communities.

7.1.7 Four topics of inquiry were selected to structure the individual interviews:

- Sustainable Livelihood;
- Enhancing Environment;
- Strengthening Local Associations;
- Building Partnerships.

- 7.1.8 Part 1 comprised semi-structured interviews undertaken to *Discover* with individual commoners what works well for them as an individual. The questions were focused on looking at the positive aspects of management in their business and within their commons association. For each interview the aim was to enable the commoner's voice and story to gain expression and hence enable them to consider the future and how the governance of the common might develop.
- 7.1.9 From the transcripts of the interviews a shortened transcript was produced to cut out the conversation that was not relevant to the research questions and from these the themes arising were categorised by four topics of inquiry. This was achieved by highlighting in a separate colour for each topic the text that related to each topic of inquiry and then in turn for each topic of inquiry themes were noted. This iterative process allowed the themes to arise from the text rather than be pre-determined. All the themes were noted and after an initial appraisal a table was compiled for all the interviews noting the frequency each theme arose to enable the identification of repeatedly recurring themes. The collated data is provided at Appendix H.
- 7.1.10 Due to the number of themes arising the themes were grouped for each topic of inquiry as follows.

Livelihood

- A Finances
- B Motivation
- C Number of Commoners
- D Practical Commoning

Governance

- A General Role of Association
- B Rules and Enforcement
- C Communal Practical Matters

Environment

- A Visitors
- B Delivering Natural England's Objectives
- C Role of Farming
- D Vegetation Management

Partnership

- A Federation of Cumbria Commoners / Commons Council
- B National Park and others
- C Local Networks

Caldbeck-Individual Interviews

The Sample

- 7.2.1 Caldbeck is a large commoners association with 28 grazing commoners and over 40 non grazing commoners on the register but only four or five of these are active in the association. In order to recruit participants the secretary explained the project at an association meeting and asked for volunteers. Sufficient people volunteered and in order to obtain a diversity of ages and farming types the names were checked with Chairman. The interviews were held in the week of 29th November 2010 during severe snow and extreme cold.
- 7.2.2 All Interviews were undertaken with the three officers of the association, one of the owners, three graziers, two women and two younger graziers. Both the women were actively involved in farming, one was running the farm while the second is more involved in a supporting role to her husband. One of the officers, the Chairman, is an active grazier, the treasurer is a non active commoner but a signatory to the current scheme while the secretary is a solicitor who lives in the village. The majority of the common is owned by the Lake District National Park Authority, though the southern section is owned by Dalemain Estates, a private landed estate, the owner was interviewed as part of this process.

Findings

- 7.2.3 Key quotes have been provided in Fig 7.1 to give voice to the views of those interviewed. Some themes crossed across the topics of inquiry but have been grouped under one of the four topics.

Livelihood

A Financial Matters

7.2.4 Many Caldbeck commoners stressed the importance of finances affecting their business choices and that the money offered by agri-environment schemes is critical to determining the size and structure of their farm. One commoner who opted to be a non-grazier for the period of the Environmentally Sensitive Area (ESA) and Wildlife Enhancement Scheme (WES) (2002-2013) was now concerned about what to do when the scheme ends in 2013. Will he continue to receive a payment or will he need to be an active grazier to access the new scheme? This would be a challenge as his son has no interest in fell sheep. Many said that the payment received for shepherding under the WES was important to enable restocking when all except two flocks were lost in the 2001 Foot and Mouth epidemic. Commoners were aware that without the agri-environment schemes farming sheep would not be viable and one explicitly mentioned that the ceasing of headage payments from 2005 altered the incentives that until then had encouraged farmers to keep as many sheep as possible.

B Motivation

7.2.5 This group of themes was strongly expressed by Caldbeck commoners, they were clear they had a sense of belonging to the land and the common; several were surprised to be asked, Why do you farm? All except one of those interviewed were at least second generation and some fifth generation farmers from this area. They are as hefted as their sheep and value the knowledge they have received from their forefathers and desire to hand it on to their children. Livestock is the main driver for why they farm, for some it is the pride in good results in the autumn sales while for others a successful lambing provides the motivation. While they are aware that until 2009 financial returns from sheep were very low stopping farming because it does not pay for some years was not seriously considered because farming is their life(style) and the farm their home as well as the source of their livelihood.

C Number of Commoners

7.2.6 Caldbeck Common has a higher number of active graziers than most commons in the Lake District even when adjusted for size which may be why this was not raised as an issue by any of the participants though one commoner noted farming was not now as attractive for the next generation compared with other opportunities.

D Practical Aspects

7.2.7 Caldbeck Commoners stressed the impact of the stocking calendar on restricting their farming operations and over half said they would like to turn out more sheep while several noted the constraints imposed by the set stocking calendar which does not allow a local response to the weather and condition of the fell. For some the reduction in sheep and graziers on the fell has impacted on the hefting negatively increasing the time and cost of gathering sheep.

Governance

A General Role of Association

7.2.8 Two-thirds of those interviewed considered the Association is well run and others commented that the Association was important as it allowed agri-environment schemes to be entered into and for solutions to be sought. Many referred to the dispute in 2008 when Natural England concluded Fauld's Brow (the Low Fell) was over grazed due to a commoner moving from the High Fell to the Low Fell and all payments were stopped until the Association managed to resolve the matter. While an acceptable solution was achieved it did leave some bitterness about how the Association was run. Four participants noted that money changes everything in terms of relations between commoners and two commented on the Association being bound by Natural England's rules.

B Rules and Enforcement

7.2.9 Caldbeck common uses voting on a regular basis to decide matters when a unanimous view cannot be achieved. One noted there was a self-interest in

complying with rules, due to the associated payments though more felt stronger local powers were needed to resolve disputes that left a sense of unpleasantness. Except with major breaches the commoners and the officers favour the Chairman resolving disputes by having a quiet word with the person reported to be in breach. One participant was not clear about the rules surrounding clearing the fell in the autumn for dipping and felt compliance with rules was more on paper than in practice but that was not a widely held view.

C Communal Practical Matters

7.2.10 Little was noted on this except money is paid to non-grazier farmers and that it should go to those with sheep on the common. Several commented on the reduction of communal farming activities in particular the clipping days which were communal events with huge meals provided. Gathering on Caldbeck tends to be a solitary affair or in twos or threes rather than organised large gathers.

Fig 7.1 Caldbeck Common: Quotable Quotes

You have this belonging to the hills and the sheep so it runs through your veins

We are not wanting to spend all our money on, as Joe Public would, on luxury items etc., it's not our thing, our pleasure is the stock.

Our aim is to farm to produce livestock

I don't think we could farm if we didn't get the subsidies

It's valuable grazing to us – it's integral as part of the farm really

.. going off the headage basis onto an area basis that certainly helped as well as foot and mouth, because you weren't losing anything if you were doing away with your sheep.

I think the Association has worked quite well really, we had a bit of a hiccup, it just needs one or two people to be awkward and it does cause a bit of agro, (the officers) keep fairly good control on things and people respect them.

Once money comes into the equation it's not just you..... it starts to be a business then and you look at it differently.

I would like us to have more power, if there was a case of a commoner over neglect or something us as an association could have the power to deal with it in house.

The LDNPA does a lot for the stiles and the maintenance of the stiles.

Environmental is something that has just come up recently, what you did then was what was best for your sheep.

The one thing I could say in favour of Natural England we had AB who is a pretty decent bloke.... he talks a lot of sense.

We may lose that sense of community because we don't work as much on the fell as we used to as a group of farmers because there is less of us and there is less sheep.

To be blunt (the SPS and environmental schemes) has kept too many inefficient farmers farming.

English Nature could have saved thousands if they had stood back for 5 years and just let us all do as we wanted as usual, those guys would never have been there now.

If there wasn't any fell grazing it would be sheer wilderness up there, and nobody would be able to walk about.

I think they don't talk to farmers enough.

Environment

A Visitors

7.2.11 When asked about the environment and their responsibilities over half raised the important role of farmers in keeping the countryside tidy and accessible for walkers. The environment is perceived as the landscape that millions of visitors come to see each year. There was palpable pride in keeping their farms in a good condition for visitors even if they did not have any direct links with the visitors though some do. For example one has a camping barn and another a static caravan site and others do B&B. Another concern raised was the increase in scrub e.g. bracken and gorse on the common which makes it harder for visitors walking.

B Delivering Natural England's Objectives

7.2.12 Two-thirds of the commoners did not understand what vegetation Natural England are looking for and how to achieve it and one third commented on the difference of perception between Natural England and farmers on the most appropriate management for the fell. There were several comments about Natural England officers and that good officers make a big difference but individuals vary in how they relate to farmers. The commoners acknowledge that Natural England staff are bound by government targets and legislation. Caldbeck has always been an intensively grazed common and unlike most other Lake District commons had not entered into an agri-environment scheme prior to Foot and Mouth. Three graziers mentioned that it was Foot and Mouth that enabled the ESA/WES to go ahead as all except two of the flocks were slaughtered; without that there would not have been the interest in reducing sheep numbers. One commoner mentioned that if they had not been offered a scheme the numbers may have been much the same as not as many commoners would have re-established a flock on the fell without the payments for shepherding.

C Role of Farming

7.2.13 Nearly half of those interviewed expressed a desire to have more flexibility in schemes though they are self-aware that they judge the environmental

condition of the fell on farming outputs e.g.; Is the vegetation palatable for sheep? Several felt the common could benefit from more stock due to the development of rank grass. Someone expressed the view that farmers have managed the landscape for hundreds of years and farmers should be asked how to do it.

D Vegetation Management

7.2.14 Aside from that referred to above few points were raised by Caldbeck commoners on this subject. The main point stressed was that there always has been localised over grazing and that there always will be as sheep are selective grazers. The risk of having too few sheep is that the situation is exacerbated with the less grazed areas becoming rank and prone to invasion by scrub and the sweeter areas becoming under more pressure.

Partnership

A Federation of Cumbria Commoners / Commons Council

7.2.15 Caldbeck commoners were in favour of local management by their own Commons Association. While no one was actively involved in the Federation of Cumbrian Commoners it was seen as positive and they like it to exist and the newsletter is interesting. The secretary was keen in finding ways of enforcing rules and legislation locally perhaps through the internal agreement for the next agri-environment scheme.

B National Park and others

7.2.16 Commoners were fairly neutral about the National Park as it was perceived to impinge little on their lives. They were aware the Authority owns Caldbeck Common but except for the Chairman were not involved with National Park. The LDNPA runs the Caldbeck-Uldale Executive Committee and that is considered a useful organisation though it does not affect the agricultural use of the common. Comments about Park Rangers were positive and one mentioned that they receive money for the common and their farm because it is in a National Park.

C Local Networks

7.2.17 Relations between neighbours are good and one family in particular noted with regret the decline in communal activities by farmers such as clipping and gathering. The reduction in sheep and people to gather has made gathering a larger job and resulted in sheep drifting to neighbouring Uldale. Several wanted there to be a synchronised calendar with Uldale Common, at the moment they gather their sheep ten days to two weeks earlier than Uldale. Commoners were aware of the Joint Executive committee for the two commons but for most this was not seen as relevant to their use of the common as much of its remit is recreational use.

7.2.18 Community is important to many of the commoners and the Association is valued for bringing people together. Farmers feel part of the community and many meet up with other farmers and villagers at events in the village including darts. Several mentioned that relations with the non farming villagers have not always been good as some do not like sheep grazing the common land in the village. Work has been undertaken between the parish council and the association to resolve some of these differences through a village survey to promote better understanding of agriculture and commons. The Chair of the Parish Council is the wife of the Association's Secretary.

Mungrisdale Individual Interviews

Sampling

7.3.1 Mungrisdale has ten active graziers. There are over 15 non-active commoners but none of these are involved in the Association and therefore none were interviewed. All ten graziers were invited to participate and nine agreed comprising two officers, two women and five male graziers. In addition one participant was the landowner of one of the Common Land (CL) units, he is not actively involved in grazing on Mungrisdale but does have active involvement grazing another Lake District common.

7.3.2 The interviews were undertaken in the week of 6th December 2010 during severe cold and snow.

Livelihood

A Finances

7.3.3 Mungrisdale commoners were clear that financial factors are driving the choices they make and particularly that agri-environment scheme payments are critical for their businesses and the end of headage changed their approach. All nine of the participants commented on these matters. The common was also recognised as valuable grazing particularly when in-bye land is limited but the over riding view was that sheep by themselves do not make a profit and schemes are essential for survival. The two commoners who have diversified into non agricultural businesses expressed surprise how others survive without additional enterprises.

B Motivation

7.3.4 Commoners were positive about living where they do and have a sense of belonging. All except one (who is the farm manager for the local agricultural college) had been raised either on the same farm or nearby. There is a strong sense of stewardship of the farm for the next generation and over half mentioned they like the space and views from where they live and work. Protecting continuity was important as was maintenance of peace and quiet recognising farming is a lifestyle and that keeping good relations with your neighbours is valuable.

C Number of Commoners

7.3.5 While not a prevalent theme the decline in number of commoners was raised as was the lack of attractiveness of hill farming to the next generation. One commoner specifically mentioned that small farms are valuable in looking after the countryside and keeping people working on the land and it would be a shame if they were lost.

D Practical Commoning

7.3.6 Practical issues did not arise repeatedly; the issue raised by three commoners was the decline in hefting and the impact of that on practical management on the common. There was at the time tension on one area of

the common where one commoner's sheep were encroaching onto two other's hefts resulting in their area having less to eat and also imposing costs on them at gathering. This is raised again under governance.

Governance

A General Role of Association

7.3.7 All participants said the Association generally works well with its primary and critical role being allowing commoners to come together and access agri-environment schemes. Mungrisdale briefly had an Association with Bassenthwaite in the late 1980s but it was not active until the Environmentally Sensitive Area scheme came into being in 1990s and they entered a scheme in 1997 after a year or two of negotiations. A Higher Level Stewardship scheme followed this in 2007 and this was upgraded to a combined Higher and Upland Entry Level Stewardship agreement in 2010. The Association has been consistent at only including active graziers in their schemes and managing to agree reductions between graziers rather than requiring any commoners to come off completely. This was made easier due to two commoners ceasing to graze the common after foot and mouth in 2001 who were therefore excluded from the 2007 scheme as non-graziers.

B Rules and Enforcement

7.3.8 The Association is not seen as having a role for enforcing general commoning rules or management. The Chairman indicated that everyone generally works well together though he was aware of the problem over hefting his view is that such matters are better resolved between farmers and not aired publicly in meetings where it is easy to create bad relations and difficult to repair them. He actively asked one commoner not to bring the matter up. This was also commented on by the Secretary and other commoners. Those commoners who were frustrated by the problem took a different view and were seeking active assistance in resolving the impasse through enforcement by the Association. The question was also raised whether there was a risk the common would fail to reach the indicators of success of the HLS/UELS due to localised over grazing.

C Communal Practical Matters

- 7.3.9 Half the graziers mentioned the importance of communal gathering though this was not expected to take place all together as the common is extensive and comprises three separate CL units. There is existing collaboration and that is important though gathering has changed due to the reduction in graziers and the erection of fences for woodland. The other practical matter four commented on was the importance of the money being paid to those with active flocks grazing the common.
- 7.3.10 Visitors and recreational use were not a significant issue on Mungrisdale, two mentioned keeping the countryside tidy for visitors and one the difficulty increasing bracken was causing for walkers accessing the fell. The same commoner had had problems with a walker's dog disturbing and killing a ewe. The owner was particularly concerned that the very Lake District that visitors come to visit was being degraded by Natural England's policy on stocking levels as the cultural heritage associated with farming skills and the way of life and local dialect is being lost.

Fig 7.2 Mungrisdale Participants' Quotes

Sheep, it's them that keeps the countryside the way it is, just like little lawnmowers.

The National Park, it brings visitors in, it's a beautiful area so everybody tells us.... It should be managed and folk have done a good job on these fells.

Farmers always usually know what their land will carry, the optimum stocking level, albeit that has been distorted over the last 40 years because of headage payments.

Let's be brutally honest, without that support we've had it.

The agreements they give you, they're usually quite good.

My interpretation of the association's role is nothing to do with management of the hill... the initial and main purpose has been to get an easier passage into the environmental schemes.

Whether the association has anything within its powers to deal with it I don't know it can be a little uncomfortable bringing things to a head with your immediate neighbour but there's got to be a stopping spot somewhere.... it's a very touchy subject and you don't want to fall out with your neighbour.

Erosion of established hefted systems by other grazier's sheep grazing where they traditionally never were, that's a big problem.

I think the commons are working well. Co-operation was never a problem between local farmers. If you keep sheep it doesn't work unless there's co-operation.

Now that (the Federation of Cumbria Commoners) is almost countrywide it's almost at the stage where all of the commoners associations will be part of one bigger one and that can only be a good thing to help try and resolve some of these very local issues.

Commons Council; if it's going to keep folk in order and make decisions that maybe the commoners can't it might be a good idea.

I am not sure some of them (Natural England staff) know what they are talking about really myself. I am not convinced.

As far as the SSSI goes it's made it a lot easier for us to get into the HLS, it's a big plus.

It's just a game really that were all playing, at the moment it's one thing, ten years down the line they'll probably want more stock on.

It's got this tradition of 1000 years of farming in the valleys, I feel that cultural heritage is extraordinarily important, it's very fragile and unless it is recognised to the top of the list then there will be an enormous black hole.

Environment

A Visitors

7.3.11 There were no comments on visitors from the Mungrdsdale Commoners

B Delivering Natural England's Objectives

7.3.12 Three quarters of the commoners stated agri-environment schemes were good for the common as well as bringing in an important if not critical income source. This acceptance that if you wanted to take their money then you need to do what they say did not represent an understanding of NE's objectives with three commenting that Natural England do not know what they want and two saying they did not understand what was being requested. There was no personal antagonism to their officer who was considered reasonable though bound by national targets.

C Role of Farming

7.3.13 Natural England were not thought by most to be unreasonable with the stocking levels required though nobody wanted any further reductions and one commoner thought there should be more sheep as did the owner. The major theme arising here was that farmers know and understand the common having farmed it for hundreds of years delivering the highly valued landscape and should be allowed to continue to do so. An example given was the continued use of mixed stocking with cattle in their inbye land even if it did not always make financial sense it was good for the sward. One farmer commented on the benefit of off-wintering to improve the quality of their sheep though another commented off-wintering caused disruption to the hefting on the common.

D Vegetation Management

7.3.14 Five of the commoners commented on the woodland project which had started in 2008 fencing off approximately 2% of the common. Views were mixed with two considering it would provide shelter for sheep while another considered woodlands were alien and the fencing disrupted hefting. The owner was involved in managing the juniper stand and was delighted to be

actively involved in the management of the common, he views the HLS as positive in bringing owners and commoners together.

Partnership

A Federation of Cumbria Commoners / Commons Council

7.3.15 Generally there is a positive though luke warm view towards the Federation and the proposed idea of a Commons Council on the understanding it does not cost too much. There is no current dispute to be resolved but overall being part of a Council was seen as better than not with the proviso day to day management is local.

B National Park and others

7.3.16 Half the commoners expressed a positive view towards living in the National Park as it enhances diversification opportunities and made the common a higher priority for agri–environment schemes. Rangers are considered good and look after footpaths. The owner was also much in favour of the National Park but felt the current management had lost its way. Some commoners were more neutral saying the National Park did not affect them.

C Local Networks

7.3.17 This was not an issue that came up with little arranged contact between commoners except for the Shepherd's Meet but that had become less important as vehicles enabled stray sheep to be collected by their owners straight away so there was no need to take sheep to the Meet. The Meet was now a social occasion but drink-driving laws had reduced attendance. Auctions were noted as a place to meet other farmers.

Matterdale Individual Interviews

Sampling

7.4.1 Matterdale is the smallest common at a little over 1,000 ha and has the fewest active graziers – seven. Six of these agreed to participate as did the non-active secretary but adverse weather condition meant only six interviews were undertaken. Participants included the chairman, secretary (non active

commoner), two women graziers and two other male graziers. The interviews were undertaken during the week of 10th January 2011.

- 7.4.2 As with Mungrisdale the non grazing commoners are not included in the agri-environment scheme though they are still invited to the Conservators AGM which is a statutory body for the regulation of the common.

Livelihood

A Finances

- 7.4.3 The main financial theme for commoners on Matterdale is that sheep do not provide a positive net income and therefore decisions on the numbers of sheep and how they graze the common are affected by financial incentives. The ending of headage payments and the new schemes have determined the path of their businesses. Two commoners raised the theme that subsidies for farming were not to the farmer but to the public to enable the production of cheap food. One commoner has diversified into an adventure centre employing nineteen people. He farms because he loves it and needs his land at the centre looked after but wonders how his co-commoners manage without diversification. Two noted the impact of the Euro: Sterling exchange rate on sheep prices and how sensitive prices are to the exchange rate.

B Motivation

- 7.4.4 For all the Matterdale commoners their pride in their livestock is a strong driver as is a sense of belonging and the wide open spaces and views. One commoner is a sample farm for the Farm Business Survey and is well aware that by keeping as many sheep as he does his ranking among the sample farms with regard profitability has reduced but he still does not intend to reduce numbers. Most are motivated by a sense of stewardship and maintaining continuity on the common with as much peace and quiet as possible.

Fig 7.3 Matterdale Participant Quotes

We like to get up and see the stock every morning....we like going to tup sales..... autumn (is the best time) it's the end of your year's work and hoping there's a good trade which there was this last year, fantastic.

Matterdale Fell was on the edge of being overstocked when we got into an agreement which was fine.

There's always been one (an Association), it's never been allowed to lapse as some commons have, I'm not going to say it's stuck to the rules and regulations absolutely 100% but if anybody was absolutely flouting the rules they were brought into line.

I have said to people occasionally to people that I don't think they were in order ... try and just use common sense.

Our numbers have shrunk alarmingly. Our Association is governed by Conservators and there has got to be five of them there was a legal battle over somebody playing stints but they got rid of that eventually.

I would prefer to see maybe more commoners, it's very difficult for a skeleton staff to manage a common.

People are quite prepared to take the money but not they're not prepared to be positive about what it is for I just sort of feel if you're getting paid for something it's a contract and you know I think it's dishonourable to flout it.

I've no bias or anything against Natural England I'm just not sure how they calculate what good they're doing and certainly I can't.

We have a fairly good relation with them (National Park)

I think the Federation is a good thing, if only for the legal clout. There must be safety in numbers in arguments.

If it wasn't for the fact it's a National Park and open for more or less everybody we wouldn't be drawing as much money would we?

The reason why it's the way it is, is because of the way it's been farmed for the last 500 years and obviously the terrain as well. Nothing to do with them lot.

We can manage with them planting a few hundred acres because there isn't as many people ... a lot of stocks of sheep have gone so there must be a little piece of room for planting.

As it got into the late 30s and 40s then the subsidy started coming onto sheep didn't it and the bloody numbers went up....

I think the numbers is great now because I was up when the numbers was too many ... they can come off the fell fairly fit now.

C Number of Commoners

7.4.5 This was an important theme for Matterdale with five of the six commoners wanting to ensure that in the future the number of graziers does not decline further. Although there are seven active graziers one grazier's flock is under 10 sheep and one is focused on his diversification activities leaving five, two of whom are over 60 years old with no successors. Looking forward there is a real desire to see the common actively used in the future and the link between numbers of commoners and active governance was drawn as five conservators are required by their scheme of regulation.

D Practical Commoning

7.4.6 The themes that arose on practical management were the difficulty of hefting and gathering with so few shepherds and sheep, the repeated encroachment from a neighbouring common. Two commoners raised the lack of good sheep dogs as a constraint on effective gathering.

Governance

A General Role of the Commoners Association

7.4.7 Matterdale Common is unlike Mungrisdale and Caldbeck governed by a Board of Conservators under its scheme of regulation (see 6.2.7). Beneath this there is a group of active graziers that holds the agri-environment scheme (the HLS/UELS). All Matterdale commoners are bound by the rules of the common as determined by the conservators but in addition all who have signed the agreement for the HLS/UELS are bound by the additional rules of the HLS/UELS and the associated internal agreement.

7.4.8 All Matterdale commoners stated the Association works well and valued it for bringing people together as well as for arranging practical matters such as negotiating fencing repairs with adjacent landowners and repairing the sheep pens. The Conservators were also active in ensuring the common rights were registered in 1965 in accordance with the scheme of regulation so avoiding

over registration by any individuals. Two noted that governance used to be stricter.

B Rules and Enforcement

7.4.9 Few themes emerged under rules due to the lack of need for enforcement measures. In the last fifteen years there have been two misuse of common rights that have occurred. One dispute almost went to court but was settled while the other was resolved by the person moving from the area. Matterdale is a tight community who work closely together and one commoner who used not to have a regular aged flock noted that the HLS/UELS rules and payments have prompted him to comply.

C Communal Practical Matters

7.4.10 One commoner expressed concern that traditional hill farming methods had declined as commoners sought larger sheep and were on the common less and others said the lack of sheep on the common encouraged sheep encroachment from Thirlmere. Communal gathering is valued as is the Shepherds Meet though again these serve a social rather than practical purpose. It does though bring together commoners from across the Helvellyn massif hence maintaining relations between neighbouring commons.

Environment

A Visitors

7.4.11 Visitor themes were not raised with any frequency by Matterdale Commoners. One commoner mentioned problems with the use of the green road across the common which is heavily used by off-roaders who cause a bit of a mess, another commoner was keen on having more eco-tourism and two commoners mentioned problems with dogs. There was though no anti-visitor feeling and the secretary mentioned that they appreciated the income that the Association receives from group recreational users.

B Delivering Natural England's Objectives

7.4.12 The most frequent two themes were that agri-environment schemes are good and that there are different perceptions between Natural England and the commoners in what they are seeking from the common. Only one commoner said they did not understand what Natural England was looking for nor did they think Natural England knew. One commoner felt that most farmers were lacking in commitment towards the schemes in that they were more than willing to take the money but did as little as possible in terms of delivery to the extent of boasting about what they could get away with. This was a comment about farmers generally rather than the commoners on Matterdale.

C Role of Farming

7.4.14 The most common themes that arose were those relating to continuity expressing the view that it is the farmers who manage the landscape and have for hundreds of years and their view should be sought. There was concern about the difference in sheep numbers between commons and how that affects the drift of sheep from one common to another. This though was perceived as a self-made problem as their sheep numbers are less than their permitted numbers in the early summer.

D Vegetation Management

7.4.15 The overriding theme was the devastation caused to the vegetation by two summers of caterpillars in 2007 and 2008. These were widely reported in the press and two thirds of the commoners expressed the view that these set back the recovery of the vegetation after the sheep reductions. One commoner noted the delicate balance between over and undergrazing. While reductions to enter the initial agri-environment scheme in 1998 were positive it took some years for the common to become palatable after foot and mouth in 2001 due to the lack of grazing that year. Woodlands were not an issue as they had not been asked to plant any for their current HLS scheme. A comment was made that when observed from above the valley was more wooded than many thought. There are areas of conifer forestry abutting the common and concern was expressed about the impact of the planting methods on water run-off and the disruption caused when they are felled as fences were damaged.

Partnership

A Federation of Cumbria Commoners / Commons Council

7.4.16 While two commoners expressed the desire to keep management local there was a strong desire to be able to enforce rules effectively and strong support for a Commons Council. The commoners are aware they already have statutory powers through their scheme of Regulation but are concerned that as a small organisation it would be difficult to take action alone and see the advantage of being part of a larger statutory body. One commoner expressed concern at the possible cost of running a Commons Council but was still in favour of a Council. The Federation of Cumbria Commoners attracted favourable support.

B National Park and others

7.4.17 Contrasting themes arose on the National Park. While two commoners said that being in National Park brought benefits for diversification and agri-environment schemes one commoner was vehemently against the policies and activities of the National Park Authority. He considered they are anti-business making it difficult for businesses to develop even when they were proposing low impact schemes. Two other commoners said the National Park rangers were good. Two commoners commented that the National Trust was good as the owner of the common.

C Local Networks

7.4.18 Very few themes arose on the role of local networks except those already referred to such as shepherd meets and communal gathering.

Similarities and Differences between the Sites arising from Individual Interviews

7.5.1 There are common themes between the three commons but also some clear differences where themes arose repeatedly on one common and not at all or in a limited way on another. The groups where similar themes arose with a similar frequency are, Finances, Motivation, the General Role of the Association, Delivering Natural England's Objectives and Partnership with the

National Park. Differences arose between the commons on the following themes, Federation of Cumbrian Commoners / Commons Councils, Visitors, Numbers of Commoners, Rules and Enforcement.

7.5.2 The data collected and the themes recorded were an open-ended list rather than closed so the non appearance of one theme at one of the sites does not mean the commoners would not agree but rather it was not something that did not arise during the interview. While Appendix H provides details of the frequency themes arise it is not appropriate to undertake quantitative analysis given the nature of the AI interview. Instead the approach to data analysis is for the themes to tell a story and provide a view of the complex mosaic that exists between and among individuals. There is not a right or wrong answer instead a picture that arises as a result of the individuals who participated and the interaction with the researcher.

7.5.3 In order to give meaning and sense to the data word clouds were constructed and are presented for each of the four topics of inquiry for each common. These are presented on the following four pages, fig 7.4 to 7.7 to enable comparison between the three commons. Word Clouds are created by entering a series of text into a computer programme and the programme creates a picture or cloud where the size of the word is correlated with the frequency that theme arose in the interviews.¹

Livelihood

7.5.4 Livestock is a theme of consistent importance in all three commons reflecting the occupation of the commoners as livestock producers, they are motivated by caring for their sheep, achieving a successful lambing and much of their status comes from the prices they achieve in the auction. Similarly all sites note that hefting is at risk as a result of flocks coming off the common altogether and less wintering on the common. At Matterdale there is a concern that the number of graziers is declining such that there will not be enough commoners to manage the fell or the Association though this is not a concern elsewhere for the other two commons. Peace, quiet and continuity is

¹ www.wordle.net

important for all commons. A wish to increase sheep numbers was expressed at Caldbeck but not on the other two sites. Sometimes the same sense was expressed in different ways, for instance on Matterdale several commented that sheep alone do not pay, implicit in this the need for government support while on Caldbeck and Mungrisdale they were clearer that government support such as agri-environment, single payment and the concurrent termination of the ewe premium (headage) schemes affect the decisions they make. These reflect different circumstances of the commons as Caldbeck at the time of the interviews was preparing to start negotiations for entry to an HLS/UELS.

- 7.5.5 The word clouds show participants on all three commons expressed to a varying degree the sense of belonging and multi-generational commitment to hill farming (continuity, stewardship for next generation, sense of belonging and farming is a lifestyle) and some were more expressive about their appreciation of the landscape. Of the 25 people who participated only four were first generation on the common and of these two had a younger generation actively involved on the farm and common.

Governance

- 7.5.6 The word clouds illustrate the overriding view of all three sites that their Association works well, enables solutions and brings people together. What is interesting in comparing the three word clouds is how much busier and denser the Caldbeck cloud is. This reflects the complicated management on Caldbeck with a major dispute in 2008 over stocking levels of sheep on one section of the common as well as an illegal herd of ponies. It also reflects the large number of graziers on Caldbeck, 28, compared with 11 on Mungrisdale and 7 on Matterdale. The sheer numbers of people operating on a common only 25% larger than Mungrisdale means the opportunity for disagreements and pressure on resources is larger.
- 7.5.7 Mungrisdale is the quietist word cloud perhaps a product of the Association only being formed to achieve entry into an agri-environment scheme and that the Chairman expects disputes to be resolved farmer to farmer not via

himself. It is formed from three separate Common Land units and there is no history of governance of the common.

Environment

- 7.5.8 The Mungrisdale and Matterdale word clouds demonstrate that while these two commons have plenty of views on the agri-environment schemes and their relations with Natural England overall the ESA and its successor HLS schemes are viewed as good and appreciated as essential to their businesses. The same was not expressed on Caldbeck where relations between Natural England and the commoners have been strained over recent years. This is as a result of one commoner moving his flock to a different heft causing over grazing from Natural England's perspective which resulted in all funds to the Association being withheld.
- 7.5.9 The commoners on all commons were aware of the difference in perception and objectives for the common between themselves as farmers, and Natural England as ecologists, and they tend to accept that is the way it is. They accept Natural England's money and follow the prescription but as the word clouds show they do not understand what Natural England want and even wonder if Natural England know what they want or how to get it. On Matterdale and Mungrisdale the view came across clearly that the landscape was created by farmers and managed by them.
- 7.5.10 Interestingly on Caldbeck the public benefit highlighted by farmers of their role to keep the countryside tidy for visitors was not expressed on the other two commons. Another lone theme was caterpillars on Matterdale, this is because there was a plague of antler moth caterpillars on the Helvellyn massif in 2007 and 2008 which stripped much of the grass vegetation bare.

Partnership

- 7.5.11 On this topic there was a clear split between Caldbeck, who were in favour of strong local management by their association, and Matterdale and Mungrisdale who both favoured a Cumbria Commons Council with powers of enforcement. All considered the Federation of Cumbria Commoners supported commoning and appreciate the exchange of information.

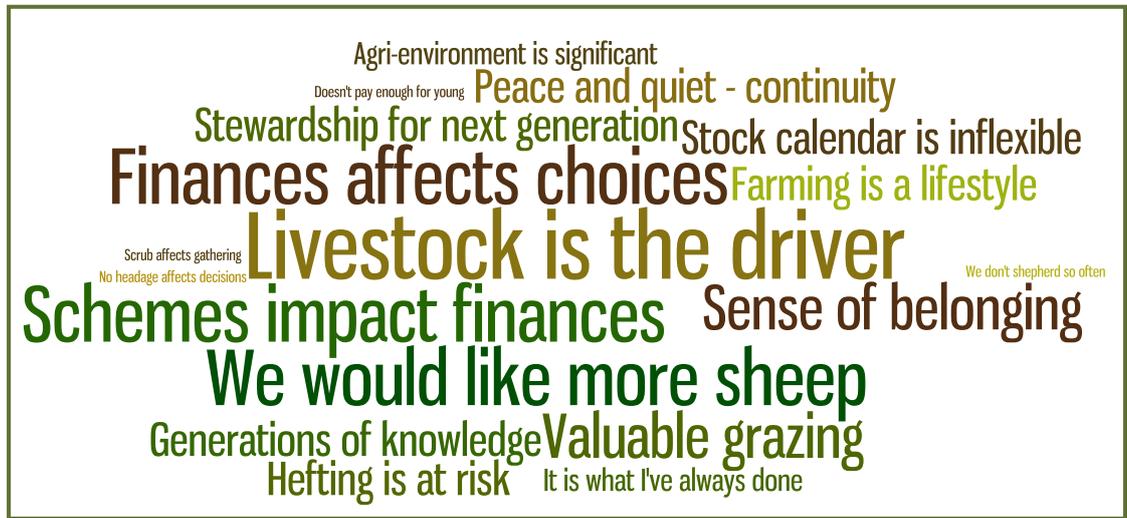
7.5.12 Caldbeck already has an executive committee with its neighbour Uldale which is considered good and they are in favour of working with neighbours but consider management should be at a local level. On Mungrisdale and Matterdale commons there are no formal relations between neighbouring commons though they do meet up once a year for the Shepherds' Meet. This used to be an occasion to exchange stray sheep but that purpose is no longer required as sheep are trailered back to their farms directly after gathers.

7.5.13 On all commons National Park rangers are highly regarded though overall the National Park was not seen to be of relevance to their businesses. Most had been able to obtain the planning permission they required and there was only one commoner who was against the National Park Authority's policies towards businesses.

7.5.14 The only common that mentioned the National Trust is Matterdale which is explained by the fact the National Trust own the common.

Fig 7.4 Livelihood Themes arising in The Lake District

Caldbeck



Mungrisdale



Matterdale

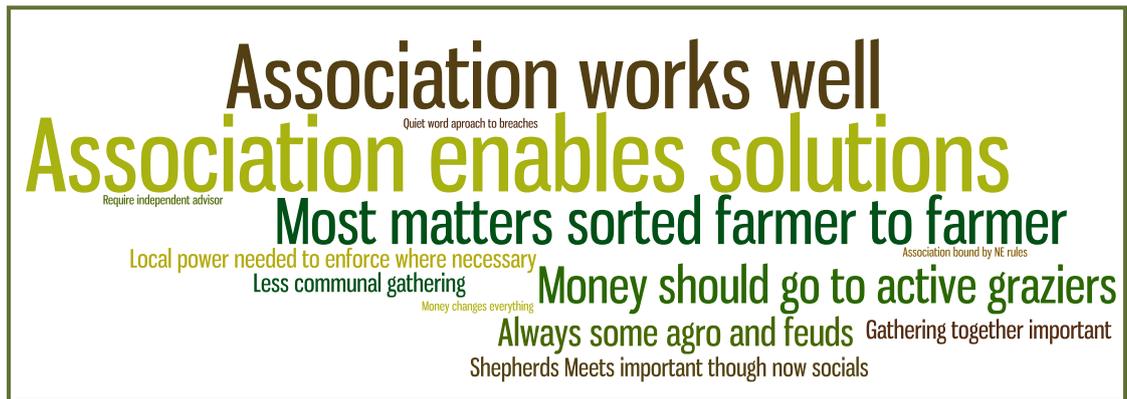


Fig 7.5 Governance Themes arising in The Lake District

Cadbeck



Mungrisdale



Matterdale



Fig 7.6 Environment Themes arising in The Lake District

Caldbeck



Mungrisdale



Matterdale

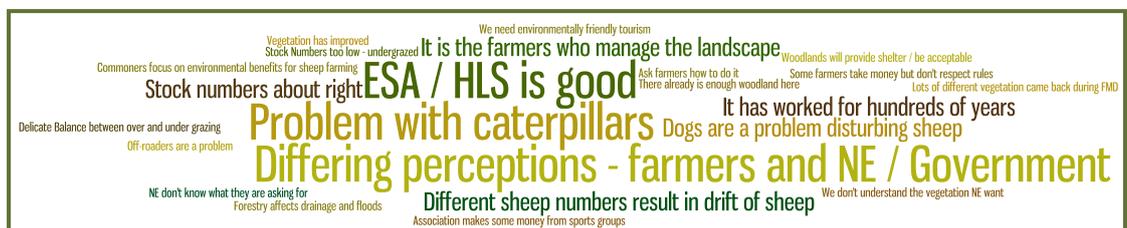
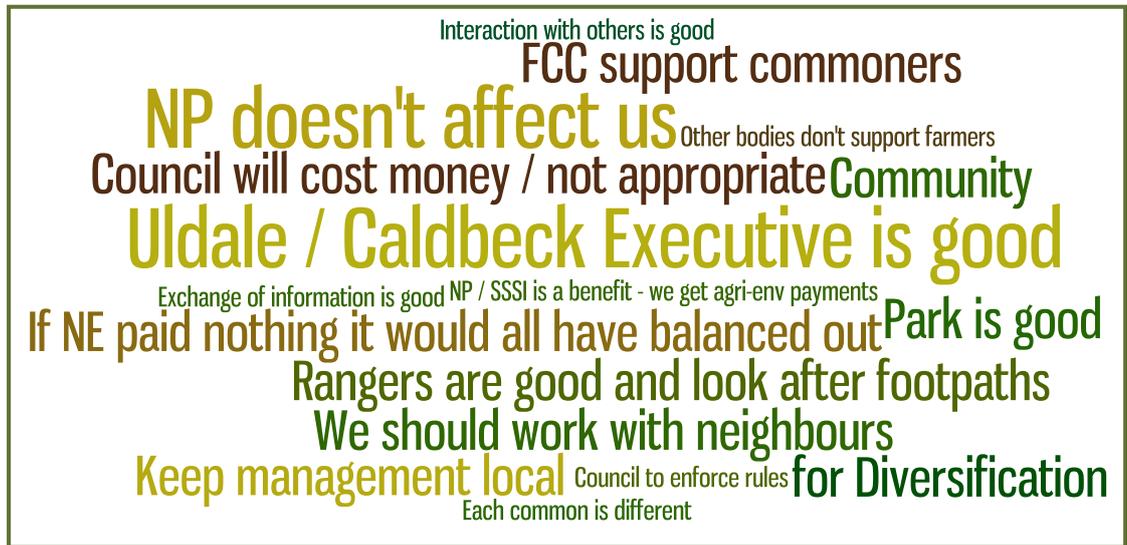
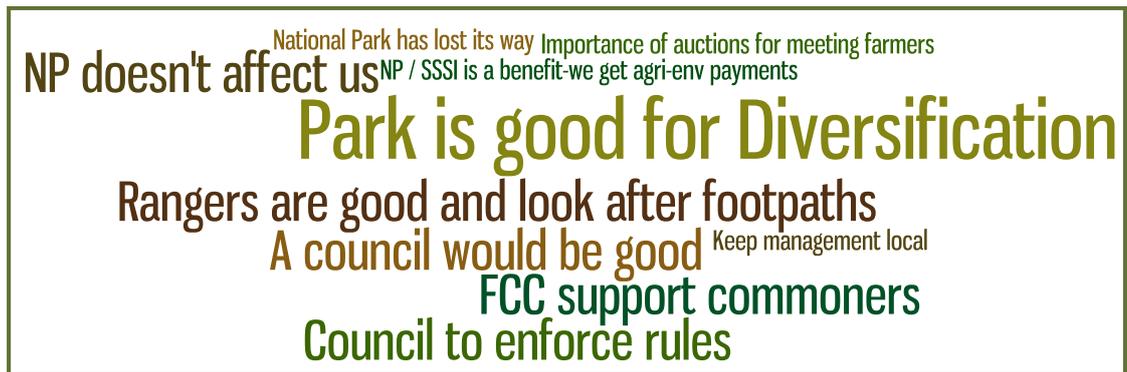


Fig 7.7 Partnership Themes arising in The Lake District

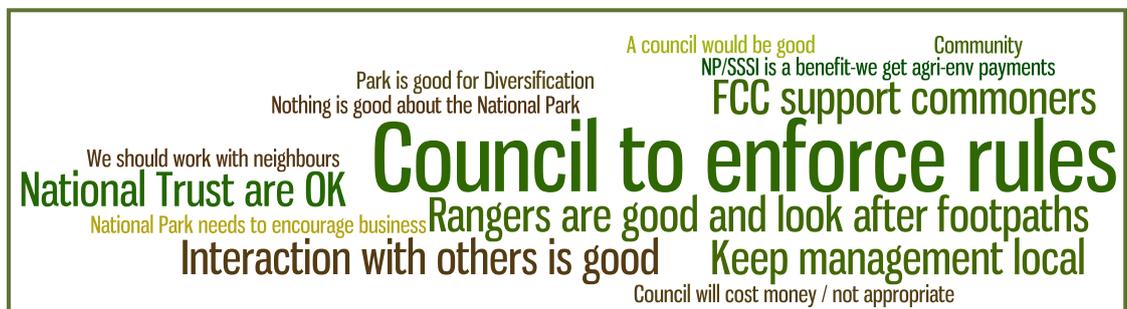
Caldbeck



Mungrisdale



Matterdale



Results from the Commoners Association Meetings

7.6.1 The purpose of the association meetings was to gather the commoners together who had participated in the individual 'Discover' interviews and to enable the Dream phase of the AI cycle. The proposal was to have two parts to each meeting. The first part in smaller groups was to consider their dreams under the four topics of inquiry, livelihood, governance, environment and partnership. The second part of the meeting was to bring the small groups together and rank the dreams as a step in considering designing the interventions that might answer the research problem.

7.6.2 The reality of the fieldwork was that with small numbers of people involved and poor weather conditions at the time of the meetings the plan was adapted to respond to the situation. There was severe snow during all three weeks of field work with it being the coldest winter since 1910. Despite this there was enthusiasm from those who did attend.

Caldbeck

7.6.3 Attendance at Caldbeck was good with 11 people attending. Commoners were arranged in four groups and the results are provided overleaf. Each group was given its own sheet to fill in and these are presented in Fig 7.9. The different groups responses are separated by the dotted lines. There were no significant differences between the responses of the different groups.

7.6.4 Once these had been undertaken the group chose two topics of inquiry and three dreams for each were chosen and these were ranked using different coloured post-it notes. The two topics were; sustaining livelihood and building partnerships. The outcomes of the ranking are given in Fig 7.8.

7.6.5 The results indicate that there is not a strong preference between the three sustaining livelihood dreams though increasing stock numbers is slightly ahead of increasing flexibility on the stocking calendar. On Building Partnerships the result is much clearer that lobbying decision makers within and without Natural England is the priority for Caldbeck Commoners.

Sustaining Livelihoods			Building Partnerships		
Increase Stock Numbers	Reduce Costs / Increase Profit	Increase Flexibility	Strong Voice: Lobby Decision Makers / NE	Binding Dispute Resolution Process	Education increase understanding of farming
1 st : 4	1 st : 4	1 st : 3	1 st : 10	1 st : 1	1 st : 0
2 nd : 6	2 nd : 0	2 nd : 5	2 nd : 0	2 nd : 4	2 nd : 7
3 rd : 1	3 rd : 7	3 rd : 3	3 rd : 1	3 rd : 6	3 rd : 4

Table 7.8 Ranking of Priority Topics in Caldbeck

Mungrisdale

7.6.6 The Mungrisdale Meeting was held a week after the Caldbeck Meeting and was an evening meeting. Attendance at 6 was less and as a result it was decided to alter the process and only undertake the first step of the process as there were not enough people to do the ranking exercise.

7.6.7 The results of the two groups who did the dreaming and next steps process are given in fig 7.10. From these the priority topics of inquiry chosen by the commoners were 'Sustain Livelihood' and 'Environment' but no ranking of activities was undertaken.

Matterdale

7.6.8 Matterdale was a similar size meeting to Mungrisdale and the same approach was adopted. It was a less confident group and only one dreams and steps table was completed. The outcomes are in fig 7.11.

Similarities and Differences between the Sites

7.6.9 The major difference is between Caldbeck and the other two commons with regard their relations with Natural England. In December 2010 Caldbeck only had two years left before their agreement expires while the other two commons had just entered into new ten year agreements and were therefore relaxed about the medium term future with regard stocking calendars etc. Caldbeck commoners were positioning themselves towards negotiations for the future and expressing their frustrations with how the system had worked for them though they were not against environmental agreements per se.

There was an overriding desire on Caldbeck for increased sheep numbers that did not exist on the other two commons.

7.6.10 With regard practical commoning Matterdale is the odd one out as they fear a continued decline in numbers of graziers which would further complicate the management of the common and lead to more encroachment of sheep from neighbouring Thirlmere as the numbers become even less balanced across the two commons. They consider the rules on proper hefted flocks as important to minimising this risk. On the environmental side Matterdale again has a unique problem that the caterpillar plague caused decline in grazing capacity and they do not consider Natural England recognise this as a problem in delivering favourable condition of the habitat. Mungrisdale see bracken as a problem as did Caldbeck and both make the point they have managed their commons for hundreds of years and should be left to continue to do so.

7.6.11 On all commons the Associations are valued and they wish to protect them but it was only on Caldbeck they specifically are seeking a more effective dispute resolution process. This came from the officers group reflecting their exasperation with resolving the dispute in 2008. Education came through as a repeated approach to building partnerships and understanding.

Fig 7.9 CALDBECK GROUP MEETING	DREAM 5-10 years into the future	NEXT STEPS
SUSTAIN LIVELIHOOD	<ul style="list-style-type: none"> - Increase sheep numbers and improve quality of cattle - More flexibility with regard numbers of sheep on the fell - A big jump in the wool prices - Good stock prices to enable family farms to continue <p>-----</p> <ul style="list-style-type: none"> - Expand - Stock prices keep pace with inflation - Mixed stocking <p>-----</p> <ul style="list-style-type: none"> - Flexibility on stocking rates - Increase ewe lamb numbers <p>-----</p> <ul style="list-style-type: none"> - Full rights exercised – more sheep - Full time shepherd to manage specific areas - More sheep would make it more worthwhile for young farmers 	<ul style="list-style-type: none"> - A stable sheep price to enable us to plan ahead and an increase in beef prices and an attempt to reduce costs - EU to set minimum process for stock - To cut costs but still maintain output so we can have more say in how we maintain the land <p>-----</p> <p>-----</p> <ul style="list-style-type: none"> - Increase Sheep and Cattle numbers - Fair prices by supermarkets <p>-----</p> <p>-----</p> <ul style="list-style-type: none"> - Lobby influential bodies to support commons especially SSSIs <p>-----</p> <p>-----</p> <ul style="list-style-type: none"> - Wait for finish of current agreement and regulations and rehaft in all areas and shepherd - Out of EU?

FIG 7.9 cont. CALDBECK	DREAM 5-10 years into the future	NEXT STEPS
STRENGTHEN COMMONERS ASSOCIATION	<ul style="list-style-type: none"> - Keep as is but have a procedure for settling (externally) internal disputes ----- - Hope all works as well as now and improves with also getting a better voice in future agreements ----- - Younger generation keen to be involved as they see the viability of common rights and livestock ----- - Continue as at present 	<ul style="list-style-type: none"> - Amend our Association agreement unless one is provided for us e.g. by Federation of Cumbria Commoners (FCC) ----- - Build better partnerships with LDNP, NE and FCC ----- - Ensure all other points come to fruition ----- - Educate local villagers as to the value of livestock in the area, farmers in the ----- -
BUILD PARTNERSHIPS	<ul style="list-style-type: none"> - LDNP is good as is - Natural England; only a commercial partnership is contemplated - FCC, support without losing local identity and autonomy - ----- - That the LDNP and Natural England have a better understanding of farmers ----- - More commoner involvement in setting prescriptions for future schemes to achieve environmental and social goals ----- - Natural England: hopefully defunct - Continue partnership with other commoners groups – share ideas 	<ul style="list-style-type: none"> - LDNP – leave it alone - NE wait to see what they offer - FCC, carry on as now ----- - Don't Know ????? ----- - Lobby policy makers for more involvement - Hopefully improve financial output - Build a consensus with NE - Keep the LDNP on side ----- - . LDNP warden could possibly do the educating in school etc

FIG 7.10 MUNGRISDALE	DREAM	NEXT STEPS
SUSTAIN LIVELIHOOD	<ul style="list-style-type: none"> - Sheep numbers managed as they are - Need payments <hr/> <ul style="list-style-type: none"> - To maintain and if possible improve returns from livestock production and environmental payments without further reductions in livestock numbers and maintain long term stability - To encourage NE to look at this situation through the farmers eyes and not ignore their experiences 	<ul style="list-style-type: none"> - Carry on pleasing Natural England <hr/> <ul style="list-style-type: none"> - To work ore closely with various agencies and agree we can do this instead of you must to this / that
ENHANCE ENVIRONMENT	<ul style="list-style-type: none"> - Manage Bracken <hr/> <ul style="list-style-type: none"> - To maintain and if possible improve the environment to meet the expectations of the agencies involved remembering landscape has been created by many generations of hill farmers. - Current issues are bracken encroachment and dogs off the leash 	<ul style="list-style-type: none"> - Look at different ways of bracken control <hr/> <ul style="list-style-type: none"> - To maintain and continue various environmental schemes undertaken over the last two decades. - Try to encourage a scheme to help control bracken to avoid health issues in fell sheep, i.e. ticks
STRENGTHEN COMMONERS ASSOCIATIONS	<ul style="list-style-type: none"> - Don't want to lose any members - Look for other partners to work with <hr/> <ul style="list-style-type: none"> - Continue with commoners association - Strength of association proved in recent negotiations 	<hr/> <ul style="list-style-type: none"> - Strengthen our local Association
BUILD PARTNERSHIPS	<ul style="list-style-type: none"> - Better understand localised hopes of various government agencies involved 	<ul style="list-style-type: none"> - Stronger Links with Cumbria Commoners and National commoners to be able to resolve any local difficulties from a national point of view and share information

FIG 7.11 MATTERDALE	DREAM	NEXT STEPS
SUSTAIN LIVELIHOOD	<ul style="list-style-type: none"> - fair return on product premium - keep sheep numbers as they are on HLS agreement - avoid caterpillars 	<ul style="list-style-type: none"> - Change culture towards food - Value Seasonality - Sell ourselves better, social value - Encourage new commoners
ENHANCE ENVIRONMENT	<ul style="list-style-type: none"> - recognise impact of caterpillars - keep environmental payments otherwise it will only be used for gelt sheep and weaned ewes - reduce coarse vegetation 	
STRENGTHEN COMMONERS ASSOCIATIONS	<ul style="list-style-type: none"> - Association is still going, concerned it may fizzle out as numbers of graziers decline - All comply with rules regarding even aged flocks 	<ul style="list-style-type: none"> - find new entrants
BUILD PARTNERSHIPS	<ul style="list-style-type: none"> - work with people who can cope with us and - Natural England understand us 	<ul style="list-style-type: none"> - Education - Explain Commons are private not public property

A Commons Council for Cumbria

7.7.1 The earlier part of this chapter in describing Parts 1 and 2 of the fieldwork focused on research questions A and B as to what is the current form of governance and ecosystem services and what are the drivers that affect the nature of the governance arrangements. This was achieved through individual interviews and group meetings. Research Question C is the focus of Part 3 of the fieldwork and examines an opportunity for enhancing the governance of common land in the Lake District through looking at commoners' responses to establishing a Commons Council.

7.7.2 The governance of common land, or rather the paucity of statutory management of common land, has long been bemoaned and various committees recommended changes as described in 2.3.10. None of these were acted on until the Commons Act 2006. Interestingly there were a variety of reasons why statutory governance was sought. In some instances it was to allow for the intensification of agriculture through drainage while in other cases management schemes were sought to promote good agricultural management of livestock. More recently government agencies have sought management schemes to enable delivery of favourable condition of common land designated as SSSIs.² Part 2 of the Commons Act 2006 was a specific response to these concerns and the request from commoners for management schemes to allow improved agricultural management.³

7.7.3 Concurrent with planning the fieldwork to consider how governance might be strengthened in the Lake District the Department for Environment, Food and Rural Affairs (Defra) was implementing Part 2 of the Commons Act 2006 concerning Commons Councils. As a result of this the decision was made to use for this research two government sponsored projects as the focus for exploring improving governance.

² J Johnston and S Webb and D Hunt, 'English Nature's Sustainable Grazing Initiative in Cumbria' (English Nature 2005).

³ Land Use Consultants, 'Agricultural Management of Common Land in England and Wales' (Defra 2005) <http://randd.defra.gov.uk/Document.aspx?Document=LE0218_2563_FRA.pdf > accessed 22 April 2009.

This section places the projects in their legal and policy setting and reflects on the findings in the context of the research question. The projects covered the whole of Cumbria rather than just the LDNP but it was possible to break down the data to look at the Lake District commons. Furthermore most of the common land in Cumbria outside of the LDNP has an environmental designation either for landscape as an Area of Outstanding Natural Beauty (AONB) or for nature conservation as a Site of Special Scientific Interest (SSSI) therefore the debates regarding the delivery of ecosystem services on commons outside the National Park boundary are broadly similar to those inside the LDNP.

- 7.7.4 Commons councils were not designed to deliver the optimum output of ecosystem services but the legal framework and status of a commons council provides a significant increase in management control compared with the voluntary association. This combined with the existence of agri-environment schemes means that commons management is inevitably more multi-functional than it has been in the past. So while the remit of and functions available to commons councils are not all encompassing they can be combined with other legal structures and economic instruments. This would enable Common Councils to address management issues across a whole suite of ecosystem services wider than their core functions.

Legal framework

- 7.7.5 Part 2 of the Commons Act 2006 enables those with a legal interest in common land to request the Secretary of State to establish a Commons Council for the management of common rights, agricultural activities and the vegetation on the common. This is not a top down obligation but an Act that enables those who would like to adopt this route for managing their common(s). The Act received Royal Assent in 2006 and on 20th January 2010 Part 2 was brought into force and The Commons Councils (Standard Constitution) (England) Regulations

2010 were passed.⁴ These regulations provide a standard constitution for Common Councils which it is helpful to read in conjunction with the model establishment orders. Establishment orders are the statutory mechanism for creating a Council and once drafted are laid before Parliament. The establishment order in addition tailors the standard constitution to cater for the particular circumstances of the common or commons concerned. The Establishment Order for the first Commons Council in England came into force on 1st January 2014 for Brendon Common in Exmoor.

7.7.6 Commons Councils are statutory corporate bodies but they are not servants or agents of the Crown and their property belongs to the Council not to the Crown. Furthermore, and of relevance to this research, Commons Councils are not considered an authority to which the obligations of s28G Wildlife and Conservation Act 1981 (as amended) apply due to the limited nature of their functions.⁵ Thus Commons Councils do not have an obligation to enhance the conservation of the interest features on SSSIs. Commons Councils do though have an obligation under the s31 Commons Act 2006 to have regard to the following in undertaking its functions: nature conservation, the conservation of the landscape, the protection of public rights of access to any area of land and the protection of archaeological remains and features of historic interest.

7.7.7 There are two main options for the geographical jurisdiction of a Council, it can either be for a single management unit (a single common land (CL) unit or a small group of CL units) or alternatively an umbrella Council. The latter brings together commons that are managed separately, usually with their own associations, but who consider they would benefit from having an overarching Council. It is this latter approach that was considered in Cumbria by the Shadow Commons Council and Establishment Projects in 7.7.10 onwards. There is a specific model establishment order for umbrella councils and

⁴ The Commons Councils (Standard Constitution) (England) Regulations 2010.

⁵ Wildlife and Countryside Act 1981 s28(3).

part of the work particularly of the Establishment project was to consider the detail of the establishment order as the technical guidance provides a series of options e.g. with regard to members, voting, rules etc.

7.7.8 The functions of the Council relate to the land identified in the establishment order not only to those with legal rights. This is a significant change from current commoners' associations which being voluntary only bind those individuals who have signed an agreement.

7.7.9 Commons Councils do not have powers over all activities on the common; just those set out in s31(1) Commons Act 2006 and in particular not over activities outside its functions e.g. access to the countryside or SSSI enforcement. Nor can a Council undertake activities that require a landowner's consent without the owners consent such as works on commons.

Shadow Council Project

7.7.10 Part 3 of the fieldwork was preceded by an earlier consultation in 2008 on the possibility of a Commons Council in Cumbria. This is described here to provide background as to commoners' views of a Commons Council and its role in strengthening governance on common land.

7.7.11 The author was also the facilitator of the 2008 consultation but as the legislation was not yet in force it was titled *The Shadow Commons Council Project*. Cumbria was one of three case studies in England the others being Bodmin in Cornwall and Brendon.

7.7.12 The Shadow Commons Council Project distributed a leaflet and wrote to all commoners on the Federation of Cumbria Commoners database asking them to attend a meeting to find out more. Approximately 20% of the 500 people invited attended. In addition several individual commoners' associations meetings were attended at the request of individual Chairman. A separate series of meetings was held for the owners of common land, those attended in total owned or represented the owners of over 70% of the common land in Cumbria.

7.7.13 The umbrella council approach was taken whereby the proposal was for a Commons Council for all Cumbria but commons would vote separately whether to be under the jurisdiction of the Council resulting in a Swiss cheese arrangement. Those commons that voted to be part of the council would be the cheese and those that chose not to be would be the air between.

7.7.14 After taking initial soundings from these meetings and written responses a more detailed booklet was produced and this was sent to commoners asking them to complete a form expressing their views. It was made clear this was not committing them to establish a Council as the necessary legislation was not yet in force. While 80% of those who responded were in favour of a Commons Council the response rate at 10% was too low to conclude there was substantial support for a Council and it was also made clear that this was not a formal consultation under the Commons Act 2006.

7.7.15 Benefits identified by commoners and owners included:

- A definition of Active Grazier to help with the distribution of agri-environment payments;
- Removal of stock that are grazing illegally;
- Removal of animals for disease control purposes;
- Management of inappropriate supplementary feeding;
- Encouraging commoning by ensuring the benefits remain with those who are working the commons;
- Successful commons proofing of government policies and regulations;
- A strong voice to negotiate stocking levels on commons;
- Better to develop a Council ourselves than have one thrust upon us.

7.7.16 With the exception of one owner who thought everything worked fine all the other owners were in favour of a Council. They considered that a Council would be able to take action in cases where an owner may

have the right under common law but in practice has little incentive to take the matter to the courts.

7.7.17 The views of the commoners were more mixed, chairmen and secretaries of associations who have to deal with the management of commons were on the whole in favour of a Council, ordinary commoners' views depended on the situation on their common. Particular concerns raised were:

- The current system works well, if it ain't broke don't fix it, the Federation of Cumbria Commoners is sufficient;
- More regulation;
- Jobs for the boys;
- Too costly; it is hard enough collecting the £10 for the FCC;
- Natural England want to control us;
- What would happen to our local association;
- How do we get out if we do not like the Council.

7.7.18 While the majority of those who participated in the exercise were enthusiastic in principle about establishing a Council participation was not sufficient to state there was substantial support. In addition it was concluded that Council is much more likely to be established successfully if it meets a recognised need and produces benefits in excess of the costs of establishing and administering the Council. Part of the difficulty is that the costs are direct to each individual but the benefits are diffuse and may not ever be felt by individuals or attributable to the Council. For instance many commons said that they did not have any disputes on their common but asked if they did in the future could they opt in then? The analogy used during the consultation was that a Council was rather like an insurance policy; it must be taken out ex ante.

Establishment of a Commons Council: Cumbria Project

7.7.19 Following the Commons Act Part 2 legislation coming into force Natural England let an additional contract to the researcher's firm H&H Bowe Limited in December 2010.⁶ The purpose was to undertake a similar exercise to the Shadow Commons Council Project but this time a positive result could be implemented as the regulations were in force. The overall purpose was to assess if there is substantial support to establish a Cumbria Commons Council and to consider the specifics of the Council's structure to enable the drafting of an establishment order if there is substantial support.

7.7.20 It is this project that was used as Part 3 of the fieldwork. As the project lasted just four months it was necessary to limit the number of participating commons associations. Using the principles of Appreciative Inquiry that you seek the positive the project invited commons associations to participate who were keen to participate. 32 commons associations were invited and the response was most positive as 29 commoners associations participated with only three declining the opportunity. Again the umbrella Swiss cheese model as described in 7.7.13 was adopted.

⁶ The project was undertaken by the author, Viv Lewis and Charlotte Raw.

Cumbria Commons Council The Consultation Process

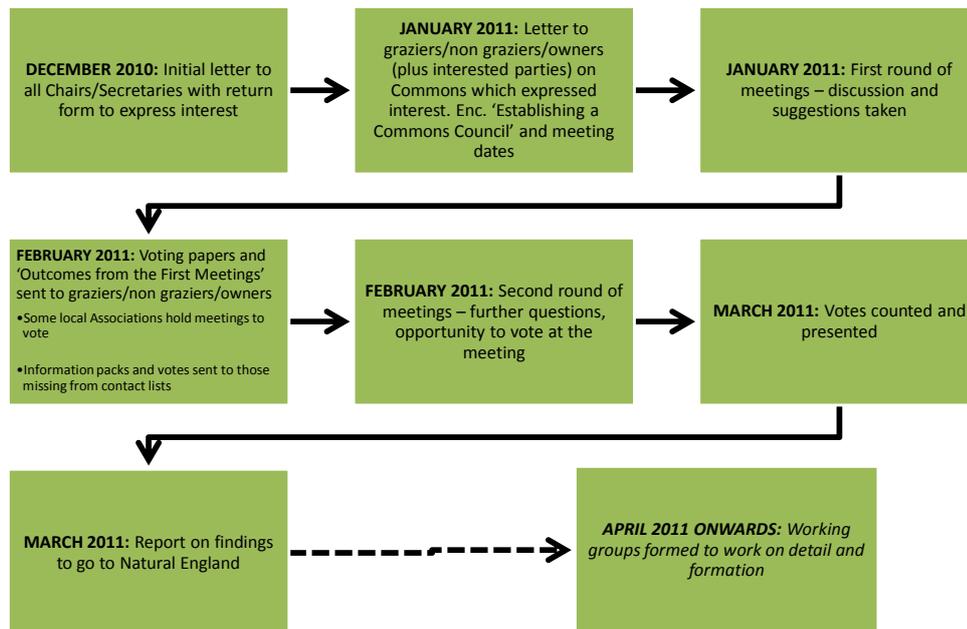


Fig 7.12 The Commons Council Consultation Process⁷

7.7.21 The consultation process is set out in Fig 7.12. The aim was to encourage engagement by all those with legal interests in the participating commons in particular the active graziers and the owners for without their support a Council could not be formed. Identifying and compiling an accurate list of commoners and owners was most testing as the official commons registers are out of date and while the data on active commoners was good it was less accurate on non-active commoners.

7.7.22 799 commoners and owners were contacted during the consultation exercise and all were sent the consultation booklet (see Appendix I) and invited to open meetings. 150 people attended the open meetings and others came to association meetings called to discuss the proposal. Comments were taken on board and the proposals amended and refined accordingly. A further series of open meetings were held as part of the voting process where there was an opportunity for questions and to vote. Overall 373 people voted comprising a 47% response rate

⁷ Figure taken from: V Lewis and J Aglionby and C Raw, 'Establishing a Commons Council for Cumbria A Progress Report' (H&H Bowe Ltd 2011) accessed 15 July 2011.

from a mixture of the open meetings, postal returns and local association votes. Figure 7.13 breaks these figures up between graziers, non-graziers and owners. It was encouraging that the grazier response rate was 67% indicating a strong level of interest in the proposal by those at the heart of agricultural management.

7.7.23 Analysing the votes and deciding what constituted substantial support was far from a clear-cut process. The votes were recorded by each Common Land unit or a group of units where these represented the agricultural management unit. The technical guidance produced by Defra does not provide precise guidance as to what constitutes substantial support but does indicate what the Secretary of State will have regard to. After consultation with Natural England and the Defra Common Land team the following criteria had to be met to demonstrate substantial support:

- Graziers' Votes: a 60% turn out and 60% of the respondents saying yes;
- Owners' Votes: A 66.66% turnout (some commons have split ownership) and 100% saying yes; i.e. an owner has a right of veto;
- Non-graziers' Votes: Turn out was relatively low and no criteria was set for this category.

Grand Total mailed		799
Total Received		373
Response rate		47%
GRAZIERS	Graziers mailed	387
	Graziers replied	259
	Graziers not replied	128
	Response rate <i>of those replying</i>	67%
	Yes	72%
	No	28%
NON GRAZIERS	Non Graziers mailed	356
	Non Graziers replied	90
	Non Graziers not replied	266
	Response rate <i>of those replying</i>	25%
	Yes	74%
	No	26%
OWNERS	Owners mailed	56
	Owners replied	24
	Owners not replied	32
	Response rate <i>of those replying</i>	43%
	Yes	79%
	No	21%

Table 7.13: Results of the Commons Council Voting⁸

7.7.24 The responses from commons participating from within the LDNP are given at fig 7.14 and from these it can be concluded that in all but three cases the active graziers met the threshold response rate and there is a clear majority of active grazer commoners who are in favour of joining a Council. Of the commons that passed the grazier support test two failed the owner test. In one case the owner vetoed the scheme and in the other case the owner failed to respond. Overall eight of the fourteen participating commons in the LDNP voted to be part of the

⁸ *ibid.*

Cumbria Commons Council. Two of the commons that passed both tests and therefore have substantial support are Mungrisdale and Matterdale, two of the three case studies. Caldbeck decided not to participate as they were already clear they prefer to maintain management control with the local association rather than being part of a Commons Council.

Next Steps and Other Initiatives

7.7.25 The Federation of Cumbria Commoners has submitted a request for an Establishment Order and further and better particulars have been requested by Defra. The civil servants approach is that a completely watertight case is required such that the Secretary of State can be assured that the objections will be highly unlikely therefore reducing the risk of expensive inquiries and further consultations.

Summary of Emerging Themes

7.8.1 In order to answer the research questions A and B which will be done in Chapter 9 it is useful to summarise the themes that emerged from the data from the fieldwork collected in Parts 1 and 2 as well from the wider consultation on Commons Councils. The three communities of Caldbeck, Mungrisdale and Matterdale provided subtly different contexts in which to address the research question and this adds to the richness of the discussion and demonstrates the importance of geographical, legal and social context in the debate.

CL NUMBER	COMMON	GRAZIERS		NON GRAZIERS		OWNERS	
		% response	% yes	% no	% response	% yes	% no
CL85/87	Bampton & Askham Common	63.2%	75.0%	25.0%	50.0%	100.0%	0.0%
Blawith & Subbel	Beacon & Burney, Blawith & Subbertthwaite	35.3%	83.3%	16.7%	66.7%	50.0%	50.0%
CL9	Birkbeck Common	63.6%	71.4%	28.6%	100.0%	100.0%	0.0%
CL112	Black and White Coombe Common	62.5%	100.0%	0.0%	66.7%	80.0%	20.0%
CL11/74/118/16	Buttermere Common & Derwent	106.7%	100.0%	0.0%	4.7%	50.0%	50.0%
CL160	Deepdale Common	66.7%	100.0%	0.0%	0.0%	100.0%	0.0%
CL29w	DSTC Commoners	7.1%	100.0%	0.0%	27.3%	66.7%	33.3%
CL52L/40L	High Furness Commoners	40.0%	0.0%	100.0%	0.0%	100.0%	0.0%
CL67c	Kentmere Common	80.0%	100.0%	0.0%	0.0%	0.0%	0.0%
CL167/423	Langstrath and Coombe Common	85.7%	100.0%	0.0%	0.0%	100.0%	0.0%
CL67	Matterdale Common	75.0%	100.0%	0.0%	44.4%	100.0%	0.0%
CL60/66/293	Mungrisdale Common	63.6%	100.0%	0.0%	16.3%	100.0%	0.0%
CL123	St John's Common	116.7%	100.0%	0.0%	100.0%	100.0%	0.0%
CL1	Watermillock Common	66.7%	90.0%	10.0%	100.0%	100.0%	0.0%

Fig 7.14: Results of the Commons Council Voting by Lake District Association

- 7.8.2 The primary themes emerging from the three case studies are that finances dictate choices and that associations are important and work well. This immediately brings us to the core of the thesis as this demonstrates communities recognise the importance of both local governance and external drivers and institutions. In short the data shows that legal pluralism is integral to management and a reality communities acknowledge and respond to.
- 7.8.3 The tension between the local and an over-arching governance was repeatedly discussed in the Commons Council consultation. Communities are torn between wanting to manage their commons themselves and an acute awareness that they do not have the legal tools or the self-motivation to enforce rules against their immediate neighbours. Even with this latter awareness some prefer not to have others, even other commoners, impose rules that may be inappropriate to their particular circumstances.
- 7.8.4 This tension could be perceived as a problem or a conflict that creates a barrier to progress in governance and ultimately the delivery of ecosystem services. Alternatively this tension can be harnessed as a productive force in the design of governance systems to ensure there are checks and balances and hence the resulting design will be more effective in balancing the competing emotions and realities of the plural legal orders in existence.
- 7.8.5 The underlying driver for Commons Councils is not though to increase ecosystem services but for better agricultural management of commons. The establishment of a Cumbria Commons Council is therefore no guarantee for more effective governance, as defined in this thesis, as there is no formal remit for the delivery of public goods. From the commoners' perspective their objective is almost the opposite as they would like a Commons Council to provide them with a stronger voice for agricultural management and where necessary opposing management that is too focused on biodiversity.

- 7.8.6 Beneath this higher order matter a number of other key themes emerged that inform the debate. Firstly, and perhaps most important, is the issue of motivation given the efficacy of all governance is dependent on governance systems actually being implemented. Do commoners share a common purpose with external institutions who are encouraging them through agri-environment schemes to change their practices? This data has provided evidence that the farming of livestock primarily motivates commoners. Some commoners are pedigree breeders and the autumn sales are the pinnacle of their year while others are less focused on sales but equally motivated by the care of their stock and a successful lambing. For both groups it is the day-to-day act of husbandry that drives them to maintain the landscape of the Lake District.
- 7.8.7 The consequence of this finding is that farmers are not always economically rational and will admit this themselves. Therefore any scheme that ignores the key role of livestock and seeks an alternative motivator such as biodiversity is unlikely to be a successful driver for active local governance. Additionally the data demonstrated that farmers do not have a shared view with Natural England on the importance, or priority of, different ecosystem services or a shared understanding or quest for the particular vegetation assemblages that Natural England value for biodiversity reasons.
- 7.8.8 Agri-environment schemes have been in existence for over fifteen years in these communities but they have not changed why farmers farm. They are valued for the income they provide and as a counter weight to increasing numbers for numbers sake but the motivator of rearing livestock handed down over multiple generations is what drives farmers to continue their daily hard work in a harsh environment. This is not to say farmers do not value spectacular views, the open space and the landscape features such as barns and walls but time and money are not expended maintaining them merely as a feature but rather as an integral and useful part of their farming system.

7.8.9 When considering effective implementation the themes and comments related to the role of individuals and the dynamics between individuals are of interest. The delivery of outcomes is not only dependent on governance structures but also on the leaders in each institution and their interest in responding to external drivers as well as their ability, when necessary, to set aside their personal interests and their ability to discern and take forward the view of the commons association they lead. The three case studies had three different types of individuals as Chairmen and in the consultation exercise on Common Council it was the view of the Chairman in each case that often drove the outcome as to whether a Council was favoured or not.

7.8.10 The Chairman also has a key role with regard dispute management and the management of breaches. The individual stories indicate that in small communities where individuals are often closely related dispute resolution is complex. Commoners are not connected through an employee / employer relationship but are separate businesses with personal legal rights to use the common. When there is a binding contract, as with an agri-environment scheme, and that the association's money is at risk then as the Caldbeck case study demonstrated a Commoners Association can be effective in taking action against breaches. It was though reported this led to poor inter personal relations for some years and a strong Chairman is needed to follow this through. In other less critical cases Chairmen varied in how prepared they were to interfere in minor breaches of association rules or poor practice with most favouring the quiet word approach rather than formal proceedings.

7.8.11 Where there is no binding contract, or the individual at breach is a non-signatory to the internal agreement, then a Chairman's ability to take action is in most cases non-existent. This is either because they have no legal powers or they do not have the funds to take legal action. It is on commons such as these that support for an umbrella Commons Council was strong as well as on Commons where there was a recognition that a Commons Council would be an insurance policy to

protect payments that are dependent on compliance with a specific set of rules. The amount of money paid via Associations is now so significant Chairman and other association officers were keen to share the risk for safe delivery of these funds.

7.8.12 In reviewing the evolution of governance of commons in the Lake District the external driver of Defra's agricultural support and environmental schemes has been the primary driver over the last twenty years. In some case such as Mungrisdale the agri-environment scheme was the trigger creating an institution where there was none before and in others such as Caldbeck and Matterdale existing structures have been moulded to enable them to access funds. This process continues today as one scheme ends and another comes into being. The obstacle to the establishment of a Commons Council is that there is no one over arching trigger that is driving the process.

7.8.13 Overall the data on the Lake District has been revealing in considering research question A and B providing clear pointers as to important themes affecting governance and the delivery of eco-system services and more specifically the drivers for governance. It has also demonstrated the complexity of the process of improving governance as sought by research question C. There is a need for policy makers seeking to enhance ecosystem services to acknowledge the interplay and difference between motivation created by financial incentives and the motivation that keeps commoners farming.

7.8.14 The data presented in this chapter on the Lake District, together with that from Danau Sentarum from Chapter 5, forms the basis for the appraisal in Chapter 8 of the fieldwork data in the context of current theories on community governance of common property resources in National Parks. This enables a more formal and objective analysis of the case studies to allow research question C and hence the research problem to be addressed.

Chapter 8: Analysis of the Case Studies

Introduction

- 8.1.1 Chapters 4 to 7 presented the data for the two case studies; Danau Sentarum National Park and the Lake District National Park. This chapter brings together that data and analyses it in the context of three theoretical approaches for the management of common property resources. The purpose is to contrast and compare the data from the two sites to identify the factors that affect the effectiveness of governance and assess how current arrangements affect the flow of ecosystem services. This will enable consideration of the ability to adapt governance to improve the future flow of ecosystem services. Particular attention will be paid to the plural legal orders and the nature of the resources exploited.
- 8.1.2 Considerable attention in chapters 5 and 7 was paid to allowing the voices of the commoners to speak. This was achieved through attention to the way data was collected and the manner it was presented. Additionally the semi-structured framework adopted for identifying themes ensured focus was maintained on the research questions without predefining what would emerge. This was achieved through the use of four topics of inquiry under which themes were categorised as they arose.
- 8.1.3 The result is that the data from both field sites reveals a clear picture of the predominate themes affecting current governance and the provision of ecosystem services. This chapter reviews this data critically to assess the sustainability and success of governance mechanisms for the delivery of ecosystem services in each National Park. To do this the data from both case studies is analysed using three theoretical approaches; legal pluralism, Ostrom's institutional analysis and adaptive co-management.

Why Multiple frameworks?

- 8.1.4 In researching the existing literature it became clear that no single theoretical framework would provide an interpretation of the field data that would address

the research problem adequately.¹ There are though several that each can contribute with different inferences and diagnosis for these complex socio-ecological systems.

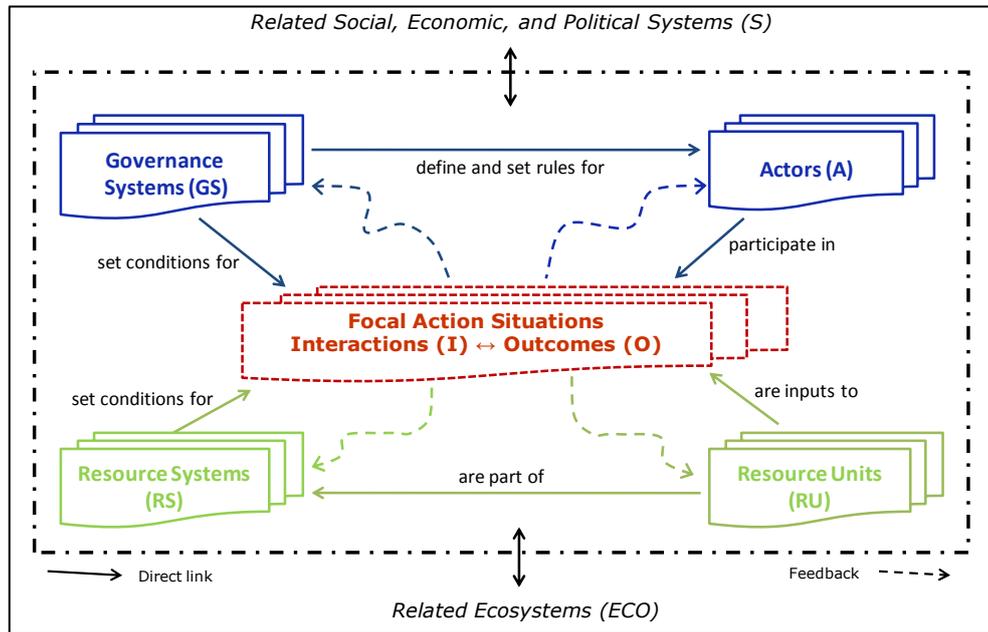


Fig 8.1 Socio-ecological framework as revised by McGinnis and Ostrom

8.1.5 Before turning to the specific frameworks it is valuable to place them in context of the socio-ecological system (SES) that is the integrated and coupled system of people and environments. Ostrom's original framework was adapted by McGinnis and herself to reflect the multiple tiered nature of systems and to more accurately reflect ecological systems.² This is illustrated in Fig 8.1 showing how the outcomes of actions arise from the interactions of actors and their governance systems, the resource systems they are part of and the specific management resource units the governance systems relate to. When considering the detailed analytical frameworks in this chapter it is important to bear in mind this SES as the setting where action situations take place. Ostrom demonstrates how complex this is through her list of fifty-three second order variables of the eight core sub-systems covering people, socio-political settings, and ecosystems.³ SES is a useful framework to describe a system

¹ M McGinnis and E Ostrom, 'SES Framework: Initial Changes and Continuing Challenges' SES Framework: Initial Changes and Continuing Challenges < http://php.indiana.edu/~mcginnis/W11-6_SES%20Intro_McGinnis%20and%20Ostrom_Draft.pdf > accessed December 12, 2012.

² *ibid.*

³ E Ostrom, 'A General Framework for Analyzing Sustainability of Social-ecological Systems' (2009) 325 Science 419.

and recognise and categorise its complexity but the very complexity makes it challenging to use it for diagnostic tasks hence the use of more specific frameworks.

8.1.6 The theoretical frameworks used in this analysis are as follows;

- Tamanaha's Legal Pluralism Framework
- Ostrom's Institutional Analysis
 - Ostrom's Design principles for Common Property Regimes
 - Frey and Ostrom's twenty-four success attributes for SESs
- Armitage et al's Ten Criteria for Successful Adaptive Co-management

8.1.7 Ecosystem Services is an anthropocentric approach to the delivery and conservation of ecological habitats and systems.⁴ The delivery of these services therefore cannot be divorced from the normative orders society has constructed and evolved to manage states, communities and natural resources. The first step in the analysis is understanding the suite of multiple normative orders underpinning resource management decisions and to this end Tamanaha's legal pluralism framework is used.⁵ This allows the description, categorisation and interaction of these orders allowing us to assess their relative importance to the research question. The framework's weakness is that it is a static analysis of the current position and does not address multi-user institutional issues, interacting management systems or specific governance design at the institutional level.

8.1.8 Noting commoners are the primary managers living from and dependent on the common property resources their institutions are fundamental to the success of a socio-ecological setting. To address institutional issues at the local governance level Ostrom's 1990 design principles for Common Property Regimes (CPR) framework is used as amended by Cox et al.⁶ Through this a detailed analysis of the robustness of the local CPR governance system can be made which is the foundation for natural resource management on both

⁴ see Chapter 1 (n1) for a definition.

⁵ BZ Tamanaha, 'Understanding Legal Pluralism: Past to Present, Local to Global' (2008) 30 Sydney L. Rev. 375.

⁶ E Ostrom, *Governing the Commons* (Cambridge University Press 1990); M Cox and G Arnold and SV Tomás, 'A Review of Design Principles for Community-based Natural Resource Management' (2010) 15 Ecology and Society 38.

sites. The classification of a CPR as robust does not though inform us if that institution will be successful at delivering a broad range of ecosystem services which is the focus of this research.

- 8.1.9 The SES described in 8.1.5 was conceived to address these criticisms but as noted the number of variables is so high that data analysis is challenging and this prompted Frey and others, including Ostrom, to focus on success factors to which end they identified twenty-four attributes associated with successful socio-ecological systems. An appraisal of both case studies against these attributes is made in this chapter.
- 8.1.10 These frameworks enable discussion of the broad normative orders in each setting and the specific nature of the organisational setting of local level institutions. The third approach chosen, Adaptive Co-management, brings together these two areas allowing the performance of local institutions to be considered in the multi-level and cross-scale institutional setting they inhabit. It is these other institutions that design and implement policy, programmes and activities that significantly influence local level governance. Adaptive co-management acknowledges the complexity, feedback, cross-scale interplay and learning that occur in socio-ecological settings. It recognises the importance of trust, motivation, commitment and power in creating shared goals and delivering outcomes.⁷
- 8.1.11 In summary the frameworks of Legal Pluralism, Institutional Design Principles and SES provide the backdrop for Adaptive Co-management to consider future options. Armitage et al's ten point criteria developed at a Delphi workshop in 2006 provide a structure to enable the field work results from this research to be critically appraised and to appraise possible answers to the research problem so to draw conclusions that are relevant to the real world situation and hence of value to the participants.

⁷ DR Armitage et al., 'Adaptive Co-management for Social–ecological Complexity' (2009) 7 *Frontiers in Ecology and the Environment* 95.

Comparisons of the Case Studies

Commonalities

- 8.2.1 The two case studies are both characterised by being areas where local communities depend for their livelihoods on the utilisation of natural resources. In both sites there is strong local governance established over hundreds of years with each community having its separate geographically defined area over which it has rights and authority. There is in both Danau Sentarum and the Lake District a high level of self-organisation of common property resources with locally decided rules governing resource use and institutional structures. There is also evidence of the modification of these rules to take account of national conservation legislation. While the system of rules and institutional structures are clear in both sites there is a resistance to the formal enforcement of locally decided rules and to the imposition of sanctions.
- 8.2.2 In addition to local governance arrangements Danau Sentarum and the Lake District are both subject to national legislation as National Parks and international conventions as areas of high conservation value. Despite this there is in both countries inconsistency between the official legal orders governing utilisation and those governing conservation.
- 8.2.3 In both cases the communities have a strong attachment to their locality and their very being is often defined by their success at fishing or farming with multiple generations of the same family working together at each site. Communities in both National Parks are considered as marginal in terms of their access to public services and their economic status.

Differences

- 8.2.4 In Danau Sentarum commoners harvest wild endemic populations of fish, a mobile resource; while in the Lake District commoners harvest a static resource, vegetation, through the grazing of sheep, a long standing but introduced species. The striking difference is therefore that the economic output in Danau Sentarum is a primary product directly harvested from the wild while in the Lake District the primary product, grass, is consumed by

sheep through commoners' profit à prendre rights and it is the livestock, a secondary product, which is sold.

8.2.5 The legal and institutional landscape in Indonesia is more complicated as a result of decentralisation with layers of national and local government running parallel to the powers of the Department of Forestry's and its National Park Unit. In particular the communities in Danau Sentarum are illegal residents according to National Park regulations but legal according to local government rules.⁸ In the Lake District again the position is muddled: the park authority takes responsibility for planning but it does not have responsibility for implementing conservation law. The duty for protecting and enhancing biodiversity remains with the national statutory conservation body, Natural England, though as a local authority the park authority has a statutory obligation to protect biodiversity.⁹

8.2.6 Utilisation rights also vary as in Danau Sentarum commoners' rights of extraction are dependent on traditional law, *adat*, while in the Lake District all commoners have state acknowledged property rights under the Commons Registration Act 1965. This is the position under property rights law but in the Lake District where common land has a national or international conservation designation these property rights can only be exercised with the consent of the government's Natural England.¹⁰ Therefore an underlying tension exists in both sites between the conservation agency and the local residents. In the Lake District where national and European funding is more generous this tension and resentment is partially dissipated through the provision of contracts making annual payments to change patterns of sheep grazing and hence deliver environmental gain. Such contracts are not available in Danau Sentarum.

⁸ The District Government of Kapuas Hulu has established local government through village heads in many villages in Danau Sentarum but none of these villages can be recognised by the Park Management Unit.

⁹ Natural Environment and Rural Communities Act 2006 s7.

¹⁰ Natural England was established by s1 of the Natural Environment and Rural Communities Act 2006 as a non departmental public body responsible for protecting the natural environment; consent for operations liable to damage Sites of Special Scientific Interest is required under s28E Wildlife and Countryside Act 1981 (as amended).

Discover – The current position as revealed by the AI Interview data

- 8.2.7 The methods used to collect, analyse and present the empirical data were chosen specifically to allow the voices of the commoners in both sites to speak. Additionally the semi-structured framework adopted for identifying themes ensured focus was maintained on the research questions without predefining the themes that would emerge.
- 8.2.8 Chapters 5 and 7 present the data separately for each case study. This chapter presents them side by side so that comparisons can be made across the four topics of inquiry: Livelihood, Governance, Environment and Partnership. It is striking how many common themes arose in the two case studies in the Livelihood and Governance topics of inquiry. These two topics also produced more themes than the Environment and Partnership topics as seen by the density of the word clouds. From the perspective of the commoners in both sites their primary driver is meeting their livelihood needs and governance is directed to that end.
- 8.2.9 In both Danau Sentarum and the Lake District the primacy of a single enterprise, whether fishing or livestock husbandry, is plain in the results. Commoners in the Lake District did though acknowledge repeatedly the effect of government agricultural and environmental policy on the numbers of livestock they keep. In Danau Sentarum there is no government support for fishers so that is not relevant though their dependence on a single enterprise was recognised by some as a risk and diversification of income source identified as an important goal. Additionally in both case studies participants considered themselves and their happiness – or peak experience – to be defined by success in fishing or farming.
- 8.2.10 Under the Governance topic both sets of commoners recognised the importance of self-organisation. In the Lake District this is expressed through their enthusiasm for Commoners Associations, usually voluntary unincorporated institutions. These are positively associated with successful entry to agri-environment schemes but also organise day to day management. In Danau Sentarum fishing rules are seen as essential to the management of the resource and the view expressed explicitly by some and

implicitly by others is that rules ensure equality of access to resources and hence peace and goodwill within the community. Rules also allow the time limited spatial division of resources in a common property situation. In both sites local management was stressed as important.

8.2.11 Danau Sentarum focused on the importance of the head fisherman and leadership for management, while in the Lake District informal approaches to dispute resolution through farmer to farmer discussions or a quiet word were favoured.

8.2.12 From the Environment topic of inquiry the word clouds demonstrate that commoners in the Lake District have little engagement with the aims of Natural England. They see the schemes as valuable for the income they produce but resent the lack of flexibility imposed in the set prescriptions. In Danau Sentarum interest in environmental matters is linked to the condition of fish breeding habitats. There is a natural overlap between the long-term interests of the fishers and the National Park Unit. The difference between commoners and conservation staff in Danau Sentarum is not the end position but the conflicting demands of meeting current and long term livelihood needs for a growing population. Fish catches are recognised as exceeding renewal but today's demands are over-riding.

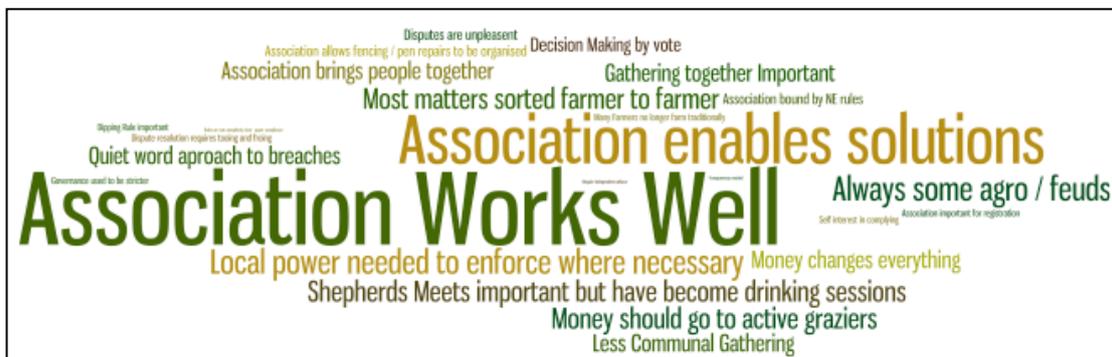
8.2.13 Partnership themes were mixed. The National Park Authority in the Lake District is well regarded particularly in relation to public access while in Danau Sentarum few had any connection with National Park staff and some commoners did not even know they lived in a National Park. The desire for greater collaboration with government was strong in Danau Sentarum with recognition that the head fishermen needed support from government to be more effective in enforcing rules as respect for his authority has declined. Also due to the high level of movement of commoners between villages interviewees highlighted the need for inter-village collaboration and mutual recognition of each other's rules.

Fig 8.2 Themes arising in the Lake District National Park

Livelihood



Governance



Environment



Partnership



Fig 8.3 Themes arising in Danau Sentarum National Park

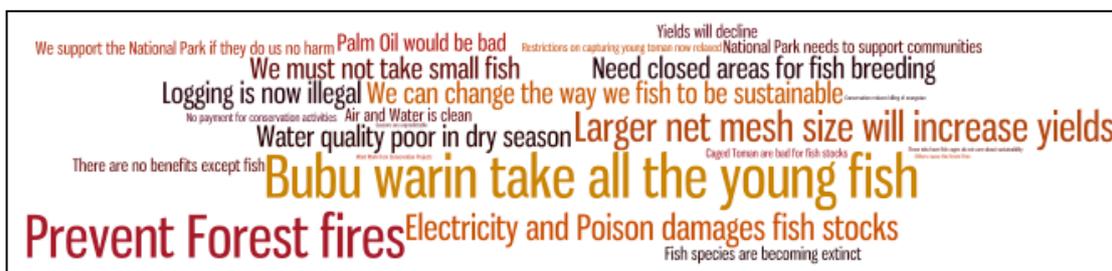
Livelihood



Governance



Environment



Partnership



Achieving Local Communities' Priorities

- 8.3.1 This section examines the differences arising from the two case studies on achieving change. Further to the individual meetings the participants were brought together and encouraged to consider their Dreams as a group through a range of activities; focus groups, village meetings and inter-village meetings.
- 8.3.2 The village meetings in Danau Sentarum were full of energy and there was plenty of enthusiasm for the process of ranking priorities. There was a diversity of outcomes between each of the sample villages that reflected the current position in each community and there was self-awareness of the weaknesses in their current governance systems. For instance if there was no leader then the village stressed the importance of leadership while villages with active governance gave more priority to livelihood matters such as the price of fish.
- 8.3.3 In the Lake District the meetings involved smaller numbers of people and the approach was to identify dreams from each of the four Topics of Inquiry. These varied across the three sample commons and were again heavily influenced by the particular circumstances in each community. In one village where they were shortly to be negotiating a new ten year contract with the Natural England the main focus was improving flexibility and sheep numbers. Elsewhere where numbers of active commoners are declining, priority was given to encouraging the next generation of shepherds on the common.
- 8.3.4 The meetings were an important part of increasing participant involvement and enhancing ownership of the research process as well as a stepping stone to the next activity. Furthermore, many individuals in the village meetings in both sites came up with Dreams that included items outside the scope of this thesis such as improved prices for fish and sheep and better public infrastructure and services. These were acknowledged as important but left to one side as they could not be addressed within this context.
- 8.3.5 In Danau Sentarum the two day Appreciative Inquiry workshop produced a large number of dreams. Four dreams were prioritised and as detailed in

chapter 5 co-management action plans were produced for each dream to plan how to strengthen local governance of natural resources. They were;

1. Never allow the extinction of fish species
2. There is always enough fish, wood and rattan
3. Fishing rules are ratified by institutions with authority
4. Cooperation with other parties for enforcement of rules

8.3.6 Implementation of the action plans is dependent on effective activity from all parties with the National Park conservation agency being expected to take a lead and champion the process through an agreed timetable of activities.

8.3.7 Dreams in the Lake District included better partnership with commoners recognising the disconnect between their personal dreams and the reality of the regulatory setting they farm within. This desire for better partnership is also shared by Natural England and the Lake District National Park Authority. Other dreams as in Danau Sentarum included better prices for their product – in this case sheep – and a sustainable livelihood that ensures future generations would like to continue farming recognising the important stewardship role they play and the cultural heritage they have inherited and wish to pass on.

8.3.8 In the Lake District, as detailed in chapter 7, the design phase was adapted due to an initiative from Natural England who commissioned a consultation on establishing the level of support for a statutory umbrella Commons Council. This concluded there was substantive support from a number of Associations.

8.3.9 The Secretary of State for Defra will only establish a Commons Council where there is substantial support from those with legal rights and in particular the active graziers and the owner of the common. The Federation of Cumbria Commoners is taking the application forward with support from Natural England though they have to persuade Defra to allocate staff time and financial resources to the project that currently is not a national policy priority.

Analysis using Legal Pluralism

- 8.4.1 The comparative analysis presented below aims to mesh the reality in the field with the foremost theoretical frameworks to understand better what type of common land governance delivers both public and private goods and how the current outcomes can be enhanced. Particular attention is paid to exploring the active participation of statutory conservation bodies in local governance.
- 8.4.2 As described in 2.6 the literature on legal pluralism is extensive with Woodman, Griffiths and von Benda-Beckmann being key founding theorists and advocates.¹¹ Much of their work is descriptive, drawing on anthropological approaches focusing on the range of legal and normative orders in existence and how they interact and evolve over time, rather than developing an analytical framework. This school of academics works extensively on the interaction of imposed (often colonial) state legal orders and traditional customary law that has occurred in both case studies. The focus of this thesis is though on how local users and resource managers use all normative orders and so legal pluralism is adopted to address the research problem on pragmatic rather than theoretical grounds. To this end the research tests whether a legal pluralism analysis help us better answer the research problem.
- 8.4.3 In this thesis any set of rules or agreements that affect how resource users and managers behave and govern themselves is classified as a normative order. It is not relevant whether these are classed as laws or not by the state if the practical effect is the same. However inconvenient it may be to local users wanting to have self-determination, or to government agencies wanting to deliver specific environmental outcomes, the reality in both sites is that there is a plurality of co-existing normative orders.
- 8.4.4 Rather than turn to one of the traditional advocates of legal pluralism the framework adopted here is that devised by Tamanaha, a more recent

¹¹ GR Woodman, 'Legal Pluralism and Justice' (1996) 40 *Journal of African Law* 157; J Griffiths, 'What Is Legal Pluralism' (1986) 24 *J. Legal Pluralism* 1; F von Benda-Beckmann, 'Who's Afraid of Legal Pluralism' (2002) 47 *J. Legal Pluralism & Unofficial L.* 37.

proponent for legal pluralism.¹² Tamanaha takes the concept and creates a framework for the allocation of legal/normative orders into six categories though he acknowledges these are ‘rough labels’ and overlap between the categories will exist. Tamanaha says; ‘What matters most is framing situations in ways that facilitate the observation and analysis of what appears to be interesting and important.’¹³

8.4.5 This is undertaken in fig 8.4 for five of Tamanaha’s categories. The field data showed that religious Law does not cover natural resources and not being of relevance in this case has been left out.

Category of Normative Order	Danau Sentarum	The Lake District
Official or positive legal systems	Forest Law, Ministerial Decisions, Conservation Regulations, District Regulations	Commons Registration Act 1965, Commons Act 2006, Wildlife and Countryside Act 1981 (as amended) Commons Councils regs
Customary or Traditional Law	Adat and Local Fisheries Rules and custom and practice	Commons Association rules, custom and practice
Economic Norms	Trading relations internal and external to the village, type of fishing gear	Sale of livestock, auction marts, breed of sheep, agricultural support payments
Functional Agreements	Projects with Riak Bumi and National Park, Honey Co-operatives	Agri-environment Schemes, Internal Agreements
Community & Cultural	Fishing is their driver and life	Deep commitment to livestock and commoning

Fig 8.4: Legal Pluralism Framework

Interplay between legal orders

8.4.6 Organising the different legal orders by category as in fig 8.4 is the first step in considering the impact of the plural legal landscape on governance and the delivery of ecosystem services. The field data has provided us with the

¹² Tamanaha (n5).

¹³ *ibid* 411.

information to consider the relative effect of these different orders on the delivery of ecosystem services and the overlap between them.

- 8.4.7 At the heart of the governance of commons in both national parks is the customary regulation by local communities. These users are the individuals on site everyday harvesting resources and determining management. The interesting question is, “Which other orders are the key drivers on how local governance is influenced?”
- 8.4.8 Using Tamanaha’s framework as a starting point a Venn diagram showing the relative importance of each of the remaining four legal orders on customary law is provided in fig 8.5 and fig 8.6 for Danau Sentarum and the Lake District respectively.
- 8.4.9 The figure for Danau Sentarum shows the primary importance of customary governance by local fishers through the leadership of the head fisherman. The impact of state legal systems both local government regulations and national park law is significant in influencing customary governance as local rules have evolved to be more consistent with state “official” legal systems. One example is the District Regulation prohibiting small mesh gear that is now being incorporated into local rules. In the 1990s a similar process took place as logging and the commercial extraction of rattan was banned by the Conservation Authority and communities included this rule in their local regulations. The economic norms are also increasingly influential as users have in the last twenty years moved from a subsistence to a cash / market place economy with the situation rapidly evolving as new markets can be accessed. The dynamic nature of economic norms leads to changing community and cultural normative orders as these adapt with changing economic circumstances and as populations have grown internally and through immigration. Functional agreements in Danau Sentarum are not significant in their impact on customary governance. There have a number of successful projects focused on livelihood such as honey and but these have not had a direct impact on customary governance though they do have a knock on effect on motivation to protect the forest.

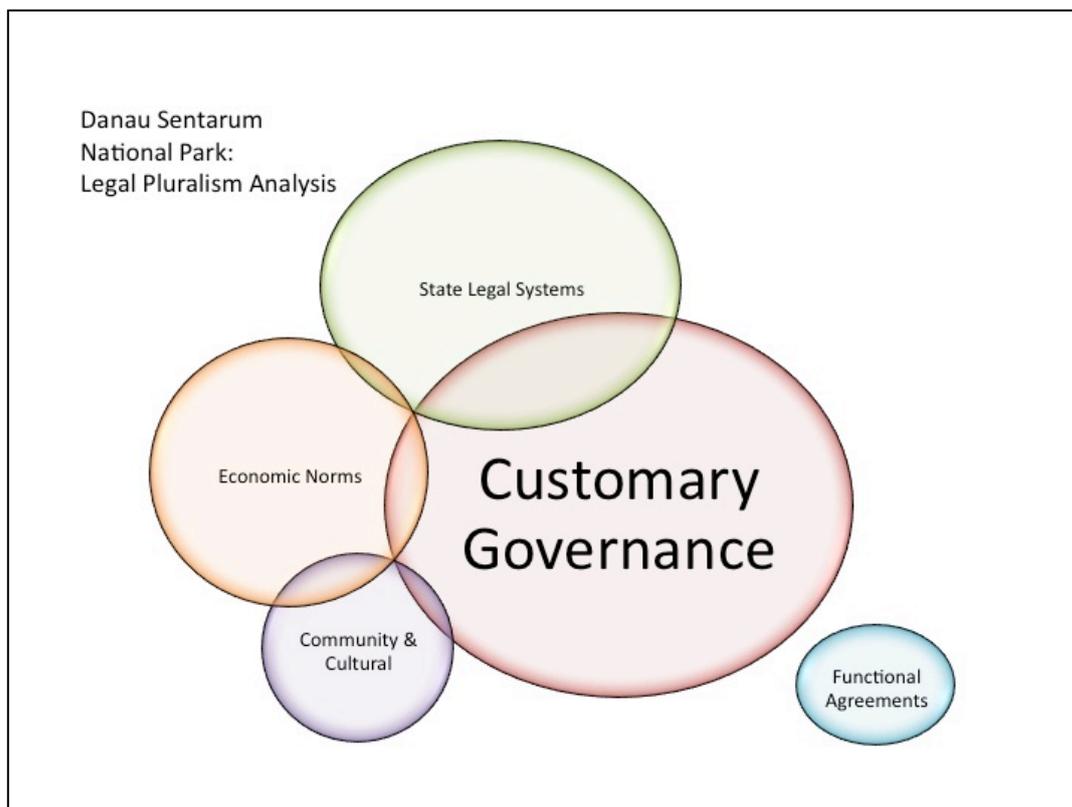


Fig 8.5 The interactions between normative orders in Danau Sentarum

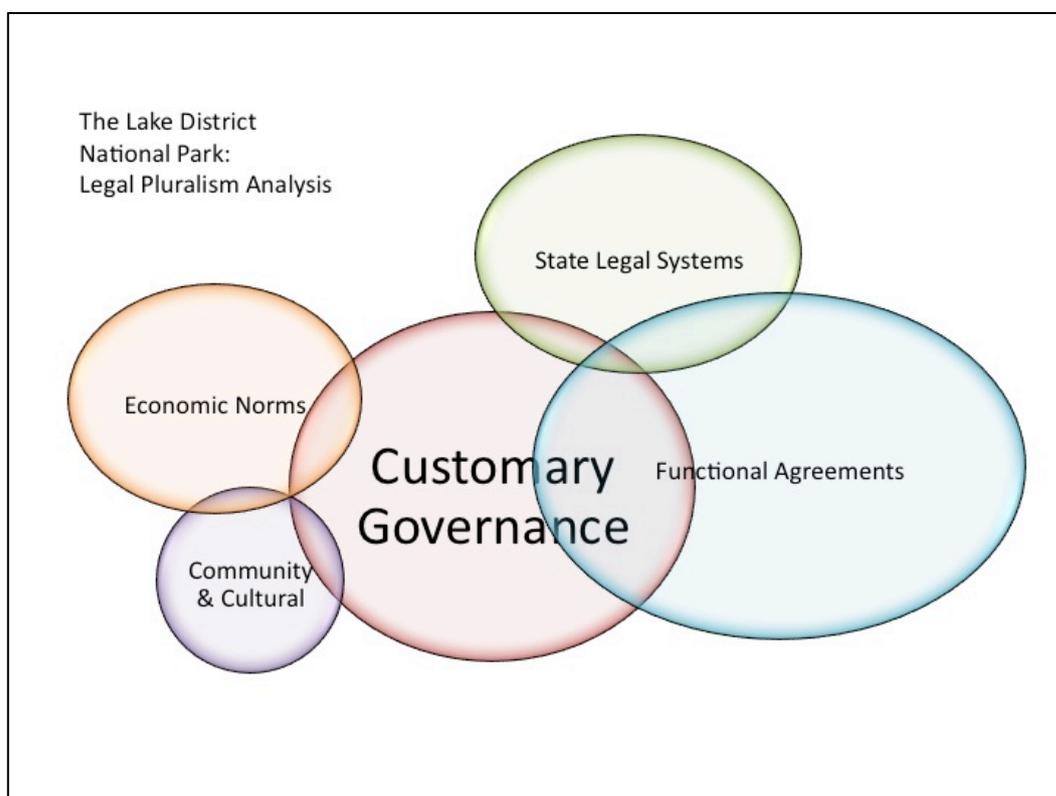


Fig 8.6 The interactions between normative orders in the Lake District

8.4.10 In the Lake District the situation is rather different in that Functional Agreements are over-riding in influencing Customary Governance. These are the agri-environment schemes that over 90% of commons have signed up to with Natural England in the Lake District. This agreement is signed by the chairman of the Commons Association once all the participating commoners and owners have signed a legal deed between themselves - the internal agreement. This deed sets out each individual's rights, benefits and responsibilities while the agri-environment scheme is in force and provides for the penalties in the event of breaches. The form of these agreements and the motivation of Natural England to offer agreements are in turn influenced by one of the state legal systems: the Wildlife and Countryside Act 1981 which governs activities on SSSIs.

8.4.11 Other State Legal systems that affect Customary Governance are the Commons Registration Act 1965 and the Commons Act 2006. Of less but underpinning influence are the community and cultural norms which over generations have influenced the evolution of customary governance and the Economic Norms including the impact of the Common Agricultural Policy incentives, exchange rates and market prices for livestock.

Analysis using Institutional Analysis

8.5.1 Two analytical frameworks will be used from the Ostrom school of institutional analysis commonly called 'Workshop'; these are A) her 1990 design principles for institutions managing Common Property Resources,¹⁴ and B) the more recent twenty-four success factors for Socio-ecological Systems (SESs).¹⁵

8.5.2 Ostrom's design principles for the organisation of common property resource users are well regarded and field tested. Cox and others carried out a meta-analysis of field research and assessed the usefulness of these principles against field data results.¹⁶ Out of that analysis they proposed to amend the original principles to split three of the eight principles into two sub principles.

¹⁴ E Ostrom, *Governing the Commons* (Cambridge University Press 1990).

¹⁵ UJ Frey and H Rusch, 'Using Artificial Neural Networks for the Analysis of Social-Ecological Systems' (2013) 18 *Ecology and Society* 40.

¹⁶ M Cox and G Arnold and SV Tomás, 'A Review of Design Principles for Community-based Natural Resource Management' (2010) 15 *Ecology and Society* 38.

These amended principles are used as they provide a more refined approach to institutional analysis.

8.5.3 While Ostrom's design principles are useful in considering whether local governance will effectively govern a particular resource they fail to provide any indication whether this effective institution has a positive or negative impact on ecosystem services other than the specific service for which its management was established. This is usually a collective private service such as irrigation, fisheries, pastoralism or forestry. For example a commoners association may be run very well and ensure effective management of multiple sheep flocks on the fell but the grazing levels may impact negatively on specific vegetation of ecological interest with international designation. This failure is a key weakness of Ostrom's original design principles.

Ostrom's Principles for Common Property Resource Institutions (as amended)

8.5.4 Fig 8.7 shows the presence or absence in each case study site for each variable. We know that in Danau Sentarum and the Lake District there are local institutions that exist for the management of fishing and livestock. This framework assists the assessment of the efficacy and robustness of these institutions and assists identify where changes in governance could deliver change in outcomes.

8.5.5 The situation at the two case studies varies enormously in terms of physical and socio-legal geography but in looking at the list of design principles there is much more in common than might be expected. In Danau Sentarum slightly fewer of the principles are met and this reflects the unclear legal rights of resource users.

8.5.6 Principle 1A – user boundaries differs between the two sites. Unlike in the Lake District, commoners in Danau Sentarum live inside the common property area they use and their rights to extract resources derive from that residency. The key point here is that under local government law there is no upper limit in Danau Sentarum to the total fishing effort that may be exerted

either in the number of commoners or the amount they may fish. This lack of upper limit on resource users makes it difficult to enforce rules as the population in Danau Sentarum has doubled over the thirteen years from 1994-2007.¹⁷ This contrasts with the Indonesian state regulations governing national parks which only allow settlements and resource extraction in very limited areas of a national park.

8.5.7 Contrastingly in the Lake District commoners have defined and registered legal rights usually but not always attached to the enclosed sole occupancy land they farm. No one in the Lake District lives on the common though many are adjacent to it and since 1970 resource utilisation has been constrained by the cap on grazing numbers introduced with the Commons Registration Act 1965. This quantifies the number of livestock that each commoner may graze though these may be distributed among a variable number of commoners.

Principle	Danau Sentarum	the Lake District
1A User Boundaries	PARTIAL	YES
1B Resource Boundaries	YES	YES
2A Rules Congruent with Local Conditions	NO	IN PART
2B Benefits Appropriate to Input	YES	YES
3 Collective Choice in making rules	YES	YES
4A Monitoring of Users	SOME	SOME
4B Monitoring of Resources	NO	NO
5 Graduated Sanctions	YES	NO
6 Low Cost Conflict Resolution	YES	YES
7 Users have Rights to Organise	DEBATEABLE	YES
8 Multiple layers of Nested Enterprises	YES	YES

Fig 8.7: Ostrom's design principle criteria

¹⁷ Y Indriatmoko, 'Rapid Human Population Growth and Its Impacts on Danau Sentarum' (2010) 41 Borneo Research Bulletin 101.

8.5.8 Principle 5 is another area where differences arise though in this case Danau Sentarum has stronger compliance with the design principles where the sample villages have a fairly formal system of graduated sanctions from warnings through to set fines. In the Lake District the system is more ad hoc where the Chairman may go and have a quiet word with offenders. If the breach threatens an agri-environment agreement with Natural England and payments are withheld to all commoners only then the issue escalates to formal action by the association. This contrasts with the historical situation in the Lake District where the manorial court records provide evidence of effective and regular self-enforcement of rules.¹⁸

Frey and Ostrom's attributes associated with successful socio-ecological systems (SESs)

8.5.9 There are two issues with understanding SESs; defining success and understanding the variables that affect it. Many authors recognise there is no simple answer to the problem of what arrangements work for the successful management of common property resources and all acknowledge the complexity of these systems which result in potentially hundreds of variables. Frey and Ostrom through an extensive literature appraisal selected 24 factors or attributes that are closely correlated with successful SESs in that they appear in at least four peer reviewed publications.¹⁹ This concept is taken further by Frey and Rusch experimenting with artificial neural networks to model and predict whether the management of common property resources will be successful or not in delivering ecological success given a particular set of attributes.²⁰

8.5.10 Frey and Rusch also address the issue of the core variables for measuring success and these are divided into ecological, social, economic and external

¹⁸ AJL Winchester, *The Harvest of the Hills: Rural Life in Northern England and the Scottish Borders, 1400-1700* (Edinburgh University Press 2000).

¹⁹ U Frey and E Ostrom, 'Twenty-four success factors for socio-ecological systems within the SES framework' Working paper under review pers. comm.

²⁰ UJ Frey and H Rusch, 'Using Artificial Neural Networks for the Analysis of Social-Ecological Systems' (2013) 18 *Ecology and Society* 40.

variables.²¹ Their analysis using neural networks focuses just on ecological success which include the condition of the resource, its stability and sustainability, productivity and resilience, biodiversity and the halting of degradation.

8.5.11 The 24 attributes of successful SESs have been appraised in fig 8.8 for each case study and a score of between -1 and +1 has been allocated for each attribute where -1 is the worst and +1 the best, i.e. a score of -1 indicates that the attribute in this case is negatively associated with an effectively governed SES. So for instance under legal certainty a score of -0.75 is given for Danau Sentarum for although people are allowed to live within the park according to Local Government rules it is also state forest and a national park. Under state legislation as a designated national park human settlements and economic resource extraction are not permitted. Conversely the commoners in the Lake District have state recognised property rights for the grazing of sheep giving significant certainty to individuals. The score of +0.75 rather than +1 was chosen reflecting that use of these rights requires consent when common land is designated as a Special Area of Conservation or a SSSI. Over half of common land in the Lake District is so designated.

8.5.12 Some of these attributes are quite difficult to assess, as much depends on the coder's perspective and also at what scale you are considering the attribute. For instance to an outsider the resource users may appear homogenous but to those living in the community there are different groups in the community defined by family links, wealth, gender and origin and farming or fishing practices.

8.5.13 Direct consultation with Frey has enabled this coding to be more consistent with the approach taken in Frey and Rusch's coding of 122 case studies so to provide comparison with other studies.²² That said extreme care should be taken in comparing the scores from these two studies due to the specific nature of these case studies and the different types of resource systems.

²¹ Frey and Rusch (n17).

²² UJ Frey and H Rusch, 'Using Artificial Neural Networks for the Analysis of Social-Ecological Systems' (2013) 18 Ecology and Society 40 and pers comm 2013.

8.5.14 Looking at the scores for Danau Sentarum those attributes that are weak are those associated with resource units and external effects while those related to actors score higher. With the attributes associated with Rules (Governance) the findings are complex with a significant variation in the scores underlining the complexity of governance even at the local level. With regard the Resource system the attributes are generally positive except the initial condition of the resource is not good and is declining - though not enough to force a change in behaviour or governance - and the lower yields are being compensated by an increase in price. External factors score poorly due to the impact of external matters on the resource management and a lack of inter institutional activity that limits the ability to respond to these drivers.

	Danau Sentarum		The Lake District	
Resource System	Village		Common Land Unit	
Size	+0.5	Small/Medium	+0.5	Small/Medium
Boundaries	+1	Clear but Porous	+1	Fixed
Accessibility	+1	Adjacent to houses	+1	Adjacent to farms
Initial Condition	-0.25	Declining slowly	0	Fair
Resource Unit	Fish		Sheep	
Manageability	-0.5	Complex, mobile and far to market	+0.5	Mobile but Hefted
Regeneration Capacity	-0.75	Fish Stocks are low	-0.5	Slow growing vegetation
Actors	Fishers in each Village		Commoners	
Number	-1	High	+0.5	Low
Composition	+0.5	Cohesive with factions	+1	Similar
Social Capital	+0.5	High	+0.75	High
Dependency on Resource	+1	Very High	+0.75	High
Dependency on Group	+1	Very High	+0.75	High

Rule System	Village		Common Land Unit	
Group Boundaries	-0.5	Porous	+1	Clear
Participation	0	Medium	+0.5	High but external influences
Legal Certainty	-0.75	Low	+0.75	High
Administration	0	Variable	+0.75	Clear
Information	-1	Low	-0.75	Limited
Locally Adapted Rules	+0.75	Frequent	+0.25	Possible but limited by schemes
Fairness	+1	High	+0.5	Financial Disputes
Monitoring	+0.5	Close Knit actors	-0.25	Dispersed actors
Compliance	+0.5	Moderate	+0.5	Moderate
Conflict Management	0	Often not enforced	0	Often not enforced
External Effects				
Exclusion	+0.25	Limited by no limits on new entrants	+1	High
External Relations	-0.75	Weak – often absent	+0.25	Use of contracts
Adaptive Capability	-0.5	Limited – livelihood needs paramount	-0.25	Limited by contracts and consents

Fig 8. 8 The 24 attributes relevant for the success of socio-ecological systems

8.5.15 With the Lake District there are more positives particularly with regard legal certainty and exclusion of outsiders but some attributes are less strongly positive than Danau Sentarum. For example dependence on the resource and monitoring of compliance with rules is less in the Lake District. Furthermore in the Lake District local governance is increasingly being dictated by the agri-environment schemes where commoners commit to for a ten year period, which reduces the opportunity for local communities to create or amend local rules. In effect their local rules have to absorb these scheme

rules e.g. on grazing dates and the feeding of sheep in the winter. These schemes are binding contracts which means there is less freedom to amend local rules in the Lake District than Danau Sentarum until the scheme expires.

8.5.16 With regard to the size of the resource system, the boundary has been taken as the locally managed working area or common land unit rather than the National Park which is a nested set of local associations. In both sites this is quite manageable i.e. the local unit can be crossed in two hours so all actors know the whole resource. Despite this the information attribute scores a low value because actors do not receive information about the impact of their use on the resource and there is no monitoring, particularly on the impact on the ecological condition. In neither case are the user actors equipped to assess this condition of the resource system themselves but are dependent on external actors. There is also limited value to both communities to acting on the information they do have, given there is rarely any immediate benefit to them in changing rules in response to poor ecological condition. This is due to the diffuse distribution and long-term nature of the benefits from an improved ecological condition, which is a public rather than private good.

8.5.17 Compliance with rules and conflict management are two attributes addressed in similar ways in the two sites. Compliance is not universal and often boundaries are pushed here and there with the rules being used as an operating framework rather than unbreachable prescriptions. In both cases the leaders are averse to using formal approaches to enforcement and often consider the individual situation of the violator before taking any action: extenuating circumstances such as livelihood needs often over ride the requirement to comply with rules. Usually verbal warnings are used and found to be effective in changing behaviour, and situations of conflict are avoided to maintain community relations.

8.5.18 Overall it is clear that neither site has a positive score for all the attributes, which suggests neither will deliver optimal ecological condition. By linking the governance of the common property regime with the socio-ecological condition this type of analysis is useful in addressing the weaknesses in the current systems. It does not though do enough to integrate local governance

with other institutions' governance arrangements and how they influence each other through reflexive adaptation and feedback. This criticism is noted that by the developers of SESs who are working on multi-tiered institutional frameworks but as yet the framework does not offer a straight forward way to consider these vertical and horizontal linkages in a clear manner in the way the adaptive co-management framework does.²³

Analysis using Adaptive Co-management

8.6.1 Adaptive co-management is an approach to the co-management of a socio-ecological system that adapts itself over time – it is reflexive. Where adaptive co-management varies from legal pluralism and Ostrom's institutional analysis is that it has a real world three-dimensional character recognising feedbacks, policies, commitment, power and motivation. It provides a framework that enables those implementing and designing management not only to analyse whether a current set of circumstances is likely to succeed but also to adapt to circumstances that arise; it is an evolutionary process. Adaptive co-management places local governance organisations in context with other relevant management organisations compared with Ostrom's design principles that focus on the local and do not provide a framework for analysing the nesting of local governance in the wider institutional framework. Adaptive co-management pays explicit attention to multi-scale vertical and horizontal linkages recognising the importance of supportive policies, laws and culture from national and international level management organisations to successful local level management organisations.

8.6.2 Placing local management organisations in context of other management organisations is important and a visual representation of this assists understanding the horizontal and vertical linkages so clarifying key influencing lines. Fig 8.9 and Fig 8.10 provide these for Danau Sentarum and the Lake District.

²³ M McGinnis and E Ostrom, 'SES Framework: Initial Changes and Continuing Challenges' SES Framework: Initial Changes and Continuing Challenges < http://php.indiana.edu/~mcginnis/W11-6_SES%20Intro_McGinnis%20and%20Ostrom_Draft.pdf > accessed December 12, 2012.

Fig 8.9 Institutional Linkages in Danau Sentarum

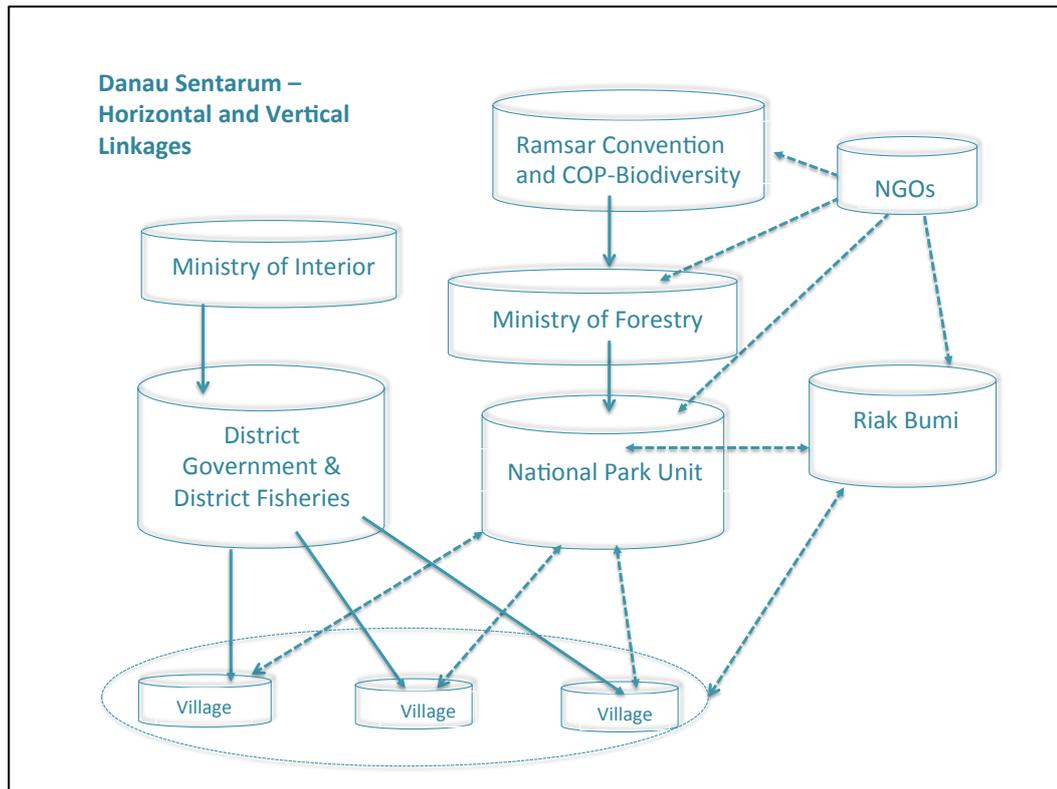
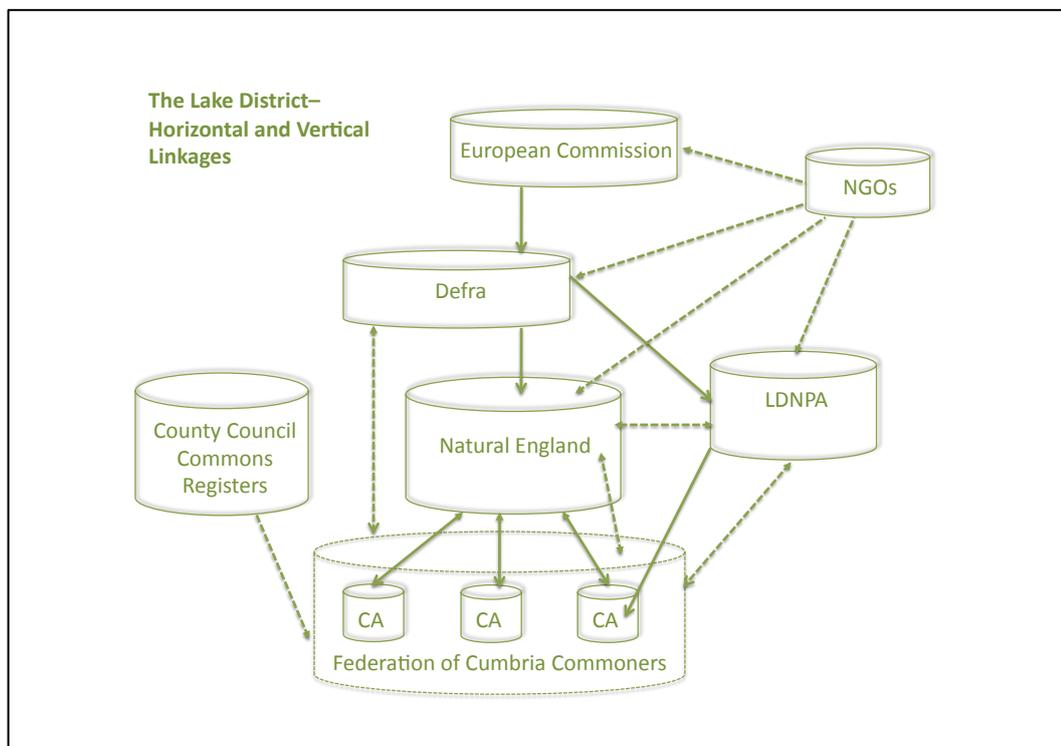


Fig 8.10 Institutional Linkages in the Lake District



8.6.3 Armitage et al presents ten criteria which all need to be met to some degree in order for adaptive co-management to be successful.²⁴ The degree to which they are requisite depends on the specific context of each setting. The extent to which each criterion is met in the two case studies is presented in fig 8.11. Looking at both case studies it is clear that the necessary criteria for successful adaptive co-management do not exist and this explains why despite all the good will adaptive co-management does not take place and tensions continue to exist as to the range and quantum of ecosystem services being produced.

<u>CRITERIA</u>	<u>DANAU SENTARUM</u>	<u>THE LAKE DISTRICT</u>
Well-defined resource system	YES	YES
Small-scale resource use contexts	YES	YES
Clear and identifiable set of social entities	YES	YES
Clear property rights	NO	YES
Access to adaptable management measures	NO	NO
Commitment to support institution-building	NO	IN PART
Capacity building and resources for all stakeholders	NO	NO
Champions for the process	IN PART	YES
Openness to share plurality of knowledge	YES	NO
Policy supportive of collaborative management	NO	YES

Fig 8.11: Ten Criteria for successful adaptive co-management

8.6.4 Fig 8.11 shows the differences between the sites and also shows both fail two criteria; adaptable management measures and capacity building and adequate resources for stakeholders at all levels.

²⁴ DR Armitage et al., 'Adaptive Co-management for Social–ecological Complexity' (2009) 7 *Frontiers in Ecology and the Environment* 95.

- 8.6.5 Access to an adaptable portfolio of management measures is not met in Danau Sentarum for although village level institutions have a range of tools to manage fishing effort these are not supported by the National Park Unit. This is because according to Forestry Law there should be no fishing in most of the National Park despite District Law not allowing communities to refuse entry to new users who wish to live in their village and harvest resources. The National Park Unit recognises this tension and de facto accepts fishing occurs in the National Park but is hampered in formal support for co-operative management by the lack of a legal and policy framework in which to deliver support to local fisheries regulations. In the Lake District the criterion is not met as the national conservation agency, Natural England, has limited flexibility in the structure and adaptability of Environmental Stewardship, the functional agreements it offers local commoners associations, which are at the core of modern local governance. This is recognised by Natural England and pilot schemes are being tested that give more flexibility so that governance can adapt to a changing socio-ecological context.
- 8.6.6 'Adequate capacity building and resources for all levels of stakeholders' is limited in both sites with the situation worse in Danau Sentarum due to limited staff and financial resources. Additionally when training and resources are provided they tend to be short term never allowing sufficient time for skills and culture to develop or for ideas to be translated into practice. For instance in the Lake District the project to develop a Commons Council was an excellent idea and well supported by Natural England and a significant number of local commoners associations but the initial positive support was not taken forward as the funding was only for a few months and attention was then diverted. The incentive for the umbrella organisation, the Federation of Cumbria Commoners, to progress the project has been limited as the Ministry, Defra, indicated they have no resources to process an application to establish a statutory Commons Council.
- 8.6.7 More recently the initiative has been resurrected by a champion within Natural England who has provided funding to prepare the case for Defra with consultants undertaking some of the work Defra would have completed in house. In Danau Sentarum the action plans produced by the Appreciative

Inquiry workshop have not been effectively implemented as local organisations have not been supported by the National Park staff who lack either the capacity, the interest or the authority to take the ideas forward. Without support from the National Park unit local communities have limited incentive to progress the ideas themselves as the outcomes can only be achieved through collaborative working.

- 8.6.8 The nature of local communities' property rights varies between the case studies in that common rights are recognised by state legal systems in the Lake District but in Indonesia usufruct rights in national parks while recognised by the Ministry for the Interior, Department for Fisheries and District Government are not accepted by the Ministry for Forestry.²⁵ Given that the land and waters are classified as State Forests this results in an unresolved tension. The local National Park Unit would like to recognise these rights but do not have an effective mechanism through the state legal system to achieve this.
- 8.6.9 The need for champions for collaborative management is critical given the complex plural normative orders that exist in both case studies. In Danau Sentarum the champions are predominately in NGO institutions, both local and international but limited champions from within the National Park Authority who adopt more of a command and control management style. In the Lake District there are champions in a number of institutions at different levels including some with statutory authority in Natural England and Defra. Support for farming commoners from the National Park Authority officers is mixed.
- 8.6.10 The success of a champion is in part linked to how open the champion is to plural knowledge systems. In Danau Sentarum where traditional law (*adat*) and customary resource use is well recognised there is an acceptance there are different types of knowledge: from oral knowledge handed down from one generation to another to formal scientific knowledge. This is recognised by all levels of management institutions. In the Lake District knowledge is more compartmentalised with specific organisations valuing different outcomes for

²⁵ A Mulyana et al., 'Establishing Special Use Zones in National parks: Can It Break the Conservation Deadlock in Indonesia?' (Center for International Forestry Research (CIFOR) 2010) <http://www.cifor.org/publications/pdf_files/infobrief/001-Brief.pdf >.

which they rely on different types of knowledge with the non scientific knowledge of local resource users rarely valued by the ecological community. Similarly the farming community of commoners value their knowledge base on livestock and grazing but have limited interest or understanding of ecological outcomes. In the Lake District different management organisations therefore operate with parallel but not interacting knowledge systems therefore failing this criterion for adaptive co-management.

8.6.11 While management organisations at different levels may be less open to different types of knowledge in the Lake District there is more of a commitment to collaborative working through specific public funded schemes. Environmental Stewardship in particular has detailed guidance on how local commoners associations should be structured to comply with scheme rules, to develop robust governance and to deliver the outcomes government is seeking. The criterion has been marked as fulfilled 'in part' as Natural England are predominately interested in collaborative working to deliver the outputs they have a statutory duty for, nature conservation. A more holistic perspective would be to aim to better the outputs for all interested stakeholders. Danau Sentarum is marked as 'No' as while there is a great interest in collaborative working by the National Park Unit and by local and international NGOs there is no commitment that translates this into reality.

Summary of the Theoretical Frameworks Analyses

8.7.1 The three theoretical frameworks each provide a different perspective on the situation in the two case studies.

8.7.2 The framework for legal pluralism assists our understanding of the relative importance of the different normative orders at play and illustrates which has significant influence on local governance by resource users. It also enables comparisons between the two sites. In the Lake District functional agreements are of utmost importance in dictating the nature of resource use and the associated governance while in Danau Sentarum there is no comparable type of agreement. This analysis is also useful in incorporating economic norms into the frame allowing inclusion of the important themes highlighted in the livelihood topic.

- 8.7.3 Ostrom's design principles associated with successful collective action were not met completely in either case study. This suggests that local governance has weaknesses that can contribute to its lack of robustness. In particular the inability to exclude users in Danau Sentarum is a fundamental weakness as is the lack of an effective sanctions system in the Lake District. In both cases increased monitoring both of users and the resource would enhance the efficacy of local governance. Additionally rules in both sites are congruent to local conditions, in so far as they meet the requirement for harmonious relations between resource users, but are not congruent with all wider environmental conditions.
- 8.7.4 Using the 24 success factors / attributes highlighted where in the SES there are weaknesses limiting the efficacy of the SES to deliver improved ecological condition through collective action. This approach is a significant theoretical development bridging the gap between understanding resilient institutions for collective action and the delivery of ecosystem services that accrue to the wider community – the public goods.
- 8.7.5 Adaptive co-management proved to be a useful diagnostic framework as it clearly highlighted weaknesses in the current arrangements. Addressing these is a pre-requisite to effective multi-level management in a legally pluralistic setting as exists in Danau Sentarum and the Lake District. This is particularly true where the aim is to deliver a range of functions from the same geographical unit.

Conclusions from the Data Analysis

- 8.8.1 The field data collected in Danau Sentarum and the Lake District has highlighted the importance of livelihood issues to resource users and the strong motivation to self-organise and govern common property resources. The purpose is to meet the financial needs of each family and the collective desire of the group to maintain goodwill between users. This conclusion is considered to be an over riding factor shaping and motivating governance and ignoring it will result in continued failure to deliver a broad range of ecosystem services.

- 8.8.2 The second conclusion concerns the impact of the type of resource being harvested on commoners' motivation to deliver public goods. In Danau Sentarum the fish harvested is a wild resource resulting in a clear overlap between the interests of the resource users and environmental stakeholders. Even so despite this shared motivation fishers in Danau Sentarum are only willing to alter fishing methods for long term gain if the rules are applied across the national park and enforced collaboratively. In the Lake District the vegetation that benefits sheep productivity is not the same as the vegetation ecologists seek to maximise biodiversity. Therefore the goals of commoners and conservationists are not shared. This difference was reflected in the different nature of the dreams identified in the two case studies.
- 8.8.3 The lack of a shared goal in the Lake District arises from the gulf between the public policy goal and the objectives of the private appropriators. As commoners are motivated by producing a secondary product (sheep) from managed vegetation rather than having any interest in the primary vegetation. The analysis of the data did though show that in practice commoners in the Lake District do adapt their management to deliver environmental gains even without a shared goal. This is due to the existence of functional agreements providing regular payments. The environmental agreements have been effective in creating a renaissance in local governance institutions. The challenge is commoners usually are only motivated to enforce rules where a breach has an impact on their immediate livelihood rather than a diffuse public good.
- 8.8.4 In Danau Sentarum despite a shared goal effective co-management is not implemented due to the legal restriction on limiting the number of resource users and the inability of the National Park Unit to develop formal collaborative ventures within current state legal systems. These are both barriers to managing resource use and creating effective self-enforcing governance. This is recognised by communities who are keen to work with government and NGO organisations to deliver better outcomes. So far government and NGOs have been unable to provide consistent long term support to develop sustainable co-management.

8.8.5 This research has described the current situation with regard management of common property resources in both sites. Improving governance to improve the flow of ecosystem services will require a commitment to collaborative working across multiple levels to take advantage of the opportunities and address the barriers to effective governance. The data has shown local resource users already effectively self-organise but will not change governance structures to enhance ecosystem services that accrue to others unless there is a commitment to long term co-management from national park bodies as well as regional and national level government organisations. This has yet to emerge and governance is therefore ineffective according to the definition in 1.1.3. This is discussed further in Chapter 9.

Chapter 9: Conclusion

Introduction

- 9.1.1 This thesis has through two case studies explored the problem of 'How governance on common land in protected areas can be strengthened to improve the delivery of ecosystem services'. This is a timely challenge as protected areas are increasingly valued globally for both the intrinsic biodiversity and cultural diversity they harbour and the wide range of ecosystem services they deliver to on and off-site communities. Furthermore the Ecosystem Approach is becoming the framework of choice for many international organisations and governments to structure policies and programmes for delivering enhancements in environmental assets. As the socio-ecological systems of protected areas have become more complex a thorough understanding of governance systems is increasingly needed to deliver positive change. Increasing this knowledge through structured analysis of case studies is the core contribution of this thesis.
- 9.1.2 In this concluding chapter the focus is on how the field data contributes to answering the research questions that have been addressed during the thesis. The theory of institutional systems, legal pluralism and co-management is developing fast and this chapter comments on topics of current discussion where these results provide relevant insight. Additionally attention is given to where further research would be most valuable and the limitations of the data.
- 9.1.3 Throughout the thesis the importance of people, policy and practice has been stressed and therefore the results are considered in the light of current policies and how they might contribute to future policy development.

Why this Research Question?

- 9.2.1 Common Land is a frequently found form of land tenure in national parks and over the last 60 years there have been significant changes in management practices on these commons and significant impacts on natural resources. Overall the tension between the collective private interest of traditional communities and the collective public interest of society has increased as the pressure on resources grows, environmental degradation increases,

communities become more mobile and the transformation from a subsistence to a market economy has occurred. This in turn has led to the fast paced evolution of socio-ecological systems and a failure of governance systems to be fit for purpose to respond to these challenges. The research problem proposed was chosen to counter this crisis by providing pointers on how governance can be strengthened.

Limitations to the Research

9.2.2 This research has adopted the case study approach with field work in two locations and the data being examined against three theoretical frameworks. Not all scenarios and factors are covered by these two sites so while the first order conclusions are considered to be generally applicable to common land in national parks further extrapolation of the more detailed results and the specific drivers must be undertaken with care. For instance the case studies covered two types of provisioning services; fish and grazing. Commons focused on other services such as irrigation or forests may reveal different areas where governance needs to be strengthened as may the extension of the analysis to other countries with different balance of normative orders.

Overview of Case Study Findings

9.3.1 This research has focused on two case studies; both are National Parks with national and international designations for biodiversity where local residents work collectively to manage the natural resources. Chapters 4 and 5 describe the current position and the results of the field work in Danau Sentarum and chapters 6 and 7 describe the current position and field work results for the Lake District. The results were analysed and compared in the context of current relevant theories in chapter 8. This section summarises and reviews those results to provide the context for the remainder of this concluding chapter.

Danau Sentarum

9.3.2 Chapters 5 and 8 detail the results and analysis of the data and these conclude that in terms of governance the position is complex and uncertain. This has led to an undermining of the position of customary law leaders – communities are looking to the state for guidance and ratification of their local

rules and for assistance with enforcement. The state is not though homogenous and fieldwork corroborates the conclusions of Haller that national legislation is contradictory.¹ For instance as a result of decentralisation regulations passed by district government allow residency in national parks thus conflicting with the Ministry of Forestry regulations. Interestingly in another sphere the district regulations are forward thinking in recognising local governance and ratifying customary law subject to it not being inconsistent with state legislation.²

9.3.3 The main constraint to effective management of the natural resources and a significant hurdle for effective governance is the lack of state recognition of local communities' right to fish and hand in hand with this the ability for the state or local governance structures to limit this right through limiting total catch or numbers of fishers. Under national law the movement of people between villages is free across Indonesia and residency can be claimed after a six month stay. Furthermore visiting fishers cannot be turned away if they comply with local rules. The forestry department can constrain residency in a national park through the development of a management plan and zoning. The options allowed do not though fit comfortably with a situation such as in Danau Sentarum where the whole of the protected area is divided among communities leaving no substantive core areas that can be designated for non use.

9.3.4 The national park staff in the appreciative inquiry workshop expressed a desire to incorporate local communities into management structures but in practice the senior park staff were distant from communities and rarely visited the park to engage with communities. Danau Sentarum is a recently established park only having its own management unit in 2007 and considerable energies at the time of the fieldwork were devoted to establishing the operational capacity of the park through a new office and the recruitment of staff. Opportunities for future partnership with the district government have been hampered by the decision to locate the national park's headquarters in Sintang over 200 km from the park in another district as it was considered more convenient for transport to Jakarta. This is

¹ T Haller, *Disputing the Floodplains: Institutional Change and the Politics of Resource Management in African Wetlands* (Brill Academic Pub 2010) 415.

² see 4.3.11.

significant as the district government who are responsible for administration of communities within the park is based in Putussibau five hours on poor roads from Sintang. Close collaboration and an agreed strategy between these organisations are therefore critical to the delivery of effective governance of natural resources.

The Lake District

- 9.3.5 The individual appreciative inquiry interviews demonstrated the importance of livestock to commoners and that the way of life offered by hill farming and commoning is highly valued. All interviewed also appreciate that farming would not be financially viable without government support through the agri-environment and single payment schemes. That understanding of the finances did not spread to an engagement with the drivers for environmental gains. Participants openly expressed their lack of comprehension of what Natural England was seeking in terms of vegetation and questioned whether Natural England knew themselves what they wanted. Repeatedly commoners acknowledged the differing perspectives of the conservationists and themselves. The National Park Authority was well regarded and being designated as a national park was seen to bring financial benefits through diversification opportunities.
- 9.3.6 Conflict was recognised as part of the picture of managing commons and because of this commoners associations were highly valued and seen as delivering solutions e.g. enabling the draw down of substantive agri-environment payments. While commoners preferred to resolve disputes quietly some noted that it would be helpful if the local association had more power to enforce rules and to this end a number favoured the formation of a statutory Commons Council. Caldbeck, one of the sample commons, who chose not to participate in the Common Council consultation still desired increased powers to enforce rules but at a local rather than county level.
- 9.3.7 Commons Councils are a mechanism introduced through the Commons Act 2006 for strengthening the governance to improve the agricultural management of commons. Natural England support Commons Councils as they are predicted to enable the better delivery of public as well as private ecosystem services by providing a substantively different governance model

when compared with voluntary associations. Most notably Common Councils can enforce majority decision making so enabling a Council to enter into an agri-environment scheme even when there is not full consensus. They are not though obliged to do so. This contrasts with the present position consensus is required to create a robust agreement by a voluntary association. This is in part due to rights being owned by individuals who cannot without a Council be bound into an agreement without their consent.

9.3.8 An additional appeal to commoners of a Commons Council is the ability to enforce rules on all users of the land whether registered commoners or not. The misuse of common land by commoners and non-commoners not only causes inconvenience for agricultural management but also can result in financial penalties imposed by Natural England as agri-environment contracts are breached. Currently associations are in effect powerless in most instances to enforce their rules.

Comparison of Findings from the two sites

9.3.9 In both sites there are complex institutional linkages both horizontally and vertically as shown in figs 8.9 and 8.10 and also a plethora of normative orders concurrently in force as shown in fig 8.4. The nature of the land ownership varies but the legal influence of the government conservation bodies in both sites through national statutes and regulations is strong.

9.3.10 In England commoners have significantly more certainty about their common property rights as they are legally recognised by all government departments even if their use can be constrained to meet conservation objectives. In Indonesia commoners' rights are long standing but not accepted by the Forestry Department of which the National Park Authority is part. This provides challenges for delivering more effective governance of commons that could deliver collective private and public goods.

9.3.11 While this is a challenge for Indonesia there are opportunities to align the interests of the commoner and Danau Sentarum National Park Authority. The primary provisioning service harvested in Danau Sentarum is fish from a bio-diverse wild fishery dependent on natural fish stocks and the health of forest habitats. The appreciative inquiry workshop undertaken as part of this

research resulted in commoners developing action plans where the objective of local communities and conservationists were strongly aligned.

9.3.12 In contrast in the Lake District the provisioning service that commoners benefit from is a domesticated animal (the sheep) that eats naturally growing vegetation. While the nature of the grazing is important there is no direct benefit to the grazing commoners in having the specific vegetation assemblages that the conservationists seek. Furthermore many of the other ecosystem services provided by commoners in the Lake District through grazing management accrue in a diffuse manner to the wider public rather than to the commoners.

9.3.13 While the issues of legal certainty and nature of resource harvested are important differences between the sites there are many similarities to be considered. These include: the complexity of interactions between institutions and normative orders, the strong cultural services provided by both sets of commoners combined with their sense of self and place being defined by their work and their feeling of detachment from the conservation debate. Furthermore in both sites commoners have struggled with a decline in the authority of local governance institutions both as state institutions have increased constraints on common property rights and as individuals' livelihood expectations have increased. The outcome that there are so many similarities in findings despite the differences in circumstances provides confidence as to the contribution of the research from these specific case studies to our knowledge bank on this subject.

Discussion of the theoretical frameworks in the context of the case study findings and chosen research question

9.4.1 This research has adopted three theoretical approaches to analyse the results. These are legal pluralism, institutional analysis through socio-ecological systems and adaptive co-management. As explained in chapter 8 each brought a different perspective to the analysis and enabled a more thorough consideration of the data given the complex environment and the research questions being addressed. The starting point was Tamanaha's typology of normative orders which is not a criteria based framework, rather it sets the scene on which governance can be planned and is essential for

understanding the context in any changes would need to be grafted. Figs 8.4 and 8.5 illustrate clearly the difference in balance of normative orders with functional agreements being of primary importance in the Lake District and almost absent in Danau Sentarum.

9.4.2 There is substantial area of overlap between the results from the institutional analysis and the adaptive co-management criteria tests. Danau Sentarum and the Lake District each fail more than two points on Ostrom's design criteria, the 24 attributes for successful socio-ecological systems and the criteria for adaptive co-management. Each provides a view with a different lens shining varying light on the problem; Ostrom's design principles look at the robustness of the institution, while the 24 attributes of success are focused on delivering ecological sustainability from common property resources. The adaptive co-management criteria highlight the criteria that are required for reflexive governance to be successful.

9.4.3 Any model is though only a model and as such a simplification of the real world. Ideally an analysis considers more than one model as it is an effective way of triangulating the results and providing greater depth to the analysis. If only one set of criteria had to be chosen then adaptive co-management would be the most appropriate to this research question as it embeds the multiple levels of institutions in the analysis. Proponents of adaptive co-management acknowledge it is not a governance panacea but do consider that through adopting a multi-scale approach and embedding learning and adaptation of governance it can make complex socio-ecological systems more robust. Without this there is a risk that recommendations for management would fail to take account of sustainability criteria or the complex institutional setting in which commons in protected areas are governed.

Answering the Research Questions

9.5.1 The research problem was in divided into three questions in 3.2.7 and these will be addressed in turn,

- A. the current position;
- B. the drivers and variables that influence the current position; and
- C. the opportunities to strengthen future governance.

The current position

- 9.5.2 In researching the current position three factors were identified as making substantive difference to the efficacy of governance at the local level and its success at delivering a suite of ecosystem services. These are:
- whether commoners have *de facto* or *de jure* rights to harvest the natural resource and whether these rights are held communally or individually.
 - the strength of the local governance institution and its interactions with other normative orders
 - whether the commoners harvest a primary resource that is protected by legislation e.g. fish, or a secondary resource, e.g. sheep that eat the designated vegetation.
- 9.5.3 In Danau Sentarum local communities control the use of resources across the whole of the national park. This reliance on *de facto* rights means that it is harder to integrate communities into formal management structures as government institutions have no mechanism to do this without being *ultra vires*.
- 9.5.4 In the Lake District by contrast commoners have *de jure* rights recognised by the state as property though subject to national legislation and regulations. This enables commoners to enter into legal contracts with other bodies and it is these contracts that have come to define the governance arrangements in the last 15 years. The other differentiating factor is that in Indonesia the rights to fish accrue from the individual's residence in that area while in England grazing rights are held individually, are limited and are alienable.
- 9.5.5 Overall in Danau Sentarum the right to fish is communally owned and governed over state owned land while in the Lake District the right to graze is individually held in common with others over privately owned land. In both cases the owners of the land is absentee in that they do not live in the immediate locality and have limited or no day to day management activities.
- 9.5.6 In each site there was substantial variation in the capacity of local organisations to be effective in managing resources and in deciding who

should access which resources and imposing sanctions and rules. In Indonesia the role of their head fisherman is critical as individuals do not have specified rights to fish and therefore the coordination by the village is central in order to avoid chaos. This is particularly important during the dry season when the majority of the fish are caught and the area for fishing declines dramatically as the water recedes from the forests into narrow channels. In the most effective communities where leadership is strong there are well-established mechanisms for dividing up resources spatially and through the season. In other communities there was difficulty in even choosing a head fisherman which inevitably meant implementation of any management rules was less than effective.

- 9.5.7 Across both case study sites a common feature was that the head of the local governance institution lives and works alongside those people they are governing. This provides challenges as when there are infringements of the rules the head fisherman or chairman is required to impose sanctions against their neighbours and often these may be their relatives as well. In both case studies communities and individuals are living with marginal incomes and there is pressure on the head fisherman or chairman to turn a blind eye as individuals seek to ensure they can feed their families.
- 9.5.8 Local management bodies were highly valued in both case studies though for different reasons. In Danau Sentarum communities valued rules as otherwise access to resources would be inequitable and also there would be chaos. In the Lake District local associations are valued as they provide a mechanism for accessing agri-environment schemes from the government and therefore significantly enhancing the net farm income for each commoner.
- 9.5.9 There was also concern expressed in England and Indonesia that there has been weakening of local capacity to manage resources. In Danau Sentarum this has arisen as a result of greater mobility of people and increased populations from internal growth. Not only does this mean the resource available per head has dropped but also people have moved into the community with fewer ties and less respect for traditional governance. This was shown by the demand from commoners in the appreciative inquiry workshop for state ratification of local rules.

9.5.10 In England the reason is different. Individuals live in scattered settlements surrounding the common land and their numbers have declined. They also meet together less regularly due to the increasing cost of labour and the limited time available to work communally. Technology has also enabled farmers to undertake tasks alone which they would in the past have required assistance from their neighbours e.g. gathering and shearing. Furthermore the introduction of government agri-environment contracts has meant that there is significant money at stake and people are concerned about accessing this money from their common land. In Mungrisdale in the Lake District the sole reason for the formation of the local commoners association was to access funds and the Association is effective at that. It does not see its role for the general governance of individual's activities on the common so long as the funds from the government are not at risk.

9.5.11 There are many linkages between local associations of graziers and fishers and other government organisations and non-governmental organisations though these vary from village to village and differ between the case studies. In the Lake District commoners are offered a collective contract (a functional agreement) for the delivery of environmental goods and services in exchange for reducing primary extraction. In Indonesia initiatives have been more ad hoc and often reliant on projects run by NGOs; contracts for conservation are not offered by the government, partly due to lack of funding and also partly due to the insecure legal status of fishers and other residents in national parks.

9.5.12 In both Indonesia and England national legislation for national parks gives primacy to the conservation of biodiversity through habitat management. In Indonesia the State is seeking to conserve the natural environment untouched by humans while in England the objective is to conserve biodiversity that has arisen as a result of man's intervention in the natural world and the particular farming practices he has adopted over the last 900 years. In using the ecosystem services framework it is clear a large number of benefits accrue to the public and private individuals from these national parks and that in both sites there are a strong cultural traditions that affect the landscape but these do not have statutory protection.

The drivers and variables that influence the current position

9.5.13 The work undertaken by Elinor Ostrom and others on socio-ecological systems demonstrates how many factors affect what the position is in any particular locale. This research focused on local governance and in particular the nature of the plural normative orders that affects that governance. In order to bring all the findings together a table is presented in fig 9.1 of the key factors and drivers that affect the delivery of ecosystem services within local governance. This draws on the modelling undertaken by Frey of the findings from these case studies.³

Factor	Continuum
Common Rights	De facto – De jure Communal – Individual Limited-Unlimited
Nature of Harvested Product	Primary – Secondary Biodiverse - Monocrop
Leadership	Strong - Weak
Environmental Contract	Presence - Absence
Rules	Strong – Weak Conservation-Production
Enforcement	Active - Passive
Trust	Present - Absent
Government involvement	Active - Passive

Fig 9.1 Factors that affect delivery of ecosystem services

9.5.14 The purpose of this section is to concentrate on the key factors that need to be considered in planning the strengthening of local governance. In some cases the presence or absence of one factor may be an overriding barrier in terms of delivery of improved management. In other situations all that is required is for the governance system to be adapted in order to take account of the particular context in that setting.

9.5.15 For some of the factors the position varies between villages and is not homogenous across the National Park and often the status is not black or white but rather rests at some point on a continuum. For instance leadership is a complex concept and there are many shades of grey between strong and

³ See 8.5.1–8.5.18.

weak. One factor also impacts on the delivery of another e.g. a village may have a strong leader but if the rules are weak then the leader will be limited in what he can do when non-compliance occurs.

9.5.16 For effective governance the factors listed in Fig 9.1 need to be strong, present or active. With regards to common property rights those that are held *de jure* are easier to govern than those that are held *de facto* as legitimacy enhances the ability to create horizontal and vertical linkages between different institutions and different normative orders. What is less clear is whether common property rights held communally and exercised by right of residency, as in Danau Sentarum, are more or less likely to be governed effectively compared with those common rights that are held individually as in England.

9.5.17 The difficulty with the common rights held communally in Danau Sentarum is that they are not limited in quantum. This means that the resource effort that can be exerted by commoners is likely to increase proportionately to the number of residents and the technology they employ. In England common rights are limited in quantum by the numbers that were registered under the Commons Registration Act 1965. While the numbers on these registers are in some cases not within the carrying capacity of the common they do prescribe an upper limit.

9.5.18 Considerable parallels exist between the two case study sites on the matter of enforcement. In Danau Sentarum more often than in the Lake District there were specified penalties in the event of a breach but in both sites the interviews revealed only limited instances where sanctions had been imposed. In Danau Sentarum warnings are more formal than in England where the chairman of the Commons Association is more likely to visit the individual accused of a breach and have a quiet word rather than publicly chastise them.

9.5.19 In both cases there are instances where the government intervenes. In Danau Sentarum the forestry department, through the National Park Authority, will patrol the National Park and where they find infringements they issue warnings. Occasionally after repeated or serious infringements the matter is progressed through the courts.

9.5.20 In the Lake District most rules broken are conditions of the Higher Level Stewardship (HLS) scheme rather than statutory legislation so do not result in criminal or civil proceedings. The HLS scheme is a contract between the commoners and the government conservation body, Natural England whose right of recourse is to withhold future payments, deduct a penalty or seek the repayment of monies from previous years. Not surprisingly there is little incentive for a commoners association to seek to enforce the HLS contract unless there are costs incurred by the Association or its members as a result of non compliance. In many cases they are aware of a breach but until their payments are at risk the Chairman takes no action.⁴

Opportunities to strengthen future governance.

9.5.21 The focus of this thesis has been on understanding complex socio-ecological systems, plural normative orders and the need for adaptive co-management. In drawing these three elements together the clear outcome of this research is that there needs to be extended and increased linkages between the plural normative orders. This recognises the position on the ground is complex socio- ecological systems and also enables adaptive co-management to be a reality rather than an aspiration.

9.5.22 Three requirements to strengthen governance have been identified from the research and are explored in the following section. They are:

- Enhance linkages between plural normative orders;
- Manage access to the resource and provide legal certainty regarding different parties' rights and responsibilities; and
- Value local commoners and understand what motivates them to manage the local resource.

Enhance the Linkages between Plural Normative Orders

9.5.23 Practitioners in Danau Sentarum and the Lake District both recognise that state regulation and legislation is poorly implemented in the field. Conversely customary law while locally appropriate requires ratification to ensure it is

⁴ JC Aglionby, 'Can Biodiversity, A Public Good, Be Delivered on Common Land Through Management Organisations Founded on Optimising Private Property Rights' (Presented at the 12th Biennial Conference for the International Association for the Study of Commons. Cheltenham, 2008).

respected and complied with. Creating formal linkages between different normative orders such that the legal orders more closely reflect practice on the ground is needed to enable adaptive management to occur and delivery of an appropriate range of ecosystem services.

- 9.5.24 Considerable advances improving linkages have been achieved through various initiatives such as annual meetings in Danau Sentarum and support from Natural England for Commons Councils in Cumbria. The desire from both National Park authorities to take this further needs to be translated into action through allocating staff the necessary time and funds for travelling to make this a reality and build trust.
- 9.5.25 There are differences between the two case study sites in what is considered appropriate assistance for enforcement. Commoners in Danau Sentarum far from wanting to be left alone were keen to have the National Park Authority assisting with enforcement and the development of governance that would strengthen the rehabilitation of fish stocks. This is evidenced by the action plans from the appreciative inquiry workshop in Danau Sentarum.⁵
- 9.5.26 A single workshop is not in itself sufficient and to strengthen governance local authorities will have to follow up with active partnership and implementation of management on the ground. This is often difficult when resources are limited and staff are required to undertake alternative activities by their superiors who may not be committed to the local process.
- 9.5.27 In the Lake District there was also enthusiasm from some commoners associations to have an umbrella organisation for enforcement through voting in favour of a statutory Common Council for Cumbria which would provide a much-needed insurance policy. This would cover them in the event there were breaches of rules at the local level and the Association felt unable to enforce their rules or having a lack of funds and authority to take legal action.
- 9.5.28 The difference between the umbrella organisation in the Lake District and the request for the ratification of customary law in Danau Sentarum is that in Danau Sentarum local commoners seek direct ratification of customary law by state organisations while in the Lake District the new Commons Council

⁵ see fig 5.5.9 to 5.5.11.

would be statutory but no government officials would be voting members though its rules have to be confirmed by the Minister.

9.5.29 In summary enhanced linkages between normative orders can create governance that enhances the deliver of public goods but requires long-term commitment of staff and funds to build effective relationships and alter or pass relevant regulations to formalise these linkages.

Manage access to the common property resource and provide legal certainty regarding different parties' rights and responsibilities

9.5.30 In order to manage the ecosystem services that flow from any protected area it is essential that commoners have clear rights as to what they are allowed to extract and that these rights are recognised and respected by all normative orders in operation in the protected area. In Danau Sentarum the situation is less clear than in the Lake District as commoners are reliant on their customary rights exercised over hundreds of years. These have been recognised by the local government through the fisheries service but are not recognised or accepted by the forestry department and it is the forestry department that controls the National Park. This is due to its designation as State Forest land and a protected area. Furthermore in Danau Sentarum where customary rights are recognised there is no limit on the number of people who may move into the National Park according to local administrative law. This means that communities cannot control access to their *wilayah kerja* or working area i.e. their common.

9.5.31 Immigrants to Danau Sentarum use administrative law to legitimise their residency in the National Park but do not always recognise the authority of the head fisherman. As the state is absent as a day-to-day manager we have the situation recognised by Haller⁶ that there is the contradiction of the state being both present and absent. The major risk to Danau Sentarum is that there is no limit on the amount of resources that can be extracted leading to a decline in the delivery of ecosystem services flowing to the public and the provisioning service of fish. Limits on how many people can access the resource and the fishing effort that can be employed are pre-requisites to improve governance and enable the sustainable delivery of ecosystem

⁶ Haller (n1) 431.

services. The role of the head fisherman and his ability to limit access and enforce rules is critical.

9.5.32 At face value the situation in the Lake District is clearer as commoners have registered common rights which determine the number of livestock that can be grazed when the common land. For the two commons in this study designated as sites of special scientific interest (SSSIs) and European special areas of conservation (SACs) this surface clarity is soon muddied by environmental legislation. This gives the state power over the exercise of private commoners rights as commoners require consent to graze.⁷ The state has a statutory duty only to allow grazing at a level that delivers favourable condition of the specific special interest features of the SSSI. In most cases the level determined by Natural England's officers to achieve favourable condition is lower than that to achieve optimal agricultural productivity and significantly lower than the registered common rights.

9.5.33 Conflict immediately arises between the interests of the commoners, whose focus is on provisioning services of food and breeding livestock, to that of Natural England with statutory duties to protect and enhance biodiversity and environmental ecosystem services. To complicate matters further there is uncertainty as few commoners understand their exact legal position. This is because the notification of commoners was often incomplete when the SSSI was originally designated and commoners may not have been issued an initial consent on notification. While both SSSI commons in this study do not currently require consent as they have an agri-environment scheme their position at the end of a scheme is unclear as they have no fall back consent. The net result is that commoners have limited choice about entering 'voluntary' agri-environment schemes as the alternative is constrained consent but with no financial package as came out of the village meeting at Caldbeck. This position could be corrected by improved communication with commoners and common land owners and the provision of clarity as to their legal position.

⁷ Wildlife and Countryside Act 1981 s28.

Value local communities and understand what motivates them to manage the local resource

- 9.5.34 A significant finding from both case study sites is the importance of motivation or purpose in determining how governance functions. The stories told through the appreciative inquiry interviews were clear and frequently repeated as illustrated through the word clouds. Commoners' drive to manage the resource comes from their connection with fishing and farming sheep. In both sites their pride and enthusiasm for their work is very much tied up with the product they produce or harvest.
- 9.5.35 In Danau Sentarum this is to be expected as most commoners are living at a subsistence level and are dependent on fish yields for their livelihood. Even though this is the case the desire to fish is much deeper than the cash rewards as when commoners were interviewed it shone through that their sense of being is tied up with fishing; it is not a job it is a way of life. And the associated sense of history is well recognised and respected among communities.
- 9.5.36 In the Lake District 40% of commoners' income comes from government support⁸ (often linked to the provision of non marketed ecosystem services and biodiversity). Still it is their pride in and responsibility for their sheep that ensures commoners continue to farm in harsh conditions with poor financial return. A commoner's position in the community and self-worth is often linked to the quality and quantity of sheep they produce and the prices achieved for breeding stock and lambs. Government support is often seen and appreciated as a mechanism to continue farming sheep and a way of life to which they are committed.⁹
- 9.5.37 The conservation authorities in both Danau Sentarum and the Lake District recognise their management and staff capacity is limited and also acknowledge that communities that live and work in the National Parks are the managers of the natural resources and have a right, if not a *de jure* right, to be there. Concurrently both governments seek to ensure an adequate delivery of all ecosystem services; provisioning, regulatory, cultural and

⁸ Lake District National Park Partnership Report on Profitable Farming by Newcastle University August 2013 (forthcoming). 23% is from the Single Payment Scheme and 17% from agri-environment contracts.

⁹ See fig 8.2.

supporting. Bringing these two objectives together to deliver effective policy will only occur through a deeper understanding of why local communities do what they do.

9.5.38 Additionally in both case studies, as in many other national parks, local communities underpin the provision of the cultural services and it is their management of the land that delivers the landscape visitors appreciate and wish to be conserved. This is particularly the case in the Lake District National Park which is now nominated as a World Heritage Site for its cultural landscape created by over 1000 years of pastoral sheep farming for which common land is central.¹⁰ Over 15 million visitors come to the Lake District a year.

Policy and practice implications

9.6.1 The findings of the research are that: governance by commoners focuses on private not public goods, commoners do not understand the ecological objectives conservation authorities seek and government policies and schemes fail to motivate commoners to deliver public goods. Effective governance was defined in paragraph 1.1.3 and against this benchmark the findings indicate current governance in Danau Sentarum and the Lake District is not effective. It neither delivers the suite of ecosystem services the national parks are designated for nor meets commoners livelihood needs sustainably. The analyses undertaken in Chapter 8 provide pointers to what needs to change. As a pre-requisite policy makers are advised to address the three issues raised in 9.5.22. These issues are likely to be common to all common land in National Parks where the criteria for adaptive co-management are not fulfilled.

9.6.2 At this point the work of Snowden is useful to consider as his Cynefin¹¹ framework classifies situations into the simple, complicated, complex or chaotic.¹² The governance of commons in protected areas is undoubtedly

¹⁰ Lake District National Park, *Technical Evaluation of the Future World Heritage Nomination for the English Lake District* (Lake District National Park Partnership 2013) 9.

¹¹ *Cynefin* is a Welsh word literally translated as habitat or place – in farming usage it is the Welsh word for the heft, the place where sheep return to on a common each year and hence is a peculiarly apt framework to consider for this research on common land.

¹² D Snowden, 'Cynefin: A Sense of Time and Space, the Social Ecology of Knowledge Management' in C Despres and D Chauvel (eds), *Knowledge Horizons: The Present and the Promise of Knowledge Management* (Butterworth Heinemann 2000).

complex though too often it is chaotic as the complexity is unrecognised by managers and opportunities for creating linkages are ignored. The challenge for policy is to return from the chaotic to the complex and develop practical solutions within this complexity that are merely complicated or perhaps even simple but can be undertaken within the complex socio-ecological setting using an adaptive and responsive system of governance.

- 9.6.3 The first step for policy is to recognise and build into governance of common land the reality of the complex overlapping normative orders that exist in national parks.
- 9.6.4 The second step as a pre-requisite to implementing effective governance is to correct the adaptive co-management criteria that were failed as detailed in fig 8.11. Some require specific actions e.g. to clarify property rights and increase resources for stakeholders. Others are softer cultural changes e.g. support collaborative management and share plurality of knowledge.
- 9.6.5 Thirdly policy makers must ensure financial incentives provided through functional agreements motivate commoners to deliver the ecosystem services that the wider public is seeking from these protected areas. The language of ecosystem services and ecology is alienating and commoners need to be able to connect with the public goods objectives and benefit from their provision. An adapted ecosystems services framework for the Lake District is given in fig 9.2 with a focus on those doing the delivery as a starting point to change the mind of those designing policy.
- 9.6.6 A challenge for the development of policy is to decide whether society can improve the delivery of all ecosystem services concurrently. Alternatively a place based approach may be preferable where governance is designed to focus on enhancing priority ecosystem services while simultaneously not reducing the flow of other services. Otherwise a single minded drive to improve one priority service, or biodiversity, can result in unintended consequences for other services.
- 9.6.7 While this thesis has focused on commons rather than land under sole ownership it has broader implications and policy makers when developing protected area management generally may benefit on reflecting on the

findings of this research for all land subject to private property rights and public interests. Common land managers are obliged to partner with others due to the complex normative orders in force but it is suggested, in line with Holder and Flessas,¹³ that environmental protection generally, and particularly with regard to the 'global commons', can learn lessons from this work.

¹³ JB Holder and T Flessas, 'Emerging Commons' (2008) 17 *Social & Legal Studies* 299 304-305.

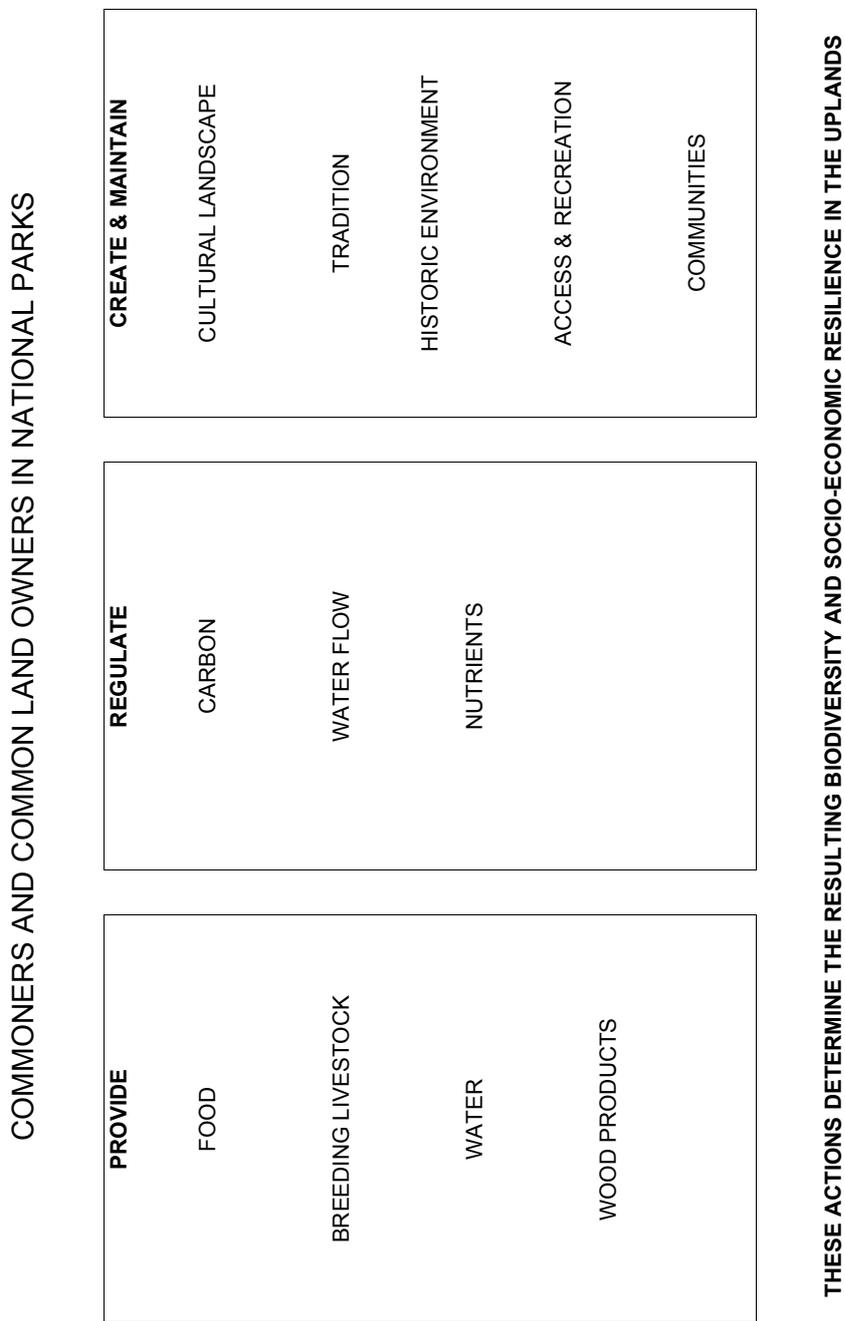


Fig 9.2 An Adapted Ecosystems Services Framework for LDNP Commons

Research implications

Methodology

- 9.7.1 The method of appreciative inquiry (AI) has been tested through this research and has proved to be useful in engaging communities and government officials to explore the nature of legal and other normative orders. It has been extensively used in health care research and in rural community development but is not well established as a method in legal research. This thesis has shown it is a valuable approach to evaluate complex applied legal settings. Additionally it allows the rapid development of trust which is critical to the quality of the data collected in sensitive settings. AI is also attractive from an ethical standpoint as it enables and empowers communities rather than leaving them dispirited and without further steps to take when the research is complete.
- 9.7.2 For these reasons the experience of adopting AI during this research indicates it would also be useful in delivering change in these complex settings subject to ongoing input from all partners to maintain the trust built through the process. The commitment of the organisation driving the process and their sensitivity to all interests is as important as the particular tools adopted.

Priority gaps in research

- 9.7.3 This work has focused on local governance with attention given to how other normative orders operate at the field level. There was not the opportunity to explore thoroughly in this study the institutional framework and relations between stakeholders at higher levels and cross-scales. This could provide fruitful insight into how adaptive co-management could be implemented in practice.
- 9.7.4 Also there is a shortfall in information about the interactions between different ecosystem services and how the provision of one impacts on others. This research has taken as given the ecological data that exists in both sites. This is not adequate when planning change. For instance in the Lake District there is considerable emphasis on improving water

quality with the water companies asserting that lower sheep numbers will result in improved water quality but that there is no data to show nature of the relationship between stocking levels and water quality. This data would be important in motivating farmers to change their practice. Commoners supplying a specific ecosystem service are not always willing to change their practice particularly when the benefits of change are diffuse and predominately accrue to other stakeholders.

Further work

- 9.8.1 Some of the recommendations for change identified through this research require changes in the law or changes in policy in order to deliver a more joined up approach to linking the range of normative orders at play on commons in protected areas. In order to justify these changes further work is required to more closely analyse the impact of such change and how adaptive co-management could be delivered in practice. While it is unlikely that there will be any change in legislation in the short or medium term there are possibilities for changing policy and specific programmes and their associated regulations. In England opportunities exist through the new rural development programme for England. In Indonesia there are also openings with regard to the development of the National Park management plan for Danau Sentarum.
- 9.8.2 All of this work should be considered in the context of the research into payment for ecosystem services (PES). In Indonesia through the Reducing Emissions from Deforestation and Degradation (REDD) programme this work is further ahead. Developed countries pay Indonesia to protect carbon stores through reducing emissions but there are wide ranging debates as to who receives the benefits of these schemes and who bears the cost given complex land tenure arrangements. In England work is underway in research institutes, water companies and government to make PES a reality so land owners and occupiers can be paid for delivering change that benefits society. Little has been written about how PES could be delivered on

common land though Reed et al and Nsoh and Reid recognise the challenge.¹⁴ This thesis highlights that it is not only recognising property rights that is a pre-requisite but that a thorough understanding of commoners' purpose in governing resources is essential for delivering PES on commons.

- 9.8.3 There is a role for further work to be undertaken on this and a useful start in England would be an examination of the internal agreements commoners sign as deeds prior to entering agri-environment schemes. In these documents commoners join together in order to deliver particular changes in management and through this deed the sharing of the financial benefits are laid out.
- 9.8.4 The findings from this research regarding how governance can be strengthened will be all the more important as and when PES becomes a reality and preparing for this now will reap dividends in the future given the complexity of tenure on common land. Experience shows that retrofitting policy to complex socio–ecological systems too often results in arrangements that neither motivate commoners or deliver the expected gain in environmental goods and ecosystem services. Careful consideration of the findings of this research could mitigate this problem.
- 9.8.5 In summary the research has highlighted the weakness of the Ecosystem Approach in that in failing to take account of land tenure it consequently is blind to who produces, who benefits from and who pays for ecosystem services. In practice these are overriding issues for the delivery of future public goods.
- 9.8.6 The Ecosystem Approach is a relatively new approach and parallels can be drawn from the development of theory in institutional analysis whereby Ostrom's work was initially one dimensional but has in the last

¹⁴ M Reed et al., 'Anticipating and Managing Future Trade-offs and Complementarities Between Ecosystem Services' (2013) 18 *Ecology and Society* Art.5 < <http://www.ecologyandsociety.org/vol18/iss1/art5/> > accessed November 20, 2013; W Nsoh and CT Reid, 'Privatisation of Biodiversity: Who Can Sell Ecosystem Services' (2013) 25 *Environmental Law and Management* 12.

five years expanded to embed the governance of local common property institutions within the broader socio-ecological systems making the model more applicable to real world situations. Ecosystem approach research needs to do the reverse and embed the flow of ecosystem services within the normative orders in operation at each site.

Contribution to Knowledge and Practice

9.9.1 Three gaps in the current canon of research to which this thesis aims to contribute were identified in 2.8.1 to 2.8.4. There are no straightforward answers but this work has added to our knowledge as follows.

Are property rights on commons in protected areas fixed or dynamic?

9.9.2 The finding from both case studies is that property rights are dynamic due to the interactions of plural normative orders operating in each site. In both sites property rights, whether recognised by the state or only customary, are constrained by national and regional legislation, regulations and administrative consents. The evidence provided in this thesis indicates the complexity of interaction between different orders and how these change over time according to the institutional and policy drivers over time.

Should governance institutions for commons in national parks be voluntary or statutory?

9.9.3 The finding is that a hybrid situation is the preference of local institutions. Commoners value the local management and adaptability of their voluntary unincorporated institutions but recognise their limitations. In Indonesia the solution was seen to be ratification of local rules by statutory government bodies while in Cumbria communities were exploring using new legislation to create a statutory Common Council.

What motivates commoners to govern for the public good?

- 9.9.4 Commoners in both case studies are motivated by the production of provisioning services for which they receive direct payment as the majority of other services accrue to others. Even when financial incentives are paid there is rarely a strong commitment to the delivery of public goods due to limited ownership of the outcomes. The exception is where contracts for the payment of environmental services are strictly enforced.
- 9.9.5 The data in this thesis suggests commoners will be motivated when there is unity of purpose between the provision of private and public benefits. More specifically this means commoners: receive a financial benefit and can meet their livelihood needs, they retain their sense of place and are secure in their legal rights and they have local control of governance but are supported by other institutions.
- 9.9.6 Conservation authorities and other stakeholders need to seek synergy between motivation, incentives and enforcement of regulations to enable cost effective governance that maximises the delivery of ecosystem services appropriate to each place. This will occur by working more closely with commoners and their local institutions to understand when they will be motivated to deliver for the public good. This approach will pay dividends in the journey to achieve the position where commoners are as Reid proposes, '*...willing partners in the conservation enterprise, not reluctant servants.*'¹⁵
- 9.9.7 By contributing to our knowledge of how governance on common land operates and how it can be improved this research is enabling society to identify key issues needed when developing policies and programmes to reduce conflicts between collective private and collective public interests. At the local level the research has contributed to developing mechanisms for improved governance

¹⁵ CT Reid, *Nature Conservation Law* (W. Green/Thomson Reuters 2009) para 1.6.4.

systems in communities and between local stakeholders dealing with complex plural normative orders.

Conclusion

9.10.1 This thesis has taken the complex subject of ecosystem services and explored common land, a complex type of land tenure, in two internationally designated national parks. The aim was to tease out how the delivery of ecosystem services can be improved through strengthened governance. Detailed fieldwork in the two geographically disparate settings of Indonesia and England provided comparative data that is extraordinary in the congruence between the findings despite the different geographical locations and environmental characteristics. The very differences in the settings suggest a strong confidence in the results.

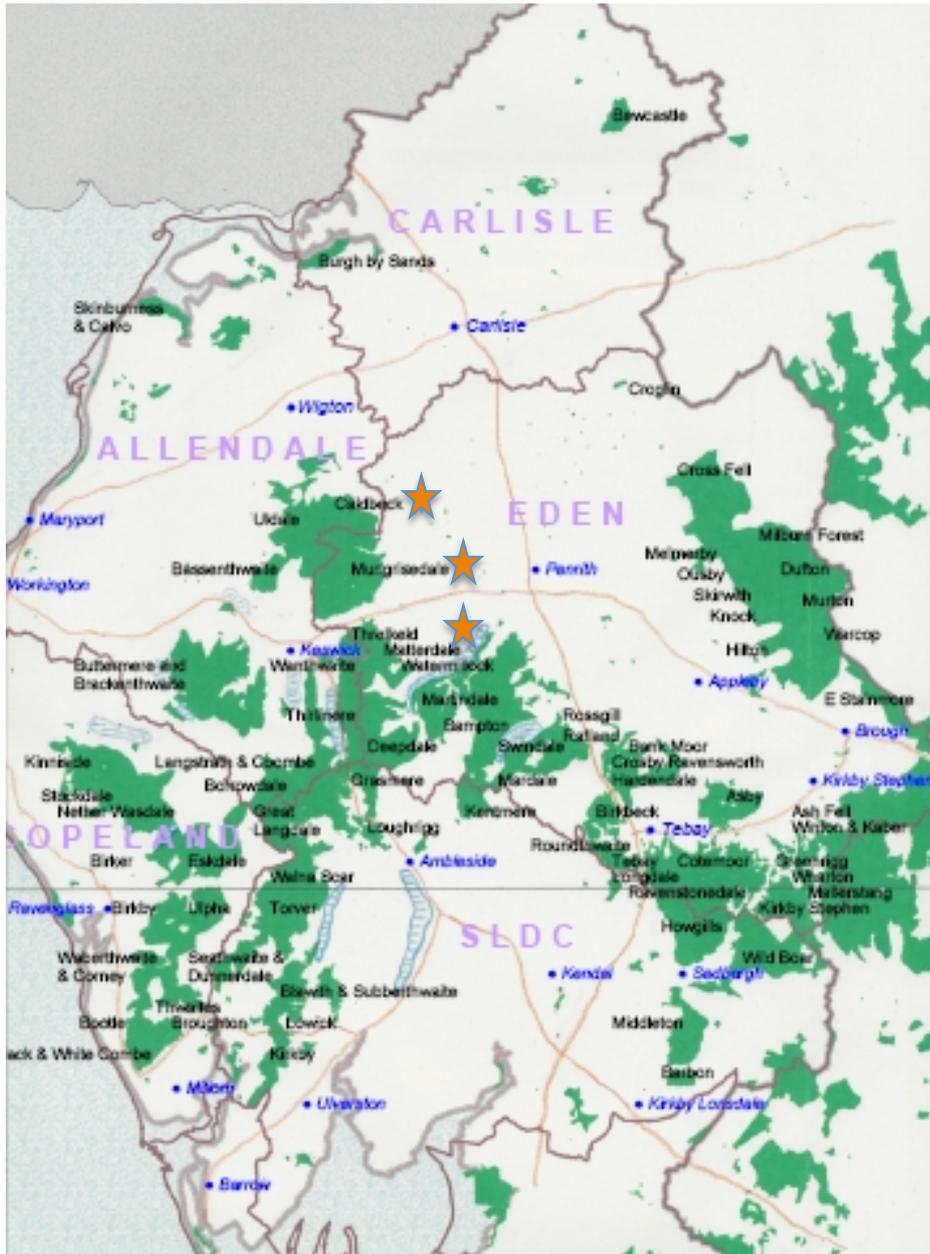
9.10.2 This data was analysed in accordance with the well regarded theoretical frameworks of Legal Pluralism, Design Principles for Common Property Resources and Adaptive Co-management. The data analysis from both field sites indicate that current governance systems are not likely to deliver a broad range of public and private ecosystem services. It did though highlight three key areas where governance can be strengthened and these were the same for both national parks. They are; the clarification of commoners rights, the motivation of commoners and the development of inter normative order or institutional linkages.

9.10.3 When considering the socio-ecological systems on common property resources the complexity can be overwhelming. This research has shown that an analytical and multifaceted approach to considering these systems can reveal surprisingly clear results of general applicability. While the implementation of these findings will require time, effort and sensitivity the research has contributed to our understanding, and to policy development, by providing evidence as to where to focus efforts to improve the collective ecosystem services from common land in national parks.

Appendices

- A. Map of Cumbrian Commons showing the Case Study Commons
- B. Map of Danau Sentarum showing the Case Study Villages
- C. Information Sheet for Danau Sentarum
- D. Information Sheet for The Lake District
- E. Interview Summary Sheet
- F. Summary of Danau Sentarum Themes from the Interviews
- G. Appreciative Inquiry Workshop Summary
- H. Summary of The Lake District Themes from the interviews
- I. Commons Council Consultation Brochure

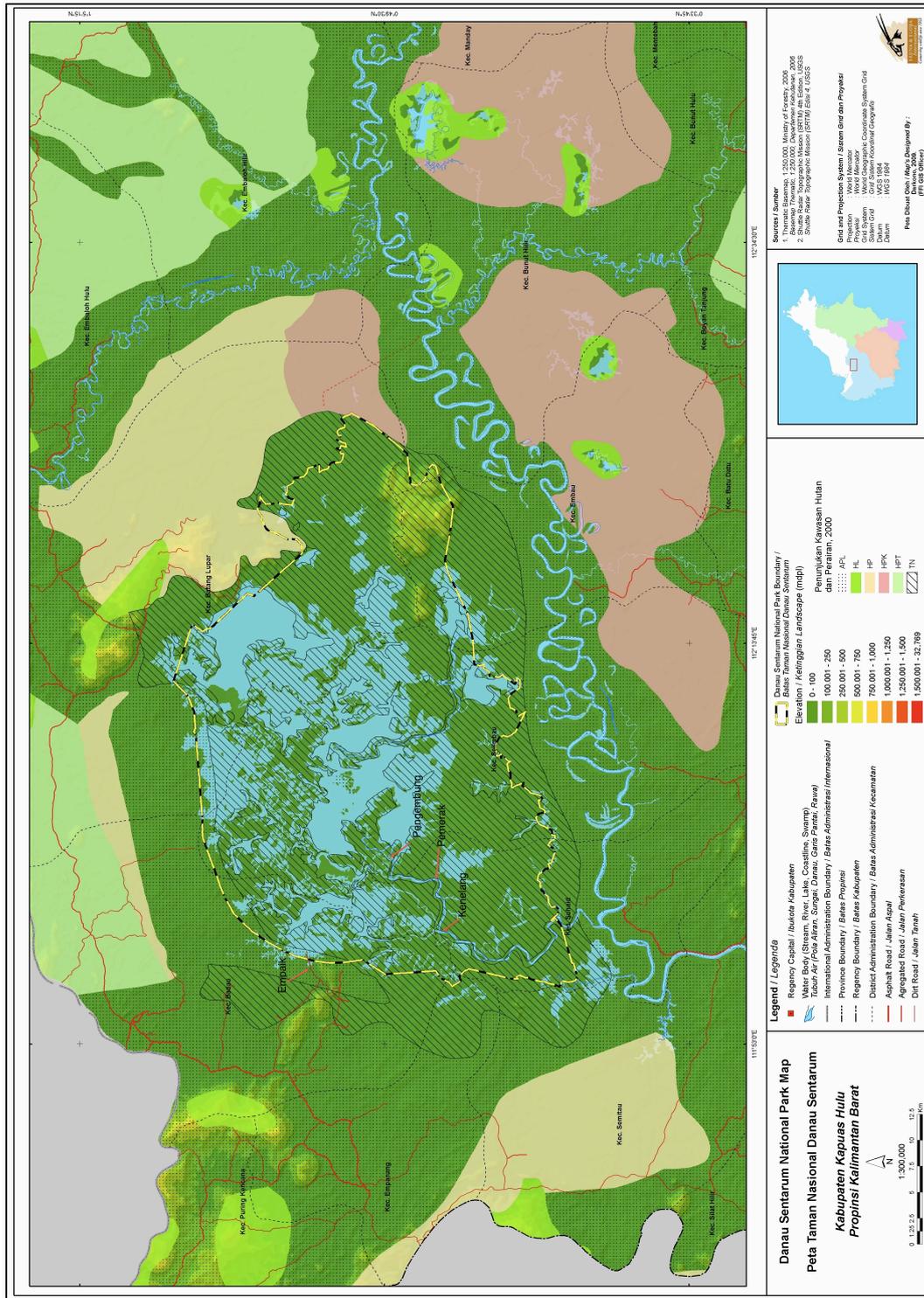
Appendix A:
Map of Cumbrian Commons: The Case Study Commons
in The Lake District are marked with an Orange Star
(original map courtesy of the Federation of Cumbria Commoners)



Appendix B:

Map of Danau Sentarum showing the Case Study Villages

(courtesy of Danau Sentarum Park Management Unit)



Appendix C: Information Sheet for Danau Sentarum

Bagaimana Bapak/Ibu Bisa Memiliki Mata Pencaharian Sekaligus Menjaga Sumber Daya Alam?

Kegiatan ini dimaksudkan untuk membandingkan bagaimana penduduk setempat di Indonesia dan di Inggris mengatur sumber daya alam dengan hukum adat, dan bagaimana dapat bekerja sama dengan lembaga lain termasuk Balai Taman Nasional dan pemerintah setempat.

Mengapa ini penting?

Baik di Inggris maupun Indonesia hukum adat memegang peranan penting dalam pengelolaan sumber daya alam. Di kedua negara ini, pengaturan taman nasional sebaiknya dijalankan secara kemitraan antara masyarakat adat dengan lembaga lainnya agar pengelolaan lebih efektif.

Kami mengharapkan kegiatan ini dapat membantu masyarakat serta pemerintah, untuk bekerja sama dalam menjaga sumber daya setempat.

Apakah Anda tertarik berpartisipasi dalam kegiatan ini?

Saya berencana untuk bertemu dengan masyarakat dari 4 kampung di bagian barat barat Danau Sentarum, dan selanjutnya di tahun 2011 akan melihat perkembangan dari masukan Bapak/Ibu serta membagi masukan dari masyarakat Inggris yang juga tinggal di dalam taman nasional.



Sedikit mengenai saya

Nama saya Julia Aglionby, bersuamikan Charles, kami memiliki 2 anak, James (7 tahun) dan Rosalind (6 tahun). Pada tahun 1994-1995 saya bekerja di Bukit Tekenang di Danau Sentarum, kini saya bekerja dengan petani di Taman Nasional Lake District di Inggris. Saya tertarik untuk membandingkan sistem pengaturan di kedua taman nasional.

Pokok pembahasan

- Bagaimana masyarakat setempat mengelola perikanan, pertanian, kayu, rotan dan madu?
- Adakah keberhasilan di daerah sekitar sini yang dapat Anda ceritakan?
- Apa keinginan Anda bagi daerah sekitar sini/ kampung ini 5 tahun ke depan?
- Bagaimana cara terbaik Anda untuk bekerjasama dengan instansi lain, agar keinginan Anda tercapai?



Lake District – Inggris

Danau Sentarum - Indonesia

Partisipasi bapak/ibu dalam kegiatan ini sangat saya harapkan, namun jika ada keberatan bapak/ibu dapat langsung memilih untuk tidak melanjutkan partisipasi ke tahap selanjutnya.

Untuk keterangan lebih lanjut mengenai kegiatan ini silahkan hubungi saya:

Julia Aglionby

e-mail: j.c.w.aglionby@newcastle.ac.uk hp: +44 7702100111

Newcastle Law School, Newcastle University, NE1 7RU UK

(Supervisor: Professor Chris Rodgers)

Studi banding ini telah disetujui oleh Newcastle University Law School dan dilaksanakan atas kerjasama dengan CIFOR Bogor, Balai Taman Nasional Danau Sentarum dan Riak Bumi.

Appendix D: Information Sheet for The Lake District

HOW CAN WE MAKE A LIVING FROM FARMING AND LOOK AFTER THE LAKE DISTRICT NATIONAL PARK?

This study compares how communities in England and Indonesia govern common land through commons associations and how they can work in partnership with others including the National Park Authority, Natural England and other commoners.

Why?

Our commons provide food, landscape, water, biodiversity and climate regulation. This is important for people living in National Parks and also those outside the parks. Understanding what makes commoners associations work is important in delivering effective land management.

Would you like to share your views?

I plan to meet with 3 commoners associations in the northern Lake District, firstly with individuals from each association, then in small groups and finally as a group. The main questions are detailed overleaf.

Who am I?



I am Julia Aglionby, married with two children Since 1997 I have worked as a land agent for H&H Bowe, I am their Commons and Upland consultant and live in the Eden Valley on a small farm. From 1994 – 1996 I worked in Danau Sentarum National Park in Indonesian Borneo. This study is for my PhD at Newcastle Law School.

QUERIES

- How does the association manage grazing and other uses and benefits from the common?
- What works well in your association?
- What is your dream for the common for 5 years time?
- How could you work in partnership with the National Park Authority, Natural England or other organisations to achieve your dream?



Lake District - England

Danau Sentarum - Indonesia

This is a voluntary study, if you do not feel comfortable at any stage please say so and we can stop. If you would like further information on the project I can be contacted at.

Julia Aglionby

e-mail: j.c.w.aglionby@newcastle.ac.uk

tel: 016974 70016 / 07702 100111

Newcastle Law School, Newcastle University, NE1 7RU UK

(Supervisor: Professor Chris Rodgers)



This study has been approved by Newcastle University Law School ethics committee.

Appendix E: Interview Summary Sheet

No:.....

INTERVIEW SUMMARY SHEET LDNP

Name of Interviewer: _____
Name of Interviewer

Date of Interview: _____
Date of Interview

Village: _____

Stakeholder Group: _____

Age : _____ Sex: _____

What was the most quotable quote that came out of the interview?

What was the most compelling story that came out of the interview?

What is your sense of what is most important to this person?

Appendix E page 2

No:.....

What themes stood out most for each Topic?

Legitimacy, Authority & Power, Enforcement, Collaboration / Partnership,
Livelihoods Issues, Financing, Population, Flexibility

A Sustaining Livelihood -----

B Enhancing the Environment -----

C Strengthening Customary Management -----

D Building Partnership with Others -----

What are the best things about current governance that should be preserved?

Vision for the Future- What three things would you change

1) -----

2) -----

3) -----

Additional Comments

END

Appendix F:

Summary of Danau Sentarum Themes from the Interviews

Danau Sentarum National Park

LIVELIHOOD Themes	Pengembung Total	Pemerak Total	Kenelang Total	Grand Total
We need opportunities outside fishing	3	1	4	8
Lack of capital	2	1	1	4
Fishing is the only livelihood	8	4	2	14
Earning a living is easy here	7	8	6	21
Happy living here: friends and family	4	2	5	11
Fish yields have and will decline	4	2	2	8
Keep fishing	2	0	1	3
Develop our village	6	0	2	8
Rubber plantations are an alternative	2	1	1	4
Improve educational opportunities	8	3	2	13
Tourism provides opportunities	2	0	0	2
I don't want my children to be fishers	1	2	1	4
I used to be seasonal now permanent	0	1	1	2
We want fishing to develop	3	0	1	4
Large catches in the dry season are the best time	3	0	4	7
We like all being together in the dry season	1	0	1	2
Fish Cages are our savings	4	3	5	12
We need electricity and mobile reception	2	0	2	4
Improve honey harvesting techniques	2	2	1	5
Honey is a seasonal benefit	6	2	1	9
People now have better gear	5	0	0	5
Lottery system required as population increased	6	0	2	8
Population is increasing	6	4	1	11
GOVERNANCE Themes	Pengembung Total	Pemerak Total	Kenelang Total	Grand Total
Village meetings held to discuss rules	3	3	3	9
Spatial division of resources - lottery and gear	4	1	6	11
Lottery system gives everyone a chance	8	2	2	12
Different Rules in wet and dry season	4	0	1	5
Visitors must report and obtain permission	6	3	1	10
Each village has separate rules	5	1	1	7
Different rules for locals and outsiders	2	0	1	3
Rules ensure peace and goodwill	6	6	2	14
We limit the use of bubu warin	6	6	0	12
Warnings, confiscate gear and sanctions for breaches	1	4	1	6
It takes time to change rules	2	0	0	2
Rules are changed by majority	1	1	0	2
Enforcement is variable	6	3	6	15
Rules are good	10	6	6	22
Income from lottery used for community needs and loans	3	2	0	5
Require clear guidance from local government	0	0	1	1
Must consider family ties and economics	0	0	1	1
Local rules cannot override government rules	0	0	1	1
Government rules may need to be adjusted to local rules	1	1	2	4
Communities break their own rules	1	1	2	4
Minority interests are over-ridden	0	0	1	1
Bubu warin must be controlled	7	6	8	21
Compensation required for Bubu warin	1	1	0	2
Rules must be upheld	9	7	10	26
Collective management is good	1	0	2	3
Role of Head Fisherman is important	6	5	4	15
Our head fisher is weak	2	3	0	5
Head fisherman breaks the rules	0	0	1	1
We do not have a head fisher	4	1	0	5
Hard to actually impose fines	0	1	3	4

Themes from May 2010 Fieldwork in Danau Sentarum National Park

Appendix F page 2

ENVIRONMENT Themes	Pengembung Total	Pemerak Total	Kenelang Total	Grand Total
Fish species are becoming extinct	2	0	1	3
Yields will decline	2	0	1	3
Bubu warin take all the young fish	6	2	2	10
Restrictions on capturing young toman now relaxed	2	0	0	2
Logging is now illegal	2	2	1	5
Larger net mesh size will increase yields	3	1	3	7
We can change the way we fish to be sustainable	1	3	1	5
Those who have fish cages do not care about sustainability	0	0	1	1
No payment for conservation activities	0	1	1	2
National Park needs to support communities	2	0	1	3
We support the National Park if they do us no harm	3	0	0	3
Palm Oil would be bad	2	0	2	4
We must not take small fish	1	1	3	5
Water quality poor in dry season	2	2	1	5
Air and Water is clean	1	1	1	3
Caged Toman are bad for fish stocks	1	0	1	2
Need closed areas for fish breeding	0	3	2	5
Seasons are unpredictable	0	0	1	1
Electricity & Poison damages fish stocks	2	3	1	6
There are no benefits except fish	1	2	0	3
Want Work from Conservation Projects	1	0	0	1
Conservation reduces killing of orangutan	1	0	0	1
Others cause the forest fires	0	1	0	1
Prevent Forest fires	3	0	7	10
PARTNERSHIP Themes	Pengembung Total	Pemerak Total	Kenelang Total	Grand Total
We need more assistance and cooperation	7	4	4	15
Local meetings are less costly	0	1	1	2
Local government do not get involved	2	1	1	4
We need support for enforcement	5	5	2	12
I have not heard about the national park	3	7	2	12
I have not worked with the National Park	4	5	0	9
We want more attention from National Park	2	0	0	2
We have no contact with Riak Bumi	3	0	0	3
Park Annual meetings are useful	1	0	0	1
Links between head fishermen	1	0	1	2
We need an agreement between villages	4	1	3	8
We have links with other villages	1	3	1	5
We need to resolve differences over the boundary	0	0	3	3
Tell others about our rules	1	2	4	7
We can learn from other villages' rules	0	0	3	3

Themes from May 2010 Fieldwork in Danau Sentarum National Park

Appendix G: Appreciative Inquiry Workshop Summary

Pages 1-6

Fishermen's Meeting River Tawang Danau Sentarum National Park



Nanga Kenelang, Suhaid, Kapuas Hulu
19-20 March 2011

Participants from:
Pengembung, Ng. Sumpak, Pemerak,
Ng. Kenelang dan Ng. Epanang

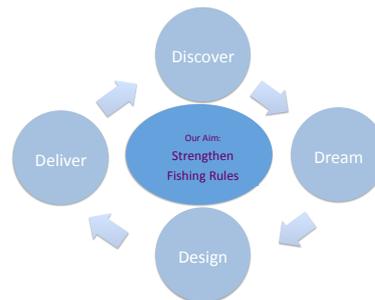
"Appreciative Inquiry-Planning which values success"

Our Aim

Search for Success

Three Principles

1. If we look for problems then we will find problems
2. If we look for success, then we will find success
3. If we have faith in our dreams then we will find miracles



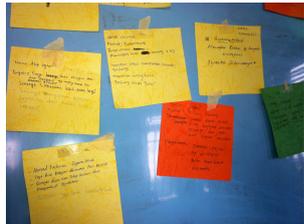
Two Laws

1. What we seek, that is what we find
2. Where we think we are going is where we end up

What have we already found?

- The management system based on local fishing rules has many very good features
- The system of a central funds works well to meet the needs of individual communities
- Communities value working together with neighbouring villages, the National Park Authority, local government & Riak Bumi

Our Best Experiences and Future Hopes



Categorising our Dreams:

Short Term / Medium Term
and
Those that can be achieved in our own village / need collaboration with other parties



Preparing our Dreams



Ranking our Dreams



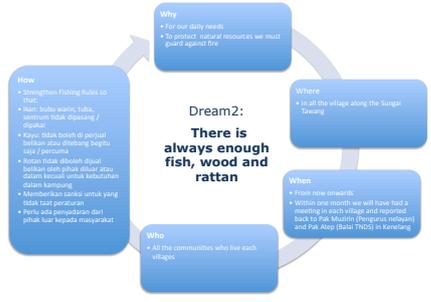
An example of a Village Dream



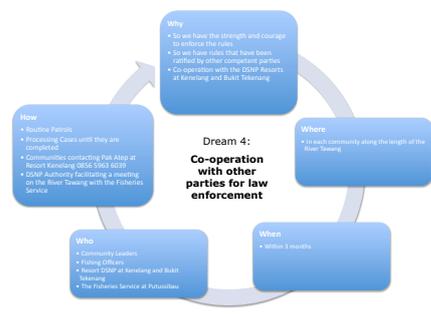
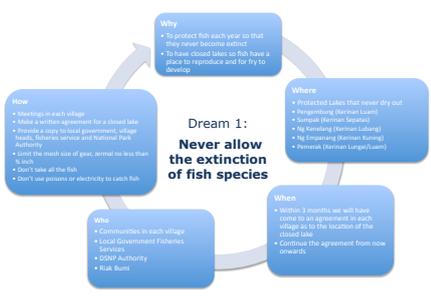
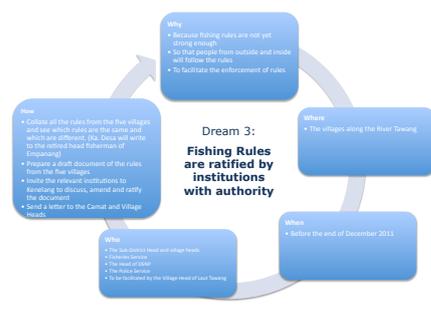
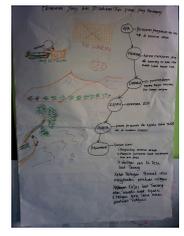
Action Planning

Following the process of ranking our dreams four were chosen for action planning





An example of Action Planning



Action Now

Time Frame	Action
Within 1 month	Each fishing village to have a meeting to: a) Discuss the strengthening of fishing rules and Closed Lakes b) Send current fishing rules to Pak Muzirin (fishing officer) and Pak Atap (DSNP Ranger) at Kenelang
1-3 Months	a) Start regular patrols from Kenelang and Bukit Tekenang to build close contact with communities b) Agreement for Closed Lakes from each village
3-6 Months	a) Head of Laut Tawang village to collate all the fishing rules and to make a draft document for discussion with stakeholders with authority b) DSNP Authority to facilitate a meeting at Kenelang with the Fisheries Service (Mrs Risma)
6-12 Months	Fishing rules which are agreed by each fishing village to be ratified by Sub-District, Fisheries Service and DSNP Authority

Next Steps to be undertaken by DSNP Authority

- Visit each village on a routine basis and always call at the home of the Head Fisherman or another officer
- Check that each village has had a fishermen's meeting before the end of April and attend if invited
- Assist the Village of Laut Tawang to prepare the fishing rules document for the five villages.
- Facilitate the attendance of the Fisheries Service at Kenelang before the end of October
- Together with the NGO Riak Bumi facilitate a meeting in the middle of March 2012 to assess the outcome of these activities

Individual Commitments for Action



In the middle of March 2012 we will have another meeting to see what has been achieved

Our hope is that these dreams will be realised

Next Steps to be undertaken by Local Communities

- Have a meeting in each fishing village before the end of April to strengthen fishing rules and decide on the protected lakes
- Village Head of Laut Tawang to collate the fishing rules from each fishing village and make a draft document of fishing rules before the end of October 2011
- Invite the Fisheries Service and DSNP Authority to Kenelang to ratify the fishing rules

Participants at the 2011 River Twang Meeting



Appendix H: Summary of Lake District Themes from the interviews

LIVELIHOOD Themes		Caldbeck Total	Mungrisdale Total	Matterdale Total
A	Finances	18	23	18
A	Finances Affects Choices	5	6	3
A	Impact of Schemes on farm finances / slipper farmers	5	2	0
A	Valuable Grazing Our common	4	2	1
A	Farming isn't attractive for next generation	1	2	2
A	Agri-environment payments are significant	2	6	1
A	Sheep don't pay by themselves	0	0	4
A	Headage and loss of it affected decision making	1	2	2
A	Diversification is necessary as farming doesn't pay enough	0	2	1
A	Food production will be more important	0	1	0
A	The Public's food is subsidised not farmers	0	0	2
A	Exchange rate is boosting prices - makes a difference	0	0	2
B	Motivation	24	31	19
B	Sense of Belonging	4	3	3
B	Like the views and open spaces	0	4	3
B	It is what I've always done	2	5	1
B	Stewardship /Legacy for Next Generation	3	5	2
B	Livestock is the Driver	6	5	6
B	Farming is a Lifestyle	3	3	2
B	Generations of Knowledge	3	2	0
B	Peace and Quiet no hassle - continuity	3	4	2
C	Number of Commoners	0	2	11
C	Small farms important	0	1	0
C	far fewer farmers	0	1	4
C	We want the fells actively used - no. graziers reducing	0	0	5
C	Farms amalgamate to be viable	0	0	2
D	Practical Aspects	13	5	8
D	Impact of Set Calendar for Fell Sheep	3	0	0
D	Scrub Affects Gathering	1	1	0
D	We would like more sheep	5	0	1
D	Hefting important (at risk)	3	3	3
D	We don't go up to fell often except for gathers	1	1	2
D	Fewer have Good Dogs needed for shepherding	0	0	2
GOVERNANCE Themes		Caldbeck Total	Mungrisdale Total	Matterdale Total
A	General Role of Association Theme	22	23	13
A	Association Works Well	6	9	6
A	Association brings people together	0	0	5
A	Always some agro / feuds	4	3	0
A	Transparency needed	1	0	0
A	Association enables solutions	4	8	2
A	Governance used to be stricter	0	0	2
A	Association bound by NE rules	2	1	0
A	Money changes everything	4	1	0
A	Association allows fencing / pen repairs to be organised	0	0	3
A	Association important for registration	1	0	1
A	Require independent advisor	0	1	0
B	Rules and Enforcement	19	8	5
B	Self interest in complying	1	0	1
B	Local power needed to enforce where necessary	3	2	2
B	Quiet word approach to breaches	3	1	1
B	Decision Making by vote	4	0	0
B	Dispute resolution requires tooing and froing	2	0	0
B	Most matters sorted farmer to farmer	1	5	0
B	Disputes are unpleasant	2	0	1
B	Dipping Rule important	2	0	0
B	Rules are not completely clear - paper compliance	1	0	0
C	Communal Practical Matters	2	10	12
C	Money should go to active graziers	2	4	0
C	Less Communal Gathering	0	2	3
C	Gathering together Important	0	2	3
C	Shepherds Meets important but have become drinking ses	0	2	4
C	Many Farmers no longer farm traditionally	0	0	2

Appendix H page 2

ENVIRONMENT Themes		Caldbeck Total	Mungrisdale Total	Matterdale Total
A	Visitors	7	4	5
A	Keep the Countryside Tidy for Visitors	5	2	0
A	Sheep are important for allowing walkers access	2	1	0
A	Lovely Views - good fresh air	0	0	0
A	Association makes some money from sports groups	0	0	1
A	We need environmentally friendly tourism	0		1
A	Dogs are a problem disturbing sheep	0	1	2
A	Off-roaders are a problem	0	0	1
B	Delivering Natural England's Objectives	19	15	11
B	We don't understand what vegetation they are looking for	6	2	1
B	NE don't know what they are asking for	0	3	1
B	ESA / HLS is good	0	6	4
B	Differing Perceptions - farmers and NE / Government	4	2	4
B	NE staff vary in how they relate to us	2	0	0
B	NE staff are dictated to by national targets	2	1	0
B	Good officers make a difference	2	1	0
B	F&M made it possible	3	0	0
B	Some Farmers take money but don't respect rules	0	0	1
C	Role of Farming	12	13	11
C	Commoners focus on environmental benefits for sheep far	3	0	1
C	More Flexibility is required	4	0	0
C	It has worked for hundreds of years	1	3	2
C	Stock Numbers too low - undergrazed	3	2	1
C	Stock numbers about right	0	3	2
C	Ask Farmers how to do it	1	1	1
C	Off-wintering is good for the sheep	0	1	0
C	F&M made importance of farming clear	0	1	0
C	Cattle good for environment	0	1	0
C	it is the farmers who manage the landscape	0	1	2
C	Different sheep numbers result in drift of sheep	0	0	2
D	Vegetation Management	4	11	10
D	There will always be localised over grazing	3	0	0
D	Sheep are important for controlling scrub	1	2	0
D	Woodlands will provide shelter / be acceptable	0	2	1
D	Woodlands are alien - fence off shelter / fence problems	0	3	0
D	Bracken is a problem	0	2	0
D	Vegetation has improved	0	2	1
D	problem with caterpillars	0	0	4
D	Lots of different vegetation came back during F&M	0	0	1
D	Delicate Balance between over and under grazing	0	0	1
D	Forestry affects drainage and floods	0	0	1
D	There already is enough woodland here	0	0	1
PARTNERSHIP Themes		Caldbeck Total	Mungrisdale Total	Matterdale Total
A	Federation/ Commons Council	9	7	10
A	Council to Enforce Rules	1	2	4
A	FCC Support Commoners	2	2	2
A	Each Common is Different	1	0	0
A	Exchange of Information is good	1	0	0
A	Council will cost money / not appropriate	2	0	1
A	Keep management local	2	1	2
A	A council would be good	0	2	1
B	National Park etc.	9	9	8
B	NP / SSSI is a benefit - we get agri-env payments	1	1	1
B	Park is good (for Diversification)	2	3	1
B	NP doesn't affect us	3	2	0
B	Other bodies don't support farmers	1	0	0
B	Rangers are good and look after footpaths	2	2	2
B	National Park has lost its way	0	1	0
B	Nothing is good about the National Park	0	0	1
B	National Park needs to encourage business	0	0	1
C	National Trust are OK	0	0	2
C	Local Networks	10	1	4
C	Community	2	0	1
C	Uldale / Caldbeck Executive is good	3	0	0
C	Interaction with others is good	1	0	2
C	We should work with neighbours	2	0	1
C	If NE paid nothing it would all have balanced out	2	0	0
C	Importance of auctions for meeting farmers	0	1	0

Appendix I: Commons Council Consultation Brochure

Financing Mechanism for a Cumbria Commons' Council

Grants would be sought for establishment costs but a sustainable financing plan is needed for running costs.

Estimated Running Costs		
Administrator	1.5 days per week incl. office costs	£10,000
Postage and Newsletter	2 mailings per year	£1,500
Travel	Local and national	£1,000
Meetings	5 times a year including the AGM	£1,000
Software and Equipment	Software and website maintenance and updates	£1,000
Accounts		£ 500
Professional Advice		£1,000
Total		£16,000

NB It would be useful to accrue a financial reserve for Dispute Resolution

The exact costs per commoner / owner will depend on the number of commons that participate. Payments could be made by commons associations from agri-environment payments and would include membership of the Federation as well as the Commons Council.

The UELS commons supplement of £5 per ha equates to over £500,000 per annum in Cumbria. £16,000 per annum is a small proportion of that supplement (3%) to protect vital income streams.

for more details contact:
 Julia Aglionby 016974 70016
julia_aglionby@hhbowe.co.uk
 or Viv Lewis 01931 713335
viv@cumbriacommoners.org.uk

8



Introduction

In 2008 a consultation process for a Shadow Commons Council for Cumbria was undertaken. Overall there was considerable support for a Council and the Federation of Cumbria Commoners undertook further research and concluded that a Statutory Commons Council offers advantages to those actively managing commons.

This time the consultation process is for real, if you have received this it is likely your commoners association has expressed interest in being part of the first phase of commons to be part of an umbrella Commons Council for Cumbria. Substantial support from each CL unit is required before your common becomes part of the council.

Next Steps

1. Please read this document and contact us by 7th February 2011 if you have any queries or suggestions for amendments.
2. A further meeting will be held in mid February when you will be asked to vote via a paper ballot on whether your common should join the Council. Postal voting will be an option.
3. If there is substantial support from a number of commons then a case of establishment will be made by the Federation to Defra, all those commons who have voted in favour of a council would be involved in preparing the case.

2

Proposed Council Membership

It is proposed that the Council has 15 voting members and the ability to co-opt up to four additional members who would be non-voting. It is proposed these would be:

- 10 active commoners: up to 2 from each of the 5 areas. Active graziers would vote for these members.

Areas
East Fellside
Howells
North Lakes
South Lakes
Central Lakes

- 2 non-active commoners from different areas who are not owners to be voted for by non-active commoners
- 3 owner representatives chosen by the owners including 1 non-institutional owner

plus up to 4 co-opted non voting members

Active commoners would be commoners who have grazed an even aged hefted fell flock for at least the previous two years

7

Proposed Functions of the Council

1. Managing agricultural activities
2. Prepare and maintaining a register of grazing
3. Establishing and maintaining boundaries
4. Removing unlawful boundaries and other encroachments
5. Removing animals unlawfully permitted to graze.
6. Regulating the use of common rights

How will decisions be made?

The Council will have a set of rules that would apply to all commons within the Council and if a breach cannot be resolved locally the Council can be brought in. Some Council decisions would be a simple majority vote but on decisions that limit the use of common rights a 75% majority would be required.

For instance a decision to enter a common to a stewardship scheme could be taken by the Council where unanimous support is not forthcoming. The Council would only do so if at least 75% of the active graziers from that common were in favour of entering the scheme.

New rules for the Council would require majority support of the Council members. When new rules are proposed there would be notification procedures to all commoners and owners.

6

Key Features of the Commons Council

1. Covers the whole of Cumbria
2. Common Land (CL) units join the Council if there is substantial support from those with legal rights on that CL unit.
 - a. If a CL unit does not join the Council has no jurisdiction over that land
 - b. If a CL unit joins the Council then all users of that unit are bound by the regulations whether commoners or not
3. As a matter of principle the Council will wherever possible leave management to local associations
4. Negotiation, mediation and arbitration would be the preferred routes for dispute resolution; the courts would be a last resort.
5. All graziers are required to provide returns for the live register, the system chosen would meet UELS rules.
6. Where consent is currently required from the owner for any activities the Council would still require owner's consent
7. There will be separate members for graziers (10), non-graziers (2) and owners (3)

3

Frequent Questions about Commons Council

Why does the Federation support a Commons Council?

The Federation has worked hard since 2003 to provide a voice for commoners in Cumbria. It is also approached by local associations when problems arise but in these cases the Federation's role is limited as it has no statutory powers. A Council would enable common land to be properly managed with a binding dispute resolution service and prevent a small minority disrupting the livelihoods of the majority. As public funding becomes tighter and demands for public goods increase Commons require a stronger statutory voice and effective management to protect commoning.

How will the Council work with the Federation?

All commoners who are part of the Council would automatically then be members of the Federation which would continue to run in parallel with the Council but with shared staff and newsletters to minimise costs.

We cannot enter Stewardship due to some commoners' illegal activities. Would a Council help?

A Council would at the request of a local association or commoners be able to remove illegally grazing stock and remove items left on a common such as middens and other rubbish.

The majority of the commoners want to enter a HLS but cannot due to one objector, can a Council help?

Yes, where over 75% of the active commoners wish to enter a scheme the Council will be able to enter into an agreement on behalf of the association and bind the minority objector(s) if the Council considered a scheme was beneficial.

4

What will the relationship be between local associations and the Council?

Local associations will continue to manage all day to day activities on a common and will continue to hold the stewardship agreement unless they request the Council's involvement. When a problem arises the association or individual commoners can seek the assistance of the Council. The Council will be able to enter into agreements with associations to facilitate carrying out its functions. A separate guidance note will be produced detailing all the associations involved in the Council and their roles.

Why doesn't Natural England pay for the Council?

If the commoners pay for the Council they retain ownership of the Council. Natural England provides an extra £5 per hectare to all commons in UELS to recognise the extra costs of managing commons and keeping a live register. Some of this money could be used to meet the subscription to the Council.

Will recreational users be part of a Council

Commons Councils are for commoners, owners of common land and other property rights. Those with access rights under CROW and other laws have no right to sit on the Council.

What happens to those Commons who do not join the Council at this stage?

There will be another chance but each time a new common would like to join the umbrella Commons Council a new establishment order from Defra is required. It is therefore likely that there would only be opportunities at 2-5 year intervals but there is likely to be a cost.

5

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