# Forest Governance and Forest Conservation in Sabah, Malaysia

**Richard Bloor**

This Thesis submitted in September 2014 in fulfilment of the requirement for the degree of Doctor of Philosophy

Cardiff University

# CONTENTS

**FIGURES AND TABLES**

**ABSTRACT**

This Thesis is concerned with multilevel and multi-sector forest governance in the Malaysian State of Sabah. It begins by amending the theory of vertical institutional interplay by applying constructivist and historical new institutional theoretical approaches, which contrasts with the more static theoretical foundations that have characterised study of this area to date. It then develops an analytical framework that uses policy frame analysis. This is designed to apply this new theoretical approach to the empirical context of Sabah. This framework analyses empirical subject through three stages. The first stage investigates the development of forest governance institutions at the global level and the state level within Sabah. The second stage then considers how the intersection of these developments, specifically focusing on role of ideas, discourse and agency, created the impetus for new policy initiatives in two local-level empirical examples. The third stage then considers the extent to which these initiatives were successful in institutionalising new forest conservation practices, or conversely how they were impeded by state level historical institutional continuities. The findings of this Thesis differentiate two forms of vertical institutional interplay. The first is the way global institutions affect state level ones where key actors mobilise ideas and discourses to in order to shift the direction of policy and initiate institutional change. The second is where the influence of global institutions is blocked by barriers created by long term historic institutional legacies that have shaped state level institutions. These findings show that vertical institutional interplay has initiated a partial shift in forest institutions and policy in Sabah. This shift varies between different locations according to the relative influence of these two forms of institutional interplay, and has created more dynamism and uncertainty in Sabah's forest governance institutions. This Thesis contributes to existing literature through its ability to better conceptualise the role of vertical institutional interplay in a way that can account for the tension between the fixed and dynamic aspects of institutions. This contrasts to older approaches that have focused largely on the fixed aspects of institutions. The contribution is also demonstrated in the way this theoretical approach is able to better conceptualise fine grain variations in these dynamics at a local level of scale.

**ACKNOWLEDGEMENTS**

## ACRONYMS

| | |
|---|---|
| BBOP | Business Biodiversity Offsets Programme |
| BCT | Borneo Conservation Trust |
| BORA | Borneo Rhino Alliance |
| CBD | Convention on Biodiversity |
| DGFC | Danau Girang Field Centre |
| FACE | Forests Absorbing Carbon Emissions |
| FAO | Food and Agriculture Organisation |
| FSC | Forest Stewardship Council |
| GEF | Global Environment Facility |
| HUTAN | HUTAN is not an acronym as such, given that it is the Malay word for Forest, but the title of the organisation is commonly capitalised |
| KOCP | Kinabatangan Orang-Utan Conservation Project |
| LEAP | Land Empowerment Animals and People |
| LKWS | Lower Kinabatangan Wildlife Sanctuary |
| MESCOT | Model Ecologically Sustainable Community Conservation and Tourism |
| MOU | Memorandum of Understanding |
| MWHCB | Malua Wildlife Habitat Conservation Bank |
| PACOS | Partners of Community Organisations in Sabah |
| PEFC | Programme for the Endorsement of Forest Certification |
| PES | Payments for Ecosystem Services |
| REDD+ | Reduced Emissions for Deforestation and Forest Degradation |
| RSPO | Round Table for Sustainable Palm Oil |
| SEARRP | South East Asian Rainforest Research Programme |
| SFD | Sabah Forestry Department |

| | |
|---|---|
| SFM | Sustainable Forest Management |
| SFMLA | Sustainable Forest Management Licence Agreement |
| SWD | Sabah Forestry Department |
| UNCED | United Nations Conference on Environment and Development |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNFF | United Nations Forum on Forests |
| USM-SFMP | Ulu Segama Malua Sustainable Forest Management Plan |
| WLT | World Land Trust |
| WSSD | World Summit on Sustainable Development |
| WWF | World Wide Fund for Nature |
| YSD | Yayasan Sime Darby |

**CHAPTER ONE: INTRODUCTION**

This thesis is concerned with multilevel and multi-sector forest governance in the developing world. In particular, it seeks to investigate how institutions at different levels of scale and actors from different sectors shape local level forest conservation policy. From a disciplinary perspective it is positioned within political science, specifically the sub-fields of policy and institutional analysis. However, it also draws on other sub-fields such as international relations and environmental management. It has a theoretical purpose of exploring the value of the concept of vertical institutional interplay as a tool for analysing this subject area. It also has an empirical purpose in exploring the consequences of multilevel and multi-sector governance in practice through the empirical example of the Malaysian State of Sabah. These investigations will be used to draw wider conclusions that contribute to existing theoretical literature on vertical institutional interplay and produce empirical findings that have general relevance for forest governance and forest conservation in developing world settings.

This Introduction begins by outlining some of the key trends in forest governance that have emerged in recent decades. It then states the aims and objectives of this Thesis in the context of these wider trends, and following this, introduces the concept of vertical institutional interplay, which will be used as the main theoretical lens for analysis. After this, it introduces the Malaysian State of Sabah and justifies its suitability as an empirical example for addressing the aims and objectives of this Thesis. Finally it outlines the form that this Thesis will take in subsequent Chapters.

*1.1 Forest governance*

Governance broadly refers to managing, steering and guiding actions in the realm of public affairs (Pierre 2000). It can be conceptualised as an interdependent mix of hierarchical, market and network forms. Pierre observes that the period prior to the 1980s saw a predominance of hierarchical governance led by national governments. However, since the 1980s, the shape of governance throughout the world has undergone a process of reconfiguration, with markets and networks becoming increasingly important as many of these hierarchical forms have been dismantled (Pierre 2000). The same period has also seen the growing importance of transnational organisations at higher levels of scale, as well as devolution of power to lower levels (Peters 2000). Through these developments the role of the state has become more that of a coordinator and collaborator and less a dictator in the policy making process (Kooiman 2000).

General developments in forest governance in the developing world mirror these trends. Pulzl and Rametsteiner observe that the past three decades have seen a transition in forest governance from

dominance by nation states to a much more multilevel and multi-sector situation (Pulzl and Rametsteiner 2002). The multilevel aspects have manifested in terms of trends towards both globalisation and localisation of forest governance (Wiersum 2013). In the case of the former, recent decades have seen the development of an international movement, centred on UN environmental negotiations and international environmental organisations, which has sought to promote more sustainable use of forest resources throughout the world (Humphreys 2001, 2008). In the case of the former, the same period has seen a trend in the developing world towards devolution of forest management to local government and local communities (Agrawal et al 2008).

In the process of globalisation and localisation, a wider range of actors have become involved in forest governance beyond the traditional state and forestry sectors. Environmental NGOs and scientists at local, national and international levels have become increasingly influential, leading to a growing emphasis on environmental protection in forest policy (Humphreys 2008, McGinley 2012). Intergovernmental organisations and international environmental negotiations have increasingly encouraged the involvement of the private sector in forest governance, and consequently there has been a greater emphasis on the use of market mechanisms to promote sustainable forestry (Ros-Tonen et al 2008, Mert 2009). Devolution has meant that local communities have a greater involvement in forest management, and, in alliance with development NGOs, a movement has emerged that advocates a greater recognition of forest people's rights and customary tenure (Larson 2010, McDermott et al 2011).

That being said, national governments still retain a strong position. (Visseren-Hamakers and Glasbergen 2007). Moreover, in spite of the efforts of actors at global and local levels to promote sustainable forestry and forest conservation, long standing trends of deforestation continue in much of the developing world. This raises an important subject for study relating to why efforts to promote sustainable forestry and forest conservation at global and local levels have only achieved limited success. Therefore it becomes necessary to consider what factors influence the relative success or failure of these efforts when they are applied in national and subnational contexts.

In order to address this area of study, this Thesis seeks to investigate the interaction of global, national, subnational and local trends in forest governance through an analysis of multi-level institutions. It uses Young's definition of institutions, which he states are "sets of rules, decision making procedures and programmes that give rise to recognised practices, assign roles to participants in these practices, and govern interactions among occupants of specific roles" (Young 1994: 14). The importance of exploring institutions relates firstly to their significant impact in

determining the behaviour of policy actors and thus the form of policy in areas such as land use rights and regulations. These can have significant detrimental impacts on the environment, and also prove difficult to alter owing to their persistence and embeddedness in systems of governance (Young 2002: 3, Hall and Taylor 1996). But secondly, the expansion in the number of institutions that govern forests, which results from greater multilevel and multi-sector involvement, leads on to the issue of how institutions interact and what dynamics are entailed by these interactions. Young observes that the growing multilevel and multi-sector dimensions of environmental governance in general has led to an increasing "institutional density", involving the interaction of a wider variety of forest governance institutions (Young 2002: 8-9).These interactions have potential to be beneficial in creating synergies between institutions at different levels of scale, which in turn can initiate solutions to policy problems that have proved difficult to solve at a single level. But conversely, the intrusion of higher level institutions into established institutional arrangements at national or subnational levels also risks conflict and institutional fragmentation (Rosendal 2001). Drawing from these observations, this Thesis seeks to investigate the benefits and risks of institutional interactions across different levels of scale. Specifically, it will explore how trends in global forest governance either complement or conflict with institutions at national and subnational levels. Within this investigation, it will also explore the role that actors from multiple sectors play in facilitating multilevel institutional interactions and the consequences of these interactions for forest conservation policy at a local level.

*1.2 Aims and objectives of Thesis*

In the light of these trends towards globalisation and localisation and the growing number of sectors involved in forest governance, the principle aims of this Thesis are twofold. First is to investigate how the interaction of international, national and subnational institutions shapes forest policy at a local level. Second is to investigate the roles played by policy actors representing different sectors, whether government, civil society or private, within this process. From these two aims, this Thesis has both theoretical and empirical objectives.

Theoretically, this Thesis investigates vertical institutional interplay, a concept that has developed a growing theoretical and empirical literature in recent years. This concept is closely associated with the work of Oran Young and the International Human Dimensions Programme for Global Environmental Change. This programme has sought to investigate the role of institutions in driving or tackling global environmental problems (Young 2002: 28). According to Young, "[institutional] interplay occurs when the operation of one set of institutional arrangements affect the results of

another or others" (Young 2008: xvi). Further to this definition, he states that "vertical [institutional] interplay is as a result of cross-scale interactions or links involving institutions at different level of social organisation" (Young 2002: 23). These definitions suggest that the concept of vertical institutional interplay has application to the research aims set out above. The first theoretical objective of this Thesis is therefore to explore the literature on the theory and empirical application of this concept in order to identify where it is either suitable or unsuitable for addressing these research aims. Following from this investigation, the second theoretical objective is to develop a theoretical approach that aims to draw on the strengths and overcome shortcomings in this literature that were identified in the process of addressing the first objective. Through this it is intended that this Thesis will make a theoretical contribution to this literature.

These theoretical objectives will be achieved by investigating multilevel and multi-sector forest governance in a specific empirical setting in the developing world. This leads on to the empirical objective, which is to investigate what light the theory used in this Thesis can shed on the practice of forest governance and forest conservation in general in developing world contexts. In order to do this, the Malaysian State of Sabah has been chosen as a suitable representative example of the broader trends in forest governance that were outlined above. This example will be used to explore the roles of a range of actors in driving forest policy change at the micro level within the context of macro level institutional trends. The purpose of this objective will be to produce findings that have relevance not only for the specific empirical setting of Sabah, but also provide general insights that have relevance for understanding forest governance in other areas of the developing world. Below is set out an introduction to the geographical, social and economic context of Sabah, and a justification of Sabah's suitability for addressing the aims and objectives of this Thesis.

*1.3 An Introduction to Sabah*

Sabah is the easternmost of the 13 States of Malaysia. It occupies the northern part of the island of Borneo. Figure 1 shows that Sabah can be divided roughly into two topographical areas. The west of the State is characterised by highlands, which rise from a narrow coastal plain along the west coast. The highest ranges run parallel to this coast, and include Mount Kinabalu, which at 4,101 m is the highest mountain in South East Asia. These mountains recede into lower hills and plateaus into the State's interior. The eastern area consists mainly of alluvial floodplains that drain into the mangrove swamps and wetlands, which form most of the eastern coast. The largest of these floodplains is that of the Kinabatangan River, which extends to 560 km and drains 23% of Sabah's land area. Sabah has a wet equatorial climate, and as a result historically the vast majority of the State was covered by

tropical forests. Most of the highlands to the west of the state continue to be covered by forest. However most of the lowlands have now been converted for plantation agriculture. Nonetheless, in spite of high levels of deforestations over the past fifty years, Sabah still contains exceptional biodiversity. 189 mammal species and 540 birds are resident to Sabah, including internationally important populations of endangered species such as Orang-utan, Bornean Pygmy Elephant, Sumatran Rhino, Proboscis Monkey, Clouded Leopard, Banteng and Sun Bear (GEF-UNDP 2013).
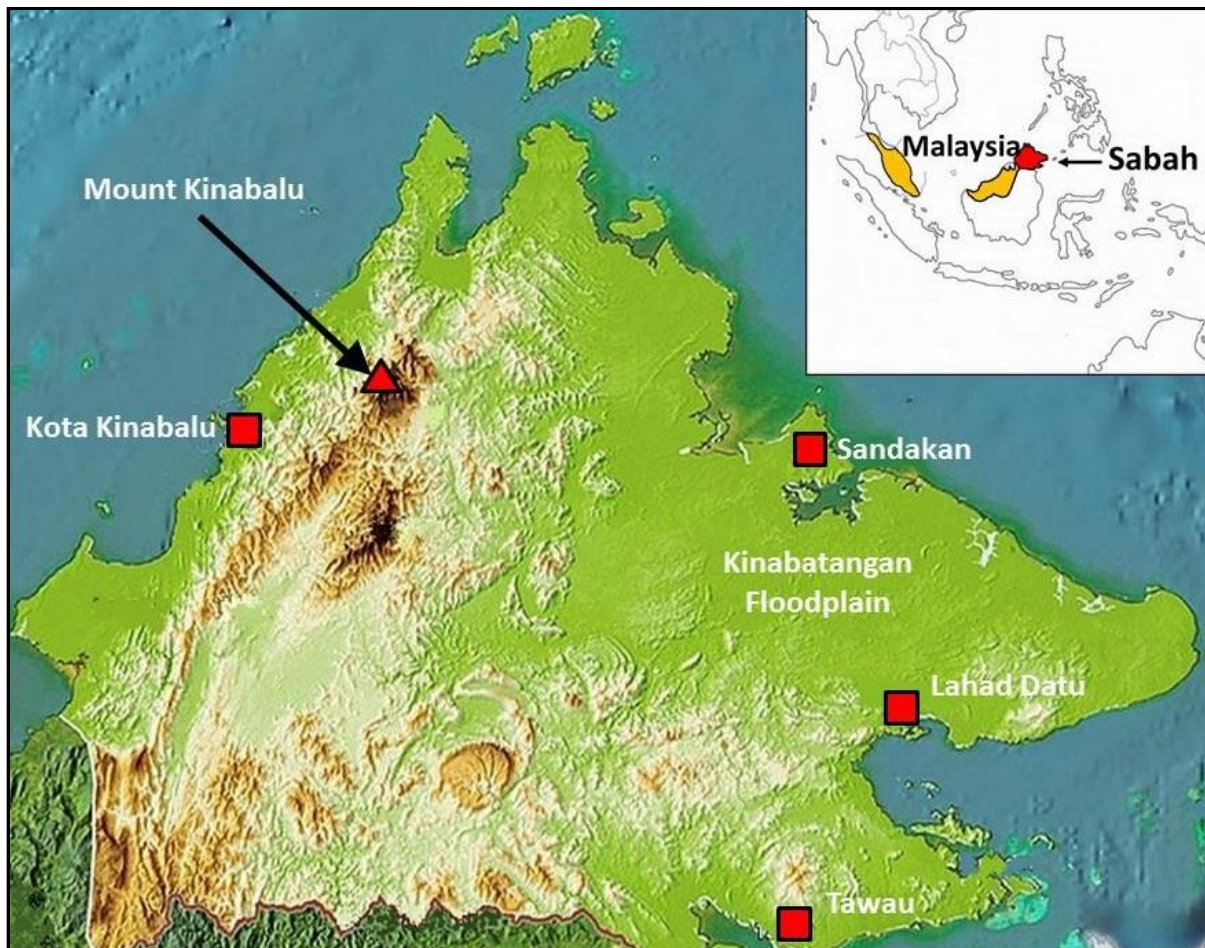


Figure 1: Location, Topography and Major Cities in Sabah

Sabah has traditionally been sparsely populated, though it has been subject to high human population growth since it gained independence from British colonial rule in 1957. Between 1957 and 2010 the population of Sabah rose from 410,000 to 3,117,000, at rates well in excess of the average for Malaysia as a whole (Leete 2007). The population for Sabah has traditionally been rural, however in recent decades more densely populated areas have grown up in and around the capital city, Kota Kinabalu, as well as the three other largest urban areas of Sandakan, Tawau and Lahad Datu. The population of Sabah is ethnically diverse. In addition to 28 indigenous tribal groups, which

make up around half the population, there are significant populations of ethnic Chinese, Malays, Indonesians and Filipinos. Immigration of the latter three groups has been the principle driver of Sabah's population growth, meaning that the proportion of native Sabahans and Chinese has fallen significantly since independence (UNDP 2008).

Sabah has not benefitted from the same levels of economic growth as peninsular Malaysia. While at its accession to the Federation of Malaysia in 1963 Sabah was the second richest State in the country in terms of GDP per capita, it is now the second poorest. This has been attributed to the fact it has not matched the levels of industrialisation seen in Peninsular Malaysia and the consequence that its economy continues to rely largely on natural resource exploitation. Sabah also has the highest levels of poverty in Malaysia in terms of income, particularly amongst rural tribal communities in the State's interior (UNDP 2008). In spite of rapid urbanisation, agriculture remains the dominant economic sector. Recent decades have seen a shift in the shape of Sabah's economy. Revenue from timber, which was the traditional economic mainstay of the State, has fallen sharply, while there has been a corresponding rapid rise in revenue from the palm oil and tourism industries (GEF-UNDP 2013).

*1.4 The Suitability of Sabah for the aims and objectives of this Thesis*

This last observation about the changing shape of Sabah's economy points towards a key reason for Sabah's suitability for addressing the aims and objectives of this Thesis. On an initial fieldtrip to Sabah in January 2010 it was observed that natural resource use in Sabah had reached a cross roads. Between independence and the 1990s, Sabah's economy was sustained principally by revenue from forestry (Jomo and Hui 2004). However, years of unstainable logging have led to a collapse in yields from the State's extensive commercial forest reserves. Over the same period, as a result of the growing profitability of palm oil on international markets, the extent of the State's land area under oil palm plantation has expanded rapidly (Reynolds et al 2011). In addition, because of the growing numbers of tourists attracted to Sabah's natural attractions and wildlife, the State's biodiversity has assumed an economic value in situ (IDS 2008). The consequences of these developments are that strong countervailing pressures have emerged either to convert extensive tracts of commercial forest to plantation or to preserve remaining forests for the purposes of the sustainable management of forest resources and biodiversity conservation.

In order to support their position, advocates of sustainable forest management and forest conservation from the government and NGO sectors have been particularly active in adopting approaches to forest policy that derive from the wider trends in forest governance that were

described above. This has taken several dimensions that are representative, and in some respects pioneering, in the context of these trends. In terms of the globalisation of forest governance, Sabah's Forestry Department has adopted a range of policy instruments that originate from international institutional contexts. These include the first example of a tropical forest certified under the Forest Stewardship Council, one of the earliest tropical forest carbon offset projects and the first forest biodiversity credit scheme in the developing world (SFD 2011, Reynolds et al 2011). In terms of localisation, Sabah has a number of well-established examples of local projects that have successfully combined community development and forest conservation objectives. These examples have been effective in integrating local forest people's livelihoods into the sustainable management and conservation of forests (UNDP 2012, SFD 2011, Lackman-Ancrenaz et al 2001). In terms of multi-sector participation, forest governance in Sabah has changed from being the preserve of a limited number of state level actors from the forestry and government sectors to a situation involving a far wider range of sectors from a range of levels of scale. This includes local and international environmental NGO's, international philanthropic foundations, indigenous communities, intergovernmental organisations and international private sector companies.

However, in spite of these developments, considerable pressure still exists from powerful economic and political interests at the state level to continue well-established practices of forest use that have led to extensive deforestation and forest degradation (Toh and Grace 2006, UNDP 2008). Consequently, in addition to being representative of wider trends in forest governance, Sabah presents the opportunity to address the aims and objectives of this Thesis by investigating the outcomes of wider trends in forest governance in local institutional contexts. This will involve an investigation of how these wider trends interact or conflict with the historical legacies, priorities and values that underpin national and subnational forest governance institutions. In turn, it also presents the opportunity to investigate how local level policy initiatives that have emerged from wider trends in forest governance have been shaped by these interactions and conflicts.

In addition, in relation to the empirical objectives, Sabah presents the opportunity to produce findings that have wider application. The early adoption in Sabah of policy instruments that derive from international contexts means that the development of these instruments can be studied over a longer time frame than in much of the rest of the developing world. Therefore an empirical study of forest governance in Sabah has the potential to inform the implementation of these instruments in other locations which are at later stages of development. In addition, the cross roads in natural resource use in Sabah has potential to inform forest governance in areas where unsustainable forest use continues but where exhaustion of timber stocks it likely to become a significant issue in the

future. Such a situation applies for instance in neighbouring parts of Borneo such as the Malaysian State of Sarawak and the Indonesian region of Kalimantan, where rates of deforestation and conversion to agriculture resemble the situation that existed in Sabah in the 1980s and 1990s. However it is accepted from the outset that such wider application has its limitations. Findings from Sabah have the potential to inform some general aspects of forest governance, but it is recognised that other locations are also subject to their own local particularities that will interact differently with global forest governance trends and lead to different outcomes.

*1.5 Outline of Chapters*

The first three Chapters of this Thesis discuss the theory, analysis and methods that are applied to empirical examples in later Chapters. In line with the theoretical objectives, Chapter Two investigates existing literature on the concept of vertical institutional interplay in natural resource governance, as well as the literature on new institutionalism which provides the theoretical foundations for this concept. This Chapter discusses how older approaches to new institutionalism have created shortcomings in the literature on vertical institutional interplay with regards to the aims and objectives of this Thesis and how newer approaches to new institutionalism have potential to overcome these shortcomings. Based on this discussion two empirical and one theoretical research questions are posed. Following from this, Chapter Three then introduces an analytical framework based on the theoretical observations made in Chapter Two, which is designed to guide the empirical research towards addressing the research questions. This framework uses policy frame analysis to conceptualise the relationship between macro level institutional context, policy actors and micro level policy implementation. Chapter Four then discusses and justifies the use of qualitative and interpretive methodology as a basis for designing research methods to answer the research questions according to the analytical framework. In doing this it recounts the research journey taken over the course of three fieldwork periods in Sabah and highlights the challenges faced through this process.

The next five Chapters then address the empirical subject matter of forest governance in Sabah according to the stages formulated in the analytical framework. Chapters Five and Six expand on the observations made earlier in this introduction by exploring existing literature on forest governance respectively at global and state levels. These chapters are intended to establish the wider institutional context that forest governance in Sabah is situated within and identify key trends and issues that have relevance to answering the research questions. Chapters Seven, Eight and Nine then analyse the empirical research data collected through the three fieldwork periods. Chapters Seven

and Eight have a similar purpose to each other in investigating the process of formulating and implementing forest conservation policy initiatives in two contrasting local empirical examples within Sabah. Chapter Nine then uses empirical data to reconnect the findings of Chapters Seven and Eight with the institutional context discussed in Chapters Five and Six in order to assess the output of these forest conservation policy initiatives in wider institutional terms. Following these analysis Chapters, Chapter Ten then collates and discusses the empirical findings of the Thesis in relation to the analytical framework. Chapter Eleven addresses the research questions in the light of the empirical findings, reflecting on the methodology and research methods and highlighting avenues for future research. Finally, in Chapter Twelve, the findings of the preceding Chapters are drawn together in order to make a number of practical policy recommendations.

**CHAPTER TWO: GUIDING THEORETICAL LITERATURE**

**Introduction**

This Chapter outlines the guiding theoretical concepts used in this Thesis. As stated in the Introduction, the research aims of this Thesis are to investigate how the interactions of international, national and subnational institutions at a macro level have shaped forest policy at a micro level, as well as the roles of actors from different sectors in this process. The theoretical bodies of literature discussed in this Chapter have therefore been chosen according to their suitability for addressing these research aims. In addition, in line with the theoretical objectives, this Chapter seeks to identify how, in pursuing this research aim in the empirical context of Sabah, this Thesis is able to make a wider theoretical contribution to these literatures.

Two interrelated theoretical literatures are discussed in this Chapter. Section one discusses the literature on institutional interplay in environmental governance. This section explores the aims, application and theoretical basis of this literature and considers the extent to which it is suitable for addressing the research aims of this Thesis. Section two discusses the literature on new institutionalism. New institutionalism has been used as a theoretical foundation for the literature on institutional interplay. Therefore this section considers a number of earlier theoretical approaches to institutional analysis found in this literature, as well as how this literature has developed new directions in recent years. This discussion will then be used to ask the question of how the literature on institutional interplay can be adapted through the use of these new directions to better address the research aims. The Chapter concludes by formulating two empirical and one theoretical research question that will guide the subsequent Chapters of this Thesis.

**1. Institutional Interplay**

*1.1 Origins of institutional interplay applied to environmental governance*

The concept of institutional interplay was introduced in the last Chapter. It was observed that institutional interplay "occurs when the operation of one set of institutional arrangements affect the results of another or others" (Young 2008: xvi). Further, it was observed that the focus on institutional interactions has become increasingly pertinent in environmental governance in recent years. This is due to an increase in "institutional density" that has occurred as a result of the proliferation of new environmental institutions (Young 2002: 8-9). The study of institutional

interplay has also become more relevant with the recognition that environmental problems more than ever transcend national boundaries. This means that there is a need to consider the extent to which institutions at different levels of scale are able to complement and coordinate with each other, or conversely whether they impede and conflict with each other in their interactions (Young 2002, Gehring and Oberthür 2008).

Institutional interplay emerged in the context of a wider body of work. This wider literature seeks to investigate the role of institutions in influencing global environmental change, both in terms of causing environmental problems and providing solutions to these problems (Young 2002: 3). Within this wider literature, institutional interplay is one of three analytical foci. The second is the fit between environmental institutions and environmental problems to the extent that the levels of scale or scales at which these institutions operate are appropriate to address the levels of scale at which environmental problems take place. The third is the extent to which environmental institutional models are transferable between different levels of scale, and therefore the extent to which institutional arrangements can be scaled up or down (ibid: 20-28). The purpose of investigating these three foci was to establish how institutions cause global environmental change by fostering environmentally beneficial or destructive practices and why some institutions respond better to environmental problems than others. It was then intended that the findings of these investigations would inform the design of new environmental institutions (ibid: 11).

This work derives from the field of international relations, and is therefore principally concerned with the way clusters of institutions, or "regimes", operate and interact to govern specific environmental problems at the international level (Levy et al 1995). As a result, empirical studies that utilise the concept of institutional interplay have been positioned predominantly at an international level of scale. The case study output has concentrated particularly on areas such as the interaction of environmental treaties and trade agreements (Palmer et al 2006, Gehring and Oberthür 2006), the relationship between different UN environmental conventions (Jacquemont and Caparros 2002, Oberthür 2001) and ocean governance (Stokke 2007, Skjærseth 2006). But institutional interplay has also become influential in the study of the governance of common pool resources and social-ecological systems. This field has used institutional interplay in different contexts, particularly focusing on the creation of natural resource co-management arrangements between national governments and local communities in developing world settings (Berkes and Folke 2002).

New institutionalism is an approach to institutional analysis that emerged in the 1980s and 1990s, and represents the theoretical foundations of the concept of institutional interplay as it has developed. New institutionalism is not a single theory, but rather is composed of several different approaches. Young initially identifies two such approaches, which he terms "collective action" and "social practice" models. The former considers that institutions determine the actions of decision makers on the basis of utilitarian calculations, and that institutions are created as a means by which actors seek to create incentive mechanisms in order to overcome collective action problems (Rutherford 1994, Hardin 1982). The latter emphasis the role of embedded cultural norms and habits in shaping identities, creating common discourses and thus determining the behaviours of decision makers according to the logic of appropriateness (Powell and DiMaggio 1991). Young has also subsequently introduced his own "knowledge-action perspective" that emphasises the role of "agency, individual leadership and governance systems, in shaping the way environmental problems are understood" (Young 2008: 8). Stokke acknowledges a similar third perspective, referring to "ideational interplay", as distinct from to "utilitarian" and "normative" forms, which refers to the diffusion of knowledge and best practices between different institutions (Stokke 2001). Young's approach to dealing with these different viewpoints is to recognise the benefits that a synthesis between them would provide while for the present accepting the relative merits of applying a range of different methods in the pursuit of practical solutions to environmental problems (Young 2002: 49-50).

*1.2 Institutional interplay and scale*

The principal value of using institutional interplay for addressing the aims of this Thesis is its conceptualisation of the way that institutions interact across different levels of scale. A commonly accepted distinction found in the literature is that between "horizontal" and "vertical" interplay. The former refers to the interaction of institutions at the same level of scale. The latter refers to interactions taking place between different levels of a single institutional scale (Young 2002:23). Given the origin of the concept in the field of international relations and the resulting emphasis on international environmental institutions, the latter form has received the least attention in the literature (Gehring and Oberthür 2008:215). However, this vertical form is of greatest relevance to the aims of this Thesis and is therefore given the greatest attention in this Chapter.

In conceptualising institutions in terms of scale, the literature on institutional interplay coincides with and draws upon the wider literature dealing common pool resources. In this field, Gibson et al define scales as "spatial, temporal, quantitative, or analytical dimensions used to measure and study

any phenomenon", with levels understood as "units of analysis that are located at different positions on a scale" (Gibson et al 2000: 218). Building from this definition, Cash et al have conducted a synthesis of findings from this literature that highlights the importance of scale in environmental governance. From this they conclude that the conceptualisation of cross-level interactions, whether in spatial, temporal, jurisdictional or institutional terms, is critical in identifying the nature of environmental problems resulting from human action, and thus finding solutions to these problems (Cash et al 2006). In parallel with these findings, both Ostrom and Berkes have argued for "nested" and "polycentric" approaches that integrate institutions for environmental governance at a range of different levels (Ostrom 2007, 2010, Berkes 2004).

Much of the literature on vertical institutional interplay is characterised by attempts to classify the main types of institutional interactions as they occur across different levels of scale, with the intention of then developing a better understanding of the causal forces behind these interactions (Young 2006). Two typologies that are prominent in the literature are those of symmetrical and asymmetrical interplay, and synergistic and conflicting interplay. The former refers to the extent to which institutional interplay between higher or lower levels of scale is either reciprocal or unidirectional (Young 2002:84-85). The latter refers to the extent to which institutions at different levels either combine to create more effective responses to environmental problems, or whether higher level institutions disrupt the effectiveness of institutions operating at lower levels (Rosendal 2001). Much of the common pool resources literature has dealt with these distinctions by emphasising the unidirectional and disruptive impact of national level institutions on traditional local level customs and practices (Berkes 2002, Lebel 2005). But more recent work has begun to amend this one sided emphasis. For instance, in a study on marine resource management in Tobago, Adger et al observed that while the activities of national level authorities did have had disempowering effects on local communities, these effects could be circumvented through the actions of multilevel civil society organisations in drawing on international political pressure and resources (Adger et al 2006). Another example is provided by Corbera et al in a study of the implementation of payment for ecosystem services mechanisms in Mexico. They found, in contrast to most studies on national to local interplay, that in general the interaction of local and national institutions was one more characterised by synergy and reciprocity than by disruption and dominance (Corbera et al 2009).

Young has sought to go beyond these dual typologies to identify five common patterns of institutional interplay observed through research into natural resource governance in Alaska. The first of these is dominance, which occurs where higher level institutions take precedence over then subordinate lower level institutions. Secondly, separation occurs where institutions at different

levels delineate specific spheres of authority in order to alleviate cross level conflicts. Thirdly, merger occurs where different institutional arrangements at different levels are replaced with an integrated arrangement, often involving devolution of authority. Fourth is negotiated agreement, involving the creation of hybrid institutions at different levels, which leads to the creation of co-management arrangements between higher and lower levels. Fifth is system change, which refers to situations where cross level interactions provide a catalyst for more fundamental change in the wider institutional context. Through these observations Young has sought to identify driving forces behind these different patterns. These are seen in terms of power differentials, trends towards institutional decentralisation, conflict between different discourses on resource management, knowledge transfers between levels and the influence of coalitions that seek to block institutional change (Young 2006). Young does not attempt to create an overarching theoretical framework to explain the causality of vertical institutional interplay. Rather, these findings are presented as a platform for moving the conceptual focus on institutional interplay beyond description and towards explanation.

More recently vertical institutional interplay has been applied widely in a range of different contexts, and has yielded further insights into the way that institutions interact across levels of scale. Moss and Newig have commented on the importance of not only interplay between institutions dealing with a specific natural resource issue, but also the wider interplay of natural resource institutions with institutions operating in other sectors. In this they have observed that it is just as important to consider how natural resource institutions embed in wider economic, social and political institutional contexts as how they directly deal with the natural resource issues they seek to address (Moss and Newig 2010). In two studies on coral reef governance in South East Asia and Australia, Fidelman and others have highlighted the problems that institutional fragmentation creates in impeding effective multilevel environmental governance at a range of different levels of scale (Fidelman and Ekstrom 2012, Fidelman et al 2013). Glaas and Juhola have observed the impact of adding new institutional levels to the governance of natural resources. They illustrate this through the example of the introduction of EU environmental policy in the governance of the Baltic Sea, showing how this additional level of interplay has created both opportunities and constraints on pre-existing institutional arrangement (Glaas and Juhola 2013). Similarly, Paavola et al have used the example of the EU to illustrate the ambivalent nature of vertical interplay. They show how EU environmental policy can be seen simultaneously as a means of fostering more effective national environmental institutions and as a means of complicating and thus weakening existing national level institutional arrangements (Paavola et al 2009).

These examples illustrate an expanding theoretical and empirical literature that demonstrates the pervasiveness of vertical institutional interplay in environmental governance and the wide variety of different ways that it can operate. This literature shows that vertical institutional interplay represents a valuable analytical tool for highlighting the importance of the cross level dimensions of environmental governance and the need to conceptualise environmental problems in a multilevel context.  In this respect it has value for addressing the research aims of this thesis. However, this literature has been criticised for its descriptive nature and its bias towards creating typologies rather than explaining how and why vertical institutional interplay takes place. Selin and VanDeveer observe that (referring to interplay as linkages) "the literature on linkages remains littered with proposed taxonomies of linkages and little agreement regarding their utility for advancing the understanding and implications of such linkages" (Selin and VanDeveer 2003: 14). Much of this problem can be traced the macro level emphasis of original approaches to studying institutional interplay in environmental governance. This has led to a variety of criticisms that have relevance for the aims of this thesis, which focus on its inability to explain institutional dynamics and the role of individual agents in facilitating institutional interplay at more localised levels of scale.

*1.3 Institutional interplay, institutional dynamics and the role of agency*

Young has recognised that because the study of institutional interplay originated at the intergovernmental level and concentrates on macro level institutional interactions, the role of agency at the micro level has been relatively neglected. As a result he identifies that agency, and particularly the role of leadership and non-state actors in facilitating institutional interplay, are a priority for future research (Young 2008:43-45). However, any attempt to place agency in a more central role is impeded by the roots of institutional interplay in the "collective action" and "social practice" models of new institutionalism. This is because both of these models emphasise the macro level structural aspects of institutions at the expense of the micro level role of individual actors. As a result, in spite of attempts by Young and others to adapt these theoretical foundations to include a more actor centred emphasis, the role of agency in the study of institutional interplay remains under researched.

This can be demonstrated in the way that new institutionalism has been integrated into the conceptualisation of institutional interplay. One analytical approach that has been widely adopted in the literature is Stokke's three-way typology of institutional interplay. This approach draws from the three models of institutional analysis as outlined above, and classifies interplay into utilitarian, normative and ideational forms. The first of these characterises interplay that takes place on the

basis of cost and benefit calculations and economic incentives. The second characterises interplay that is based on either the coincidence or conflict between the underlying values in which different institutions are rooted. The third characterises interplay that takes place as a result of knowledge transfers between institutions, leading to the adoption of new problem solving practices (Stokke 2001). Referring to this conceptualisation, Selin and VanDeveer highlight a particular problem of this approach with regard to agency. They observe that each of these forms is structural in character, involving the interaction of common or differing norms, rules, procedures and practices. This means that this approach remains largely silent on the role of individual actors in facilitating institutional interplay, leading to the role of agency being neglected (Selin and VanDeveer 2003).

Vatn and Vedeld raise further concerns about this way of conceptualising institutional behaviour. Firstly, they question the ontological consistency of a combined use of "collective action" and "social practice" models of new institutionalism, given that they argue these models rely on logically inconsistent assumptions about actor behaviour. Secondly, they observed that because of this eclectic use of different theoretical models, the conceptualisation of the role of individual actors is unclear and as a result the complexities of the ways that institutions shape actor motivation have been underplayed. As a consequence, actor motivation has been oversimplified, to a large extent becoming reduced to passive function of wider institutional structures (Vatn and Vedeld 2012).

These problems also relate to the issue of institutional dynamics and how institutions are able to change. This issue of change is of relevance to the aims of this thesis given that the introduction into a given area of new institutions and actors from different levels of scale necessarily entails new dynamics that can lead to institutional change. Certainly this is not an area that the literature on institutional interplay does not attempt to address. However Young does recognise that the issue of institutional dynamics in the study of natural resource governance remains relatively undeveloped (Young 2010). In this regard, Loewen has observed that there has been an overemphasis on the effectiveness and consequences of institutions at the expanse of how institutions are formed, maintained and indeed change (Loewen 2005). In addition, institutional change has tended to be put in materialistic terms, emphasising the way institutions interact with the dynamics of the natural resources or ecosystems they seek to manage (Young 2008:24, Young 2010). Less attention has been given to institutional change resulting from the agency of individual actors or interplay with a wider institutional context (Vatn and Vedeld 2012, Moss and Newig 2010).

A principal problem in this respect is, again, the theoretical foundations in new institutional theory. The "collective action" and "social practice" models are characterised by a view of institutions as

equilibrium states, where actor motivation is seen in terms of fixed instrumental preferences or rule following according to established norms. They are less well equipped to explain the dynamics of institutional disequilibrium and change, where the roles and motivations of actors become problematised, thus opening a role for individual agents to devise ways of overcoming problems in their institutional context (Hay 2006). This means that while the literature on institutional interplay has been able to describe and identify situations where institutional change occurs or where institutional designers should aim to initiate institutional change, it has so far been less able to explain how and why institutional change actually happens.

In response to these shortcomings, Vatn and Vedeld have proposed an alternative approach to institutional theory that they suggest could overcome these problems. They argue for a need to take a more actor centred approach to institutional analysis, which focuses more on the micro level actions and motivations of actors who facilitate institutional interplay. Such an approach, they argue, would allow for a more nuanced understanding of the way institutions influence actor behaviours, and in turn how actors are able to reconstruct institutions towards different ends. This would provide an opportunity to develop new insights into the micro level dynamics of human agency and how this in turn affects macro level institutional dynamics (Vatn and Vedeld 2012). In turn it would also fit closely with the aims of this Thesis in linking the macro and micro level aspects of institutions and the role of policy actors in facilitating these connections. But in order to investigate what form such a micro level approach to vertical institutional interplay might take, it is first necessary to consider the wider literature on new institutionalism in greater detail, particularly newer forms of institutional analysis that accord a more central role to individual actors.

## 2. New Institutionalism

This section involves a more detailed discussion of the issues relating to new institutional theory that were introduced in the previous section. In addition to giving a more detailed account of the "collective action" and "social practice" models, it also considers historical and constructivist accounts. These latter two approaches have led to a new emphasis on the role of ideas in institutional analysis, which have in turn led to a new conception of institutions that accords a more prominent role to agency in the operation of institutions and thus facilitating institutional interactions.

Hall and Taylor have identified three distinct approaches to new institutionalism. These are referred to as rational choice, sociological and historical institutionalism (Hall and Taylor 1996). Rational choice institutionalism corresponds to the "collective action" approach introduced by Young. This body of theory is based on the assumption that actors make decisions based on fixed rational preferences of self-interest, and therefore act in a strategic and calculated manner in order to maximise the attainment of these preferences. It is a deductive and systematic analytical approach that draws from literature on game theory and economics (Hall and Taylor 1996). In the rational choice approach "institutions are simply equilibrium ways of doing things" (Shepsle 2006:18). Institutions emerge from a need to reduce uncertainties that derive from multiple and conflicting preferences. Thus institutions have come to be seen as originating and persisting through a need to overcome "collective action dilemmas", where groups of actors pursue common preferences in order to collaborate towards mutual advantage (Shepsle 2006: 19). Institutions are conceptualised as incentive structures which are voluntarily entered into by actors and promote complementary behaviour. Such behaviour constrains actors from attempting to maximise their individual preferences in a way that would lead to collective sub-optimal outcomes (Schmidt 2008). A commonly cited example of such a situation is the "tragedy of the commons" where, in the absence of constraining institutions, actors are incentivised to "free ride" on common resources, leading to resource depletion, ultimately to the detriment of all interests concerned (Hardin 1982, Hall and Taylor 1996)

Sociological or normative institutionalism, which corresponds to the "social action" approach outlined by Young, is similar to the rational choice model in terms of its emphasis on institutional equilibrium (Hay 2006). However the two contrast sharply in their assumptions about the motivation of actor behaviour. In the sociological model, actor behaviour is seen to be a reflection of "the logic of appropriate action", which relates to shared culture, values and perceptions of legitimacy (March and Olson 1989, 2006). In this approach, according to Hall and Taylor, "institutions do not simply affect the strategic calculations of individuals, as rational choice institutionalists would contend, but also their most basic preferences and very identity" (Hall and Taylor 1996: 15). The importance of institutions according to this conception derives from their ability to achieve social legitimacy. In practice this may lead to institutional arrangements that are inefficient and dysfunctional, and fail in terms of achieving instrumental and material goals, but still persist because they succeed in achieving wider cultural value. Instrumental and material rationality is not entirely dismissed, but is

rather relegated to the category of social construction within wider systems of belief (March and Olson 1989, Powell and DiMaggio 1991, Hall and Taylor 1996).

Historical institutionalism is a third approach that is not referred to in the institutional interplay literature. This is a more diffuse body of work that has cross overs with the two other forms of new institutionalism. Indeed Hall and Taylor characterise historical institutionalism as an amalgam of "calculus" and "cultural" in the decision making process of actors (Hall and Taylor 1996), though others have contended that it has a more distinct ontological basis (Thelen and Steinmo 1992). It focuses on the role that long-term historical continuities have played in constraining policy innovation and creating path dependencies within particular polities or political economies. According to historical institutionalism these path dependencies can be seen as ways in which polities achieve a state of "stable equilibrium" (Hall and Taylor 1996). The theoretical work of Pierson, which takes a combined historical and rational choice approach, explains how institutions become path dependent though a process of "increasing returns" involving "self-reinforcing positive feedback". This means that the benefits of continuing on a particular path increase over time while the costs of alternatives grow correspondingly greater (Pierson 2000). Associated with this process, historical institutionalism is also concerned with power asymmetries, where path dependent institutions function to maintain the interests of a dominant group or coalition, while at the same time demobilising and marginalising other conflicting interests (Hall and Taylor 1996, Thelen 1999).

Hay observes that a crucial problem with each of these theoretical approaches is their focus on equilibrium, where institutions are considered as stable self-reinforcing structures that are resistant to change. This necessarily creates difficulties in trying to explain the dynamics of how institutions change. In addition, their structural and deterministic emphasis gives little room for the role of individual actors in the processes that lead to institutional change (Hay 2006, Schmidt 2008). This is particularly the case with rational choice and sociological institutionalism, which are based on well-defined ontological assumptions on behaviour that are fixed on the basis of the logics of "calculus" and "appropriateness", and do little to explain how these logics are capable of altering (Hay 2006, Campbell 2004). This deterministic view means that it is difficult to account for endogenous change from within institutions, including the role of agency in effecting such change. As a result, many explanations of change from within earlier new institutionalist literature have tended to be put in terms of exogenous influences (Schmidt 2008).

*2.2 Historical institutionalism, institutional change and the turn to ideas*

Of the three new institutionalisms, historical institutionalism has paid the greatest attention to institutional change. Initial theoretical approaches sought to explain change in terms such as "critical junctures" (Collier and Collier 1991) or "punctuated equilbriums" (Baumgartner and Jones 1993), resulting from exogenous shocks to a political system. These lead to periods of institutional crisis, which in turn initiate a process of realignment to a new equilibrium state. Hall expands on these ideas, likening them to Kuhn's work on paradigm shifts. He uses the term "third order change" to describe rapid changes from one institutional state to another, as opposed to $1^{st}$ and $2^{nd}$ order change that only modify policies and programmes within the confines of the existing paradigm (Hall 1993).

These explanations do little to explain endogenous change or the role of agency in effecting endogenous change. Given that much of the earlier theoretical work associated with historical institutionalism derives from rational choice and sociological approaches, by association much of this work is coloured by the same static conceptions (Hay 2006). However the eclecticism of historical institutionalism and its relative independence from more narrowly defined ontological foundations means that it has also been able to adopt alternative theoretical concepts more easily. As a result it has become the main conduit for introducing a new strand of theory into institutional analysis that emphasises the role of ideas in initiating and driving endogenous institutional change (Hay 2006, Hall and Taylor 1996).

Ideas in this sense are construed as being the foundations of institutions and are often deeply embedded in institutional structures. But at the same time Hay conceives of ideas, rather than being fixed, as open to being "contested, challenged and replaced" and thus can provide a means of explaining how institutions change (Hay 2006: 58). Within the historical institutionalist tradition, Hall's concept of third order paradigm shifts represents one of the first attempts to bring ideas to the centre of new institutional analysis. He illustrates the value of this concept through the example of the way neoliberal ideas were introduced into British politics at a crisis point in the 1970s and 1980s, which led to a fundamental shift in political institutions in Britain during the Thatcher era (Hall 1993). Following this, Thelen takes the role of ideas within a historical perspective further by attempting to endogenise them into the dynamics of historical continuity. She emphasises that even during periods of institutional stability, far from being a state of equilibrium, the processes of institutional reproduction are just as dynamic as periods of change. She highlights the role that ideas play in reproducing continuity against a background of ever changing events, observing also that

"institutions rest on a set of ideational and material foundations, that if shaken open up possibilities for change" (Thelen 1999). Further to this, Streek and Thelen have sought to show how some ideas "drift" away from original dominant policy programmes while others are "layered" on to it in order to explain more incremental change within path dependent institutional structures (Streek and Thelen 2005).

In spite of these modifications, historical institutionalism has remained open to continued criticisms that it biases institutional stability over institutional change, and as a consequence that the dynamic aspects of institutions continue to be underemphasised (Lieberman 2002, Peters et al 2005, Schmidt 2008). Peters et al observe that historical institutionalism and its concentration on path dependency "mask[s] the dissensus that may exist beneath the surface of a program, organisation or field, and thus produce some neglect of the forces of change". In response they call for the inclusion of a "dynamic conception of agency" to be brought into institutional analysis (Peters et al 2005: 1277). This has led to some working within the historical institutionalist tradition to develop approaches that move agency as well as ideas closer to the centre of their analysis.

Lieberman provides one example of a more actor centred approach that remains within a historical institutionalist tradition. In a study on the history of the civil rights movement in America, he observes the importance of agency in mediating between the constraints of institutional legacies and ideological change. He argues that political systems are less "political orders" and more a combination of "multiple orders" of institutions and their associated ideas. In such complex arrangements, tensions between different institutions generate "friction", which at opportune moments allow for new ideas to become the catalyst for institutional change. Agency enters where, as a result of institutional friction and the introduction of new ideas, "institutions create strategic opportunities for purposive political actors to further their interests and shape political opportunities for the mobilization of social interests" (Lieberman 2002: 709).

Campbell provides another perspective on the role of agency within a historical institutionalist framework. He does this by introducing the concept of "policy entrepreneurs" into institutional analysis. This concept is used to explain the way some policy actors assume a leadership role and mobilise ideas and material resources in order to drive institutional change, while at the same time being constrained by their historical institutional context. He builds on Streek and Thelen's concept of "layering" with the terms "bricolage" and "translation" to describe the ways that policy entrepreneurs use and recombine different aspects of existing institutions in order to achieve evolutionary change through institutional configuration. These evolutionary changes can have a

cumulative effect that can lead to more radical shifts in line with the critical juncture or paradigm shift conceptions of earlier historical institutional theory (Campbell 2004).

*2.3 A fourth new institutionalism?*

While historical institutionalism has made considerable progress in amending earlier static and deterministic conceptions of institutionalism, some critics question the appropriateness of emphasising historical legacies in an increasingly chaotic and uncertain world (Schmidt 2011). This has led to a movement in institutional analysis that seeks not only to include agency and ideas in approaches that continue emphasise institutional equilibrium, but to give them primacy in an approach that views institutions as dynamic constructs. The turn to ideas has led some authors to posit the emergence of a fourth new institutionalism. This has been variously described as "ideational institutionalism" (Hay 2001) "constructivist institutionalism" (Hay 2006) or "discursive institutionalism" (Schmidt 2008). The principle purpose of these approaches is to explain institutional dynamics through the impact of new ideas and the facilitating role of agency (Hay 2006, Schmidt 2011).

The underlying premise of this approach is that actors, while still to a certain extent constrained by their institutional context, are also able to act independently of this context and thus initiate institutional change (Schmidt 2008). The motivations of actors in this sense are not considered as a given, but are based on ideational constructions that are complex, contingent and subject to change. According to Hay, these motivations are based on "perceptions of context which are at best incomplete", where actors are constantly engaged in a process of sense making and balancing competing institutional influences. As a consequence, these perceptions can only at best be interpretations of their institutional context, rather than deriving from a direct connection to this context as other models of new institutionalism would hold. In these circumstances, ideas act as "cognitive filters" through which actors make sense of their institutional context (Hay 2006: 63-65). Thus, given that a constructivist approach opens up space for actors to interpret their context through ideas, it also opens space for actors to use new ideas to reinterpret this context as well. Consequently, Schmidt conceives of institutional context as the setting within which ideas realise their meaning, but also that new ideas are at the root of the way that sentient agents potentially become drivers of institutional change (Schmidt 2011).

Hay traces the origin of this approach to the work of Blyth on the developmental trajectories of capitalism in Sweden and the USA (Hay 2006: 67). Blyth counters the ideas of rational choice institutionalism, arguing that actor's "interests" are not based on fixed rational preference, but on

mutable socially constructed perceptions of self-interest that are "rendered actionable" through ideas. Thus in periods of political crisis these ideas can become blurred, subject to contestation, and can be reconfigured in such a way that that actor's perceptions of self-interest are re-orientated (Blyth 2002).

Hay and Rosamond follow a similar approach to the constructed nature of interests in assessing the impact of globalisation on nation states in Europe. They distance the debate on globalisation away from it being a primarily a matter of economic and material considerations. Rather globalisation is seen in terms of "the effects of globalization itself, the effects of having internalized popular constructions of globalization and, indeed, the strategic and disingenuous appeal to globalization as a convenient justification for unpalatable reforms" (Hay and Rosamond 2002: 150). Globalisation is thus seen as a set of ideas that are reconstructed in different ways from nation to nation depending on more local contextual factors. Moreover these ideas can be used strategically by national actors towards specifically national ends in different ways according to these different national contexts (Hay and Rosamond 2002).

Schmidt expands on the way that ideas operate in an institutional context and their role in the dynamics of institutional continuity and change. On one level, she conceives of ideas as the philosophical foundations of institutions that establish their coherence and continuity, and therefore form the basis of the way they are reproduced over time. But on another level they underpin policy programmes and initiatives through which agents initiate institutional change. These policy or programmatic ideas can take a cognitive form, which establish "what is and what to do", and thus shape the way that actors perceived instrumental policy problems and the action to be taken in response. But they can also take a normative form, which establish "what ought to be done", which can lead to changes in the perceptions of legitimacy on which institutions are based (Schmidt 2008: 306, 2011). However Schmidt observes that ideas are not enough in themselves to explain institutional dynamics. She argues that an ideational approach alone cannot explain "the process by which ideas go from thought to word to deed" and by "whom, how, where, and why" (Schmidt 2008: 309). She therefore highlights the way that discourse between different actors is used to transmit ideas and thus how actors seek to influence and persuade others of the validity of these ideas. She states that "discourse serves not just to express one set of actors' strategic goals or normative values, but also to persuade others of the necessity and/or appropriateness of a given course of action" (Schmidt 2008: 312).

Schmidt conceives of a variety of ways in which agency can transmit ideas through the medium of discourse. Actors can play the role of policy entrepreneurs, who are able to mobilise ideas to exercise power, set policy agendas and build policy coalitions. This is particularly the case where the policy entrepreneur occupies a powerful position within the existing institutional system (Kingdon 1984, Schmidt 2011, Beland 2009). Discourse can be seen operating in different directions. The mobilisation of ideas in initiating change need not come only from the top-down through the action of political leaders or policy makers, but can also come from the bottom-up through social movements, the media or interest groups. Furthermore, these two way processes can take place in both national and international contexts (Schmidt 2011, Beland 2009). Schmidt also conceives of discourse as taking coordinative or communicative forms. Coordinative discourse refers to the way that policy is initiated by political elites. In this form, discourse takes place within "epistemic communities" using expert language in order to facilitate bargaining and political agreement. In its communicative form, discourse takes place between policy makers and the wider public, and is generally presented in non-expert language with the aim of legitimating particular initiatives or programmes in the public sphere. These two forms are often, though not always, connected, with either communicative legitimation discourses following coordinative policy formulation, or communicative bottom-up political pressure leading to a coordinative reaction from policy makers. (Schmidt 2011).

*2.4 Criticisms of constructivist and discursive institutionalism*

While these constructivist or discursive approaches to institutional analysis provide a valuable contribution to understanding the role of agency in driving institutional change, they are not without their shortcomings or critics. These have emerged because, by reemphasising agency, ideas and discourse in response to older static conception, they risk underemphasising other aspects of institutions and actor behaviour (Bell 2011). Consequently, Campbell highlights the danger that constructivist approaches may lead to an opposite extreme where institutions are reduced to "interpretive frameworks" where actors are considered free to reconstruct institutions at will. This leads to the potential problem that the constraining role of institutions, the very reason why new institutionalism was proposed in the first place, will become underemphasised (Campbell 2004).

A first problem that constructivist approaches face is how to incorporate material influences. This is particularly the case in institutions that govern natural resources, where the environmental characteristics and condition of a given resource impact on the form of the institutions that emerge to govern them. This is also a feature in terms of the material resources controlled by different

actors operating within a given institutional context. Hay observes in the case of Blyth's approach to the social construction of interests, that the promotion of ideas to solve institutional crisis depends on the influence of actors with significant material resources. Given this observation, Hay states that "the role of ideas in determining outcomes would seem to have become significantly attenuated". He therefore questions whether in such circumstances a materialist explanation of institutional change would suffice (Hay 2006: 70). Schmidt concedes this limitation, observing that "agents' ideas, discourses, and actions in any institutional context, however, must also be seen as responses to the material (and not so material) realities which affect them" (Schmidt 2011: 122).

A second aspect is the extent to which "hard" institutional constraints such as legislation and statutory obligations can be seen as the contingent ideational constructs of actors. Bell observes that while institutions might be constructs, they are constructs that exist prior to agents. In the case of legal instruments, he observes that "institutions confront agents in the here and now as embedded, already structured terrains". He illustrates this point with statement "hence (whatever I think), I will typically go to jail if convicted of murder under the law". He concludes therefore that "legislation embodies ideas, but legislation is more than just a set of ideas held by given agents" (Bell 2011: 891, 2012).

These problems raise the question of whether a constructivist or discursive approach to institutional analysis can be considered as a separate new institutionalism at all (Bell 2011). Certainly Schmidt's aim is not to discard older approaches to new institutionalism. Rather, she argues that these older models can provide "background information" to a constructivist approach. Going further, she observes that her own discursive institutional approach "risks appearing highly voluntaristic unless structural restraints derived from the three older institutionalisms are included" (Schmidt 2008: 22). As the limitations of the three older institutionalisms outlined above show, this inability to account for all aspects of institutions is not particular to constructivist accounts, and it is perhaps unfair to single these approaches out for particular criticism in this respect. Rather it might be more appropriate to characterise the problem of new institutionalism as a need to find a way of combining different approaches in order to achieve a broader conceptualisation of institutions.

This section revealed that constructivist approaches that use ideas and discourse as a medium for explaining the role of agents in the operation of institutional dynamics provide a possible means of developing an actor centred approach to institutional analysis. However this section also showed that constructivist institutionalism provides an incomplete explanation of institutions, and requires other means to explain how institutions also constrain the freedom that actors have in using ideas

and discourses towards particular objectives. Historical institutionalism provides one such means, and the fact that more recent approaches to historical institutionalism have also highlighted the role of ideas in institutional dynamics suggests that there is some compatibility between historical and constructivist approaches.

This opens potential avenues for further research. First is the extent to which policy actors are able to reconstruct their institutional context on the basis of ideas and discourses, or conversely the extent to which historical institutional legacies constrain this ability (Schmidt 2008). Secondly, in dealing with natural resource use institutions, there is a need to consider the physical attributes of the resource in question (Young 2010). This was identified as a criticism of constructivist approaches that emphasise the role of ideas in institutional analysis. This leads to a further avenue of enquiry about whether constructivist and historical approaches to institutional analysis are able to adequately address these material issues. These two avenues lead on to a third avenue of research that directly addresses the research aims of this Thesis that were stated in the Introduction. This avenue is concerned with how a theoretical approach founded in constructivist and historical approaches to new institutionalism can better incorporate agency and micro level policy initiatives into a revised conceptualisation of vertical institutional interplay.

## 3. Research Questions and Conclusions

In the Introduction it was stated that the research aims of this Thesis were to investigate how the interaction of international, national and subnational institutions shapes forest policy at a local level, as well as the roles played by policy actors representing different sectors within this process. In the light of the discussions outlined above, two related empirical research questions can be formulated that will guide an investigation to further these research aims. The first empirical question draws from constructivist approaches to new institutionalism, and considers what this body of theory can tell us about the more dynamic aspects of vertical institutional interplay, particularly relating to the role of policy actors. It asks as follows:

1. How do agency, ideas and discourse shape local policy through the influence of vertical institutional interplay?

But, as was observed above, there is also a need to consider the constraining role of institutions. Therefore the second empirical research question draws on theory associated with historical institutionalism. It asks as follows:

2. How do historical institutional continuities limit the influence vertical institutional interplay on local policy?

These research questions will be addressed through an analytical framework that has its theoretical roots in the concepts of institutional interplay and historical and constructivist accounts of new institutional theory, which will be introduced in the next Chapter. In line with the empirical objective of this Thesis they will concentrate particularly on how these theoretical concepts can be applied in practice in order to draw generally applicable findings about multilevel and multi-sector forest governance in the developing world.

But this investigation also presents the opportunity to address the theoretical objectives of this Thesis by contributing to existing literature on vertical institutional interplay. Therefore, in addition to addressing the two empirical research questions, this Thesis will also seek to address a theoretical research question. This question relates to the discussion outlined in the first part of the Chapter. As this discussion demonstrated, the literature on institutional interplay provides a useful framework for conceptualising the interaction of institutions across different levels of scale. However it is recognised that this literature does not sufficiently address the research aims of this thesis given its shortcomings with respect to institutional dynamics, micro level policy and the role of individual agency. This creates the opportunity to address these shortcomings by investigating the value of a different conceptualisation of vertical institutional interplay that incorporates historical and constructivist approaches to institutional analysis. Such an approach will stress both the way that policy agents are able to use ideas and discourses originating from different levels of institutional scales in implementing forest conservation policy and how their use of these ideas and discourse are constrained by historical institutional legacies. However, in line with the observations made at the end of the last section, this investigation will also need to address the potential weaknesses of these approaches in dealing with material constraints deriving from the physical characteristics of specific natural resources. The theoretical research question is thus posed as follows:

1. How can a combined constructivist and historical approach to institutional analysis contribute to existing literature on vertical institutional interplay?

The theoretical literatures outlined in this Chapter provide a means of conceptualising the way institutions interact across different levels of scale. However they do not provide a specific means of analysing empirical data, particularly with regard to how institutions impact on the way actors define and implement policy at a micro level. Therefore in the next Chapter an analytical framework will be

formulated on the basis of analytical concepts derived from the field of policy analysis in order to provide a means of applying this theory to the empirical example of Sabah.

**CHAPTER THREE: ANALYTICAL FRAMEWORK**

**Introduction**

This Chapter sets out an analytical framework that is designed to address the research questions that were introduced in the last Chapter. The intention of this framework is to connect the institutional theory outlined in the last Chapter with policy initiatives undertaken by actors in Sabah. It begins by stating the requirements of the analytical framework in order to answer these research questions. It then outlines an approach to policy frame analysis that will form the basis of the analytical framework. Finally it presents the analytical framework as an integration of this approach to policy analysis with the institutional theory set out in the previous Chapter.

**1. Objectives of Analytical Framework**

In order to answer the research questions posed in the previous Chapter, the analytical framework employed in this Thesis needs to address the following aspects:

1) An understanding of the broad historical context relating to forests and natural resource use in Sabah. In order to address the research aims of this Thesis there is a need to include not just the long term development of local and state level institutions, but also the history of federal and international institutions that impact on the state and local levels. In addition, it is also necessary to consider in parallel how the environmental characteristics of Sabah's forests have changed from a long term historical perspective. This will involve using historical analysis to establishing the background for addressing the research questions in terms of constraining historical legacies, the material condition of forests and where higher level institutional interplay has created opportunities for new forest policy directions.

2) A means of analysing how policy actors interpret and reconstruct particular policy situations within this institutional context. This aspect needs to include how these actors adopt new ideas, devise new policy agendas, communicate their objectives to a wider audience and then implement new policy initiatives. This will address the first empirical research question, in looking at the role of policy actors in using ideas and discourses to facilitate vertical institutional interplay. It will also contribute to answering one aspect of the theoretical research question that considers constructivist approaches to analysing institutions

29

3) An analysis of how the output of new forest conservation policy initiatives has reconnected with the institutional context from which they originated. This aspect needs to consider the dynamics of the way these policy initiatives and the ideas and discourses they are based on have embedded within and altered this institutional context, and where historically embedded institutional barriers limit the wider impact of these initiatives. This aspect has a twofold purpose. Firstly it provides a means of answering the second empirical research question relating to the historical institutional limitations on actors in mobilising vertical institutional interplay. Secondly it will also address the theoretical research questions by addressing how policy actors in Sabah are able to reconstruct forest policy in Sabah through the mobilisation of vertical institutional interplay through ideas and discourse, or conversely where they are constrained by historical legacies.

A means of conceptualising the wider institutional context of forest policy in Sabah is provided by the concept of institutional interplay and institutional analysis outlined in the last Chapter. According to this, institutional context will be conceptualised in the analytical framework outlined below as a tension between the constraining historical institutional legacies and impetus for change created by agency, ideas and discourses originating from different levels of institutional scale. But the analytical framework will also consider the environmental condition of Sabah's forests and the way local level policy has been devised in order to address issues arising from these environmental conditions. This entails adopting a means of analysing how local actors devise and implement new policy initiatives, which will be addressed in the first section of this Chapter.  This necessitates turning to the field of policy analysis in order to fulfil the requirements of the research aims of this Thesis.

**2. Analysis of Policy Change**

*2.1 Policy analysis*

Hill has observed that the term policy has been widely used in policy studies literature to imply a rational and instrumental process that is organised towards specific goals. This has led much of the policy analysis literature to be conceived of in linear terms according to stage models (Hill 2004). One such model is provided by Parsons, who conceives of the policy process as a cycle that follows the stages of problem definition, identification of solutions, evaluating options, selecting an option, implementation and evaluation (Parsons 1995).  While this model is consciously a simplification intended as a heuristic device, it is representative of the way that policy analysis has traditionally

been geared towards linearity, rationality and explanations of actor motivation in terms of instrumental self-interest (Hill 2004).

Fischer characterises such approaches to policy analysis as "narrowly empiricist, rationalistic and technocratic", with an emphasis on objectivity, efficiency, effectiveness and quantitative methods that aimed to mirror the methods of the natural sciences. He argues that these approaches to policy analysis have tended to ignore, or at best grudgingly accept, subjective concepts such as ideas and values. He also argues that this "empiricist" or "positivist" approach largely failed in its attempts to provide predictive power or policy relevance. This has led to the more recent emergence of an interpretive approach to policy analysis that considers actor motivations in policy making on the basis of the meanings actors ascribed to policy problem and actions in response to these problems (Fischer 2003: 1-15). Given that the first research question emphasises the social construction of institutions by actors, such an approach is more appropriate for the purposes of this Thesis.

Policy, according to Fischer, is defined as "a political agreement on a course of action (or inaction) designed to resolve or mitigate problems on the political agenda" (Fischer 2003: 60). This definition has in common with instrumental approaches to policy analysis the idea that policy involves action in response to a defined political problem (Hill 2004). But, drawing from the work of Heclo, Fischer seeks to broaden the scope of what these problems and actions mean. The nature of the 'problem' is something that is constructed, agreed upon and placed on an agenda by a range of different policy actors, rather than just being a self-defining phenomenon. The nature of the 'action' is not merely a political decision made within government, but a broader negotiated movement between multiple actors, which may involve not only change but also resistance to change (Fischer 2003, Heclo 1972).

In order to illustrate this, Hannigan provides an example of how environmental policy problems are typically constructed. He identifies six factors that commonly combine to place environmental issues on the policy agenda. These are: 1) that the issue is given authority and validation by scientific research; 2) that there is a popularising agent who can translate scientific research to non-scientists; 3) the issue is presented by the media as novel and important to the public; 4) the issue is visually and symbolically dramatized; 5) economic incentives are created to promote positive action; 6) an institutional sponsor is found to ensure continuity and legitimacy. According to Hannigan, while the environmental issue under consideration might exist as a physical phenomenon, without these stages of construction it would not exist as an actionable political and policy phenomenon (Hannigan 1995: 54-55).

Therefore according to this conception, policy is something constructed by policy actors and formulated on the basis of shared symbols and ideas, and moreover the meanings different actors attach to these symbols and ideas. Fischer proposes a number of analytical approaches that can be used in order to conceptualise the way that policy is constructed in this way. Of these, the one selected for use in this Thesis is Schön and Rein's approach to policy frame analysis. This analytical approach is suitable for addressing the research questions of this Thesis for a number of reasons. Firstly, it provides an explicit link between policy formation and wider institutional context, and is therefore suitable as a means of analysing the connection between macro and micro levels. Secondly, it is concerned with the way that policy actors seek to reconstruct policy agendas in order to overcome apparently intractable policy problems, and thus provides a means of explaining how policy change occurs. Thirdly, it deals specifically with the way that policy actors interact through the transfer of ideas and the use of persuasive discourses in order to build coalitions towards particular policy goals (Schön and Rein 1994). These features of Schön and Rein's approach are outlined in more detail below.

*2.2 Policy frames*

Frame analysis derives from the work of Goffman on social movements (Goffman 1974), and has since been applied in a range of fields including sociology and social and cognitive psychology. The exact definition of a frame varies according to its field of application. However two common features can be found from across the framing literature; that they provide a means organising the experience of complex situations and that they provide a bias for action (Beland Lindahl 2008: 68-70).

Rein and Laws have defined the specific idea of a policy frame as "a normative-prescriptive story that sets out a problematic policy situation and a course of action to be taken to address the problematic situation" (Rein and Laws 1999: 3). Such a "normative-prescriptive story" involves the simplification of a complex policy problem through the employment of symbols so that it can then be presented as a "meaningful and structured whole" (van Gorp 2011: 5, Fischer 2003: 144). But in presenting a policy problem in a particular way, frames also shape the way that actors perceive the possibility and acceptability of the potential range of action responses to that problem (Gamson 1995).

Taking this definition further, Schön and Rein define policy frames as "underlying structures of belief, perception and appreciation" that determine the way policy actors perceive what constitutes the "facts" of a case and therefore determine how they define their own "interests" (Schön and Rein

1994: 23). In this way, "interests" are removed from the instrumental and fixed characteristics ascribed in positivist methodology, and become constructs that are subject to change. On the basis of their constructed "interests", policy actors are then able to frame policy issues in order to "provide conceptual coherence, a direction for action and a basis for persuasion" (ibid: 153). In this, Schön and Rein add an additional dimension to the framing process by dividing the bias for action function into practical and communicative aspects. It is these three aspects of frames that are of principle relevance to the analytical approach set out below.

The first aspect, conceptual coherence, concentrates on the framing of policy problems. In this respect Schön and Rein view policy frames in a nested context, where they are considered to be "not free-floating but grounded in the institutions that sponsor them", and operate at three different levels (ibid: 29). At a localised level policy frames are concerned with specific policy issues. At a higher level institutional frames represent interconnected assemblages of frames rooted in a broader institutional context, which in turn influence the form of the specific policy frames that emerge from within this institutional context. At the highest level are meta-cultural frames, which represent metaphors and shared systems of belief that form the normative and ideational underpinnings of both institutional and policy frames (ibid: 34).

This hierarchy demonstrates that policy problems do not arise solely because of specific instrumental and material issues in a particular policy situation, but can be generated as a result of "frame-shifts" that take place remotely at different levels in the hierarchy (ibid 163-165). Fischer gives an example of such a frame shift in relation to environmental policy. He observed how in the 1990s, ideas about environmental protection at a global level shifted from a "limits to growth" frame that emphasised a need to curb economic growth, to a "sustainable development" frame that considered that growth and economic development could be compatible. This shift created a common frame between environmentalists, governments and businesses, and therefore established the basis for a more collaborative approach to dealing with environmental issues. Thus, although material problems relating to the environment existed prior to the 1990s, it was only once the policy terrain had been redefined in to terms acceptable to a wider range of actors that these problems became politically actionable. This broad global level agreement has thus allowed more specific policy approaches based on sustainable development to proliferate in specific national and sub-national settings around the world (Fischer 2003: 147)

This example demonstrates that even where actors are faced with material problems, without a shift in the institutional context that constrains their actions, they may be limited in the extent that they

are able to provide a coherent policy response to these problems. In contrast, where a frame-shift does occur in an institutional or meta-cultural context, such as the case of the shift from limits to growth to sustainable development outlined above, these actors are enabled to adopt new ways of defining and reframing policy problems. This reframing process can take place consciously, where actors identify frame shifts and actively seek to utilise them towards specific ends, or unconsciously, where they come to realise that existing procedures no longer address the policy situation at hand and gradually come to adopt new ones (ibid 163-165).

Such frame-shifts are at the root of the bias for action aspect of the framing process. As Schön and Rein observe, "the perceived shift of a context may set the climate within which adversarial networks try to reframe a policy issue by renaming the policy terrain, reconstructing interpretations of how things got to be as they are, and proposing what can be done about them" (ibid: 154). Thus policy action does not come about as a result of a policy problem arising as a given, but rather as a result of actors operating within a particular institutional context reconstructing the meaning of what policy problems actually are and the action to be taken to solve them. As observed above, policy action is limited by what the institutional context determines is possible and acceptable (Gamson 1995). A frame-shift can therefore broaden the horizons of possible and acceptable action in such a context. The key to policy action is thus the way that the given policy situation is reframed by policy actors.

But reframing of the meaning of a policy problem is not sufficient in itself to promote action. It also requires that the agents of this reframing process are able to use the third aspect, communication and persuasion, in order to mobilise other actors towards supporting policy action that advances their own particular interests. In this way new possibilities of policy action can become actualised. In order to conceptualise this aspect, Schön and Rein introduce the idea of rhetorical frames. In contrast to action frames, which are concerned with policy practice, rhetorical frames are concerned with "persuasion, justification and symbolic display". Their aim is to construct a story designed to communicate as much to the emotional as to the rational motivations of the intended audience, in order to shift the way these actors frame the policy situation as well. This provides a means of explaining how, in the circumstances of a frame-shift, actors constructions of their own interest can be changed through the agency of other policy actors employing these rhetorical frames (ibid 32-35).

This analytical approach provides a basis of addressing the requirements outlined at the beginning of this Chapter. It provides a way of linking institutional change, in the form of frame shifts in institutional context, with policy change, in the form of reframing by policy actors. It conceives of the

motivations of actors both in terms of constraints imposed by institutional context and in terms of the meanings they ascribe to policy problems that can lead them to initiating policy change. It also contains a means of conceptualising how policy actors mobilise ideas and discourse in order to persuade other actors to support a particular course of policy action.

**3. Analytical Framework**

The analytical framework employed in this Thesis seeks to provide a heuristic device for conceptualising the interactions between higher level institutional context and local level policy making in a way that is more flexible and circular than traditional linear models of policy analysis. This framework integrates the constructivist and historic approaches to institutional analysis that were outlined in the last Chapter with the policy frame analysis approach introduced in this Chapter. The form of this framework is illustrated in Figure 1 below.

The first stage of the framework considers the broad institutional and environmental context from which a given policy initiative originates in order to establish the basis for answering the two empirical research questions. This context is considered in terms of long term historical legacies as well as the interplay between institutions at different levels of scale. It particularly considers how new ideas and discourses originating in global institutions lead to changes in established institutional practices at national and subnational levels. It also considers the material issues that have emerged as a result of historical trends in forest use. In the context of this Thesis, this part of the framework will be outlined in Chapters Five and Six. Chapter Five outlines developments in global forest governance that have exerted an influence on national and subnational forest policy around the world. Chapter Six considers historic legacies that have shaped forest policy in Malaysia and Sabah, and how the international ideas and discourses outlined in Chapter Five have recently created opportunities for policy actors to shift forest policy away from these established institutional practices.

The second stage relates principally to the first empirical research question. It considers the way that particular local level policy agents have responded to changes in their institutional context and local environmental issues resulting from the history of forest use. This is not conceived of as a linear process, but rather an interchangeable one between the different aspects of frames that are drawn from Schön and Rein's approach as outlined above. The problem definition aspect deals with the way that policy actors use new ideas and discourses originating from higher levels of institutional scale to redefine the problems resulting from historical trends in forest use. The policy action aspect deals with the way that these policy actors have adopted new practices that derive from these

international ideas and discourses in order to deal with policy problems. The communication and persuasion aspect deals with the way that these actors seek to advance particular courses of policy action in order to persuade other actors at a variety of different levels of institutional scale to generate broader support. This part of the framework is used in Chapters Seven and Eight in the case of two empirical examples. These Chapters show how policy actors have defined local policy problems and actions to be taken in response through the utilisation of international ideas and discourses. It also shows how these actors have then sought to build local coalitions and mobilise financial and political support of international actors towards local policy objectives.
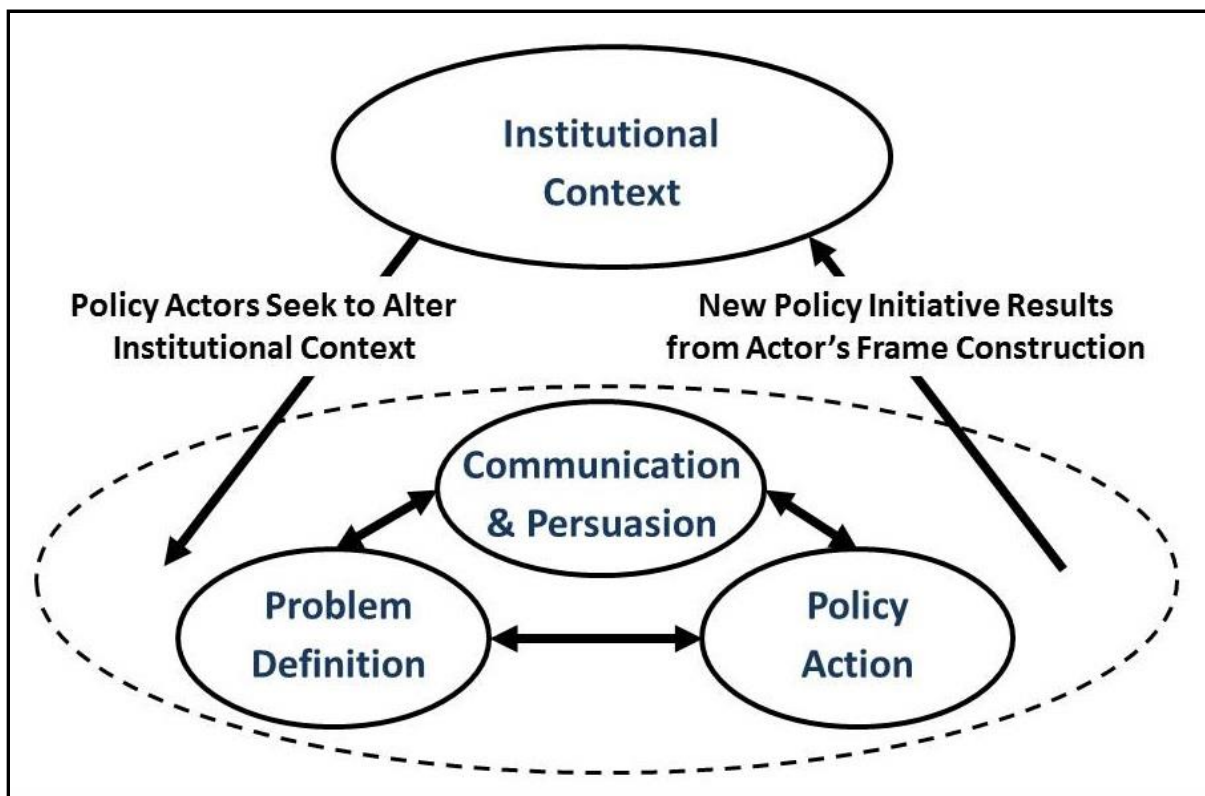


Figure 2: Illustration of Analytical Framework

The third stage relates principally to the second empirical research question. It considers the outcomes of resulting policy initiatives in terms of how they feed back into the original institutional context. This considers how far local level policy change has embedded in and altered this context, whether in terms of institutional capacity, the establishment of new normative ideas, network building, political influence or new legislation. It also considers what historical institutional barriers limit the effectiveness of new policy initiatives and their wider application. This part of the analytical framework is used in Chapter Nine of this Thesis. This will show the extent to which the international policy ideas and discourses outlined in Chapter Five and the actions of local actors on the basis of

these ideas and discourses have been able to shift the historic institutional legacies outlined in Chapter Six through the policy initiatives described in Chapters Seven and Eight.

These separate parts of the theoretical framework are viewed as interchangeable and subject to feedback loops in a circular process. They also do not seek to prescribe a particular direction that the development of policy initiatives will take. Therefore the process of policy formation can proceed from changes in institutional context to problem definition then to policy action, but in the process of defining solutions to these problems, may encounter barriers in the institutional context which require further refinement of problem definition and policy action. In addition, several approaches to a particular policy problem may be adopted by different policy agents, which may either combine or conflict. Thus the process of creating a policy initiative may involve multiple perspectives and a process of several feedback loops as the initiative develops. The way that the different permutations of this analytical framework are illustrated in detail in the contrasting empirical examples outlined in Chapters Seven and Eight.

## 4. Conclusion

This Chapter set out to devise an analytical framework to answer the research questions set out in Chapter Two. It took the theoretical concepts outlined Chapter Two as a departure. It then introduced an approach to policy frame analysis that corresponds to these theoretical concepts in terms of linking micro level policy to macro level institutional context, addressing how policy change occurs and the role of agency in building coalitions to advance policy change. The theoretical concepts of constructivist and historical institutionalism, vertical institutional interplay and policy frame analysis were then combined into a theoretical framework. This framework is designed to address the role of and limitations on policy agents in facilitating connections between institutions at different levels of scale in order to answer the empirical research questions. It also facilitates the connection of the key theoretical concepts employed in this Thesis in order to address the theoretical research question.

**CHAPTER FOUR: METHODOLOGY AND METHODS**

**Introduction**

This Chapter sets out the methodology and methods employed in this Thesis. It begins by justifying and explaining why an epistemology based in qualitative and interpretive methodology has been used. It then recounts the research journey taken over the course of three field trips to Sabah. This entailed the design of research methods based on the needs of the research questions and according to the analytical framework. This involved the formulation of the overall empirical aims of the project, the selection of specific empirical examples and the identification of data sources. The Chapter then outlines the process of data collection and the analysis of this data. Finally, it highlights how I dealt with problems and issues that arose in the field and how the research methods evolved and were adapted to the empirical setting.

**1. Methodology**

*1.1 Justification for the use of qualitative methods*

The epistemological departure for the research methods used in this Thesis is a pragmatic one, in that the methodological aim of this Thesis was to devise methods that were congruent with the principle intention of answering the research questions (Marshall and Rossman 2006: 208). In this sense the Thesis has not sought to adopt a specific philosophical position or conform to a particular methodological school of thought at the outset and was open to the use of a range of different approaches, both qualitative and qualitative (Ritchie 2003). However, broadly speaking, the requirements of the research questions and the analytical framework devised to answer these questions are predisposed to a qualitative and interpretive epistemology. The justification for following such an epistemological approach can be seen when the purposes of the research questions and the analytical framework devised to answer these questions are unpacked according to their research functions and examined in closer detail.

In the last Chapter a three stage analytical framework was devised. By examining the research requirements of each of these stages it can be seen that each fulfils a different research function that requires different forms of data and analytical approaches. These stages correspond with four functions of research methods that Richie refers to as contextual, explanatory, evaluative and

generative (Ritchie 2003: 26-28). The first three correspond respectively to the three stages of the analytical framework, while the fourth refers to the overall theoretical objective of the Thesis.

As a basis for answering the empirical research questions and addressing the first stage of the analytical framework, the empirical research needs to fulfil a contextual function by mapping the broader context that created the antecedent conditions for forest policy change in Sabah. Developing an understanding of this wider context establishes the multilevel institutional and material parameters that subsequently shape the actions of policy actors in formulating and implementing forest policy initiatives. This stage requires a macro level historical analysis of the development of forest institutions in Sabah, their impact on the physical condition of these forests and the development of international institutions that seek to address forest policy issues at a global level. This requires appropriate sources to establish this context, which involved the collection and analysis of a combination of documentary sources, secondary studies and the observations of relevant actors involved with forest policy in Sabah.

The second stage of the analytical framework addresses the empirical research questions, in particular the first one, in its closer focus on the specific role of policy actors. In addressing this stage, the empirical research needs to fulfil an explanatory function in considering how the meanings and values policy actors ascribe to particular policy issues shape their motivations and objectives. These motivations and objectives will in turn determine how actors collectively construct policy frames by defining policy problems, establish coalitions with other actors through communication and persuasion, and engage in particular policy actions. This stage requires a different methodological approach to the first, since the focus is not on observable factual data at the macro level but on the micro level subjective perceptions of policy actors. This requires research methods that are suitable to interpret the multiple perspectives of different policy actors, as well as providing a means of analysing how these multiple perspectives interact in the process of formulating and implementing forest conservation policy.

The third stage of the analytical framework answers the empirical research questions, in particular the second one, from a broader perspective than the second stage, and in addition draws together the previous two stages in order to provide a basis for answering the theoretical research question. In order to address this stage, the research needs to fulfil an evaluative function in assessing the output of the policy initiatives that resulted from the construction of policy frames by policy actors. This needs to consider what factors influence the relative capacity of policy initiatives to achieve their objectives and how they are limited by the wider institutional and material context they are

implemented in. This stage of the research requires a means of reconnecting the micro level findings of the second stage with the macro level context established in the first stage, then evaluating these findings in terms of policy output. This entails a synthesis of the data collection methods employed the first two stages.

Following on from the three stages of the analytical framework, on a theoretical level the research has a generative function to contribute to existing theory on vertical institutional interplay, and thus answering the theoretical research question. The purpose of this part of the analysis is to consider what general observations the findings of the empirical research yields in terms of understanding the micro level role of agency, ideas and discourse in facilitating, and historical legacies in impeding, institutional interplay. But in addition, it is intended that the research should be open to the discovery of new and unexpected theoretical insights. Therefore there is a need for flexibility in the research methods that will allow for the exploration of unanticipated avenues of enquiry as they arise.

Given the requirements of answering the research questions according to the analytical framework, there are a number of reasons why a qualitative approach is most appropriate. These reasons are based on a number of common features of qualitative research identified in the literature on qualitative methodology (Snape and Spencer 2003: 3-4, Marshall and Rossman 2006: 52-53, Flick 2002). Firstly, the research requires an in-depth, contextualised and detailed understanding of the perspectives of policy actors and the way they construct policy frames. This entails dealing with less tangible motivations based on values and meanings which are best captured through the use of qualitative methods. Secondly, because the second stage of the research is based on a detailed and complex understanding of micro processes, for the sake of practicality it can only involve a small sample size of the most relevant actors in a small number of empirical examples. For this reason quantitative sampling and statistical analysis would be inappropriate and qualitative methods are more suitable. Thirdly, the need to apply different data collection and analysis techniques for the different stages of the analytical framework requires an adaptability that corresponds with the flexibility that typically characterises qualitative methods. In addition, flexibility is required because the theoretical purpose of the research entails openness to discovery and the generation of unexpected theoretical insights.

*1.2 Interpretive methodology*

The research methods used in this Thesis, particularly in respect to the second stage of the analytical framework, draw from interpretive methodology. Interpretive methods are based on the idea that in

order to study the social world it is necessary not only to consider directly observable data, but also the subjective ways that social actors make sense of the world (Yanow 2006: 10-11). This corresponds with the use of frame analysis in the analytical framework, which focuses on the way individuals subjectively make sense of situations and how this consequently biases their actions in response to such situations. But more specifically, interpretive methods reject the idea that the researcher can analyse the social world from the point of view of a single privileged and objective truth. Rather, interpretive approaches consider that the social world is constructed through the intersection of multiple and intersubjective meanings held by different individuals and groups. The aim of the interpretive researcher is therefore to attempt to generate knowledge through developing an understanding of the research subject's own point of view. By doing this, the researcher is then able to discover how the multiple understandings of different research subjects converge or conflict in shaping the wider phenomenon under investigation (Snape and Spencer 2003: 13-15). The way that such approaches are interpretive is twofold. Firstly, the researcher is seeking to uncover the research participant's own subjective interpretations of the phenomenon being studied. But in addition, because the "realm of meaning" of each research participant is not directly observable, but has to be inferred, the researcher has to engage in "second order interpretation" of the research subject's interpretations. In order to do this, interpretive research necessitates a close interactive relationship between researcher and research subjects and the development of a detailed understanding of the social context that shapes the research subject's perspective (Flick 2002: 218-222, Fischer 2003: 50).

The particular form of interpretive analysis that guides much of the research methods used in this Thesis is interpretive policy analysis. Fischer connects the use of frame analysis and interpretive policy analysis in the following statement: "basic to interpretive policy analysis is the study of the frames that define policy problems and the ways different participants understand them. To get at these frames we have to examine a range of objects and activities to detect and tease out the social meaning they embody or carry" (Fischer 2003: 160). The objects and activities that Fischer refers to are the visible manifestations of the policy process. They can take a variety of forms including policy documents and legislation, the public statements of policy actors, the policy frameworks and instruments employed in particular situations, the social conventions of policy actors and the visible symbols used by actors to promote particular policy issues on a wider stage (Yanow 1996). The rationale behind interpretive policy analysis is that these objects and activities embody the less tangible meaning and values held by different policy actors about particular policy situations. While these meanings and values may differ between different actors, these objects and activities

nonetheless provide a means of creating common values between policy actors and therefore form the basis of collaborative action. Therefore interpretive policy analysis seeks to explain the outward manifestations of policy initiatives by inferring the inner motivations of the policy actors who devise and implement these initiatives (Fischer 2003: 141-144).

Yanow outlines a research framework that aims to link the meanings held by different policy actors with the visible objects and activities that embody the policy making process (Yanow 2000: 5-17). This involves firstly identifying a particular policy situation to be studied. Following this, the next step is to identify both the objects and activities that represent the visible aspects of this policy situation as well as the community of actors involved in formulating and implementing policy in the particular policy situation. This might, for instance, involve an initial review of documentary sources in order to identify relevant actors or observations at public meetings in order to establish the broader context of the situation under study. Once this context has been mapped, the next step involves the researcher becoming immersed in the policy situation through interviews or participant observation in order to "get inside the heads" of policy actors (Fischer 2003: 141). Yanow does not conceive of this process of data collection as a linear one. Rather it is one of interchangeably and reflectively moving between identifying visible aspects of policy and identifying the meanings they convey as the researcher becomes more familiar with the subject being studied (Yanow 2000: 5-17). From this it is possible to identify how the multiple meanings and motives of policy actors shape the way policy frames are constructed (Fischer 2003: 143-145). This then makes it possible to identify the strengths of different policy approaches in drawing together actors towards particular policy objectives, as well as weaknesses where underlying conflicts of meaning between actors impedes policy implementation. By identifying sources of underlying conflict is then becomes possible to make practical recommendations about how to overcome these problems (Yanow 2000: 13-17).

This methodology provides a guide to the research methods used in this Thesis. However it is not adopted uncritically. The theoretical basis and analytical framework of this Thesis, as outlined in Chapters Two and Three, are concerned not only with the way policy actors subjectively construct policy frames, but also the way that these policy frames are mediated by historical legacies and material limitations. Therefore the research methods outlined below seek to balance an interpretive epistemological approach with an identification of the institutional and material restraints that limit the autonomy of actors in pursuing new policy directions. This balance can be seen in each of the three stages of the analytical framework. The first stage involves a historical analysis that seeks to identify both the antecedent conditions that created the context for new policy directions, as well as the institutional and material barriers to these new policy directions. The second stage is concerned

both with how the perceptions of meaning held by policy actors led to the construction of new policy frames and how actors perceived the barriers they face in formulating and implementing new policy initiatives. The third stage is concerned with policy output in terms of both the extent that policy initiatives succeeded in promoting forest conservation and the extent that they were impeded by persisting historical institutional legacies. This approach is appropriate to answering the empirical questions in dealing with how policy actors are able to mobilise higher level institutions towards implementing new policy initiatives or limited by institutional and material restraints. It is also appropriate for answering the more general theoretical research question concerned with the tension between historical institutional legacies and the autonomy of actors to construct new policy directions.

### 1.3 Validity and credibility

The final epistemological aspect to be considered is that of validity. Validity as a concept that derives from positivist methodology and aims to apply objective scientific standards to the study of social phenomenon, usually through the utilisation of quantitative methods. In this original conception validity refers to the degree of 'truth' of a study in the way that the data derived from research corresponds to the phenomena this data is intended to represent. Applying such a standard in interpretive analysis presents a problem because, as was noted above, interpretive approaches rest on the assumption that the social world is characterised by multiple realities rather than a single objective truth. This has led some writers to postulate that the term "credibility" is more appropriate for describing the "correctness" of qualitative research (Lincoln and Guba 1985, Fischer 2003). This has led to the formulation of different standards for dealing with the issue of validity in qualitative research. There are three different approaches to validity and credibility that have been adopted in the research methods of this Thesis.

First is establishing the appropriateness of the research methods to the subject matter through the coherence and logic of the arguments used to present findings. Kvale and Brinkmann refer to this as validity through "quality of craftsmanship", where the research chooses the most suitable set of methodological tools for research and presents findings in a way that is convincing to the intended audience (Kvale and Brinkmann 2009: 248-253). From a similar perspective Yanow responds to accusations that qualitative methods do not have the procedural rigour and objectiveness of positivist and quantitative approaches, and therefore lack validity. She questions the appropriateness of holding qualitative methods, which are primarily concerned issues such as social meaning that are intangible and difficult to measure, to positivist procedural standards. Instead she

conceives of rigour in qualitative research as deriving from the logic and cogency of convincing argumentation rooted in appropriate empirical evidence (Yanow 2006: 72). Fischer argues that it would be more appropriate for qualitative social science to look to the methods of history and literary criticism in using quality of argument as standards of validity and credibility rather than procedures and standards that derived from the natural sciences (Fischer 2003: 156-157). Therefore this Thesis seeks to present the credibility and validity of research through an argument based on the logic of the analytical framework, with appropriate empirical evidence used to support this argument.

The second form of validity is what Kvale and Brinkmann refer to as "communicative validation" (Kvale and Brinkmann 2009: 253-256). This can take two forms. Fischer proposes a form of communicative validity in terms of the extent that research corresponds to the perceptions of research subjects whose views the researcher is attempting to interpret. This involves referring findings back to selected research participants in order to establish whether they "ring true" in the context of the study (Fischer 2003: 154). Kvale and Brinkmann argue that this approach to communicative validation is not enough in itself, since it is bounded by the limitations of the research participant's common sense perceptions that are not necessarily appropriate for judging the theoretical aspects of the study. They therefore seek to widen this approach, suggesting that the researcher should also use "peer validation", by referring research findings to the intended academic audience (Kvale and Brinkmann 2009: 253-256). Both of these methods of communicative validation have been applied in the research process described below.

The third type of validation used in this Thesis is triangulation. This involves the utilisation of a range of different data sources or research methods in order to allow research to take multiple perspectives that can be cross referenced against each other (Denzin 1988). The intention of triangulation is that different sources of data and different methods of data collection will improve the clarity and precision of research finding and therefore the confidence with which these findings can be stated (Ritchie 2003). Triangulation is applied in this Thesis through the utilisation of both micro level interpretive and macro level historical analysis, as well as the used of documentary, interview and observational methods of data collection. The ways that each of these methods of validation have been applied are highlighted as appropriate in the proceeding sections of this Chapter.

## 2. Research Design

*2.1 Initial considerations in research design*

The design of the research methods used in this Thesis followed a number of stages outlined in the literature on interpretive policy analysis (Yanow 2000, Fischer 2003). It began with the selection of appropriate empirical examples, then the selection of data sources that represented both the visible aspects of these examples and research participants who could provide less tangible data relating to multiple perspectives of meanings and values. Following this, the next stages were the design and conduct of interviews and the analysis of data, which will be dealt with in the next two sections. In line with Yanow's approach to interpretive policy analysis these stages were not applied in a rigid linear way, but involved moving between different stages at different times in order to allow flexibility and the evolution of the research design to fit with the empirical material (Yanow 2000). In addition, throughout the research I considered and adapted my research design to broader ethical considerations of my position as a researcher (Kvale and Brinkman 2007).

Prior to designing research methods based on the analytical framework and the interpretive methodology outlined above, it was first necessary to consider a number of practical considerations that I faced when first entering the field. These shaped the objectives of the study and the subsequent form of the research questions that are outlined in Chapter Two. The research design for this Thesis began during my first visit to Sabah, which took place in January 2011, to consult with three initial project partner organisations. The first of these partners was Danau Girang Field Centre (DGFC), which is a research station run by Cardiff University and provided the initial introduction into Sabah. The second was the Sabah Wildlife Department (SWD), which is the main government partner of DGFC and provided support for obtaining a research visa. The third was HUTAN, which is an NGO that specialises in orang-utan conservation and provided practical support and information in setting up the project. I entered the field with some background in conservation in Malaysia, having previously spent three months in the country on a marine conservation project. In addition, I had experience of policy research in Asia through an MSc research project in China. The experience gained from these projects, combined with advice from these project partners, informed the creation of the subsequent research design for this Thesis.

At the beginning of the research my original conception of the project was to investigate how institutional interplay operated on different levels in the Lower Kinabatangan floodplain, particularly focusing on human/wildlife conflict. During the initial first visit in January 2011 it was established that this issue had to a large extent been addressed through a number of practical initiatives. During

dialogue at this early stage it was agreed that a more fruitful research direction that would have both greater policy relevance and fit my own research interests would be a broader scale study relating to land use institutions, forest policy and conservation funding. This would focus on the connection between the international and state level dimensions of tropical forest conservation. It was further agreed at this stage that because a major focus of forest policy in Sabah was on forest restoration as a means of protecting biodiversity, I would concentrate on policy initiatives that focused on this area of policy. This approach would fit more closely within an existing research agenda where on-going studies were already being carried out and would be more likely to secure support from a wider range of stakeholders and be acceptable for securing a research visa.

In order to pursue this research direction, prior to my second visit to Sabah, from which took place between November 2011 to February 2012, I sought to develop a broader understanding of the wider academic and grey literature on the historical development of forest conservation policy at both international and state levels. This had three purposes. Firstly, it provided a means of addressing the first stage of the analytical framework. The intention was to use secondary sources to provide the bulk of the factual data for this stage, which could then be supplemented and corroborated through subsequent field research. Secondly, it provided an overview of the policy context of forest conservation in Sabah that could be used to select empirical examples that would be most representative of this wider context. Thirdly, it was intended to establish my credibility with potential research participants in ensuring that I was well informed on the background to the research subject prior to entering the field.

*2.2 Selection of empirical examples*

Following Yanow's framework for interpretive policy analysis, the first part of the research design involved selecting appropriate and representative empirical examples (Yanow 2000). This took place at the beginning in the first weeks of the second visit to Sabah, during November 2011. The selection of examples was done according to the criteria of purposive sampling, which is a common approach used in qualitative research methods. In this approach, the selection of a situation to be investigated, as well as the research participants who are involved this situation, is done according to how relevant they are for answering the research questions. Thus Ritchie et al state two principles of purposive sampling; that they ensure that all the relevant criteria for the study are covered in the examples and there is diversity within the selection in order to allow comparability and contrast of the relevant criteria within the sample setting (Ritchie et al 2003: 78-80).

For the purposes of providing a focused direction for the research I decided to concentrate on two empirical examples, a number that would allow for the comparison of different approaches to forest restoration policy but would not generate too much data to be handled within the scope of a single project. In order to be relevant for answering the research questions, the principle criterion for selecting empirical examples was that they should demonstrate vertical institutional interplay through the implementation of international policy instruments and the involvement of international actors. Subsidiary to this principle requirement, there were also five secondary requirements. Firstly, in order to be able to produce a coherent analysis, the examples should be distinct and be based around a defined overall policy aim conducted in a discrete geographical area. Secondly, because the analytical framework deals with policy from conception to implementation, the examples should demonstrate a relatively long time frame where at least some of the policy projects undertaken in each area had time to embed and be evaluated according to their output. Thirdly, because the research aims of this Thesis are concerned with the roles of policy actors and their interaction with each other in forming and implementing policy, the examples should involve a range of different policy actors from different sectors. Fourthly, in accordance with the second criteria for purposive sampling outlined above, the two different examples should show contrasting and comparable facets of forest conservation policy in Sabah. Fifth, the examples should be practically feasible in terms of access to sites and to potential project partners.

From the initial research into the context of Sabah and further discussions with project partners, four potential study sites that fulfilled the principle criterion and at least some of the secondary criteria were identified. Of these, three were located in areas within the State's Permanent Forest Estate, which is managed by the Sabah Forestry Department (SFD). The first of these was Ulu Segama Malua, which is an area of forest that has been subject to severe deforestation and forest degradation in the past twenty years and has since become the site of several forest restoration initiatives that employ different policy instruments based on international ideas. The second was Deramakot Forest Reserve, which has been used as a pilot project by the SFD to implement a new Sustainable Forest Management regime, which has subsequently been used as a template to inform sustainable forestry policy for the rest of the Permanent Forest Estate. The third was Gunung Rara-Kalabakan Forest Reserve, which has several examples of forest restoration projects and is the site for a proposed mixed used sustainable land use project to combine commercial forestry with conservation and forest restoration. The fourth potential study site, the Lower Kinabatangan floodplain, was the only one located outside the Permanent Forest Reserve. This example contained

47

a number of different approaches to forest restoration that had the overall aim of connecting a number of forest fragments located next to the Kinabatangan River.

In order to fulfil the criteria of selecting contrasting and comparable examples, I decided that the Lower Kinabatangan would be one of the empirical examples, with the second example selected from between the three sites in the Permanent Forest Estate. The reason for this choice was that it would fit with the second principle of purposive sampling, as outlined above, by providing contrasting examples of different facets of the institutional system of land use in Sabah (Ritchie et al 2003: 79). Furthermore, the Lower Kinabatangan contains a number of features that make it suitable in relation to the research questions. Firstly, the projects undertaken in the area were linked by a common policy objective of creating habitat corridors between forest fragments. Secondly, all of these projects showed the influence of international ideas and policy approaches and the involvement of a range of international actors. Thirdly, it showed examples of forest conservation projects that are well established, with a number dating back to the late 1990s. Fourthly, it demonstrated the involvement of the widest range of different sectors of any of the examples, including government agencies, NGOs, scientific researchers, indigenous communities and private sector companies. Fifthly, the Lower Kinabatangan had the advantage of being practically feasible in terms of physical access and contacts with key actors, given that my main project partners were all closely involved with conservation in this area.

Of the three examples in the Permanent Forest Estate, Ulu Segama Malua was selected as the most relevant example according to the criteria set out above. This is because firstly Ulu Segama Malua was representative of the wider overall forest conservation policy strategy of the SFD. Secondly, the policy approach adopted in Ulu Segama Malua dated to 2006, and the individual projects had been running long enough to evaluate project output. Thirdly, the projects undertaken in Ulu Segama Malua involved the collaboration of a wide range of policy actors from the government, NGO, scientific and private sectors. Fourthly, each of these projects demonstrated the application of international ideas and the involvement of international actors. Deramakot was rejected because, while it demonstrated an innovative and in some senses pioneering approach to forest restoration and conservation that has a history dating to the 1990s, it involved a narrower range of actors and policy initiatives compared to Ulu Segama. Gunung Rara-Kalabakan was rejected because the larger scale policy initiatives being undertaken in that area were at the early stages of implementation at the time of research and would therefore not show sufficient evidence of policy output. In addition to these issues, Ulu Segama Malua was also the most practical and cost effective in terms of physical access.

*2.3 Selection of data sources*

The selection of data sources took place according to the second stage of Yanow's framework for interpretive policy analysis (Yanow 2000). This entailed both identifying the visible objects and activities of the forest conservation projects either taking place or proposed in the two empirical examples and identifying the community of policy actors involved in each example. These two aspects of the research design took place interchangeably throughout the research period, though most of this part of the research took place between November 2001 and January 2012. Lewis outlines a number of different options that a researcher has in selecting data sources. She distinguishes naturally occurring data from generated data. Naturally occurring data derives from 'real world' settings and includes participant observation, non-participant observation and documentary analysis. Generated data involves the reconstructed interpretation of the experience of research participants through methods such as interviews or focus groups (Lewis 2003: 56-57). I decided to use documentary analysis in order to develop an understanding of how the policy initiatives in the two examples were expressed visibly in the public domain. This also augmented the desk based research on context that was conducted prior to entering the field in order to fulfil the requirements of the first stage of the analytical framework. I then decided to use semi structured interviews with key actors in each example as a means of generating data to fulfil the requirements of the second stage of the analytical framework. The advantages of using semi structured interviews for dealing with this stage of the research were that they would allow me to generate data in a time effective way that would allow me to access the research participant's interpretations of policy situations in the empirical examples. Participant observation may have allowed me to gain similar insights in a naturally occurring way, however I considered this impractical given the number of different organisations I needed to engage with and the limitations of the time I was able to spend in the field (Lewis 2003: 56-61). In addition to these data sources, I also employed non-participant observation in order to supplement and corroborate the data from documentary sources. This involved taking notes from site visits to projects in the empirical examples, observing formal and informal meetings with research participants and attending a number of conferences relevant to the subject matter of the research. The site visits in particular had the benefit of allowing me to confirm the statements of interviewees by observing project implementation in practice, as well as adding to the findings on policy output required for stage three of the analytical framework. This use of different data sources corresponds to the validation principle of data triangulation that was referred to in the previous section (Denzin 1989).

Data collection began through consultation with project partners, independent web based research and attendance at a conference on forest conservation that took place in November 2011. This allowed me to develop an understanding of how the various projects being carried out in the empirical examples were being presented in the public domain. These sources included key legislation, relevant policy documents, organisational annual reports, organisational websites, consultancy studies, publicity material of different organisations, conference presentations, meeting minutes, press releases and newspaper articles. Through this process I was able to gradually become familiar with the context of each example, identify the relevant policy actors involved in each example and begin to widen my network of contacts.

This stage, combined with desk based research carried out prior to entering the field, fulfilled most of the data collection requirements for the first stage of the analytical framework. Following this, I was then in a position to select suitable interviewees in order to address the requirements of stages two and three of the analytical framework. This part of the research took place mainly during the second visit to Sabah, which took place between November 2011 and January 2012. Some interviewees were contacted and interviewed at a later stage during a third visit to Sabah in , which took place during May and June of that year 2012, and two U.K. based interviewees were contacted by phone in the U.K. later in that year  2012. The process of selecting interviewees corresponded with a process of "gradual sampling" or "snowballing" where selection took place with progressive familiarisation with the subject matter (Flick 2002: 61-62, Yanow 2000). In this process, initial documentary research and consultation with project partners led on to the identification of other relevant organisations active in forest restoration in the empirical examples. Representatives of these other organisations were then asked to identify further potentially relevant interviewees. According to the principles of purposive sampling as outlined above, selection was based on criteria of relevance to the purposes of answering the research questions. This meant that I aimed to interview representatives of all the organisations that had a significant role in devising and implementing policy in the two empirical examples. I decided that it would be beyond the scope of the Thesis to interview figures not directly involved in the empirical examples. For instance, it may have been possible to interview representatives of the State Government or of palm oil and tourism companies. Interviews with representatives from these sectors might have offered a broader understanding of the context of the examples, particularly regarding the limitations of institutional constraints. However to do so would have been only indirectly relevant to the research questions, given that the principle focus of these questions is on actors involved directly in forest conservation policy. In addition, it would also have risked generating more data than could be confined to a single

project and would therefore have proved impractical. Therefore I decided that I had to limit the range of interviews conducted, and rely on sources such as conference presentations and documents from government ministers and representatives of the palm oil industry in order to reflect the positions of these sectors.

In total I was able to identify eighteen main organisations who were involved in forest restoration policy in the empirical examples. Six of these were involved with both examples, five were involved only in Ulu Segama Malua and seven were involved only in the Lower Kinabatangan. Given that Kvale and Brinkmann recommend as a rule of thumb that a manageable number of interviews for a single study is between 15 and 25, it became clear that interviewing multiple representatives of each organisation would be impractical (Kvale and Brinkmann 2009: 113). Therefore it was decided that the best course of action would be to interview the most senior figure available in each organisation. I only interviewed a second representative where doing so would give a significantly different perspective on an aspect of the study which interviewing one representative could not achieve alone. This happened for instance in the case of WWF Malaysia, where different representatives were most appropriate to speak to about the different circumstances of projects taking place in Ulu Segama Malua and the Lower Kinabatangan. In addition, in some cases I was able to speak to two representatives of the same organisation with different expertise during the same interview. One organisation, Yayasan Sabah which is the concession holder of Ulu Segama Malua, was unwilling to participate. However, given that its role in the empirical examples was relatively minor, and much of this role was in conjunction with the SFD who did agree to participate, I considered that this omission would not have a significantly detrimental impact on the analysis. A total of twenty three representatives from seventeen organisations were interviewed over the course of the fieldwork. The roles of these organisations in summarised in Table 1 below.

Table 1: Summary of Participant Organisations

| Organisation | Role in Empirical Examples |
|---|---|
| Sabah Forestry Department (SFD) | The SFD is the principle authority in Ulu Segama Malua and one of the most powerful government agencies in Sabah. It also has a limited role in the Lower Kinabatangan as manager of a number of small forest reserves. |
| HUTAN | HUTAN is French/Malaysian NGO specialising in orang-utan conservation. Its principle role is running a community conservation |

| | projects in the Lower Kinabatangan. It also has a significant role in Ulu Segama Malua in providing technical assistance to the SFD. |
|---|---|
| Land Empowerment Animals and People (LEAP) | LEAP is an American/Malaysian NGO. It is involved in both empirical examples, assuming roles of supporting community conservation initiatives and fund raising. |
| Worldwide Fund for Nature (WWF Malaysia) | WWF Malaysia is the largest environmental NGO active in Sabah. It fulfils a range of conservation roles throughout the State, including research, capacity building, fundraising and project management capacity. |
| South East Asia Rainforest Research Project (SEARRP) | SEARRP is part of the British Royal Society. It administers the Danum Valley Research Station, adjacent to Ulu Segama Malua, and coordinates and facilitates the research of scientists in the area. |
| Yayasan Sime Darby (YSD) | YSD is the philanthropic foundation of one of the World's largest palm oil companies. It funds a range of social, educational and environmental projects in Malaysia, including projects in both empirical examples. |
| Borneo Rhino Alliance (BORA) | BORA is a specialist rhino conservation NGO. Its role in the two empirical examples is as a technical and policy advisor as a result of long standing experience of working on conservation projects in the Sabah. |
| New Forests | New Forests is an Australian based broker for sustainable forestry investment projects. Its principle role in Sabah is as one of the main partners, founders and project managers of the Malua Biobank in Ulu Segama Malua. |
| Round Table for Sustainable Palm Oil (RSPO) | The RSPO runs a sustainable certification programme for the palm oil industry. It has been linked to Ulu Segama Malua in association with a proposed biodiversity offset mechanism. |
| Sabah Wildlife Department (SWD) | SWD is the key government agency coordinating conservation policy strategy in the Lower Kinabatangan. It is responsible for enforcement and protection in the reserve, and acts in close partnership with a range of NGOs and scientific partners. |

| Borneo Conservation Trust (BCT) | BCT is a Malaysian NGO with close links to the SWD. It is involved mainly in developing strategies and partnerships for habitat connectivity in the Lower Kinabatangan. |
|---|---|
| Danau Girang Field Station (DGFC) | DGFC is affiliated with both Cardiff University in the U.K. and the SWD. It is the main scientific research centre in the Lower Kinabatangan and has a close advisory relationship with the SWD. |
| Model Ecologically Sustainable Community Conservation and Tourism (MESCOT) | MESCOT is a community NGO that runs a cooperative in the village of Batu Puteh in the Lower Kinabatangan. It operates a project that uses profits from community led ecotourism to fund forest restoration activities. |
| Partners of Community Organisations in Sabah (PACOS) | PACOS is the largest community development NGO in Sabah. It is not closely involved in either the Lower Kinabatangan or USM, but has extensive knowledge and experience of wider community issues in Sabah as a whole. |
| World Land Trust (WLT) | WLT is a British NGO that funds land acquisitions for conservation purposes. It is involved in the Lower Kinabatangan in funding land purchases for the creation of habitat corridors. |
| EU Delegation to Malaysia | The EU delegation is involved in the Lower Kinabatangan as the main funder of a feasibility study intended to set up a REDD+ pilot project. |
| Environmental Consultant | An independent environmental consultant who is not part of any specific organisations was also interviewed. She was involved in producing studies on the economic and social dimensions of forest conservation in and around Ulu Segama Malua. |

These interviewees were contacted through a number of different means. In some cases they were contacted directly by email through details provided by project partners or found on websites. In some cases, particularly when trying to access interviewees from organisations that might be sensitive to unsolicited emails, it was necessary to ask for emails of introduction from established

contacts, though as a rule I preferred to establish contact independently if possible. However in some cases I found that often it was difficult to get responses to email. This was particularly the case of Malaysian interviewees, who appeared to be more comfortable with face to face initial contact. For this reason, two conferences, one held in November 2011 that was organised by the SFD and one in January 2012 organised by the SWD, provided useful fora for making these initial contacts. In these conferences I was in a position to briefly introduce myself and my project to prospective interviewees, exchange contact details and set up meetings. The approach taken in this respect varied from person to person. In some cases it involved a brief conversation in a coffee break. In this I had to account for the fact that most of the representatives I was aiming to interview held high profile positions and often had high demands on their time during these conferences, and consequently I needed to be concise and direct in speaking to them. In other cases I was able to get to know prospective contacts in a more social situation during the evening of the conference. For example, an informal conversation during post conference drinks with the chief executive of a major environmental NGO proved extremely useful in securing two interviews. Later on in the research process, when I started to engage with some representatives on a social level, I was able to make contacts in other ways. For instance, while out for a meal with the chief executives of two NGOs I had previously interviewed, I was able to make contact with and interview a senior representative of an international organisations who was only in Sabah for two days. Given that this representative usually worked outside Sabah, I would otherwise have not have had the chance to interview him unless this chance meeting had come about.

As previously mentioned, I also made site visits to four different forest conservation projects, two from each empirical example. These helped to corroborate many of the observations made by interviewees and gave an additional dimension to the research by allowing me to view the policy initiatives from the perspective of lower level employees. Photos of two of these visits are shown in Appendix One. The first of these was to Sukau in the Lower Kinabatangan, which was conducted during the first visit to Sabah. During this visit I was able to shadow employees of HUTAN who were engaged in a number of forest conservation activities including wildlife enforcement patrols, the management of human-elephant conflict and forest restoration. During the second visit to Sabah, in February 2012 I was able to visit Malua Forest Reserve. In this I was able to assist in wildlife survey and research work and observe some of the problems associated with forest degradation and poaching. During my third visit in May and June 2012 I was able to visit the MESCOT project in the village of Batu Puteh on the Lower Kinabatangan. This visit combined interviews with community leaders with observations on the day to day running of the project. During this visit I stayed with

local villagers and assisted in work in forest restoration and the maintenance of ecotourism facilities. By working and living closely with the community for a number of days I was able to establish a rapport with community members and establish trust. This allowed me to gain a wider understanding of some of the issues facing local communities that both corroborated and added to data obtained from interviews. The final site visit took place in the area of Northern Ulu Segama. This visit involved spending a day observing forest restoration activities undertaken by the SFD. This visit provided a contrast with the different forest restoration approaches taken in the two sites in the Kinabatangan, and also highlighted the particular severity of the forest degradation that had taken place in this area compared to other areas visited.

## 2.4. Ethical considerations

A final aspect of research design that I had to consider before entering the field was research ethics, particularly in the case of conducting interviews. From one point of view the ethical aspects of this Thesis can be seen as part of a general overarching ethical obligation. From this perspective, it was always a principle purpose of the study that it should be more than a purely academic enquiry and it should aim to have wider policy relevance and benefit to forest conservation in Sabah. But in a more particular sense, I also had to consider my ethical obligations to the individual interview participants.

Kvale and Brinkmann introduce four "fields of uncertainty" that guide the ethics of research, on which the researcher should continuously reflect on throughout the research process. These are informed consent, confidentiality, consequences and the role of the researcher. Each of these is considered in turn below. The intention of this approach is that research ethics should not simply be a matter of following set rules and protocols. Rather it should be a process of recognising the ethical ambiguities and conflicts that the qualitative researcher will invariably encounter, then applying judgement, integrity and best practice to the particular situation at hand in order to manage rather than necessarily solve these problems (Kvale and Brinkmann 2009: 68-76).

Informed consent was a particularly important aspect of the research given that the subject of research was potentially politically sensitive. The nature of politics in Malaysia, where the government could be described as an 'authoritarian democracy', means that people have traditionally been unwilling to speak out against the government or figures of authority. I found that the Malaysian interviewees in particular often needed a level of explicit reassurance that information given would not be used in ways that could reflect on them detrimentally. For this reason I made sure that at the beginning of each interview the purpose of the overall project and how data would be used towards this purpose were made explicitly clear. In addition, interviewees

were asked whether they were happy for the interview to be recorded, told that they had the opportunity to have any statement made withdrawn from the record and be able to review a transcript if requested. Each interviewee was also asked to sign a consent form.

In terms of confidentiality, the interviewees were told that they would be kept personally anonymous, though because of the public nature of the subject which made organisation anonymity impractical, their organisations would be mentioned by name. Therefore in the analysis Chapters, interviewees are referred to as "Representative of [Organisation]", or where more than one person has been interviewed from a single organisation they are referred to as "Representative of [Organisation] 1 or 2".

The issue of consequences was perhaps the most difficult ethical dilemma I faced in the field. In some circumstances I was made aware of information that if made public could reflect badly on participants, particularly regarding conflicts between different actors and instances of corruption. Some of this information was made explicitly off the record and therefore, for reasons of confidentiality, could not be included as part of the analysis, but nonetheless altered my wider understanding of other interview statements. Therefore throughout the analysis I had to continuously question the consequences of incorporating potentially sensitive information, the management of non-sensitive information that is altered in the light of 'off the record' comments and the consequences of choices to include or not include certain information for the integrity of the research as a whole. Ultimately these decisions had to be judged according to the overall ethical imperative of the project; that the research as a whole should aim to be beneficial to forest conservation policy in Sabah.

There were two ethical aspects of the research process that related to my own personal role as researcher. The first was independence. My aim in research was to account for the multiple perspectives of policy actors on policy initiatives in the two empirical examples. In order to achieve this in a credible manner I needed to take an independent perspective on the roles of each policy actor, and moreover be perceived by those policy actors as being independent myself. In doing this I had to account for the fact that as a student of Cardiff University I was affiliated to one of the policy actors, DGFC, and therefore closely associated with two others, the SWD and HUTAN. In order to approach other policy actors from an independent perspective it was necessary for me not to be perceived as working on these organisation's behalf, and that my interests were in conservation in Sabah as a whole rather than from a particular organisational perspective. In this sense, I made an effort to establish relationships with a range of representatives of organisations that took on a social

element beyond just one-off interviews. This also explained the reason that I avoided relying on introductions from my initial project partners if possible and attempted to establish contact independently. I found that by doing this I was able to establish on-going relationships with a range of actors in Sabah, which minimised the chance of implicit bias that might have resulted from me confining closer collaboration to only DGFC, SWD and HUTAN.

The second aspect of my role as researcher was my position as a European studying in Malaysia. From one point of view this position was beneficial, since I was able to take an independent view of the policy situation as an outsider, with limited *a priori* knowledge, that an indigenous researcher might not be able to do so easily. But from another point of view I had to consider the particular situation of foreign researchers in Malaysia where there is a long history of mistrust of foreigners. While Malaysia has become more open in recent years, I had to recognise that for political reasons I could not have carried out a study of this kind as recently as ten years ago. Moreover there is a prevalent current of political discourse against 'neo-colonialism', which will be encountered in later Chapters, and which I had to consider in conducting research. As a result I had to exercise vigilance throughout the research process not to act in a way that might be perceived as a white man telling Malaysians what to do. This was done by presenting myself as a researcher who was in Malaysia to learn how Malaysians were dealing with conservation issues with the intention of adding to an existing body of research and seeing if approaches to conservation undertaken in Sabah could have wider application in other parts of the world. I also made sure to ask interviewees how my research could contribute to the wider effort of building a case for conservation in the state and ask for their suggestions about where they thought my efforts could best be concentrate towards this end.

## 3. Conducting Interviews

### 3.1 Initial considerations on interviews

In practice the bulk of the research and the data generated from it were derived from the interviews. Therefore the interview stage of the research is given greatest consideration in this Chapter. Before commencing these interviews a number of specific considerations needed to be addressed. Anticipating the analysis, a main requirement of the interviews was to provide a means of identifying common frames between policy actors. Therefore the interviews needed to be conducted in such a way that they could facilitate comparability. This requirement raised potential

problems owing to the diversity of the interviewees in terms of their respective roles and backgrounds.

A rough classification of the twenty three interviewees illustrates this point. Eleven of the interviewees were non-Malaysian, originating from seven different countries. Of the twelve Malaysians, these represented several different ethnic groups and social backgrounds. The interviewees represented a range of different sectors, with nine coming from NGOs, five from the private sector, five from the governmental sector, two representing scientific organisations and two from local communities. The interviewees were generally well educated, with seven educated to doctoral level, though in contrast the community representatives had little formal education at all. Their roles in the empirical examples and the relevance they brought to the research were also highly variable. Six of the interviewees could be said to have a broad involvement across multiple aspects of forest restoration policy in Sabah as a whole. Seven were intensively involved in specific projects but had less involvement in a wider context. Seven had hands off roles as funding agents or experts and did not live in Sabah. Three had only a limited advisory role in the empirical examples, but because of their long standing experience of working in Sabah could provide highly relevant information about the broader institutional context of the empirical examples. Therefore the interview approach adopted had to strike a balance between consistency for the purposes of comparability and flexibility in order to accommodate the different roles and backgrounds of the interviewees.

There were three other issues that also had a bearing on the design and conduct of the interviews. Firstly, because in all cases the interviewees held positions of responsibility, and ten of them were the heads of their respective organisations, issues relating to elite or expert interviewing had to be considered. Kvale and Brinkmann highlight the nature of these issues. They observe that in interviewing leaders and experts in any given field there is parity between interviewer and interviewee not found in other types of interview because such interviewees come from a position of influence and are generally familiar with being asked questions in an interview setting. This means that some of the problems of power asymmetry associated with the interview process is reduced, particularly the danger that the interviewer will take advantage of their position to implicitly impose their own values on the interviewee. But on the other hand it does require the interviewer to be particularly careful that they are well informed on the subject at hand and adopt manners appropriate to the interviewee's position in order not to lose credibility with the interviewee. In addition, because of their familiarity with the interview process, elite or expert interviewee may be better able to conceal their opinions or follow well-rehearsed party lines. These issues were dealt

with by conducting extensive background research beforehand in order to establish my own credibility and to ensure that I had sufficient broader knowledge to be able to distinguish where interviewees were expressing their organisation's or their own opinions. In these situations I also had to draw on my previous experience of conducting research in Asian contexts and working with senior policy figures in a prior career (Kvale and Brinkmann 2009: 147).

The second issue was that of cross-cultural interviewing. Kvale and Brinkmann observe that there are numerous potential problems that an interviewee can encounter when they have not fully considered the meaning that their questions or mannerisms might entail in a different cultural setting (Kvale and Brinkmann 2009: 144-145). In order to avoid the potential of drawing unexpected problems as a result of cross-cultural misunderstanding, it was necessary to draw on my past experience of research in Malaysia and other locations in Asia, my extensive experience of travel encountering varied cultures around the world and take advice from project partners about different cultural expectations in Sabah. This, for example, meant understanding the proper dress expected for different situations, understanding different cultural perception about confrontation and what is construed as confrontational and exercising caution in areas of discussion that might be considered politically or culturally sensitive. This particularly involved me being aware that there is a traditional reluctance to speak out against the government in Malaysia. While some interviewees were happy to criticise the government, I avoided trying to press interviewees into expressing such criticisms where they appeared more reluctant to speak out on potentially sensitive matters. Related to this, I had to consider the issue of my gender when interviewing women in a predominantly Muslim country. However given the position of prominence of the Malaysian women I did interview and the fact that Malaysia in general follows a more moderate approach to Islam, this issue did not prove to be a problem in practice.

The third issue to be considered was that of recording the interviews. While it was my preference to use a voice recorder, this was not possible in some circumstances for a number of reasons. Firstly, some interviewees preferred not to be recorded. This was particularly the case with Malaysian interviewees. Secondly, in one instance an interview was conducted by phone where recording was not possible. Thirdly, in some cases the physical circumstances of the interview made recording impractical. For instance one particularly busy interviewee was only able to spare time to speak to me whilst taking his regular afternoon exercise of hiking up a hill, a situation in which recording would not be feasible. Similarly, in another case I conducted an interview with a village head on a boat in the middle of a mangrove swamp, where I did not have a recorder available. In these

situations outline notes were taken during the interview that were then expanded from memory afterwards.

*3.2 Interview guide and interview conduct*

Bearing these considerations in mind, the interview approach that was devised was intended to be broad-based and flexible in order to account for the variations between the different interviewees, while also having sufficient focus to address the principle themes of the analytical framework. In order to do this it drew on Kvale and Brinkmann's conception of the interviewer as craftsman and Flick's concept of the episodic interview.

According to Kvale and Brinkmann, the interview "craft" is more a question of applying practical skills and personal judgement in focusing on the subject at hand rather than on following formalised methodological rules and techniques (Kvale and Brinkmann 2009: 87). Therefore the approach taken in the interviews was to work from a broad outline guide rather than following predefined questions. The intention was to create space for interviewees to have the flexibility to digress into unanticipated topics that might provide unexpected insights. Such a flexible approach does have the danger that interviews can lapse into formlessness and irrelevance. However in practice, given that all the interviewees held senior positions and were used to being interviewed, digressions became to a certain extent self-regulating, and the interviewees tended to keep to relevant issues without the need for my intervention. Given the seniority of the interviewees and the time pressures they faced, an approximate time period for each interview was generally set in advance, usually in the region of one to one and a half hours. I addition, because I outlined the areas I wanted discuss in advance, they were able to judge how much time to devote to these particular areas within the allotted timeframe. As a result, most interviewees were conscious of the need to keep their comments on particular issues relatively concise. That being said, one NGO chief executive was happy to talk for three hours and provided very useful in-depth insights, though this interview proved to be an exception.

The actual form of the interview guide broadly corresponded with Flick's concept of the episodic interview (Flick 2002: 104-109). This method was adopted because it combines the strengths of narrative and semi-structured interviews, and is designed to facilitate thematic comparisons in analysis. Semi structured interviews use open questions that are predefined in an interview guide, and can provide a good source of thematically organised data that still allows a level of freedom to the interviewee not found in more structured questionnaire-based methods. However they are open to the danger that the content and sequence of the questions could be construed as leading and

that they potentially involve imposing a particular interview style that may conflict with the answer style that the interviewee might be most comfortable with (Flick 2002: 91-93). This could be a particular problem in the case of interviewing elites and experts who, owing to their experience, are more likely to have preconceived ideas of how they think an interview should proceed. A narrative interview can eliminate these problems on the grounds that narratives provide a more natural cognitive medium of conveying information and they allow the interviewee more freedom to direct their answers. This therefore avoids some of the difficulties created by an interview structure based on more abstract criteria (Kvale and Brinkmann 2009). In addition, narratives are considered to be a better way of allowing interviewees to reconstruct the internal logic and meaning behind their statements in a more contextually rich way, something that fits with the objectives of the analytical framework. However, pure narrative methods raise the potential problems of generating a surfeit of highly contextualised data which may prove difficult to compare across interviews (Flick 2002: 103-104).

The episodic interview seeks to draw from both methods, conducting interviews as narratives, but in a delineated form where such narratives are limited to particular episodes or themes. In this particular case, the thematic element would be the process of policy formation and implementation in the case of a particular forest policy initiative or initiatives in the empirical examples, which would be informed by the analytical framework. The narrative element would be the chronological story of the particular interviewee's involvement with that initiative or initiatives. The rationale behind this approach is that interviewees organise their experience in both narrative and more abstract conceptual ways. Therefore the aim of this approach is to uncover a range of different ways of constructing knowledge rather than rely on a single epistemological focus (ibid: 104-109). Such a flexible method might have proved less successful in a situation where the researcher was in a privileged position of knowledge and the interviewees expected to be led in a more structured form though an unfamiliar situation. However given the extensive experience and relatively high status of the interviewees, this approach proved effective in allowing the interviews to develop into a co-productive two-way conversation.

The interviews were conducted in the following general form, which was based on a priori themes derived from the requirements of the analytical framework. At the beginning of each interview the interviewees were informed about the purposes and aims of the study. In narrative terms they were ask to recount the background of their organisation and their role in it, how they became involved in the particular policy initiatives under study and what happened during policy implementation. They were also asked their views about the future prospects of these initiatives in particular and

conservation in Sabah in general. This proved particularly useful in providing information about institutional context and policy outcomes. But within this narrative framework the interviewees were also asked to focus on more conceptual areas relating to the second stage of the analytical framework dealing with the construction of policy frames. The interviewees were asked to focus particularly on how they perceived particular policy problems in their field, how they communicated and interacted with other policy actors in addressing these problems and their perceptions of the policy initiatives implemented to address these problems. How these two strands were combined depended on how each interview evolved and the application of my own judgement according to the particular circumstances of each case.

While the interviews remained consistent with these broad guidelines, in practice they varied considerably according to the role and background of each interviewee. For example, as previously mention, six interviewees were involved in all parts of the policy process across both empirical examples. These interviews were wide ranging in content and covered each of the institutional context, framing and policy outcome aspects of the analytical framework in relation to both empirical examples. In other cases the interviewees were primarily involved in smaller aspects of the policy process, either in funding or practical implementation, so these interviews were more narrowly focused towards these specific areas. In addition, some interviewees with long experience of working in Sabah were particularly useful in discussing the long term institutional context of forest policy in Sabah, therefore these interviews concentrated particularly in this area. The form of each interview was adapted throughout the research process in order to focus on where each interviewee's knowledge was most relevant to building an overall multi-perspective story of each empirical example.

The interview stage of the research process took place in tandem with preliminary analysis, which will be addressed in more detail in the next section. This led to the identification of gaps in this multi-perspective story as it developed in the latter stages of research. Consequently, four follow up interviews were carried out during the third fieldtrip, which took place during in May and June 2012. These were undertaken with interviewees who had the broadest involvement and most extensive knowledge of both empirical examples and the wider institutional context. They gave me the opportunity both to ask specific questions to fill these gaps and also to investigate where new developments had taken place over the course of the research period. This meant that I was able to add an additional temporal dimension of data triangulation, and thus gave a further aspect of validation to the research. These follow up interviews also represented a form of communicative validation. During these interviews I was able to present my preliminary findings in order to test the

extent that these findings corresponded with the interviewees own perspectives on the policy process observed in the empirical examples.

## 4. Analysis

As discussed in the first section of this Chapter, the analysis of the empirical data needed to address different functions according to the three stages of the analytical framework. The first was establishing the nature of the original institutional context from which policy frames were constructed. This involved a historical analysis of the way forest policy evolved both at state and international levels. Data for this came from secondary material, which is summarised in Chapters Five and Six, as well as documentary sources and additional insights provided in the interviews. The second was the process of constructing policy frames through the three aspects of problems definition, communication and persuasion, and policy action. In accordance with interpretive policy analysis, this involved the identification of the visible objects and activities that embody policy initiatives in the public domain as well as the interpretation of the motivations and meanings behind these objects and activities in the light of interview data (Fischer 2003, Yanow 2000). Data for the identification of visible objects and activities was found through a combination of documentary analysis, site visits and interviews. Data for interpreting the meanings and motivations of policy actors was derived exclusively from interview data. These two sets of data were then combined to analyse the way policy frames were constructed in each example. The third stage involved assessing the output of the policy initiatives in the empirical examples by referencing back to the data of institutional and material context derived from the first stage of the analytical framework. This stage was assessed through the combination of interview, documentary, secondary and observational data.

The bulk of the analysis involved the organisation of interview data. The first part of the analysis of the interviews was the transcription of recorded data, and the organisation of notes taken for the interviews not recorded, into a form that could be easily categorised. With the interview data converted into a text form, coding analysis could then take place. Coding involves, in the words of Strauss and Corbin, "breaking down, comparing, conceptualising and categorising data" (Strauss and Corbin 1990: 61). The way that this was done in this Thesis was according to predefined broad themes derived from the analytical framework, relating to institutional context, problem definition, communication and persuasion, and policy action. But within these broad themes, the identification

of more fine grain categories that accorded to specific aspects of these themes was driven by the data itself.

The specific coding approach adopted was adapted from Flick's method of thematic coding. This method is appropriate since it is specifically designed for situations where data sources have been defined in advance and the intention is to facilitate comparisons between these sources. It is also designed to complement the episodic interview approach outlined in the previous section, where interviews are guided by predefined themes to ensure comparability, but also leave room for the different interpretations that the interviewees expressed relating to these themes (Flick 2002: 185-190). Drawing from this method, condensed summaries were produced for each interview with the intention of identifying particular categories in each instance according to the predefined themes. An example of one of these condensed summaries in shown in Appendix Two. These summaries allowed for the identification of different aspects of the four pre-defined themes in each interview. Following this, all of the condensed summaries were compared in order to find common finer grain categories between the interviews. The categorised data was then inputted into a thematic chart (Ritchie et al 2003).

The outline form of this thematic chart is shown in Appendix Three. Each interview is allotted a column. The sections of the condensed summaries have then been divided into cells that are organised according to the pre-defined themes of the analytical framework and sub-categories within these themes that were identified from comparing across the condensed interview summaries. These themes and categories are shown in the left hand column. In the case of the first theme, institutional context, the interview data led to the identification of five categories: economy, civil society, culture, government structure and the conservation sector. In the case of the second theme, policy problems, the interview data led to the identification of six categories: economic problems, ecological problems, problems of legal frameworks and government, lack of institutional capacity, problems relating to indigenous communities and problems of coordination between different organisations. The third theme, communication, considered the different ways that the interviewees interpreted the process of establishing collaboration between different organisations. Within this theme nine different categories were identified: institutional capacity building, legality, credibility, economic arguments, trust building, generating political pressure, partnership facilitation, scientific arguments and conservation arguments. The fourth theme, policy implementation, was categorised according to the different specific policy instruments that were identified in the interviews and applied in the case of the two empirical examples. Eleven different types of policy instruments were identified, all of which are described in more detail in the following Chapters.

Following from this categorisation, it was possible to identify common and contrasting views on particular categories by reading along each row of the thematic chart. In the case of the institutional context theme, I was able to identify different perspectives on particular issues and see where interviewees corroborated or contradicted each other. In addition, I was also able to see where interview data was able to corroborate and expand on the secondary research carried out prior to entering the field. In the case of the policy problem theme, I was able to draw out the different ways that interviewees perceived policy problems within the different categories. This allowed me to establish the underlying motivations of different actors in pursuing particular policy objectives. It also allowed me to identify where common frames existed between different interviewees and where differences existed in the ways that different organisations adopted different frames based on the same subject, leading to potential underlying conflicts. In the case of the third theme, communication, I was able to identify the ways that policy problem frames were communicated to wider audiences and how this in turn led to the establishment of partnerships and networks. From this, I was also able to compare the differences between the ways that interviewees defined policy problems according to more fundamental values and motivations and how they defined policy problems when communicating to wider audiences. The fourth theme, policy implementation, allowed me to establish the different ways that policy solutions were being implemented in practice. This theme produced a number of useful findings in the context of the analytical framework. Firstly it identified the results of the combination of policy problem definition, communication and persuasion, and policy action, and how the three different aspects of policy frames linked together. Secondly, it allowed me to establishing the opinions of different interviewees about particular policy instruments in terms of both their practical effectiveness and the extent to which they accorded with the values and motivations of different interviewees. Thirdly, it established a link between policy output and the institutional context established in the analysis of the first theme, which therefore addressed the third part of the analytical framework.

The findings of the interview analysis could then be cross checked against other data sources in order to provide further corroboration. This fulfilled the aspect of interpretive policy analysis that involves linking visible aspects of the policy process with the meanings and motivations ascribed by policy actors. These other data sources were analysed according to where they corresponded to the categories that were identified in the interview analysis. Documentary sources were used in order to provide a further dimension to the way that policy problems were defined in the public domain and the way they have been both justified to a wider audience and implemented in practice. Newspaper and web based resources were used to supplement interview data by showing how the subjects

raised in the interviews have been reported in the media. Notes on observations from site visits were used to contextualise and confirm statements made in policy documents and interviews about the practical implementation of different policy initiatives.

As a final step, some of the results of this analysis were written up and presented at two international conferences. These presentations and associated papers formed part of the research process given that they provided an opportunity for communicative validation in the academic peer community (Kvale and Brinkmann 2009). The comments and criticisms that emerged from these conferences led to new insights into how the data could be interpreted and influenced the final form of data presentation and the conclusions as set out in the proceeding Chapters.

## 5. Conclusion

This Chapter has outlined the way that data was collected in the field and then analysed in order to answer the research questions. The research methods were guided by the analytical framework and used qualitative methods along with insights from interpretive policy analysis as an epistemological basis. They were designed in such a way to allow for some flexibility in order to develop new insights and allow for the modification of the analytical approach as I became more familiar with the research setting. The Chapter has shown how the project developed through consultation with project partners with the intention of producing a Thesis that would be policy relevant and aim to provide new insights into the formulation and implementation of forest conservation in Sabah from a multi-level and multi-sector perspective. It then showed how I used mixed methods involving interview data, documentary analysis and non-participant observation that fulfilled the different functions of the analytical framework. The Chapter then went on to describe how I sought to overcome problems that emerged during the research and adopt research methods that were both consistent with predefined aims of the research questions but were also flexible enough to allow the data to speak for itself. Finally, it showed how the data was organised and analysed in order to develop the form and content of this Thesis that will be demonstrated in the following five Chapters.

**CHAPTER FIVE: GLOBAL FOREST GOVERNANCE**

**Introduction**

This Chapter expands on the observations about general trends in global forest governance that were set out in the Introduction by reviewing the wider literature on this subject. The purpose of this review for this Thesis is to fulfil one of the requirements of the first stage of the analytical framework by investigating the development of the global institutional context that forest governance in Sabah is positioned within. In relation to the empirical research questions, it considers how a number of policy instruments that have emerged from this institutional context have then been disseminated to national contexts in the past two decades.

The literature used in this Chapter does not specifically deal with the concept of institutional interplay. However in common with the literature on institutional interplay it derives from the academic field of international relations. The principle similarity between both literatures is their focus on the governance of international environmental regimes. These form one aspect of environmental governance, which Young defines as "sets of rules of conduct that define practices, assign roles and guide interactions so as to enable state and non-state actors to grapple with collective environmental problems within and across state boundaries" (Young 1994: 15). Within this wider context, environmental regimes are defined as "social institutions consisting of agreed upon principles, norms, rules, procedures and programs that govern the interactions of actors in specific issue areas" (Levy et al 1995: 268). The form of this Chapter follows many of the general observations on governance that were made in the Introduction. It describes the development of global forest governance through three stages that have led from a situation that was dominated by sovereign nation states to one which is now characterised by the increasing involvement of multiple sectors operating at multiple levels of scale.

Because this Chapter summarises literature from the field international relations, which takes a higher scale conceptual approach to describing environmental governance, much of the content of this Chapter is stated in general terms and broad categories. It is recognised that in many cases these categories contain nuances and exceptions when viewed from a closer grain perspective, but that it is not within the scope of this Chapter to describe these general global trends in more detailed terms. Rather, the particular and more localised aspects of these general trends will be explored in finer detail where they relate to Sabah in the proceeding Chapters. In addition, this Chapter touches on a number of areas and issues that form the basis of extensive literatures in their own right, such as sustainable development, the commodification of nature, multi-sector

partnerships and market based conservation. To deal with these literatures in detail would also be beyond the scope of this Thesis, therefore they are only referred to where they have specific relevance to global forest governance. In addition, this Chapter is limited to literature dealing with developments in global forest governance up to the end of the fieldwork period for this Thesis in early June 2012. Therefore developments beyond this period, such as those relating to the Rio +20 summit, are not addressed.

## 1. The Fragmentation of Global Forest Governance and the UNCED

### 1.1 Origins of fragmentation in global forest governance

A dominant theme in the literature on global forest governance is its fragmentation between different interests, geographical locations, intergovernmental agreements and discourses. Humphreys describes the nature of this fragmentation as follows:

> "The international forest regime is disconnected and fragmented; it has developed at different speeds and in different directions rather than strategically and holistically along a common front (Humphreys 2006).

This governance structure has been termed variously as a "complex multi-centric structure" (Arts and Buizer 2009), a "forest regime complex" (Reischl 2012, Giessen 2013) a "heterarchical regime" (Pulzl and Rametsteiner 2002) and a "pluriformity" of forest regimes (Wiersum 2013).

The fragmented structure of global forest governance originated in the 1970s and 1980s, and became most apparent during the United Nations Conference on Environment and Development (UNCED) that took place in 1992 in Rio de Janeiro. Pulzl and Rametsteiner observe that prior to this period forest use was generally not a separate policy field in its own right, but rather forests were treated as sovereign national resources subordinate to broader national economic policy to be used according to national needs and priorities (Pulzl and Rametsteiner 2002). However, as a result of several developments that will be outlined below, forest use, and in particular the use of tropical forests, became a much more contested area subject to multiple interpretations and competing demands at a range of levels of scale.

Humphreys conceptualises three main competing claims on forest use and tenure that have shaped the fragmented form of global forest governance in recent decades. The first of these is the original dominant standpoint of national sovereignty over natural resources, which has the strongest

standing in international law and has widespread support amongst developing world governments (Humphreys 2008). The second, which emerged with the growth of global environmental movements, is the interpretation of forests as a "global commons". This claim rests on the idea that forests are a common concern and therefore all people and states have a stake in them. This has been used as an argument by environmental groups, natural scientists and to a qualified extent developed world governments (Humphreys 2008, McGinley 2012). The third is the claim that communities living in and around forests are the rightful custodians of forest under traditional customary tenure. This claim has a weaker position in intergovernmental dialogue, but has grown in prominence in recent decades through the advocacy of some intergovernmental agencies in the UN and global civil society actors (Humphreys 2008, Wiersum 2013).

*1.2 Consequences of fragmentation: North-South Divide*

Competing claims over the use of forests have led to several fault lines in Global Forest Governance between the perspectives of different blocks of nation states and between different levels of scale. The one that features most prominently in the literature is the division between developed and developing world governments, which became particularly contentious at the UNCED and resulted in the failure to negotiate a binding intergovernmental convention on forests. Humphreys outlines the nature of this division as follows:

> "The UNCED forest negotiations were characterised by a sharp North-South divide. In the North, the OECD countries were united in their calls for a forest convention. In the South the Group of Seventy-Seven (G77) developing countries backed by China resolutely opposed a convention on the grounds that it would interfere with the sovereign rights of states to determine their natural resource use policies" (Humphreys 2001: 127).

Chan and Pattberg argue that the developed world position derived from increasing awareness amongst developed world consumers of the social and ecological consequences of tropical deforestation. The political mobilisation of environmental organisations led developed world governments to attempt to define forest use from a primarily national to a primarily global area of concern (Chan and Pattberg 2008). In addition, Humphreys notes that developed world governments sought to redefine forestry more as a function of stewardship rather than revenue generation (Humphreys 2001).

As Humphreys statement above demonstrates, these assertions were strongly resisted by developing world governments. Both McDermott and Werland comment that in addition to the

principle of sovereignty, a main practical area of contention in negotiations was the issue of opportunity cost. They observe that developing countries argued that developed countries had already exploited their forests during their own economic development and that it was therefore unfair to ask developing countries to forego the same opportunities without adequate compensation (McDermott 2012, Werland 2009). The result of these opposing views between nation states at an international level has created a deadlock in intergovernmental negotiations on forests that to a certain extent still exists today (Werland 2009, Chan and Pattberg 2008)

*1.3 Consequences of fragmentation: globalisation and localisation*

Another consequence of the fragmentation of global forest governance that has been observed is a simultaneous process of both globalisation and localisation (Wiersum 2013). In the case of the first, Werland has observed a move, parallel to the intergovernmental negotiation process, towards the "environmentalisation" of forest use, where "forest have become denationalised with norms increasingly set by environmental interests and a broader set of other sectors" (Werland 2009: 448). This has led to a proliferation of international organisations, processes and governance mechanisms, which derive from both governmental and private initiatives, which increasingly impinge on national level forest policy (Humphreys 2001). In these circumstances, Pulzl and Rametsteiner observer that forests became redefined from being an intra-state to an inter-state matter, where the focus of forest policy shifted from a technical and economic exercise to one that laid greater emphasis on wider political, environmental and social aspects (Pulzl and Rametsteiner 2002).

The proliferation of international initiatives has in turn driven the converse process of localisation. Agrawal et al comment that recent decades have seen a new infusion of financial and technical support from a growing range of international governmental and private donors. These donors have sought to address environmental and social problems associated with deforestation and improve forest governance at the local level (Agrawal et al 2008). Pressure from the international level coincided with developments at the national level. Both Agrawal et al and Wiersum observe that many developing world governments were impelled by international debt crises to reduce the financial burden of supporting state dominated forest governance structures. This led to a process where developing country states devolved responsibility for large areas of state owned forest to local government and local communities. In this process, they sought the assistance of international funding agencies and NGOs to compensate for their lack of finance and technical capacity (Aggrawal et al 2008, Wiersum 2013).

The absence of a binding international agreement, the devolution of control over forest resources from developing world governments and a proliferation of organisations with an interest in forests has led to what several authors have described as a "governance gap" (Bernstein and Cashore 2004, Arts and Buizer 2009, Wiersum 1999). This gap has created space for the involvement of a wider range of actors from civil society and the private sector. In these circumstances, it has been observed in several publications that the 1990s saw the development of a wide range of public-private partnerships and private initiatives between NGOs, businesses and local communities (Arts and Buizer 2009, Ros-Tonen et al 2008). Further to this, another strand in the literature has identified the emergence of the concept of "private governance" (Falkner 2003, Gulbransen 2004, Pattberg 2005). Falkner argue that responsibility for governing and regulating environmental issues at the global level is increasingly one of "an intricate private-public nexus in which private and public authorities work hand in hand to redefine the parameters of global policy making" (Falkner 2003: 84).

In particular this "governance gap" has created space for the involvement of local communities in forest management. Even though this issue has remained relatively peripheral to inter-governmental negotiations on forests, Agrawal et al have noted that both international and domestic pressure has built towards acknowledging the rights and needs of forest communities throughout the developing world (Agrawal et al 2008, Larson 2010). This process has been supported by both NGOs and inter-community organisations which have developed increasingly effective networks better able to engage in collective negotiations with governments and large organisations (Cronkleton 2011, McDermott et al 2011, Larson 2010). As a result, the concepts of community forest management and integrated conservation and development programmes have grown in influence and local communities are now estimated to be involved in the management of an estimated one quarter of the world's tropical forests (Bluffstone et al 2013, Larson 2010).

*1.4 The emergence of a Global Forest Regime?*

The fragmentation of global forest governance has raised a question in the literature of whether a coherent governance regime emerged in the 1990s or not (Wiersum 2013). This debate focuses on nature of the agreements that were made at an intergovernmental level during the UNCED. Instead of a binding convention on forests, the main action plan of the UNCED, Agenda 21, formulated a set of non-binding forest principles. These called "to contribute to the management, conservation and sustainable development of forests to provide for their multiple and complementary functions and uses". They also stressed that while sovereign rights should be respected, there should be increased

global coordinated action to deal with deforestation and greater multi-stakeholder participation from a range of interests including governments, NGOs, scientists and local communities. In addition to these non-binding principles, forests issues were also addressed as part of the binding Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC)(Pulzl and Rametsteiner 2002, Werland 2009).

Werland describes the form of the forest principles as "indeterminate", while Dimitrov goes further, arguing that a lack of a binding forest convention represents a case of failed regime building and that therefore no coherent regime has come into existence (Dimitrov 2006, Werland 2009). In contrast, Humphreys argues that a broad set of norms and values have developed that do constitute a regime, albeit one based on a fragmented combination of "soft law" backed up by the binding provisions of the CBD and UNFCCC (Humphreys 2006: 75). Gulbrandsen argues for a qualified view of regime formation, commenting that "while states have managed to agree on a number of principles to promote sustainable use and conservation of forests, there remain serious gaps that need to be filled" (Gulbrandsen 2004:76).

The term most reflective of the wider literature on global forest governance is the idea of the emergence of a "regime complex". This idea describes a hybrid of principles and processes that is in a continuous process of evolutions towards achieving a workable consensus between a diversity of interests (Giessen 2013, Wiersum 2013, Reischl 2012, Visseren-Hamakers and Glasbergen 2007). Consequently, as Wiersum observes, "the emergence of this regime complex brings with it new questions of whether the different regimes act in isolation, or whether there are gradually emerging new assemblages at the interface of the different regimes" (Wiersum 2013: 2). Further to these observations, Werland comments that "forest conceptions are not stable – neither in time, nor cross-level. Accepted knowledge and authority are contingent upon policy processes, prevailing actor coalitions and dominant 'forest discourses'" (Werland 2009). Therefore the purpose of the remainder of this Chapter is to investigate how these processes, coalitions and discourses have evolved over the past two decades, and how they have been used variously to build consensus between interests in the face of widely divergent points of view.

**2. First Phase of Consensus Building: Sustainable Forest Management and Certification**

*2.1 Sustainable Forest Management within the intergovernmental process*

The key unifying concept to emerge from the UNCED was sustainable development. This is defined in the 1987 Brundtland Report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED 1987: 41). In relation to forests, sustainable development led to the formation of the concept of Sustainable Forest Management (SFM). SFM also derives from the older forestry industry concepts of sustainable yield and reduced impact logging, but differs from these in that it focuses on wider dimensions of forest stewardship including environmental and social aspects (Werland 2009, Ros-Tonen et al 2008). According to Rieschl, the most commonly accepted definition of SFM, which mirrors the Brundtland definition of sustainable development, is that adopted by the UN General Assembly:

> "Sustainable forest management is a dynamic and evolving concept that aims to maintain and enhance the economic, social and environmental value of all types of forests, for the benefit of present and future generations" (UN GA 2008 from Rieschl 2012: 37).

Within the intergovernmental process, SFM became central to a range of initiatives on forest governance that emerged during the 1990s. A series of fora were created in the decade following the UNCED, of which the most recent is the UN Forum on Forests (UNFF). The purpose of these fora was to continue to discuss the possibility of creating a binding forest convention, whilst at the same time producing plans and guidelines for implementing SFM at a national level (McDermott 2012). At the same time, SFM was adopted into the CBD as a practical means of integrating forest management with biodiversity conservation, and was also taken up by other UN agencies such as the Food and Agriculture Organisation (FAO) (Werland 2009, Gulbrandson 2004).

These organisations have been at the forefront of promoting SFM at the national level through the creation of national forest programmes. The role of the FAO and UNFF in the development of national forest programmes has been to establish criteria and indicators that inform a standardised system of measuring, monitoring and reporting. These were intended to assist the implementation of SFM and commitments under binding conventions at the national level (McGinley 2012, Cubbage et al 2007). But at a broader level, Pulzl and Rametsteiner argue that national forest programmes were also intended to promote wider normative aspects of global forest governance within nation states. They comment that "national forest programmes…are not only planning tools; they may also

facilitate the emergence of broader patterns of forest governance" (Pulzl and Rametsteiner 2002: 264). These patterns refer particularly to ideas of establishing participatory governance and a holistic approach to forest policy implementation. In order achieve this change in governance approach, national forest programmes were seen as a means by which international ideas, finance and technical assistance could be channelled into national forest policy (Pulzl and Rametsteiner 2002). Subsequently, national forest programmes, and by association SFM policies, have been established to various degrees of comprehensiveness in the majority of countries around the world (Pulzl and Rametsteiner 2002, Cubbage et al 2007).

The promotion of SFM and national forest plans have been criticised for a lack of effectiveness. Gulbrandsen summarises some of these criticisms as follows:

> "The problem is…that while the commitments and recommendations of the forest regime are important, most of them are not legally binding and, being for the most part a collection of normative principles without rules, targets or timetables, it is difficult to ascertain degree of implementation. Nor are there enforcement or facilitative mechanisms in the regime to promote implementation of intergovernmental forest policy proposals… [and] states could not agree on mechanisms to enable financial transfers to developing countries" (Gulbrandsen 2004: 82).

Furthermore, SFM has been criticised for vagueness and lack of consideration of the limiting circumstances of governance in much of the developing world. Rieschl has observed that many actors, particularly in the non-governmental sector, began to regard the concept as "unspecified and misleading" (Rieschl 2012: 37). Further to this, McGinley has argued that even if developing world governments had a genuine will to implement an SFM led policy strategy, in the absence of any effective mechanism for financial transfers they are often limited by a lack of finance and institutional capacity to enforce new regulations (McGinley 2012). These problems contributed to a growing frustration with the intergovernmental process and spurred the creation of new private initiatives designed overcome these perceived failures.

### 2.2 Timber certification and the Forest Stewardship Council

The relative lack of effectiveness of SFM within the intergovernmental process reveals one of the "governance gaps" identified in the previous section. A large portion of the literature on global forest governance deals with one of the most high profile examples of a private initiative that has attempted to fill this gap, the Forest Stewardship Council (FSC). Multiple publications have observed

that this organisation was an explicit reaction by NGOs to the perceive failure of intergovernmental negotiations on forest governance (Werland 2009, Visseren-Hamakers and Glasbergen 2007, Gulbrandson 2004, Klooster 2010, Humphreys 2001, Wiersum 2013, Chan and Pattberg 2008, Schouten and Glasbergen 2011, Bass 2002, Cashore 2002). Gulbrandsen argues that the FSC represents a prominent example of the application of private governance relating to forests, given that it has been set up to create an institutionalised regulatory framework for timber production that has no direct government involvement (Gulbrandsen 2004).

The FSC was set up in 1993 through an alliance of environmental organisations, led by the WWF. The intention of the FSC was to introduce a certification scheme for sustainably managed timber. Schouten and Glasbergen comment that the rationale behind this scheme is that it informs environmentally concerned consumers in developed countries, while at the same time allowing producers to enhance their market reputations and secure price premiums in niche markets (Schouten and Glasbergen 2011).

The origin of the FSC came through boycott campaigns on tropical timber that international NGOs conducted during the 1980s. Cashore argues that these boycotts convinced NGOs that it would be more effective to attempt to influence markets directly, rather than working within the intergovernmental process (Cashore 2002). Therefore certification became a more formalised way of exerting market influence. Klooster describes how, through the 1990s, NGOs within the FSC placed pressure on developed world retailers to commit to only stocking certified timber products. At the same time they sought to develop networks with governmental and intergovernmental agencies with the intention of promoting certification to suppliers and wood processors (Klooster 2010).

Bass describes FSC certification as a "high threshold" approach to SFM. This is in contrast with intergovernmental negotiations which NGOs within the FSC process claim to lead to agreement by the lowest common denominator and thus to a consolidation of the status quo (Bass 2002). FSC certification was originally based on 9 principles, with a 10th dealing with timber plantations added subsequently. These principles concentrate on technical aspects of management, monitoring and land tenure, the treatment and participation of forest communities and the minimisation of impact on and protection of biodiversity (FSC 1996). Its governance structure and constitution excludes government actors, making it a fully private initiative, and stresses participation and equal representation between the private sector, civil society and communities, as well as between the developed and developing worlds (Visseren-Hamakers and Glasbergen 2007, Bernstein and Cashore 2004).

While Arts and Buizer have noted that the FSC has to some extent succeed in making allies of "old enemies" in the environmental and timber sectors (Arts and Buizer 2009: 345), a drawback of taking a high threshold approach has been to limit support within some parts of the forestry industry. Gulbrandsen comments that many representatives of the forestry industry regard NGOs, and by extension the FSC, as "self-appointed judges in a field where they have inadequate understanding, limited experience and no legitimate right to regulate in the first place" (Gulbrandsen 2004: 92). The response to this perception has been a range of industry and government initiated certification schemes. The most prominent of these is the Programme for the Endorsement of Forest Certification (PEFC), which is a federation of 30 industry-led national certification bodies.

Werland summarises some of the wider problems that have emerged between the PEFC and FSC:

> "It is noteworthy that the claim to represent a broad array of different actors is used as a source of legitimacy from one side, while this very argument is used to delegitimize the FSC from the other side. While the FSC aims at, and claims to derive its legitimacy from, representing a broad set of stakeholders from the social, the economic and the environmental realms, PEFC membership de facto is limited to actors from the forestry sector that ultimately set up their own norms" (Werland 2009: 449).

The result of competition between certification standards has ultimately limited the effectiveness of the FSC (Gulbrandsen 2004). Not only have industry led standards limited the amount of the world's forest under FSC certification, but, as Kaphengst et al argue, they have also caused confusion between standards in consumer markets. This, they argue, has diluted the overall legitimacy of timber certification as a whole (Kaphengst et al 2009: 102). In addition, timber certification remains limited by the fact that the overwhelming majority of certified forests are found in the temperate forests of the developed world (Humphreys 2009).

These observations highlight a particular problem with private initiatives such as the FSC. Gueneau argues that "private certification institutions are not in a position to effectively compensate, through markets, for all the short-comings of public action". In response, Gueneau, Kaphengst et al and Gulbrandsen all argue that the role of timber certification is more as a supplement to, rather than a replacement for, government regulation (Gueneau 2008: 560, Kaphegst et al 2009, Gulbrandsen 2004).

**3. Second Phase of Consensus Building: Partnership Governance**

During the late 1990s and early 2000s there was little change in the formal structure of global forest governance and no binding convention on forests emerged. However this period did see significant change in the form of collaboration on forest issues at the international level. Humphreys observes that "compared to the fractious UNCED forest negotiations, global forest policy discourse at the turn of the millennium was more cooperative" (Humphreys 2001: 128). If the UNCED highlighted the fragmentation of global forest governance, the 2002 World Summit on Sustainable Development (WSSD), held in Johannesburg, brought a growing emphasis on collaborative multi-sector partnership governance.

The WSSD did not initiate the idea of multi-sector partnerships, but it did cement them at the heart of global forest governance and redefine a particular type of partnership that differed from that characterised in the language of the UNCED. In a study on the evolution of the discourses that underlie intergovernmental environmental negotiations, Mert highlights the form of this redefinition. Firstly, she notes that between the UNCED and WSSD, the language about participation, democracy and empowerment disappeared to be replaced by language that emphasised effective implementation and favoured actors best place facilitate this implementation. Parallel to this shift, she notes the increasing emphasis on private sector involvement, something that was entirely absent from the forest principles of Agenda 21 but was repeatedly stated in UN documents from the WSSD (Mert 2009). The WSSD formulated the concept of Type 2 Partnerships (as distinct from Type 1 binding agreements), which are defined by the UN Commission on Sustainable Development as:

> "Voluntary multi-stakeholder initiatives which contribute to the implementation of inter-
> governmental commitments in Agenda 21, the Programme for the Further Implementation
> of Agenda 21 and the Johannesburg Plan of Implementation." (UN-CSD 2005: 9)

From one point of view the emphasis on these partnerships can be interpreted as having negative motivations. Baker characterised this as a means of deflecting attention from the underlying failure of the summit to produce any binding agreements or attain the authoritative status of the UNCED (Baker 2006). Similarly, Death argues that this emphasis on partnerships was an expedient way of "reinvigorating floundering summit negotiations and seemed to offer a new role and purpose for the UN and Commission on Sustainable Development as partnership coordinators" (Death 2010: 66).

But from another point of view the conference did encapsulate a developing convergence and consensus on forest governance amongst a certain group of interests active at the international

level. In part this reflects, as Humphreys observes, a tendency of actors to concentrate on relatively uncontroversial issues that facilitated bargaining rather than confrontation. But it also reflected changes in the way that these actors viewed the negotiating process. Ros-Tonen et al identify four developments at the global level that have aided this process of consensus building. These were: 1) a change in the way the form of governance was conceived at the international level from a state led to a multi-sector led process; 2) the impact of neo-liberal policy reforms that de-emphasised the direct role of the state in policy making and emphasised the role of the private sector; 3) globalisation and the growth of transnational communication between international actors; 4) the broad acceptance of SFM as a norm in global forest governance (Ros-Tonen et al 2008).

These developments were particularly important in the integration of the private sector into forest governance both as funders and technical advisors. This reflects a growing realisation amongst business of the need to "be ethical and be seen to be ethical" (Barry 2004: 175) in order to maintain corporate reputations in market places where consumers are becoming increasingly environmentally aware (Arts and Buizer 2009). But it also reflects a shift in the attitude of international environmental NGOs. The move from boycotts to certification outlined in the previous section partially illustrates how the relationship between the environmental and private sectors has gradually moved from one of confrontation to one of tentative collaboration. Through the late 1990s and 2000s these two interests converged more closely, at least at the global level. Arts and Buizer characterise this convergence as follows:

> "Environmental movements became strongly professionalized and realized that industry was not only part of the problem, but also part of the solution. Consequently, 'market environmentalism' was no longer a dirty concept. On the other hand, businesses also realized that fulfilling their social responsibilities was not necessarily a bad proposition and that corporate social responsibility can be good for money-making and reputation building" (Arts and Buizer 2009: 345).

In spite of the growing role of non-governmental actors, governments and intergovernmental organisations remained central to the partnership process at the global level. Indeed Death has noted that governments and intergovernmental agencies have emerged as the predominant sectors in environmental partnerships (Death 2010). Visseren-Hamakers and Glasbergen argue that governments remain essential, because they are the only interest possessing sufficient authority and legal legitimacy to facilitate the enabling legislative structures within which partnership formation can take place (Visseren-Hamakers and Glasbergen 2007).

In addition, as part of WSSD negotiations, while the division between developed and developing world governments was not as marked as in the UNCED, developing world governments still remained reluctant to relinquish control of their extensive forest estates in the name of full privatisation. In order to deal with this issue, the US and EU promoted the idea of public-private partnerships. Humphreys observes that while G77 remained suspicious of this concept, highlighting the unreliability of private finance and a preference for direct public funding, they did give qualified support. This suggests that to some extent public-private partnerships have ameliorated the problem of the developed/developing world division in intergovernmental negotiations, as observed in the first section of this Chapter (Humphreys 2009).

The way that type 2 partnerships have subsequently developed has raised concerns about their bias towards powerful established actors. For instance, Glasbergen comments that "most partnerships represent current power imbalances rather than changing them" (Glasbergen 2011: 10), while Bluhdorn and Welsh observe that partnerships have become a means by which international elites appropriate the sustainable development agenda (Bluhdorn and Welsh 2007). In support of these statements, Mert has observed that by 2007, 28% of all partners registered at the UN were governments, 18% from NGOs, 17% intergovernmental organisations and 11% from private sector businesses. In contrast, less than 1% of partners came from organisations representing workers, farmers, indigenous communities, women and youth (Mert 2009).

This bias reflects the emphasis at the WSSD on effective implementation over equitable participation. Death observes that during the WSSD "the most important actors for sustainable development were increasingly judged in terms of willingness and ability to participate in partnerships rather than more democratic, ethical or political criteria". He goes on to state that partners were chosen primarily on the basis of the ability to "get the job done", which has led to "the concretisation and legitimation of certain codes of conduct and forms of participation" (Death 2010: 71).

As a result of this emphasis, Glasbergen and Groenenburg have noted that a preference exists for partners who "speak the language of partnerships" and are perceived to be "reliable" as the basis of trust building. They observe that this means that more professionalised NGOs, such as WWF, are considered more reliable and predictable partners and thus more trustworthy than campaigning organisations, such as Greenpeace (Glasbergen and Groenenburg 2001). This also has implications for the participation of forest communities. Ros-Tonen has observed that indigenous people are often the most difficult groups to establish trust with, are the most removed from mainstream

global norms and practices and are often subject to domination by more powerful interests (Ros-Tonen et al 2008). Given these circumstances, there is a risk that, as Agrawal et al observe, that the trend towards concentrating power and recentralising forest governance will "potentially reverse contemporary trends in favour of the involvement of civil society actors and forest communities" (Agrawal et al 2008: 1462).

## 4. Market Based Policy Instruments

### 4.1 Payments for Ecosystem Services

The later 2000s saw the convergence of two concepts that have gained growing currency at the international level. It led to the formulation of the concept of Payments for Ecosystem Services (PES) and ultimately to the formulation of and international Reduced Emissions from Deforestation and Forest Degradation (REDD+) programme.

The first of these concepts is ecosystem services. The concept is not a new one, having developed in scientific fields since the 1970s (Pistorius et al 2012). Its integration into global environmental governance came with the publication in 2005 of the Millennium Ecosystem Assessment (MEA). This report led, as Redford and Adams observed, to ecosystem services rapidly shifting "from an academic backwater to the mainstream of conservation and environmental policy" (Redford and Adams, 2009). The MEA defines ecosystem services simply as "the benefits people obtain from ecosystems" (MEA 2005). Pistorius et al expand on this definition, stating:

> "It is based on the understanding that physical, chemical and biological processes, comprised under the term 'supporting services', enable ecosystems to provide a plethora of different provisioning, regulating and cultural services, all of which hold socioeconomic values for human beings" (Pistorius et al 2012: 4).

The concept of ecosystem services coincided with a growing interest in the second concept that has gained growing influence in global forest governance. This concept involves the mobilisation of market forces to implement global forest policy. This idea originated at the UNCED. The Agenda 21 forest principles refer to the need for forest policy initiatives to be "supported by a market context that enhances the economic values of forest resources and a price mechanism that promotes an adequate and remunerative return for the sustainable use of forest resources" (United Nations 1992). The FSC represents another means by which NGOs have attempted to harness markets to

such ends. Also the growing influence of the private sector into global forest governance following the WSSD has led to a greater emphasis on markets in various forms to support forest conservation (Mert 2009).

A key actor in these developments is the World Bank, and by extension the Global Environment Facility which it runs jointly with the UN Development and Environmental Programmes (UNDP and UNEP). The World Bank's influence in environmental governance has grown steadily through the 1990s and 2000s. The GEF, which was founded in 1991, has been instrumental in promoting World Bank sponsored environmental projects as a funding agency. The principle aim of the GEF is to fund projects in the developing world that facilitate compliance with international agreements, particularly the CBD and UNFCCC (Rosendal and Andreson 2011).

The development of PES as a theoretical concept that combines ecosystem services and market conservation owes a great deal to the work of World Bank economists such as Stefano Pagiola and associated collaborators such as Sven Wunder (see for instance Pagiola and Platais 2007, Wunder et al 2008). In this theory, PES derives from neoclassical economics and considers markets as the most efficient means of allocating resources. Ecosystem services are seen as substitutable for other forms of capital, and therefore while they have no intrinsic economic value in themselves, they can be assigned single exchange "proxy values", and can thus be traded through the creation of market mechanisms (Gomez-Baggethum et al 2010). From this theoretical background, Wunder formulated the widely cited definition of PES as "a voluntary transaction between at least one buyer and one seller in which payments are conditional on maintaining an ecosystem use that provides a well-defined environmental service" (Wunder 2005: 3).

Following from this formulation, Ellison and Hawn observe that "the World Bank contends that the market discipline in PES makes it superior to wasteful, corruption prone conservation policies that rely on state subsidies" (Ellison and Hawn 2005: 24). The World Bank and GEF have been at the forefront of promoting and financing the implementation of a growing range of PES projects around the developing world. The largest and most regularly cited in the literature is the *Pago Por Servicios Ambientales*, which was initiated in 1997 in Costa Rica, and the collection of national PES programmes that emerged in Mexico through the 2000s (Pagiola 2008, Corbera et al 2009). Given its potential to increase levels of financing to forest conservation, PES has attracted support across a range of sectors. Lele et al have observed that the promise of revenue from markets, particularly for carbon, has attracted an array of new private sector companies acting as brokerage agents, while

larger NGOs such as WWF have also devoted considerable resources to developing expertise in PES project management (Lele et al 2009).

However a range of critics have begun to question the ethics and effectiveness of PES. One body of literature characterises it as an aspect of the 'commodification' or 'neoliberalisation' of nature and questions the appropriateness of using market logic for conservation when markets represent the principle driving force behind deforestation in the first place (see for instance Humphreys 2009, Brockington et al 2007, Castrees 2008). In the case of the national projects in Costa Rica and Mexico, both McAfee and Shapiro, and Fletcher and Breitling, have followed this argument, observing a divergence between the theory and practice of PES, which derives from a broad based resistance to neoliberal conservation policies in developing world settings. In both cases they have noted how national PES programmes have faced resistance from domestic civil society and local community actors, as well as from persisting entrenched institutional barriers deriving from former state led forest policy approaches. These have led, they claim, to the results of these projects falling short of original World Bank expectations and failing to produce self-sustaining market funding (McAfee and Shapiro 2011, Fletcher and Breitling 2012).

*4.2 The impact of the UNFCCC and the development of REDD+*

Prior to the mid-2000s, forests played only a marginal role in negotiations under the UNFCCC. While it was recognised that forests had a role to play through their carbon sequestration function, it was generally seen as too technically difficult to enact an international programme to harness this potential for reducing carbon emissions (Kintisch 2009). Within the UNFCCC process, the 1997 Kyoto Protocol and the associated Clean Development Mechanism gave only a very limited role to forest projects (Lederer 2011).

However from the mid-2000s, forest issues, in parallel with the growing currency of ecosystem services and market led conservation, began to attain a higher profile in UNFCCC negotiations. An international forest carbon mechanism was first proposed at the 2005 11th UNFCCC Conference of Parties in Montreal (Corbera and Schroeder 2011) and gained further recognition through publications such as the Stern Review and studies by the Intergovernmental Panel on Climate Change. These reports estimated that deforestation represented up to 20% of global carbon emissions and that reducing deforestation could be a cost effective way of implementing UNFCCC obligations (Stern 2006, IPCC 2007). REDD was subsequently adopted as an official part of the UNFCCC in 2007 at a conference in Bali (Corbera and Schroeder 2011).

Humphreys concisely describes the basic premise of REDD as follows:

> "Developing countries that avoid deforestation over and above an agreed background baseline would receive credits that can be sold to developed states in a global carbon trading scheme. Such a market-based scheme would bring together the suppliers of the carbon sink functions of forests (in this case developing countries with carbon credits to sell) with those that demand the credits (developed states that need to buy carbon emission credits because they have exceeded their allowance)" (Humphreys 2009: 321).

Subsequently, in response to concerns from environmental NGOs and indigenous rights groups, REDD was expanded to REDD+. This accepted that afforestation and forest restoration, in addition to avoided deforestation, would be eligible under a REDD+ mechanism. REDD+ also incorporated the idea of 'safeguards', or 'co-benefits', to ensure that the focus on carbon did not come at the expense of biodiversity or community development. In its emerging form, initial funding for capacity building would be provided by a combination of bilateral intergovernmental agreements and multilateral funding facilitated by the World Bank, UNDP and UNEP. These would then to be channelled to national governments who would be responsible for distributing funds and implementing projects at a sub-national level (Corbera and Schroeder 2011, McDermott 2012).

Placing these developments in the wider context of global forest governance, McDermott et al observe that:

> "REDD+ is the first global initiative that promises to directly address the cross-sectoral drivers of forest loss. It is also the first to promise a way past three key areas of contention that had stalled a global forest agreement to date—including compensation for the opportunity costs of forest conservation, the sovereign right of countries to determine their own priorities for development and conservation, and strong substantive requirements for protecting the environment, indigenous peoples and local communities" (McDermott et al 2011: 4).

They further argue that the potential of REDD+ to overcome longstanding divisions at the international level has created a "bandwagon" effect that has drawn enthusiastic support from actors across several sectors. Intergovernmental agencies see a way of reviving their influence and standing in forest governance as coordinators of a global forest conservation mechanism. Developed World governments see a way of achieving global forest conservation objectives in the tropics without involving large scale outlay of direct public funds. Developing World governments see new

sources of funds and investment into their underfunded forestry sectors and a means of placating environmental interests without substantial expense. The private sector sees the potential profits in the creation of expanded carbon markets. International NGOs see the potential to capture substantial funds through designing and implementing REDD+ projects throughout the world (McDermott et al 2011).

This enthusiasm for the potential benefits of REDD+ should not disguise the growing number of dissenting voices expressing concerns about its potential consequences for global forest governance. In the previous section it was noted that the emerging form of partnerships in forest governance were leading to a trend towards recentralisation and standardisation in favour of larger international actors. These concerns are further reiterated by many critics in relation to REDD+. Agrawal et al argue that REDD+ will "increase the involvement of market actors in forest governance, and create pressures toward greater formalization as governments seek to take advantage of emerging carbon funds" (Agrawal et al 2008: 1462). Thompson et al extend this argument, commenting that "the efforts at aligning the interests of various REDD+ stakeholders remain principally focused on those stakeholders engaged and comfortable with measures and governmental structures common to the Global North" (Thompson et al 2011: 108). These measures and governmental structures relate to a reliance on technology and the role of experts, standardised monitoring and verification procedures and a reliance on well-defined institutional structures for land tenure (McDermott et al 2011, Thompson et al 2011). In practice, it has been argued that the institutional structures and financial resources need for REDD+ are lacking across much of the developing world. For example, in a study on REDD+ implementation in the Congo, Karsenty and Ongolo argue that:

> "In the REDD+ framework...the government is considered as an economic agent, behaving rationally. This approach totally neglects the political economy of the State, and in "fragile" countries with weak institutions and corruption, it simply cannot work" (Karsenty and Ongolo 2012: 4).

Policy documents relating to REDD+ have emphasised the need to remedy these issues through extensive capacity building as part of "REDD+ readiness" activities (UN-REDD 2011). This in itself has raised further concerns. Both Larson and Phelps et al argue that, given that the emphasis on institutional capacity building is directed primarily to the national level, there is a risk that REDD+ will lead to a reversal of trends that have seen the devolution of power to local levels in recent decades. This, it is argued, will lead to a disempowerment of localities and discrimination against those with unclear or informal land tenure in favour of standardised nationally and internationally

defined practices (Larson 2010, Phelps et al 2010). Further, it has been argued that the financial resources available from REDD+ readiness activities might result in elite capture, corruption and exacerbation of social inequalities, which in many cases have been a contributory factor in causing deforestation in the first place (Phelps et al 2010, Sikor et al 2010, Porkorny et al 2010).

These concerns have particular implications for the position of indigenous communities in the structure of REDD+. McDermott et al have noted that while policy makers have been careful to include "safeguards" to ensure that indigenous communities are not disadvantaged in the process implementation, doubts remain about how these safeguards will operate in practice (McDermott et al 2011). This has led to representative organisations for indigenous people's rights to argue that REDD+ could lead to national government interference with customary tenure and endanger recent gains in securing indigenous tenure rights that have been seen throughout the developing world (Bluffstone et al 2013, Larson 2010, Sikor et al 2010). While these representative groups have had some influence on the intergovernmental process, leading to explicit reference to indigenous rights in REDD+ policy documents, both Thompson et al and Larson have noted that they remain a peripheral voice. This leads to the concern that indigenous people will be recognised in principle but ultimately ignored in practice when their needs come into conflict with the interests of more powerful actors (Thompson et al 2011, Larson 2010).

## 5. Conclusions

The development of global forest governance since the 1990s raises a number of issues about how the international institutional level of scale will impact on national and sub-national forest governance in developing world settings. These issues have particular relevance in the context of the research questions of this Thesis, given that they have increased the scope for cross-level interplay between international, national and subnational level institutions.

The first issue in this respect is that forest governance in general has assumed more multilevel and multi-sector dimensions. While nation states still remain central, the proliferation of international forest institutions and the devolution of forest governance to local levels have created a far more polycentric institutional landscape throughout most of the developing world. This simultaneous internationalisation and localisation, combined with the growing role of non-state actors in environmental partnerships, mean that there are now more actors operating in different sectors and at multiple levels of scale who are able to facilitate cross level institutional interplay.

The second issue is that, as forest governance has become more multilevel and multi-sectoral, the number of different interpretations, ideas and discourses about forests has correspondingly grown. As was observed at the beginning of this Chapter, prior to the 1990s forest governance was largely seen in terms of nation states and their sovereign right to use forests as economic resources. Now forests are subject to multiple competing arguments from actors at multiple levels about how they should be used, whether in terms of economic development, sustainable forestry, indigenous customary rights, biodiversity conservation or climate change mitigation.

The third issue is the range of new policy instruments and frameworks that have emerged from the international level that are now available to national and subnational level policy makers. Most prominent amongst these are SFM, sustainability certification, integrated conservation and development projects, PES and REDD+. With these new policy ideas have also come new sources of material resources from a range of different sectors, whether from private sector corporate social responsibility, finance from international NGOs, grants from intergovernmental organisations or from tradable credit markets for ecosystem services.

These issues raise some concerns about the way cross-level interplay between forest institutions might impact on the local level. While the developments outlined above demonstrate that some consensus has been achieved amongst actors at the international level, Mert argues that agreement has often been bought at the price of coherent strategy or effectiveness in tackling the root causes of deforestation (Mert 2009). This has led to what Death describes the emergence of a tinkering mind set at the intergovernmental level, which compartmentalises environmental problems, ignores contentious issues and produces no coherent holistic approach (Death 2010). This presents the risk that the transfer of global ideas on sustainable forest use will lead to uncertainty and misunderstanding amongst local policy actors and a lack of sufficient support, either in terms of time, scale or resources, from sponsoring higher level organisations. In such a situation of institutional fragmentation there is also the risk that policy will reflect the prevailing discourses of the most powerful actors. Consequently, this creates the risk that the interplay between global and local levels of scale will be characterised by the imposition of the ideas of a dominant international elite, leading to the disempowerment of local actors. Conversely this also creates the risk that global ideas and practices will conflict with local values, and thus create barriers to effective coordination between institutions operating at different levels of scale. Drawing from these observations, it is therefore a central purpose of the proceeding Chapters to examine how these issues manifest themselves in circumstances where the ideas and policy instruments derived from the institutions of global forest governance are applied in the local context of Sabah.

**CHAPTER SIX: THE HISTORY OF FOREST AND LAND USE GOVERNANCE IN SABAH**

**Introduction**

This Chapter expands on observation made in the Introduction by reviewing existing literature on Malaysia and Sabah that relates to the economic, social, political and ecological dimensions of forest and land use governance. Its purpose in relation to the overall form of the Thesis, in tandem with the previous Chapter, is to fulfil the requirements of the first stage of the analytical framework in establishing the institutional context of the empirical examples that will be analysed in the following three Chapters. In relation to the research questions, this Chapter explores the history of land and forest use in Sabah in order to explain the local institutional and material conditions that led policy actors in the empirical examples to initiate new approaches to forest policy. As part of this, it will investigate the antecedent conditions that facilitated the diffusion into Sabah of the ideas and practices of global forest governance that were outlined in the last Chapter and the mobilisation of international ideas and resources towards local policy aims. In addition, it will also explore how these antecedent conditions have manifested in different ways in the specific case of the two empirical examples. This Chapter also has the purpose of outlining how long term historical institutional legacies have developed and persisted over the past century. This will be used to inform the discussion on the limitations face by actors in implementing forest conservation policy, as well as the relative merits of historical and constructivist accounts of new institutionalism that will be addressed in Chapter Eleven.

The literature used in this Chapter comprises three main groups. The first is academic studies on the political, economic and institutional drivers of land use policy in Malaysia in general and Sabah in particular. This literature derives principally from the academic fields of political science and policy studies. Some of this literature takes an explicitly institutional perspective, and covers areas such as the impact of colonial and path dependent legacies on resource use, evolving government attitudes to environmental policy, the relations between federal and state governments and the influence of domestic and international civil society. The second comprises policy studies on Sabah that have been commissioned by international organisations such as the UNDP and FAO. This literature particularly considers the impact of resource use policies on indigenous communities and suggests policy responses to deal with specific problems faced by these communities. The third consists of papers produced by scientific organisations, NGOs and government agencies that are currently active in forest conservation policy making in Sabah. These papers are more specifically focused on

the two empirical examples used in this Thesis, and consist both of scientific studies into ecological problems and case study reports on particular conservation and community projects.

The content of this Chapter is not intended to be a comprehensive study of land use policy and forest conservation in Sabah. The limitations of the literature are recognised at the outset, given that many of the subject areas outlined are reliant on the findings of only one or two publications. Rather this Chapter is intended to present the work that already exists on land use policy and forest conservation in Sabah, identify areas where further study is required and thus how this Thesis can expand on this empirical subject area.

**1. The Drivers of Long-Term Deforestation: 1882 - 1997**

Prior to colonisation, Sabah was almost entirely covered with tropical rainforest. However through exploitation during the colonial era and the continuation of many of the economic trends established under British rule following independence, in 2010 forest cover in Sabah stood at 51%, while the area of remaining undisturbed virgin forest at this time stood at an estimated 8% (Reynolds et al 2011). Both Hezri and Hasan, and Dolittle, have taken a historical perspective to argue that such levels of deforestation have been driven by economic dependency on income derived from natural resource extraction (Hezri and Hasan 2006, Dolittle 2004). Further arguments outlined below contend that these trends have been reinforced both by the policies of successive local administrations as well as wider influences at the federal level. The consequences have been decades of unsustainable timber extraction, expansion of commercial plantation agriculture, the marginalisation of indigenous people and severe environmental degradation.

*1.1 The colonial legacy*

In 1885 Lord Medhurst, one of the founders of the British North Borneo Company, outlined the objectives of colonisation as:

> "The reclamation of a vast and fertile tract of country from a state of primeval savagery, and its utilisation as a source of commercial wealth and progress for the benefit of the world in general" (Medhurst 1983 from Dolittle 2004: 826).

Following from this statement, Dolittle raises four features of colonial resource use policy that laid the foundations of long term historical institutional legacies that have characterised much of the history of land use in Sabah since the 1880s. First is that British rule sought to legitimate itself by

equating natural resource exploitation with a "wider moral good". Second is the implication that the "primeval" backwardness of indigenous people represented an impediment to this "wider good", and that their culture and economy had to be delegitimised in order to bring them into line with more "civilised" ways. Third is the idea of the separation of humans from the "savagery" of nature. Fourth is that in order to achieve the benefits of commercialisation, and therefore civilisation, it was necessary to impose a system of land use administration underpinned by the principles of private property (Dolittle 2004).

In practice this meant regularising property law according to British standards. Cleary and Eaton have identified how this impacted on the indigenous population. He observes that the first principle of the colonial administration was that the British North Borneo Company owned all land and had the right to dispose of it according to the terms of the charter it received from the British Government. He argues that the Company sought to identify land suitable for plantation and then delineate this from native land in order to create an environment of security for overseas investors. In principle allowance was made for native communal title, however in practice the treatment of native rights and land allocation was skewed in favour of the commercial and ideological objectives of the Company. Grants of native title favoured settled agriculture that could serve a cash economy over traditional shifting cultivation, which was viewed as primitive and an impediment to the proper functioning of the land market (Cleary and Eaton 1996). In addition, where native tenure conflicted with commercial plantation, the latter generally took precedence (Rooney 1981, Doolittle 2004). The colonial administration of land use was codified in the 1930 Land Ordinance. This legislation formed the basis of the subsequent 1968 State Forest Law that was enacted following independence. As a result, the basic legal structure of land use in Sabah that was formulated by the British has remained much the same to the present day (Cleary and Eaton 1996, Dolittle 2004).

*1.2 Land use and forest policy following independence*

Dolittle has argued that although the values underlying land use institutions in Sabah following independence changed, the form of these institutions remained much the same. Instead of the "civilising mission" rationale of the British Empire, Malaysia legitimated the exploitation of natural resources on the basis of promoting the wider societal benefits of economic development and modernisation. In Sabah, the result of the continuation of colonial legacies was a similar institutional system, which was codified under a modified Land Ordinance in 1968, where land was apportioned narrowly according to profitability. In this system little attention was given to either the natural

environment or to the rights and practices of indigenous people (Dolittle 2004, McMorrow and Talip 2001).
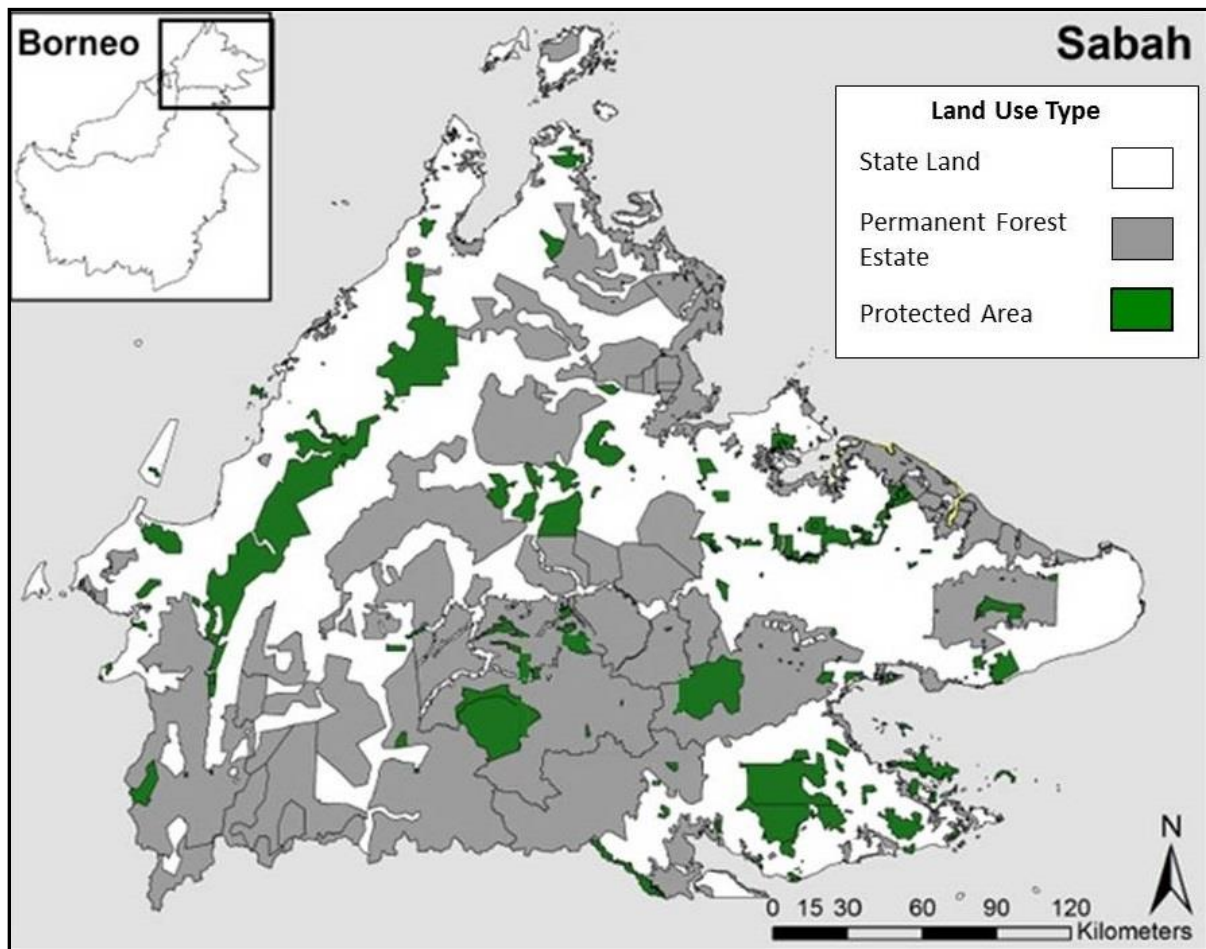


Figure 3: Land Use Classification in Sabah

Both McMorrow and Talip and Reynolds et al have identified the practical consequences of the 1968 Land Ordinance. This legislation was augmented by the 1975 Land Capability Classification, which identified land according to its most profitable use (Sabah Government 1968, Thomas et al 1976). Under these two documents, mining was considered more profitable than agriculture and agriculture more profitable than timber. As a result, priority in land allocation was given according to this hierarchy. Since mining has proved to be of minor economic importance, this meant that most of Sabah's land area was apportioned between commercial agriculture and forest for timber extraction, with some marginal areas set aside for conservation and recreation (Thomas et al 1976). Those areas considered suitable for plantation were designated as state land, which could be alienated to private agriculture companies. Those areas not considered suitable for agriculture, which were generally upland or hilly areas, swamps and those with poor soil, were designated as a

Permanent Forest Estate, to be held under the administration of the Sabah Forestry Department (SFD). A few areas were set aside as national parks and wildlife reserves, such as the World Heritage Site around Mount Kinabalu and the Danum Valley and Maliau Basin conservation areas (McMorrow and Talip 2001, Reynolds et al 2011). The geographical delineation of these designations at the time of research is illustrated in Figure 3 above.

The results were, in line with Dolittle's argument, a continuation of trends established under the British in a revised form that involved further environmental degradation and marginalisation of indigenous communities. In the 1980s a policy strategy was initiated that involved the whole sale degazettement of lowland forest to state land. As a result, it is estimated that forest cover in Sabah fell from 86% in 1953 to 68% in 1981, then to just over 50% at the end of the 2000s. The existence of the Permanent Forest Estate has proved a buffer against further deforestation for agriculture in the past 15 years, however much of the forest within this estate has been severely degraded through repeated selective logging rounds (McMorrow and Talip 2001, Collins 1991, Reynolds et al 2011).

In addition, Dolittle has further argued that British colonial policy on indigenous communities has been replicated following independence through legislation concerning Native Customary Rights. In its practical application she contends that this legislation has been just as ineffective in improving the legal and economic position of indigenous communities as its predecessor. Rules concerning the invalidation of title on lands left as fallow discouraged traditional shifting cultivation. Communities remained unaware of their rights and even where they made applications for customary title these took years or decades to process. The State retained a range of powers to compulsorily acquire land held under Native Customary Rights where economic development justifications took precedence (Dolittle 2004, Toh and Grace 2006). Studies by Toh and Grace, and Yong, have outlined further results of this policy approach on indigenous communities. Corruption and patronage mean that legitimate claims to Native Customary Rights often remain unprocessed, while claims of well-resourced and well-connected companies have often been able to gain Native Customary Rights title even when their grounds for such claims are tenuous. The result has been a slow process of continuing marginalisation and exclusion of indigenous communities (Toh and Grace 2006, Yong 2006).

*1.3 The impact of federalism on forest policy in Sabah*

A number of authors have identified how these trends of have been exacerbated by other political and economic developments that have taken place since Sabah became part of the Malaysian Federation in 1963. These have manifested in terms of both federal and state level politics. Chin

argues that the history of the relationship between Sabah and the Federal Government is one that has been fraught with tension. While at first the constitution allowed Sabah considerable autonomy, the Federal Government has steadily eroded these rights to a situation where the State Government retains few areas of significant control (Chin 2008).

The long term trend of unsustainable logging in Sabah from the 1960s to 2000s can be explained in part as a result of the economic and institutional consequences of federal union. In economic terms, Vincent has shown that while Peninsular Malaysia has experienced considerable economic growth and industrialisation in the past fifty years, competitive disadvantages in terms of costs and investment have meant that no comparable development has taken place in Sabah (Vincent 1997). At the same time, Jomo and Hui show that the Bornean states, including neighbouring Sarawak, experienced a timber boom through the 1960s and 1970s. As a result, Sabah and Sarawak were the largest contributors to Malaysia's consistent trade surpluses through the 1960s to 1990s. These surpluses facilitated a federal policy of import substitution, which in turn underpinned rapid industrial development in Peninsular Malaysia. As a result, there was little incentive at the federal level to encourage the diversification of Sabah's economy away dependence on timber revenue and every incentive to continue a short term policy of unsustainable timber extraction (Jomo and Hui 2004).

At the same time, McMorrow and Talip have observed that the one area that the State Government has retained significant control over is the State's natural resources, and consequently the bulk of the State Government's income is derived from natural resource royalties (McMorrow and Talip 2001). This means that government leaders have been incentivised to maximise short term revenue. This problem has been exacerbated by corruption. Both White and Yong have argued that through the 1960s to 1990s the State Government was dominated by personality politics and crony networks. In this system, timber income fuelled a two way relationship between politicians and business leaders where the former provided contracts, concessions and subsidies and the latter provided party funds and votes (Yong 2006, White 2004).

The impact of the federal system of government has had other implications for the institutions of land use governance. Both Hezri and Hasan, and McMorrow and Talip, have observed that federalism has created a structure of competing responsibilities between federal and state agencies which has impeded coherent strategy. Such a situation has emerged in land use policy in Sabah, which at times has become an arena for this State/Federal government conflict. An example of such conflict is the situation in the late 1980s and early 1990s where Sabah was ruled by a party opposed

to the ruling Barisan Nasional coalition. In order to put pressure on the State Government, in 1992 the Federal Government place an export ban on timber from Sabah. This was done on the grounds that it would encourage timber processing industry, though this move was widely interpreted as a veiled attempt to undermine the opposition State Government (Hezri and Hasan 2006, McMorrow and Talip 2001).

McMorrow and Talip further argue that intra-governmental conflict and competition is mirrored at the state level. In Sabah, land use policy is dominated by the SFD, Lands and Survey Department and Department of Agriculture. Each of these departments claim different and conflicting responsibilities in regard to land use and act as advocates for particular economic interests. This has led to inter-departmental rivalry and a tendency for policy to be directed towards short term goals associated with maintaining ascendancy in the State Government structure, rather than following coherent long term strategic objectives (McMorrow and Talip 2001).

*1.4 The outcomes of forest and land use policy and emerging problems*

Both McMorrow and Talip and Reynolds et al have observed that this situation placed considerable political pressure on the SFD to maximise timber revenue. While in theory the SFD had a dual role as both income generator and steward of the State's forest resources, in practice the latter role was neglected. Logging was typically carried out by contractors working on short 21 or 25 year licences, a policy that discouraged long term forest management (McMorrow and Talip 2001, Reynolds et al 2011).

Timber extraction reached a maximum level of over 12 million m$^3$ per annum in the late 1970s and continued at levels between 8 and 12 million m$^3$ through to the early 1990s. However from the mid-1990s it became apparent that these levels could not be sustained and extraction rates began to fall. Yields fell to 3.4 million m$^3$ in 1999 and to 1.5 million m$^3$ in 2011. According to Reynolds et al, Sabah is now faced with what is commonly referred to in the State as a "timber famine", where timber yields are projected to remain at around 0.5 million m$^3$ for the next 20 to 30 years (Marsh and Greer 1992, Reynolds et al 2011).

At the same time, a new threat to Sabah's forests also emerged. In the past 25 years global demand for palm oil has risen rapidly and is set to increase further in future (Wicke et al 2011). Given the suitability of much of lowland Sabah for oil palm cultivation, the palm oil industry has become the dominate form of plantation agriculture in Sabah. While in 1990 only 4% of Sabah's land area was under oil palm cultivation, this had risen to 19% in 2010, or 86% of total area under commercial

plantation. Accordingly, as Reynolds et al have observed, palm oil has replaced the timber industry as both the dominant economic sector in the State and the biggest threat to Sabah's forests (Reynolds et al 2011, Marsh and Greer 1992, Toh and Grace 2006). They further observe that this rapid expansion means that there is now little suitable state land left to convert to plantation. The profitability of palm oil is now such that marginal lands not originally considered suitable for agriculture under the Land Capability Classification have now become viable for conversion to agriculture (Reynolds et al 2011). As a result of the twin threats of falling timber revenues and the growth of palm oil revenue, the continued integrity of the Permanent Forest Estate has come under acute threat. The result has been that the SFD has had to comprehensively restructure its policy position in order to maintain its position within the administrative system of State Government.

## 2. Shifts in the Forest and Land Use Policy Environment: 1997 to Present

The process of reorientation in forest policy that has been adopted by the SFD in recent years can be explained by a combination of both internal factors within Sabah and wider influences taking place at international and federal levels. Many of the international policy movements outlined in Chapter Five have filtered down to the state and local levels, and in the process have been merged with specific federal, state and local policy movements.

### 2.1 The growing wider influence of environmentalism

A number of publications have observed that the evolving form of environmental policy in Malaysia stems from the emergence of an increasingly vocal environmental civil society, growing international pressure for forest conservation and the response of the federal government to these pressures. According to Weiss, civil society has traditionally been relatively weak in Malaysia owing to colonial legacies, government restrictions and the country's particular racial politics that have impeded coordination between different ethnic groups. However, she also notes that the growth of an educated middle class and the greater influence of global influences have led to an expansion of civil society groups in many areas of Malaysian life (Weiss 2005). Both Weiss, and Hezri and Hasan, have highlighted the significance of the 1978 Endau Rompin campaign as the first successful example of an environmental civil society campaign. Here grass roots pressure successfully prevented the deforestation of a large area of forest in South East Peninsula Malaysia. This, in their opinions, laid the foundations for environmental activism as it has emerged in Malaysia in recent decades (Hezri and Hasan 2006, Weiss 2005, Aiken 1993).

Both Brosius and Yee have conducted studies on an even more significant watershed in the environmental debate in Malaysia. This was the controversy that emerged in the 1990s in the Bornean state of Sarawak relating to the construction of the Bakun Dam. This project threatened 70,000 hectares of forest, as well as the livelihoods of local Penan communities. The campaign against this project involved not only Malaysian NGOs but also international environmental activists (Brosius 1999, Yee 2004). Brosius has shown how the initial response of the Federal Government was a defensive and confrontational one. This response was characterised by accusations of 'eco-imperialism' levelled at international NGOs, illustrated by Prime Minister Mahathir's statement that "the North should begin to clean up its own backyard and stop scapegoating the South" (Brosius 1999: 47).

But Brosius also shows how the Mahathir administration did eventually realise that it needed to make some accommodation with international and domestic environmental organisations. Firstly, it was recognised that while they could combat northern NGOs within Malaysia, they had less control over campaigns that aimed to stop consumption of tropical hardwoods in developed countries. Secondly, they recognised the benefits of establishing collaborative partnerships with local and more moderate international NGOs, and in the process split them from more hard line environmental campaigning organisations (Brosius 1999). A third argument, as identified by Hezri and Hasan, is that under Mahathir, Malaysia was developing a high profile international standing as a spokesman for the G77 group of developing nations on the global stage. As a result, the Federal Government became far more sensitive to the potential political damage that uncontrolled environmental destruction could have on its international standing (Hezri and Hasan 2006).

As a result, instead of continuing along the lines of confrontational rhetoric about eco-imperialism, in the late 1990s and early 2000s the Federal Government shifted to a strategy of apparent conciliation that took advantage of the growing currency of the ideas of sustainable development at the international level. Sustainable development allowed the Mahathir administration to find common ground between itself, the international diplomatic community and many environmental NGOs, both international and domestic. In line with this, the Federal Government sought to embrace the ideas of SFM and timber certification at the core of environmental policy, as well as showing a willingness to work in collaboration with environmental civil society organisations. By such tactics, Mahathir was able to shift the terms of the debate and in the process, at least to some extent, draw the sting out of the controversy over continuing forest destruction (Brosius 1999, Hezri and Hasan 2006).

From one point of view this tactical shift can be seen as rhetoric that has not been backed up by concrete political action, as the following observation by a consortium of NGOs on Malaysia's environmental record illustrates:

> "In essence the words are in the right place but in truth the actions are not. The commitment and focus to implement sustainable development practice is not forthcoming" (MNF for Rio +10, 2003 from Hezri and Hasan 2006: 46)

In many parts of Malaysia this observation may be true, particularly in the case of the state of Sarawak where unchecked deforestation continues (Yong 2006). In the case of Sabah however, as will be demonstrated below, the move towards the adoption of SFM and timber certification appears to contain greater substance.

*2.2 Changes in forestry policy in Sabah: the role of the SFD*

In a 1997 seminar, the Director of the SFD, Sam Mannan, admitted that "the history of forest management in Sabah over the last 30 years has been dismal by any standard of measure" (Mannan and Awang 1997: 2). The same year marked a watershed in the history of forest management in Sabah with the adoption of SFM at the core of the SFD's mainstream policy approach. This move had earlier antecedents in the Deramakot SFM project. This was initiated in 1989 in partnership with the German Agency for Technical Cooperation. This project involved using the 55,000 ha Deramakot Forest Reserve as a pilot project for developing an SFM system in Sabah. This entailed substantial investment in terms of low impact harvesting equipment, infrastructure development, the creation of new organisational structures and the retraining of staff. In 1997 this project achieved the distinction of becoming the first area of forest in the developing tropics to be certified by the FSC (Mannan and Awang 1997, Mannan et al 2008, UNDP 2008).

Following from the Deramakot pilot project, in the early 2000s the SFD decided to apply this model to the whole of the Permanent Forest Estate. This involved dividing the Permanent Forest Estate into forest management units which were then contracted out to private companies under Sustainable Forest Management Licence Agreements (SFMLAs). Each SFMLA lasted for 100 years, as opposed to the previous 21-25 year concessions, in order to encourage long term planning and more sustainable practices. Licensees were required to abide by SFM management practices and commit to achieving accreditation under a recognised certification scheme. They were also required to pay a RM5 million bond (approximately £1 million), which would be lost if the licence was rescinded for non-compliance. The rationale behind this approach was that by handing over implementation of SFM to

the private sector, the SFD would be freed to concentrate its resources into higher level capacity building and strategic planning (Mannan and Awang 1997, Toh and Grace 2006).

UN reports from both the FAO and UNDP show that the achievements of the SFMLA system have been mixed and compromised by three factors. Firstly, the start-up costs and capital investment of SFM are high, and given the highly degraded state of many of Sabah's forests, the returns often have not proved high enough to justify the expense for private licensees. Secondly, while the SFD may have had the capacity and expertise to implement SFM at a relatively small scale in Deramakot, it has struggled to translate this to a larger scale on limited resources without external financial and technical backing. Thirdly, political support for a wider state level SFM policy strategy has been equivocal. Questions have been raised about the rationale behind handing control of forests to licensees with little technical experience of SFM. In addition, influential interests at State Government level still exist in favour of continued short term extraction and conversion to palm oil or timber plantations. As a result, the impact of the SFMLA system remains unproven. Few of the licensees have achieved the requirement of certification and some licences have been revoked for persistent non-compliance (Toh and Grace 2006, UNDP 2008).

Reynolds et al have commented on a further issue relating to timber plantations. They observe that the total area of the Permanent Forest Estate under timber plantation is currently relatively low and there has been some success in resisting attempts to convert some more ecologically important areas to plantation (see section on Ulu Segama Malua below). However, it is further observed that this policy option retains some strength both within the State Government and in the SFD. This may form a considerable part of SFD policy in future, with associated implications for the future of Sabah's remaining natural forests (Reynolds et al 2011).

*2.3 Policy change and the position of indigenous communities*

A further complication that has arisen through this process of policy change relates to the position of indigenous communities. In a WWF report, Payne summaries the position of indigenous communities in Sabah by the late 1990s as follows:

> "Communities have changed within the space of barely two generations from being almost self-sufficient in food and harvesting abundant forest resources for cash income, to being dependent largely on imported food and experiencing declining sources of cash income…Many local residents now find themselves with only small amounts of resources,

and without the skills needed to seek alternative sources of sustained income" (Payne 1996: 5).

He goes on to contend that by this time communities had found themselves largely excluded from the Permanent Forest Estate. Further to this, with most state land converted to plantation, their position was generally one of marginalisation at the edges of extensive tracts of commercially exploited land. A UNDP report observes that often communities have to subsist on small areas of land, have no access to forest resources and have lost access to clean water as a result of pollution from oil palm plantations. In addition, many communities are isolated from markets, healthcare and education as a result of poor infrastructure. In this situation, poverty amongst indigenous communities has become endemic (UNDP 2008, Payne 1996).

However, Yong, Yee and Idrus have identified some signs of emerging pressure to ameliorate the condition of indigenous communities in Sabah. Some of this reflects a growing movement at the international level to promote the rights of indigenous peoples throughout the world with associated pressure to devolve forest management back to communities, a trend that was observed in the last Chapter. This means that more external support exists for projects that aim to improve the livelihoods of indigenous people. In addition, because of the exposure provided by international NGOs, exploitation of indigenous communities is perceived amongst government and private sector actors as more likely to bring unwanted bad publicity (Yong 2006, Yee 2004). In addition, Idrus has observed that across Malaysia as a whole there is a movement of indigenous communities, in conjunction with international and domestic NGOs, to more aggressively pursue legal channels in order to secure better land rights and living conditions (Idrus 2010).

A particular way that this international pressure has impacted on forest policy in Sabah is through FSC certification. Article 3 of the FSC principles states that:

> ""Indigenous Peoples' Rights" requires all FSC certified forest owners and managers to identify and uphold indigenous peoples' rights of ownership and use of land and resources" (FSC 1996: 5).

Give that the SFD has chosen the FSC as its certification standard of choice, forest policy in Sabah now has to take the situation of indigenous people more seriously. Toh and Grace observe that as a result of certification requirements, in the 1990s the SFD began to implement community forest management and agroforestry initiatives as part of the Deramakot project. It has since attempted to expand community forestry as part of the wider SFMLA strategy. All SFMLA holders are now

required to address community development issues where communities exist within or next to their boundaries (Toh and Grace). There have also been attempts to improve security of tenure for communities in and around forest reserves. As a result, a limited number of successful examples of partnerships between the SFD and indigenous communities have emerged in recent years (Hamza and Mohamad 2012, UNDP 2008).

However, the wider success of this new policy direction remains open to question. Toh and Grace have observed that the best outcomes have been seen in reserves directly managed by the SFD under FSC certification, and that SFMLA holders have done little to engage local communities. They contend that current initiatives may be just a palliative rather than something that gets to the root of the problems facing indigenous communities. They summarise this problem in the following statement:

> "Communities look more to agricultural production and market access to alleviate poverty than to forest resources. Hence access to land for cultivation is seen to be more urgent than access to forest resources. This trend requires larger areas of land to be viable, which cannot be met through Sabah's present forest tenure system; this can only be addressed through land laws" (Toh and Grace 2006: 273).

At present there are few signs of a political will to comprehensively re-orientate the long standing legal framework enshrined in the Land Ordinance. As a result, future policy on indigenous rights seems unlikely to change from the current position of limited initiatives operating within the boundaries of the existing status quo.

*2.4 Policy change through promotion of non-timber revenue sources*

Since the 1990s, two new non-timber revenue sources from forests have become influential to forest policy in Sabah. These have created potential for these forests to gain an economic value in situ rather than as an extractive resource. As a result they have the potential to bring greater political weight to policy initiatives that favour forest conservation. The most significant of these to date is tourism, and specifically ecotourism, which has become one of the largest growth sectors in Sabah in the past 20 years (IDS 2008). The other is PES, as introduced in the last Chapter, and which in some respects the SFD has taken a pioneering approach to. These two revenue sources represent ways that international economic trends and global forest policy initiatives have influenced local level policy.

According to a report by the Malaysian Institute for Development Studies, which was commission as part of a major State policy initiative entitled "The Sabah Development Corridor", Sabah has exceptional potential to develop tourism. This is because of its wide range of tourist attractions which include traditional "sun, sea and sand", accessible wildlife viewing and adventure activities such as mountaineering, scuba diving and white water rafting (IDS 2008). The tourist sector in Sabah has seen high growth levels in the past 15 years. In 1998 Sabah recorded visitor numbers of 423,284, of which 264,898 we international and 158,386 domestic. By 2012 visitor numbers had grown to 2,876,761 of which 941,766 were international and 1,933,996 were domestic (Sabah Tourism 2002, 2013). Tourism is now the third highest contributor to the State's GDP after agriculture and manufacturing and the fastest growing sector overall. The Sabah Development Corridor policy initiative has identified the "enhancement of Sabah as a premier eco-adventure destination" as a key priority and a major contributor to the State's future economic growth (IDS 2008: 33). A consequence of this policy direction is that mainstream economic policy now recognises that the ecology of Sabah's forests has a tangible economic value in its own right.

However, questions have been raised about the limits of eco-tourism as a means of encouraging conservation and community welfare. Tourism in Sabah is dominated by private sector tour companies (IDS 2008). Payne has raised the issues that in the absence of an effective and coordinated policy structure to regulate ecotourism, these companies will cause disturbance to wildlife and other environmental damage, whilst also failing to contribute toward the conservation work on which their businesses ultimately depend (Payne 1996). Hai et al have further observed that much of the ecotourism development that has taken place to date in Sabah has been concentrated in a few locations, leading to tourist congestion at certain sites. In addition, they observe that tour companies often employ staff outside the locality, and that few benefits are accrued to indigenous communities (Hai et al 2001). While examples of successful community led tourist initiatives do exist, such projects remain only a small part of the wider ecotourism industry (Hamzah and Mohamad 2012).

PES is a less proven generator of revenue but has brought some tangible benefits to forest conservation. Reynolds et al have identified two main PES projects in Sabah that have been pioneering in the context of South East Asia. The first was initiated in 1992 as a joint venture between the Dutch foundation Forest Absorbing Carbon Emissions (FACE) and the quasi-governmental organisation and forest concessionaire Yayasan Sabah. The objective of this project was to restore 30,000 ha of degraded forest on the edges of the Danum Valley Conservation Area, to be funded by European companies seeking to offset carbon emissions. Up to 2011 the FACE project

had been successful in restoring 12,000 ha of degraded forest. The other major project is the Malua Biobank. This was set up in 2006 as a joint venture between Yayasan Sabah, the SFD and New Forests, an Australian forest eco-products investment broker. This aimed to restore the 34,000 ha Malua forest reserve through the sale of bio-credits, and represents the first such project of its kind in the tropics (Reynolds et al 2011). In addition, the SFD is currently working on establishing baseline data on the carbon storage potential of Sabah's forests in preparation for implementing a REDD+ strategy across the state. To date there has been little literature about the results of these initiatives in Sabah, and their relative impact will be discussed in more detail in the next three Chapters (Berry et al 2010, Mannan et al 2008).

The consequences of the developments outlined in this section mean that for the first time since the beginning of colonisation, significant pressure exists from several sources to halt long term trends in deforestation. This is particularly the case with lands under the administration of the SFD, which anticipated the problems of the "timber famine" early and created the foundations for new forest governance institutions. However, outside the Permanent Forest Estate, where the influence of the SFD is limited, the future prospects for remaining forests, most of which are now in isolated protected areas, is more uncertain. This contrast is illustrated in the two empirical examples used in this Thesis that were introduced in Chapter Four.

## 3. Forest and Land Use Policy in Local Contexts

The two empirical examples selected for in-depth study in this Thesis illustrate the contrasting impact of deforestation and forest degradation in different locations. They also illustrate the influence of different combinations of actors who have shaped policy responses to subsequent environmental problems. The first empirical example, Ulu Segama Malua Forest Reserve, is a large area of the Permanent Forest Estate. In Ulu Segama Malua the dominant policy actor is the SFD, which has developed a network of NGO, scientific and private sector partners. Here the main problems have resulted from selective logging rather than absolute deforestation. Indigenous communities, who are only present in small numbers on the edges of the reserve, represent only a secondary issue in this context. The second example, the Lower Kinabatangan, is by contrast outside the Permanent Forest Estate and is subject to the influence of a more complex range of interests and organisations with no overall driving policy agent. Absolute deforestation as a result of conversion to oil palm has been the major driver of environmental problems in the area and the

position of indigenous communities is of more central importance. The locations of both are shown in Figure 3 below.
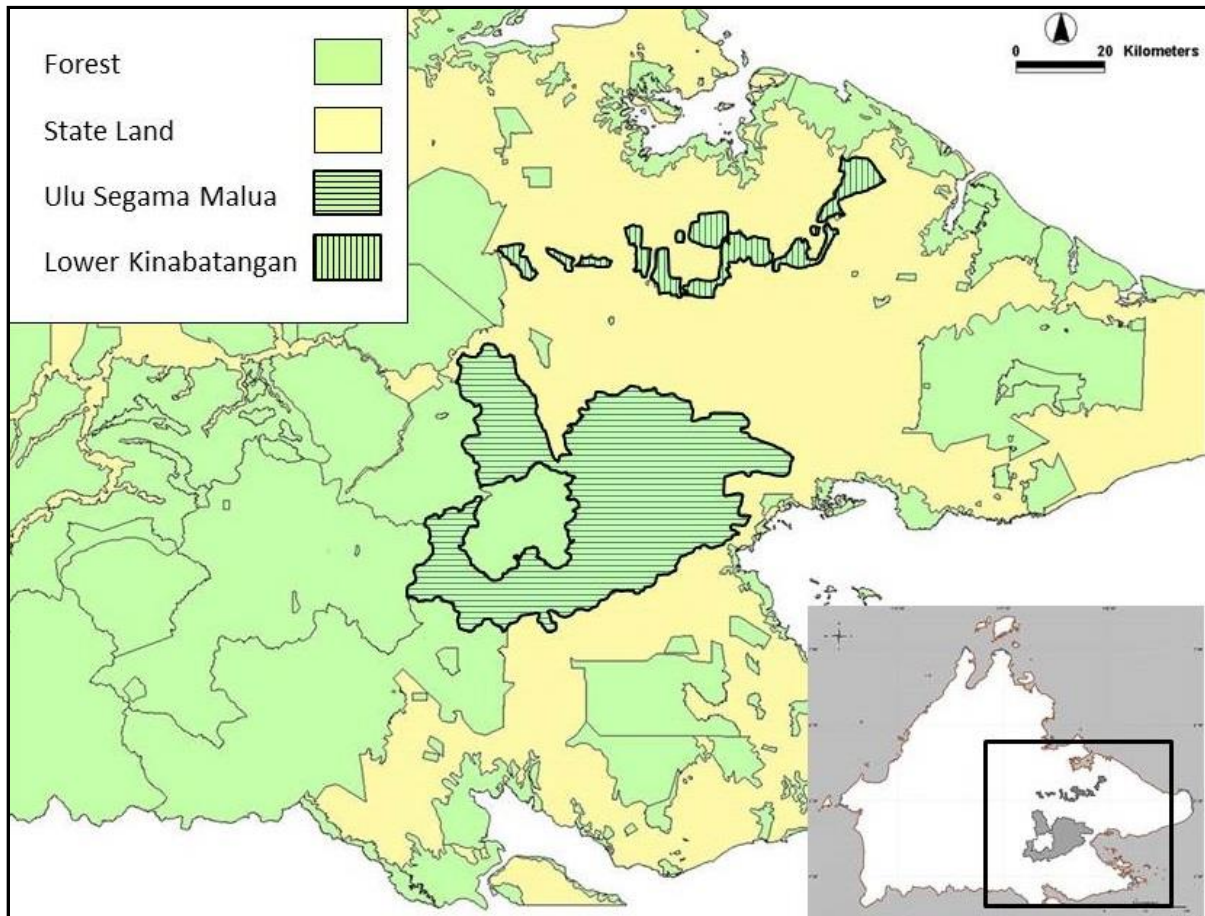


Figure 4: Location of Ulu Segama Malua and the Lower Kinabatangan Forests

*3.1 Ulu Segama Malua Forest Reserve*

Ulu Segama Malua is a 241,000 ha area of mostly lowland dipterocarp forest located in the south east of Sabah's interior. It was formed in 2006 from the merger of the previously separate Ulu Segama and Malua forest reserves. It is surrounded by state land to the north, east and south, most of which has now been converted to oil palm plantation. To the west it adjoins other reserves in the Permanent Forest Estate and encloses the Danum Valley Conservation Area. The area contains some of the largest concentrations of biodiversity in Sabah. The reserve is jointly managed by the SFD and Yayasan Sabah (Reynolds et al 2011, SFD 2008). Because of its position close to the Danum Valley Research Station, the oldest establishment of its type in Sabah, a considerable volume of scientific data exists on this area. However, the literature on the historical and policy context of the reserve is

sparse, and the majority of information presented below comes from a recent study by Reynolds et al, supplemented by data from the reserve's management plan.

Prior to the 1990s, Ulu Segama Malua was subject to high volume selective timber harvesting which represented some of the highest extraction rates in the tropical world (Marsh and Greer 1992). By the mid-1990s it was envisaged that no further logging rounds would take place and the area would be left to regenerate on the basis of a 60 year logging cycle in line with the SFDs new SFM policy strategy (Reynolds et al 2011). In spite of this long history of logging, at this time Ulu Segama Malua still contained significant pockets of relatively undisturbed closed canopy forest.

This situation changed in 1998 with the announcement of a joint venture between the Malaysian and Chinese governments to create a large wood pulp mill. This would involve the clearance of over 300,000 ha of natural forest within the Permanent Forest Estate, to be replaced with fast growing timber plantations that would serve the pulp mill. It was anticipated that a large proportion of this area would fall within Ulu Segama Malua. Even though this plan was eventually rescinded in 2001 as a result of pressure both within and outside the State Government, contracts had already been granted for a further logging round. This round of logging commenced in 1999 and continued through to 2006. As this logging round was largely intended as a salvage exercise prior to complete clearance, special short term licences were granted where reduced impact logging practices were not followed. As a result, levels of forest degradation were severe across much of the reserve (Reynolds et al 2011, SFD 2008). Reynolds et al summarise the situation in Ulu Segama Malua in the mid-2000s as follows:

> "Following the abandonment of the pulp mill project and its associated plantations, the threat of immediate conversion of the Ulu Segama Forest Reserve was substantially reduced. However, premature re-logging of both the Ulu Segama Forest Reserve and the Malua Forest Reserve had left these areas in a highly degraded condition…Given this level of damage, and with no prospect of further timber harvesting for several decades, an incipient threat of conversion thus remained" (Reynolds et al 2011: 3173).

This incipient threat was the conversion of at least part of Ulu Segama Malua to oil palm plantation. Given these circumstances, the extension of the SFMLA system to Ulu Segama Malua would not be sufficient alone to protect the reserve's future and the SFD had to implement a new special strategy in order to retain Ulu Segama Malua within the Permanent Forest Estate. The arguments for this new strategy were based principally on the reserve's exceptional biodiversity value. These arguments were set out in the Ulu Segama Malua Sustainable Forest Management Plan (USM-

SFMP), which was launched in 2006 in conjunction with a complete moratorium on logging in the reserve. The project was initiated through a partnership between the SFD, Yayasan Sabah and WWF Malaysia, and also included a range of smaller NGOs acting in an advisory capacity (Reynolds et al 2011, SFD 2008).

The particular focus of the USM-SFMP was the protection of orang-utans, though the plan also highlighted the importance of conserving Ulu Segama Malua's populations of Bornean pygmy elephant, banteng, Sumatran rhinoceros and clouded leopard. Two studies in 2002 and 2007 by the French-Malaysian NGO HUTAN highlighted the importance of and threats to the reserve's orang-utan population. It was found that in 2002 the reserve had a population of c. 4,000. By 2007 this number had dropped to an estimated 2,600 individuals. This decline was unevenly spread, with low rates of decline in less heavily logged areas such as those immediately adjacent to Danum Valley, but much higher in heavily logged forest. At the most extreme was Northern Ulu Segama where, as a result of heavy logging compounded by forest fragmentation and fire, the population declined by more than 50%. The conclusions of these two surveys was that orang-utan populations could survive well in lightly logged forest, but suffered severely where forest was more heavily disturbed (Ancrenaz et al 2007a, Ancrenaz et al 2010).

The findings and recommendations of these two surveys have been central in shaping the way that the USM-SFMP has been implemented since 2007. The key foci of the plan are siviculture and forest restoration, enforcement of wildlife protection and identification of alternative revenue sources such as tourism and PES. The plan has taken the Deramakot project as a model and uses SFM and the goal of FSC certification as a framework for implementation. It has also drawn from the lessons of the FACE project and extended these to the Malua Biobank project (see above)(Reynolds et al 2011). Due the particularly severe threat to its orang-utan population and the danger of conversion to oil palm plantation, the USM-SFMP has aimed to focus particular attention on Northern Ulu Segama. The SFD has been active in establishing partnerships with NGOs, philanthropic organisations and private companies in order to gain finance and technical assistance in restoring this area (SFD 2008). These developments will be explored in more detail in Chapter Seven.

### 3.2 The Lower Kinabatangan floodplain

The Kinabatangan is the longest river in Sabah, extending to some 560km and draining 23% of Sabah's total land area. It rises in the highlands of the interior, continues through a wide flat alluvial floodplain in its lower reaches and drains into an area of wetlands and mangroves on the coast of the Sulu Sea. Prior to large scale logging, its main habitat type was lowland diptertocarp forest.

However, following clearance of most of the areas of the Lower Kinabatangan not subject to seasonal flooding, most of the remaining forest is evergreen freshwater swamp forest (Ancrenaz et al 2004). There are five main settlement located along the Lower Kinabatangan river, inhabited by the *orang sungai* ethnic groups who have traditionally made a living through small scale agriculture, collection and sale of non-timber forest resources and fishing (WWF 2004). A number of NGOs have produced studies on the area in the past 15 years. These form the basis of most of the data outlined below.

Payne has observed that until the 1950s, when large scale logging began, the Lower Kinabatangan floodplain was almost entirely forested. Deforestation accelerated following the publication of the Land Capability Classification in 1975, which classified most of the area as state land and therefore eligible for alienation to commercial plantation companies. The period 1990-2003 saw the highest rates of deforestation as the oil palm industry began to expand into the area, taking advantage of the particular suitability of its soils for oil palm cultivation (Payne 1996). As a result of these developments it is estimated that forest cover in the Lower Kinabatangan fell from 92% in the early 1970s, to 47% in 1995 and less than 20% by the mid-2000s (Payne 1996, Ancrenaz et al 2007b).

This rapid rate of deforestation has cause a number of environmental and social problems in the area. Ancrenaz et al and Bruford et al have commented that remaining areas of forest consist mainly of seasonally flooded swamp forest next to the river. A situation has arisen where much of the wildlife of the floodplain has become over-concentrated into these small and isolated forest fragments. As a consequence, in the short term the populations of most key species have declined, and in the long term there is a threat to the genetic viability of high profile species. This is particularly the case for larger mammals such as orang-utan and elephant, which require extensive areas of forest to survive (Ancrenaz et al 2007a, Bruford et al 2012).

Other than biodiversity loss, Hai et al and Ancrenaz et al have note a range of other environmental problems that have resulted from the rapid expansion of oil palm plantations in the floodplain. The loss of forest, especially in riparian zones next to the river, has increased surface run-off, leading to river bank erosion, sedimentation and a greater incidence of flooding. While according to government regulations planters are required to maintain a forested riparian reserve on the river banks, these regulations are routinely ignored and unenforced, and plantations typically extend right up to the river banks. Use of fertilisers and pesticides has affected water quality and led to reduction in fish stocks (Hai et al 2001, Ancrenaz et al 2007b).

105

Payne's study for the WWF has shown how these problems have had a serious impact on local communities. Expansion of plantations has reduced the land available for small scale agriculture and many communities have been left with little land on which to feed themselves. Even where they have obtained land through Native Customary Rights, these lands are often too small to be economically viable and they lack the capital to develop it, ultimately forcing them to sell to neighbouring plantation owners. Communities have also been deprived of access to the forest resources that they have traditionally harvested, such as rattan and resin. Pollution and sedimentation in the river has led to declining catches from fishing and problems accessing clean and reliable water sources. As a result, many indigenous people turned to small scale illegal logging in order to make a living (Payne 1996).

Additionally, Ancrenaz et al and Alfred et al have commented that the loss and fragmentation of habitat means that large mammals such as elephants and orang-utans come out of the forest to raid crops more frequently, leading to heightened human wildlife conflict both with local communities and plantation owners. This is particularly an issue with elephants which can cause severe damage to oil palms and to culturally sensitive sites such as graveyards. While wildlife in the Lower Kinabatangan has benefited from the fact that the *orang sungai* have no culture of hunting endangered species such as orang-utan or elephant, these human wildlife conflicts led to an increasing incidence of killings of elephants as a means of control. (Ancrenaz 2007b, Alfred et al 2011).

Reports by Payne and Hai et al have concentrated on the importance of the growth of eco-tourism in the area. The Lower Kinabatangan was identified as a suitable site for ecotourism by the State Government as far back as the 1980s. Since then a number of privately run tourist lodges have opened, mostly in the vicinity of the village of Sukau (Hai et al 2001). As noted in the previous section, ecotourism has its drawbacks in terms of river bank damage, disturbance to wildlife and lack of benefits to local people. However, as also noted above, the recognition of the potential income from ecotourism at the highest level of State Government has been of crucial importance in recent changes in policy that emphasis conservation of the remaining forests along the river. This led to increased pressure to designate the remaining forests in the floodplain as a protected area.

The process of gaining protected area status was a protracted one. It was eventually agreed in 1997 that 26,000 ha, comprising 11 mostly non-contiguous lots, would be designated as the Lower Kinabatangan Wildlife Sanctuary (LKWS) under the administration of the SWD. However it took until 2006 for this status to come into effect (Ancrenaz et al 2007b, Hai et al 2001). In parallel with the

foundation of this protected area, the past 15 years have seen the establishment of a number of initiatives intended to advance the cause of conservation in the Lower Kinabatangan.

WWF Malaysia has been central to two of these initiatives. The first was the Partners for Wetlands initiative, which was established in 1998 in conjunction with the SWD. This was set up in order to build partnerships with a range of interests active in the Lower Kinabatangan towards ensuring "wise use of natural resources in the floodplain" (WWF 2004). Following on from this, in 2002 the Chief Minister of Sabah announced the vision of creating a "Corridor of Life" in the Lower Kinabatangan. As part of this vision, the long term aim was to create habitat corridors of restored forest between the various fragments of the LKWS, with a particular emphasis being placed on establishing relationships with oil palm companies over whom such corridors would be build. This goal remains central to the strategies of conservation led organisations currently active in the Lower Kinabatangan today, even if progress to date has been slow (Majail and Webber 2006).

Other projects initiated at the end of the 1990s have involved the establishment of partnerships with local communities. Both Hamza and Mohamad and the UNDP Equator Initiative have produced case studies on the MESCOT project. This was set up in 1997 in the village of Batu Puteh in partnership with the WWF. The aim of this project was to use profits from ecotourism to fund a forest restoration programme. While this project took a long time to embed, it has now become a successful profit making venture. Reasons for this success have been cited as support from external organisations and government agencies, strong leadership from within the community and sufficient autonomy for community decision making (Hamza and Mohamad 2012).

The other main community based project in the Lower Kinabatangan was initiated in 1998 in the village of Sukau by HUTAN, acting in partnership with the SWD. As publications by HUTAN describe, this project was initially set up with the specific role of studying and protecting orang-utan. However it was quickly recognised that conservation could not be achieved without cooperation of local indigenous communities. In the past ten years HUTAN has set up a range of sub-projects that by 2007 employed 40 people, becoming the largest employer of indigenous villagers. These projects involved orang-utan monitoring, management of community/elephant conflict, education, wildlife protection, forest restoration, community led ecotourism and sustainable harvesting of forest resources such as swiftlet nests. These projects have proved successful in overcoming community suspicion of conservation initiatives, building community support and ultimately contributing to the successful running of the LKWS (Ancrenaz et al 2007b, Lackman-Ancrenaz et al 2001).

While many of these initiatives have achieved a level of success in their own right, a major problem for conservation in the Lower Kinabatangan remains that there is a lack of coordination between different interests. In 1996 Payne identified a lack of formal and coordinated government policy strategy for the development of Lower Kinabatangan as the major impediment to conservation (Payne 1996). While some progress has been made since then, coordination between NGOs, government departments, the oil palm and tourist sectors and local communities still remains a significant problem and the key challenge for forest conservation policy going forward (Hai et al 2001). The range of challenges faced in the Lower Kinabatangan will be addressed in more detail in Chapter Eight.


## 4. Conclusion

The literature outlined in this Chapter reveals three key issues of relevance to the research questions of this Thesis. These issues raise further questions that will be addressed in the empirical analysis of the next three Chapters. The first of these issues relates to the long term continuities seen in forest and resource use institutions that spanned over a century from the beginnings of British colonisation to the 1990s. It was shown how resource use institutions led to patterns of unsustainable timber extraction and deforestation for agriculture. These patterns were supported by related trends involving the legitimation of private property institutions that supported the interests of powerful interests and the de-legitimisation of indigenous customary practices. These trends persisted through the transition from colonial rule to independence, being reproduced through a different political elite and different legitimising discourses.

The second part of the Chapter showed how these persisting institutional patterns have been challenged in recent years. These challenges have emerged from a variety of sources. The first of these can be seen in material terms. With the exhaustion of timber income, the mainstay of Sabah's economy up to the 1990s, the SFD has been forced to realign its policy relating to forest use. The second emerged from endogenous changes in normative attitudes to the environment as a result of the development of an environmental civil society in Malaysia. The third originated from international influences, with growing pressure from international environmental organisations and the institutions of global forest governance, which led to changes in Federal and State Government policy on forest issues. All of these challenges interrelate, and have created the antecedent conditions for new directions in forest policy.

The third relevant issue raised in this Chapter is the increasing interplay between higher level institutions and state level policy. In line with the general observations on environmental governance outlined in the last Chapter, Sabah has seen a transition from forest governance being largely a state level matter geared towards economic development to a more multilevel and multi-sector structure where forests are subject a range of competing uses. These involve the increasing influence of global ideas such as sustainable forest management, sustainability certification and PES. They also involve the increasing collaboration of international NGO and private sector organisations with state and local level actors. These connections have facilitated a transfer of normative attitudes to forests, a practical means of sustainably managing forests and the financial resources for implementing new policy approaches.

The empirical analysis in the next three Chapters will consider the following issues that were raised in this Chapter and then relate them to the research questions of this Thesis. First is whether there has been a break from past institutional legacies in resource use, or whether these legacies continue to constrain new policy directions aimed at sustainable forest use and forest conservation. Second is how the ideas, discourses and material influences originating from the global forest governance institutions that were introduced in the last Chapter have influenced the emergence of new approaches to forest policy in recent years. Thirdly, particular attention will be given to the role that individual policy entrepreneurs, many of which have been introduced in this Chapter, have played in facilitating the introduction of these new ideas.

**CHAPTER SEVEN: ANALYSIS PART ONE - ULU SEGAMA MALUA**

**Introduction**

This Chapter explores the process of formulating and implementing a forest restoration policy strategy in Ulu Segama Malua. The primary purpose of the Chapter in the context of the wider Thesis is to investigate how policy agents have utilised ideas and discourses deriving from international institutional contexts in order to initiate policy change in this particular example. The findings of this investigation will therefore subsequently be used to answer the empirical research questions, which will be addressed in Chapter Eleven. In relation to the analytical framework, the Chapter is principally concerned with the second stage, showing how actors have defined policy problems, taken action to address these problems and sought to persuade other actors to support the resulting policy initiatives. The broader state level implications of the policy initiative undertaken in Ulu Segama, which is the concern of stage three of the analytical framework, will be examined in greater detail in Chapter Nine. Throughout this section reference will be made to participant organisations that were introduced in Table 1 in Chapter Four. A map showing Ulu Segama Malua and the main project sites within it is illustrated in Figure 5 below.
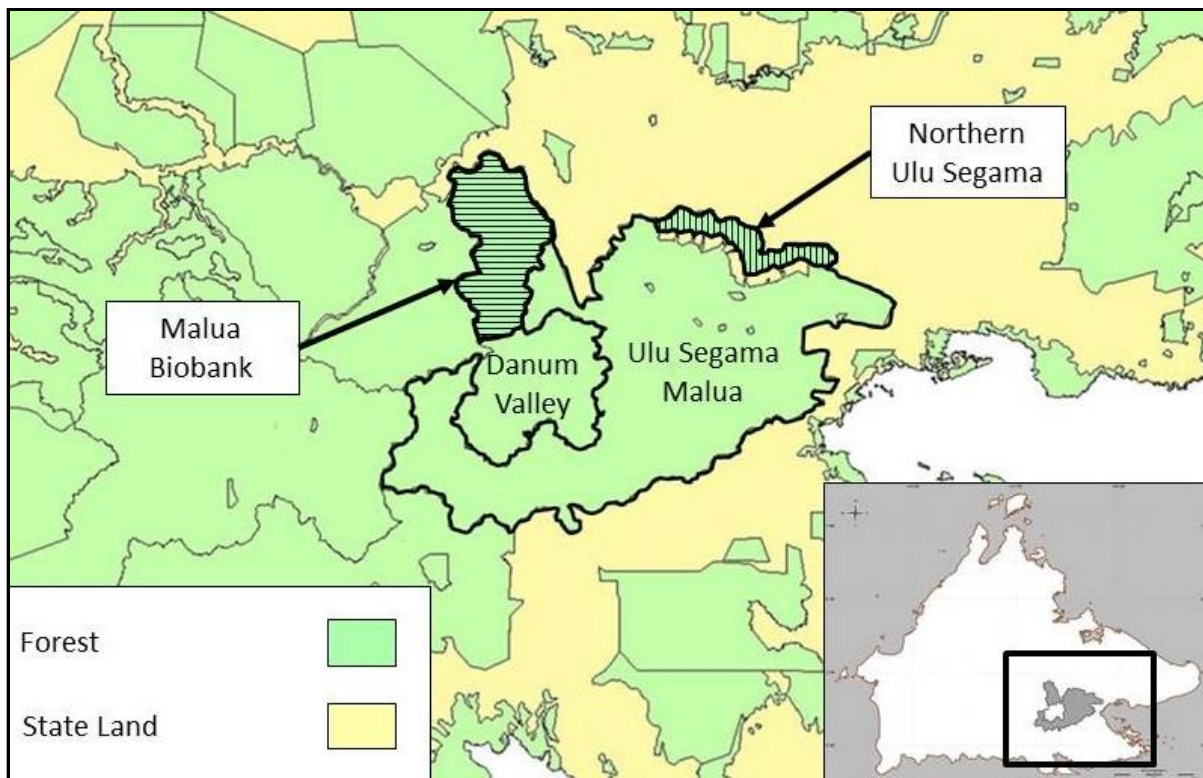


Figure 5: Ulu Segama Malua and Forest Restoration Projects

## 1. Problem Definition and the Foundations of Policy Action

The last Chapter outlined the problems that the SFD faced as a result of the "timber famine". This led to recognition in the SFD of the need to realign its policy strategy in order to justify its continued tenure over of over half the State's land area. In order to do this, it was observed that the SFD sought to emphasis its stewardship role through the adoption of international ideas and policy approaches such as SFM, FSC certification and PES. In the case of Ulu Segama Malua, this policy realignment became particularly critical owing to the particularly acute threat of conversion to either timber or oil palm plantation. This led the SFD to give particular emphasis to the protection of Ulu Segama Malua in order to ensure its retention within the Permanent Forest Estate, which led to the initiation of the USM-SFMP.

A representative of the SFD summarised his opinion of the main policy problems facing the SFD as follows

> "Institutionally Sabah is at a cross roads. The Forest Department is currently not making much money. The previous way of running forests cannot be sustained and there is need for either a radical change of policy or the forest estate will largely be lost. The main objective of the SFD is to maintain the forest estate intact until it can get over this timber famine". (Representative of SFD 1)

From a perspective outside the SFD, a representative of New Forests corroborated this problem in similar terms:

> "As Sam Mannan [the director of the SFD] sees it, they built up a big powerful government department that was making a lot of revenue on log sales, and when this collapsed the question was how to sustain a large department and justify that department holding 50% plus of the land area of Sabah when more land is needed for food and fuel, and given Sabah is one of the poorest states in Malaysia" (Representative of New Forests 1)

However another SFD representative highlighted a different perspective on the SFD's policy problems. He noted that the priority of the department is not just one of economic and political expediency, but that there is a genuine concern that the SFD should take its role as long term steward of the state's forest resources more seriously. This is summarised in the following statement:

"As long as the forest stays forest, no matter what it's like, we can always make amends. The important thing is don't change the designation of the land" (Representative of SFD 2)

As a response to these problems, the SFD has turned to the ideas and standards of SFM and FSC certification. These have become central to the department's organisational identify and recur repeatedly in SFD policy documents. This can be illustrated by the wording of the SFD's organisational vision and mission, which are stated as follows:

"Vision: Towards the realisation of sustainable forest management"

"Mission: To effectively and efficiently plan and implement the management of the State's forest resources in accordance with the principles of sustainable forest management" (SFD 2011: iv)

The key to the realisation of this vision is the replication of the model devised in the Deramakot Sustainable Forest Management Project, which was introduced in the previous Chapter. To illustrate the centrality of Deramakot, one of the SFD's core strategies is stated as:

"[To] extend the Deramakot forest management planning model to all the other commercial forest reserves in Sabah" (SFD 2011: iv).

The importance of the concept created at Deramakot is corroborated in a statement from the 2009 SFD annual report. In this document, Sam Mannan outlines a number of "Big Picture Goals", one of which reads:

"The sustainable forest management concept of Deramakot, the world's premier tropical rainforest under FSC certification, is to be multiplied throughout the forest reserve estate. Whatever modifications that need to be made on a site by site basis, vis-à-vis the "mother concept", shall not be at the expense of its raison d'etre" (SFD 2010: 9).

In addition to the importance of the Deramakot model, SFD documents also repeatedly cite the importance of FSC certification. Within the SFD's annual reports, SFM is often used interchangeably with the principles of FSC. As was noted in Chapter Five, these principles represent a more stringent interpretation of the meaning of SFM. Particular emphasis is given to principles relating to the multiple social, economic and ecological benefits of forests and their ecosystem services, sustainable production of timber and biodiversity conservation (FSC 1996).

The particular value to the SFD of adopting the FSC interpretation of SFM derives from its ability to establish credibility amongst a wide range of stakeholders and to lay the institutional foundations for realising the department's core policy objectives. In his introductory article to the 2010 SFD annual report, Sam Mannan highlighted the importance of these two attributes:

> "For any management area under its direct supervision, the SFD, as a matter of policy, has opted for the FSC brand, because it is accepted as the gold standard and opens markets without questions asked…It is a declaration of credibility, a believable management system of the standard chosen. With credibility comes reputation, a virtue that is not easily obtained but once lost is near impossible to regain".

> "As certification can translate into an institutional arrangement it follows that a certified forest means large stakeholder participation and the certified organisation actually reflects the wider interests of society and not merely its own self-interest" (SFD 2011: 9-10).

The central importance of FSC certification was also corroborated during visits to sites within Ulu Segama Malua, where FSC principles and guidelines were observed in prominent positions in SFD offices and on site employees demonstrated extensive knowledge of and commitment to these principles.

The value of FSC certification as a means of achieving credibility with international funding organisations was highlighted by representatives of several of these organisations. Representatives of YSD, New Forests, the EU mission and WWF Malaysia all highlighted the importance of FSC certification as important in these terms, also citing that commitment to FSC certification enhanced the attraction of Sabah in general and Ulu Segama Malua in particular as a destination for funding (Representatives of YSD, New Forests 1, EU delegation and WWF 1). However a representative of SEARRP added a note of cynicism about the way the SFD has adopted FSC principles:

> "There's a big move [in Sabah] towards certification. 10 years ago, when areas were still producing income, that would have been great, but now, when they aren't producing any income, it's relatively easy to certify forests if the management plan prescribes no logging for 20 years" (Representative of SEARRP).

These general features of the SFD's policy realignment are reflected in the origin of the USM-SFMP. Because of the reserve's exceptional biodiversity value, the biodiversity conservation aspects of SFM were also given particular emphasis. The management plan for the Malua section of Ulu Segama Malua summarises the origin of this project as follows:

"In 15 March 2006, the Sabah State Government grouped a number of contiguous reserves together to create the Ulu Segama –Malua Sustainable Forest Management Area with a total area of 241,098 ha. The motivation for the grouping was the desire to protect the globally significant biodiversity of the area and ensure that the resources and services provided by the forest would be available in perpetuity. The aim was to ensure that the entire area would be managed under, and certified against, Sustainable Forest Management Principles (SFD 2009b: 2).

Within the text of the USM-SFMP, the centrality of the Deramakot model and FSC certification are emphasised:

"[USM-SFMP] is an expansion program of sound forest management using Deramakot as the benchmark, which has been certified under the Forest Stewardship Council (FSC). It is envisaged that this area, when certified, will add value or premium to its timber resources, once the production area becomes productive in 30 to 40 years" (SFD 2009a: 2).

Following this, the overarching goal of the USM-SFMP is outlined in the following terms:

"Implement activities towards conservation, protection, management and utilisation of forest resources, while ensuring that the productive capacity of the forests for both goods and services is maintained or enhanced" (SFD 2009a: 1).

These activities are then expressed in terms of flora and fauna resources, areas of high conservation value, water resources, limited sustainable timber production, recreation resources, scientific research and PES revenue through the sale of biodiversity and carbon credits (SFD 2009a). In practice, biodiversity protection has received the greatest attention. The practical emphasis of the USM-SFMP has therefore been on restoring degraded habitat for biodiversity, promoting scientific research that informs forest restoration and securing funding from external organisations in order to finance the project. In order to achieve these goals, the SFD first needed to secure a broad partnership base from organisations that could provide capacity and resources in areas it lacked.

**2. Establishing Partnerships with Environmental Organisations**

*2.1 The SFD's policy approach to multi-sector partnerships*

In order to generate wider support for its new policy approach in Ulu Segama Malua, the SFD sought to develop collaborative relationships with a number of NGOs. This is consistent with its general policy approach, which consistently highlights the importance of multi-sector partnership in mobilising the resources and skills of organisations across a range of sectors. The following quote from Sam Mannan in his "Big Picture Goals" from the SFD's 2009 annual report summarises this position:

> "As the department does not have a monopoly over good ideas, talents, skills and resources, it will continue to expand its friendship network with NGOs, corporates, environmental philanthropists, government, research organisations etc. to improve on the governance of the State's forest resources" (SFD 2010: 11)

This is reiterated in an article for the SFD's 2010 annual report:

> " [In 2010] the Sabah Forestry Department strengthened its collaboration with its partners – the Sustainable Forest Management License Agreement holders and expanded its range of partners in a bid to further its actions in good synergy with NGOs and local communities in fostering sustainable forest management and to shape the future of the forestry sector in the State" (SFD 2011: 201).

These goals are corroborated in four of the SFD's core strategies, which highlight the importance of multi-sector partnerships:

> "Strategy 10 – The SFD has to foster close cooperation with relevant local and national government agencies in order that all the State's forest development plans can be carried out effectively".

> "Strategy 11 – Promote the participation of the private sector in the implementation of sustainable forest management"

> "Strategy 14 – Enhance the credibility of the Department's programmes and activities through the participation of NGOs. Encourage the participation of NGOs in the implementation of sustainable forest management through consultancies and committees".

"Strategy 15 – Continue efforts towards sustainable forest management by seeking technical advice and guidance for relevant international agencies. Identify future cooperation in line with the department's goals and objectives. Seek financial assistance from foreign sources for forestry research and development" (SFD 2011: 2-3).

The importance of multi-sector partnerships is carried through in the USM-SFMP, which highlights the importance of collaboration in forest restoration:

"Forest rehabilitation is seen as a very costly exercise where the return is not foreseeable in the near future or "a long time coming". However, with strong political commitment and support from the State Government of Sabah, participation and support from both local and international NGOs and other interested private agencies, and the availability of local experts and their capacity, we are confident of managing and nursing the USM-SFMP area back to health" (SFD 2009a: 24).

### 2.2 Partnerships with environmental organisations in Ulu Segama Malua

The first stage of developing multi-sector partnerships involved the SFD developing collaborative relationships with environmental NGOs and scientific organisations that are based in Sabah (referred to henceforth as environmental organisations). In order to do this, the department has had to develop means of establishing common objectives with these organisations through emphasising biodiversity conservation goals in its policy approach. Environmental organisations within Sabah primarily view policy goals in terms of biodiversity conservation. Therefore the focus of the USM-SFMP on biodiversity has been crucial in establishing these common objectives.

From the perspective of environmental organisations, there is a view that sees the "timber famine" as an opportunity to shift the direction of forest policy to one that accords more closely with their objectives. The change in forest policy direction therefore made collaboration with the SFD attractive to these organisations. This view is illustrated in the following quote by the representative of SEARRP:

"We need to hold the line for the next twenty years while we've still got a forest resource to work with and a substantial enough area of contiguous forest still left intact…You would hope by then there would be a more enlightened view about the value of forests and ecosystem services, and hopefully the need for big forest income will be off the table" (Representative of SEARRP).

This view was corroborated by the representative of LEAP:

> "Sabah is going to have this timber famine in the next 20 years because there's not going to be any timber revenue. The question is how are we going to take this window and in that time shift things to a conservation based economy" (Representative of LEAP).

In the process of engaging the SFD, representatives of NGOs and scientific organisations have tended to accept that the motivation of the SFD is more than solely one of economic and political expediency. There is an understanding that while economic pragmatism has a large part to play in the department's policy shift, there is also some substance behind the department's new policy direction. This is illustrated in a quote from a representative of HUTAN:

> "It was quite difficult for them [the SFD] to change their practices, but they have a good director, Sam Mannan, and they realised their future lies in a new approach. So they go for certification and carbon and this and that. The old policy is not relevant because there is no timber anymore" (Representative of HUTAN).

A representative of SEARRP expressed a slightly more sceptical interpretation of this view of the SFD's new policy approach:

> "While their [the SFD] movements towards conservation are concrete and encouraging, they are to some extent expedient because the forests have been thoroughly logged over and there's very little left to cut" (Representative of SEARRP).

Since the early 2000s, a network of partnerships between environmental organisations and the SFD has developed. These partnerships have been based on the delineation of clear spheres of complementary attributes and expertise. The following quote from a representative of LEAP summarises the nature of these partnerships:

> "The attitude of Sam Mannan and the Forestry Department is you guys [NGOs] go and figure it out, what it's going to be, how much is it going to cost, who our potential partners can be and we will push it through politically" (Representative of LEAP).

Thus the role of the SFD is conceived in terms of its ability to coordinate policy strategy and use its influence in the State Government apparatus to get this strategy approved at the highest level of decision making. A representative of the SFD describes this process as one of "drip feed sensitisation", where the role of the department is to allow the State cabinet to slowly become "acclimatised" to new policy approaches (Representative of SFD 1). Representatives of BORA and

WWF both highlighted the successful strategic role that Sam Mannan has played in this political process. They highlight the importance of sufficiently talented and committed leadership in translating ideas into practically and politically feasible policy (Representatives of BORA and WWF 1).

In contrast, the role of NGOs can be seen in terms of moral legitimacy and credibility, capacity building and a role as bridging agents to international funding networks. In the case of the first attribute, SFD strategy 14 (see above) explicitly states that a principle motivation of the department in partnering NGOs is to take advantage of their credibility in presenting their policy approach to a wider international audience. A representative of BORA supported this point, observing that NGOs, particularly large ones such as WWF, have a crucial role in legitimising the SFD's forest conservation policy strategies at an international level (Representative of BORA). Further, a representative of the SFD has highlighted that this legitimising role provides a bulwark against threats of deforestation in the event of unforeseen economic or political crises that might threaten forest conservation in the future (Representative of SFD 1).

From a more practical perspective, a representative of LEAP summarised another important role of NGOs:

> "We see a lot of great ideas coming through but they fall through the cracks because there's no money, no capacity, so what we do is fill the gaps…be the ones to bring people together and keep pushing things through" (Representative of LEAP)

A representative of the WWF corroborated this observation, stating that NGOs have an important role not just in filling the gaps that government agencies cannot fill, but actively identifying those gaps in the first place (Representative of WWF 1). Representatives of BORA and New Forests observed that these gaps usually manifest themselves in terms of lack of capacity and expertise (Representatives of BORA and New Forests 1). A representative of HUTAN expanded on this point:

> "The problem in Sabah is that where biodiversity is concerned there are very few people with the skills to do work comprehensively enough…We work a lot with the Forestry Department. It is mostly capacity building. We train their guys to do things like wildlife assessment. We are part of their teams who are developing forest management plans like wildlife protocols" (Representative of HUTAN).

The other areas where NGOs are particularly active is providing a bridging function to outside interests and facilitating funding. In the context of Ulu Segama Malua, both LEAP and WWF have been particularly instrumental in this process. A representative of WWF illustrated this point:

"In a lot of ways we are looking at how we can provide a link to the public, with the private sector, in how we can help restore the forest…we have a few grants. We facilitate money coming in from outside to plant trees in Ulu Segama" (Representative of WWF 1).

This bridging function has been crucial to drawing the support of international funders who are able to provide the financial resources for conservation that are lacking in Sabah and thus facilitate the translation of ideas and strategies into concrete policy outcomes. This function is illustrated particularly in the case of the forest restorations projects that have taken place in the area of Northern Ulu Segama.

## 3. Northern Ulu Segama

### 3.1 Specific policy problems in Northern Ulu Segama

Having defined the policy problems of Ulu Segama Malua and established partnerships, the SFD and environmental organisations were in a position to attract the wider support of international funding agencies in order to implement forest restoration initiatives. This process can be illustrated in the case of Northern Ulu Segama (see Figure 5 for location).  In the previous Chapter, it was observed that this area had experienced the most severe forest degradation and declines in biodiversity in Ulu Segama Malua, particularly its population of orang-utans. These problems were compounded by several additional problems. Firstly, Northern Ulu Segama had suffered from extensive forest fires in addition to heavy logging in the early to mid-2000s. Secondly, because the area is cut off from the contiguous area of Ulu Segama Malua by the Segama River to the south, it has suffered from the effects of forest fragmentation. As a result of deforestation due to the expansion to oil palm plantations to the north, much of the wildlife had been displaced into Northern Ulu Segama. Because of fragmentation, this wildlife was unable to spread into the wider area of Ulu Segama Malua. This has led to the over-concentration of many species into the area, which following logging and forest fires, is unable to support such high population densities (Ancrenaz et al 2007a, Ancrenaz et al 2010).

In addition to ecological problems, several interviewees noted that because of its isolation from the rest of Ulu Segama Malua, its relatively fertile soil and its accessibility to transport infrastructure, Northern Ulu Segama was particularly vulnerable to being converted to oil palm. The representative of SEARRP commented that because of adverse publicity generated from the failed attempt to convert much of Ulu Segama Malua to timber plantation in the early 2000s (see Chapter Six), it was

unlikely that the State Government would risk wholesale declassification of large areas of the Permanent Forest Estate. But what was of greater concern was what a representative of SEARRP referred to as a "cheese-paring exercise" of piecemeal conversion (Representative of SEARRP). It was noted by several interviewees that Northern Ulu Segama would be the most likely first candidate for such piecemeal conversion, which could in turn set a precedent for further conversion (Representatives of HUTAN, YSD and WWF 1). Northern Ulu Segama thus assumed a key strategic position in defending Ulu Segama Malua from conversion to oil palm.

The basis for the strategy employed in Northern Ulu Segama was to build scientific arguments to justify its protection on the grounds of its high conservation value. In this, the threat to its orang-utan population was given particular emphasis. This argument was then used to attract international funders to finance forest restoration project.

*3.2 Conservation science in Sabah and the attraction of orang-utans*

Conservation in Sabah in general originated from a strong emphasis on scientific research. This research has underpinned much of the conservation work that has subsequently been implemented in recent years. The representative of HUTAN described the reason for this early emphasis on science in political terms. He stated that when foreign NGOs began to gain access to Sabah in the late 1990s, scientific research was perceived as non-political and therefore less threatening to State interest. He commented that:

> "When we started [in the late 1990s], Malaysia was still very tight, very closed to foreigners, so we knew the best approach was to say we are going to do a scientific study on orang-utans [rather than engage in active conservation]" (Representative of HUTAN).

The representative of SEARRP made a parallel observation on the same issue:

> "One of the reasons we've been able to work so well in Sabah is that we're viewed as being completely independent and non-political, and viewing these questions [about conservation] from a purely scientific stand point rather than a campaigning angle" (Representative of SEARRP).

He went on to outline the particular features of Sabah that have been conducive to conducting scientific research:

"You get a lot of bang for your buck doing research in Sabah in as much as it's a very stable environment to work from, research science is secure and we've got excellent long term collaborative links here in Sabah".

He also commented on the results of this favourable environment for establishing a particularly strong base of scientific knowledge:

"There is such a strong science base, there are so many technically qualified people involved in conservation and sustainable forest management in Sabah. Possibly pound for pound it's got more technical and science background than anywhere in the tropics with the possible exception of Costa Rica. (Representative of SEARRP)"

A representative of the SFD highlighted the critical importance of this strong science base in establishing the credibility of a conservation led policy direction, both to State Government policy makers and to a wider international audience (Representative of SFD 1). Representatives of YSD and the WLT, two international funding organisations that have become active in Sabah in recent years, corroborated this observation, stating that strong scientific research was crucial to their decisions to fund conservation projects in the State (Representatives of YSD and WLT 1).

An area where scientific research has been particularly important in securing international funding and State Government support is the study of orang-utans. This has been particularly important in the case of the forest restoration projects taking place in Northern Ulu Segama. According to the SFD 2010 annual report:

"The main objective of forest restoration [in Northern Ulu Segama] is to rehabilitate and protect critical wildlife habitat, especially for orang-utans, which are trapped in degraded forest" (SFD 2011: 256).

A recurrent theme of interviews was the importance of orang-utans in promoting conservation policy. Representatives of the SWD, DGFC, WWF Malaysia and BORA identified the importance of orang-utans in terms of their tangible and emotive appeal in publicity, fund raising and generating political pressure for the wider objectives of conservation (Representatives of SWD, DGFC, WWF 1 and BORA). Representatives of external funders who became involved in the initiative in Northern Ulu Segama also highlighted the particular attraction of orang-utan conservation. The representative of YSD stated that because their project focus is on key charismatic species and because there was an identifiable critical need to protect orang-utans, Northern Ulu Segama was ideal for matching YSD's project selection criteria (Representative of YSD). A representative of the WWF Malaysia

stated how orang-utans were important in attracting funding from both the public in developed countries and from corporate sponsors. Moreover, she observed that orang-utans were far easier to "sell" than more abstract conservation projects such as PES (Representative of WWF 1).

Scientific research on orang-utans thus became the core argument to justify the conservation of Northern Ulu Segama. Of greatest importance in this respect were the two reports that highlighted the decline in orang-utan populations in the area that were undertaken by HUTAN, which were introduced in the previous Chapter (Ancrenaz et al 2007, Ancrenaz et al 2010).

*3.3 Forest restoration policy implementation in Northern Ulu Segama*

The example of Northern Ulu Segama illustrates the practical outcome of the resulting partnerships between the SFD, environmental organisations and international funders. This project was coordinated by the SFD, was based on the scientific research of HUTAN and the previous forest restoration experience built in other project in Sabah, and was funded by corporate and philanthropic donors brought in through contacts made by NGOs. Forest restoration in Northern Ulu Segama was implemented through three sub-projects involving international donor funding. The aim was ultimately to restore all the forests across the whole of Northern Ulu Segama.

The first stage of this process involved finding a pilot project on which to base subsequent larger scale initiatives. The SFD 2010 annual report describes the form of this pilot:

> "In 2007 the Siviculture Section was assigned to carry out forest restoration in the Mersuli Forest Reserve near Lahad Datu. About 420 ha (or 70%) of the reserve was encroached and illegally cultivated with agricultural crops. As part of the restoration plan, 320 ha of oil palm were destroyed and 4.6 km of forest roads were repaired to allow access for restoration activities. A nursery was also set up to support planting efforts. In 2010, 115 ha were planted up, bringing the total planted area as at December 2010 to 324 ha. Funding was provided by Arcus, a US foundation who were introduced by the NGO LEAP, as well as the Federal Government under the 9th Malaysia Plan" (SFD 2011: 30).

This pilot project demonstrates the value of NGOs acting as bridging agents and the orang-utan led focus of the project. A representative of LEAP recounted how it was able to use its extensive international contact network in order to attract the American Arcus Foundation. In addition, as a result of Arcus' financial commitment, LEAP and the SFD were also able to secure matching funds from the Federal Government. The value of the emphasis on orang-utans lay in the fact that the Arcus Foundation only fund great ape conservation projects. As a result, the critical situation of

orang-utans in Northern Ulu Segama matched closely with their funding criteria (Representative of LEAP).

With funding secured for a pilot that could demonstrate a tangible commitment to forest restoration in Northern Ulu Segama, the SFD and environmental organisations were in a better position to seek more substantial funds. The next project was based on funding from YSD. The 2012 YSD annual report summarises this project:

> "The agreement for the project was signed between the State Government of Sabah and Sime Darby Plantation in 2008 with the objective of restoring degraded forests within Ulu Segama for the protection of orang-utan habitats. The project aims to enhance biodiversity conservation and restore flora and fauna in the area, with the ultimate aim of recreating the habitat for the orang-utan and other wildlife at large….The project involves reforestation and rehabilitation in an area covering 5,400 hectares of deforested land with efforts being stepped up to achieve the objective in 2018" (YSD 2012: 27).

This project involved a substantial financial commitment in the amount of RM 25m (c. £5m) over a ten year period. YSD's core aim in funding conservation is to support projects linked to nine key charismatic species found in Malaysia, of which the orang-utan is one. A representative of YSD cited the main funding criteria as an identifiable critical need relating to one of these key species, a clear basis for the project in science and well defined goals and outputs (Representative of YSD). She stated the principle attractions of Sabah as follows:

> "Sabah has the highest biodiversity [in Malaysia], and it's open, not like Sarawak where they have a very closed government. Because Sabah is asking for assistance, we see a critical need there, they are open and so we go in there" (Representative of YSD).

She also cited the importance of the strong commitment of the SFD to the project:

> "Only with government backing will these projects see sustainability if you ask me, because government departments are there forever. NGOs come, but they might not be there forever" (Representative of YSD).

The third project in Northern Ulu Segama was initiated and coordinated by WWF Malaysia. The aim of this project was for WWF Malaysia to take the lead role as project manager in restoring 2,400 ha of forest. They entered into a formal partnership with the Sabah Government in conjunction with the SFD and were able to use their extensive international network and global profile to attract a

number of international donors. Initial funding was provided through sister WWF organisations in the Netherlands, Germany and U.K. Subsequently, WWF Malaysia has focused on raising funds from international corporations. A representative of WWF Malaysia commented on their role as bridging agents to potential funders:

> "[Most of our financing in Sabah] still comes from CSR [Corporate Social Responsibility] approaches with much of it coming from Japan, and all channelled to restore the forest and help monitor species on the ground. Finding money for reforestation is still easy, relatively. It's sellable" (Representative of WWF 1).

The main sponsor to date is the Japanese company ITOCHU. ITOCHU's website summarises their role as follows:

> "In North Ulu Segama…ITOCHU supports an area for rainforest regeneration. WWF, an international conservation organization, is collaborating with the Sabah Forestry Department, to carry out reforestation of an area of approximately 2,400 hectares. Within the area, the ITOCHU Group is supporting the regeneration of 967 hectares. This is the largest area of responsibility for a restoration project undertaken by any private company [within the WWF Malaysia project area]. Planting of 690 hectares had been completed as of the end of November 2012, and reforestation of all the 967 hectares is scheduled to be completed by the end of 2015. After that, on-site maintenance work will continue through 2017". (ITOCHU 2011)

Following from this, in 2011 WWF Malaysia announced a further partnership with another Japanese company, AEON. This commitment is intended to contribute to the restoration of 80 ha of degraded forest.

The combination of these three projects and other work being independently funded by the SFD and Yayasan Sabah means that all of Northern Ulu Segama is either in the process of restoration or has funding secured for restoration in future. However, implementation to date has not been straightforward and faces a number of ongoing challenges. Several of these were observed on a site visit to the SFD field station in Northern Ulu Segama. In this visit the forests showed signs of severe damage. There were no areas of closed canopy forest and large areas that were completely open and free of trees. Given the extent of the damage, an on-site representative of the SFD stated that the process of forest restoration had been slower than expected. Some of this was owing to the difficulties of adapting existing knowledge taken from the Deramakot and FACE projects on forest

restoration to the different soil types and the presence of different pioneer species. This was compounded by difficulties created by drought in early 2010. In addition, it was stated that the project had difficulties in finding the right contractors to do the job, though this situation was improving (Representative of SFD 3).

One aspect of note about the Northern Ulu Segama initiative that was highlighted during this visit was the involvement of local communities as contractors for part of the YSD project. In this respect 2010 SFD annual report states that:

> "The SFD is looking to facilitate the potential involvement of the communities in the [Northern Ulu Segama] project and create awareness so that they can support the activities of sustainable forest management…[to this end] the SFD has employed 15 youths from the villages [on the Segama River] for the restoration project at Northern Ulu Segama". (SFD 2011: 254)

The on-site representative of the SFD commented that he was very pleased with the involvement of communities in forest restoration on the Yayasan Sime Darby Project, whose work compared favourably to the difficulties he faced with private contractors. He observed that they were far quicker and more efficient than these private contractors who used immigrant labour. He felt these immigrant workers had less motivation than community workers owing to a lack of any sense of ownership or identification with the forest. He further commented that he wished there were more communities on the borders of the reserve who he could employ. These observations have relevance to the wider role of local communities in forest conservation and restoration, which will be explored in more detail in the next Chapter.

## 4. The Malua Biobank

### 4.1 The origin of the Malua Biobank

The example of Northern Ulu Segama represents a traditional donation led approach to conservation funding. The example of the Malua section of Ulu Segama Malua also demonstrates how the partnership of the SFD and environmental organisations sought to implement a forest restoration strategy by attracting the support of international funding agencies. However in form the initiative undertaken in Malua represents a more innovative and unproven approach to forest conservation (see location of Malua Biobank in Figure 5).

As was noted in the previous Chapter, Malua is based on a biobank model and is the first project of its kind implemented anywhere in the developing world. The Malua Forest Reserve Conservation Management Plan summarises the rationale behind this project:

> "Malua Forest Reserve will be protected and rehabilitated, initially for 6 years and subject to be continued for at least a further 44 years. The State Government of Sabah has licensed conservation rights of any eco-products such as biodiversity conservation certificates and carbon credits to the MWCHB [Malua Wildlife Conservation Habitat Bank] for a period of 50 years. However, the land use rights are still held by the Yayasan Sabah, as the concessionaire of the area. The private investor of MWHCB has committed up to US$10 million for the rehabilitation of the Malua Forest Reserve for 6 years".

> "The structure of the ecosystem service payments is based on biodiversity banks or conservation banks implemented in the United States and Australia. The basic concept is for compensatory credits [where] habitat impacts that cannot be avoided must be offset by an equal amount of restoration and protection in an area of similar ecological value" (SFD 2009b: 3).

In line with the general goals of the USM-SFMP, the Malua Biobank is built around the principles of SFM and the FSC, has strong scientific foundations that emphasise critical conservation needs and involves broad based partnerships led and coordinated by the SFD. A representative of New Forests highlighted the importance of these features in describing the motivation of New Forests to become involved with Malua:

> "The three things Malua had going for it were, one, it's an area of outstanding biodiversity and two, where there was a need to finance the protection and rehabilitation of the area. Then finally there was an enabling environment to support a conservation finance initiative with projects like FACE and Deramakot and FSC certification which created a kind of benign governance situation which is very open to conservation" (Representative of New Forests 1).

He further stated that the fundamental objective of the Malua Biobank was to provide substantial, long term and sustainable funding for forest conservation.

LEAP was instrumental in bringing New Forests and the SFD together to initiate the project. A representative of LEAP described the project's origin:

"At that time [2006] there was a lot of public pressure and campaigning for the Forestry Department to announce they were going to stop logging [in Ulu Segama Malua]. This led to a situation where we thought, shoot, we've got 240,000 ha to conserve and we've got no money and how are we going to get the finance to protect it? So a member of LEAP meets David Brands [CEO of New Forests] in New York and they came up with this Biobank idea. So we tell Sam Mannan about this and he says "this is brilliant but you have to make it make financial sense to Sabah"....It turned out that Malua was the perfect choice and Sam was, like, great idea. Within months New Forests and the State of Sabah had signed a MOU [memorandum of understanding] for a fifty year period" (Representative of LEAP).

A representative of BORA added that in common with the Northern Ulu Segama project, the Malua Biobank relied on the attraction of its orang-utan population and the expertise and input of environmental organisations in order to establish the credibility of the project (Representative of BORA). A representative of New Forests supported the latter point, stating that the Malua Biobank benefits from the input of the environmental sector through the project advisory committee. This committee is coordinated by LEAP and includes representatives from HUTAN, BORA, WWF Malaysia and SEARRP as well as the SFD, Yayasan Sabah and the SWD (Representative of New Forests 2).

*4.2 Implementation problems and the idea of biodiversity offsets as a solution*

In spite of the establishment of strong organisational and scientific foundations, and broad based participation from a wide range of organisations, the Malua Biobank as a financing mechanism has largely failed to meet expectations. This may have resulted from these expectations being too high, or may be a result of the project needing more time to embed. However the lack of revenue from Malua Biobank has fostered a negative attitude about the project in particular, and PES in general, amongst many policy actors, as will be shown below and expanded on in Chapter Nine.

From its inception the Malua Conservation Management Plan states that:

"After about one year of MWHCB implementation, the project achievements are still in the initial stage and progressing. The global economic downturn has obviously influenced the sales of [biodiversity credits] with some of the local potential buyers deciding to keep in view for purchasing the certificates" (SFD 2009b: 10).

For 2011 this situation remained largely the same:

"The sale of the certificates was still running slow and generated minimal income in 2011. As of to date, about 21,940 units had been sold which generated a total income of $US 218,265" (SFD 2012: 280).

A representative of New Forest attributed this apparent failure in the following terms:

"The investment was made in 2007, at a time when global markets were very buoyant, so institutional investors were looking to diversify into racy new areas where they could say they were helping save the planet at the same time. An investment like this wouldn't happen today".

However he mitigated this statement with the following observation:

"Malua is very much an unproven model and since launch we have had some modest sales, and promises of some really substantial sales. We have managed this with little serious marketing effort…Malua is definitely not a loss leader. We are looking at a long time frame. We have six years [from 2008] to prove ourselves" (Representative of New Forests 1).

The consequences of slow sales of credits has impacted on the extent that the management plan can be implement, as another representative of New Forests observed:

"There's been $10m committed to the project in the first 10 years from the investor [a US pension fund]. We've spent $1m so far…but because there hasn't been the sales the investor doesn't want so much money going out, because obviously it increases their risk. So we've just been maintaining general operations in the field. But that means we've still got a wildlife team who are doing some basic research, and we've got our enforcement team, so from a conservation perspective things are going well because we've got the staff and the resources we need…but no we haven't started any restoration work" (Representative of New Forests 2).

However, while New Forests have put the lacklustre sales down to global economic problems, other observers have taken a more critical view of the underlying structure of the project. An observation by a representative of WWF Malaysia is illustrative of such a view point:

"Take the Malua Biobank. They've got the project in place, they've got the biocredits, but nobody's buying them. There's no process to support it, there's no policy, there's no law and there is no awareness built in of what biodiversity credits can do, how they can serve you, how they can help you…The way New Forests talk about it sounds very good but it's kind of

not like reality. What do all these businesses get out of it? That's what I can't work out" (Representative of WWF 1).

Recent developments in the project have sought to amend these shortcomings. The SFD, New Forests and LEAP have moved towards the idea of establishing a more formalised biodiversity compensation mechanism in partnership with the State Government and the palm oil industry. Much like the original concept of the Malua Biobank and the pilot for the Northern Ulu Segama Project, LEAP were instrumental in introducing the idea. A representative of LEAP outlined the way that the idea of 'biodiversity offsets' was brought to the attention of policy makers:

"I started lobbying with the forestry department, then I got a meeting with the minister of tourism and I said, "hey, here's this concept" and he said "workshop it". I got his endorsement then I talked to the wildlife department, the environmental protection department, everyone, and they all said "great idea". So I got everyone together, and BBOP came over with an Aussie politician who could speak the sort of language that government people here could understand and get on board with" (Representative of LEAP).

This idea has been gathering momentum in recent years. In an interview, a representative of the SFD stated that a 'No Net Loss' policy was now regarded as a key conservation priority of the department (Representative of SFD 1). SFD, New Forests and LEAP have been working with the Business Biodiversity Offsets Programme (BBOP), which is an international accreditation association run on similar lines to the FSC, in order to implement a more formalised biodiversity offset programme for Sabah. BBOP defines biodiversity offsets as follows:

"A biodiversity offset is a way to demonstrate that a project can be implemented in a manner that results in no net loss or a net gain of biodiversity.  BBOP defines biodiversity offsets as measurable conservation outcomes of actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity" (http://bbop.forest-trends.org/pages/ biodiversity_ offsets).

For Sabah this would mean that palm oil companies would buy biocredits from the Malua Biobank in order to offset and compensate for actions that result in loss of biodiversity elsewhere in the State.

Two potential routes to implementing a biodiversity offset programme have been identified, involving either a compulsory state regulated framework or a voluntary mechanism under the banner of RSPO. Various interviewees voiced differing opinions about the relative merits of either route. One representative of New Forests stated a preference for the RSPO route:

"The RSPO would be a particularly good partner for Malua. Getting a legislative framework would be more of a long shot" (Representative of New Forests 1).

However another representative of New Forests offered a contrary perspective:

"I don't know if it's going to be voluntary or regulatory, but I don't think it will work if it's voluntary, not in this environment. The social responsibility side isn't there unless it's the bigger companies like Sime Darby…BBOP were looking at a pilot project but there's not the funds there for the project so it's really not going anywhere. It would take a company to commit voluntarily and I think that's a bit of a long shot (Representative of New Forests 2).

Adding to this debate, a representative of the RSPO noted that linking the palm oil industry to Malua through a no net loss programme would face considerable technical difficulties owing to the problems of establishing truly comparable off-sets in tropical forests. This could prove a serious barrier to such a plan. He stated that New Forests and the SFD should not put too much hope in the RSPO for funding and implementing forest restoration (Representative of RSPO).

Representatives of both LEAP and the SFD have expressed cautious optimism for a regulatory mechanism, which would accord with the opinion about the need for underpinning legislation that was stated by the representative of WWF Malaysia (Representatives of LEAP and SFD 1). Further, the representative of SEARRP also supported the principle behind such a mechanism:

"There is much more mileage in taxing the oil palm industry that waiting for international agreements to produce large amounts of cash. In a sense some internal compensation mechanism has much more potential" (Representative of SEARRP).

The debate over biodiversity offsets remains on going. However a two year memorandum of understanding has now been signed between BBOP and the SFD in order to investigate the possibilities of such a mechanism further. Further support for this initiative is being offered though a large scale UNDP/GEF project that at the time of research was in initial planning stages (see Chapter Nine for further details) (GEF-UNDP 2013).

*4.3 Implementation of Malua Biobank at a local level*

The Malua Biobank has also sought to investigate collaboration with oil palm companies from a more localised perspective. This aspect of the project involved establishing dialogue with communities living within palm oil estates on the edge of Malua and thus improving wildlife protection in the reserve. To this end, the steering committee of the Malua Biobank commissioned a report from an environmental consultant specialising in studies on the social and economic aspects of conservation. This consultant summed up the problems she found in the following terms:

> "A real problem is [hunting by] communities in the oil palm estates. They're all immigrants. If you want to engage these communities you have to establish ownership, but how do you do that with immigrants where all they want to do is get money then go back home. You look at the forest estate, and how much is next to oil palm and you get a sense of the problem. All these oil palm communities and none of them are on the map. And all these communities, they are hunting. They're affecting conservation and no one knows about them" (Environmental Consultant).

Following from the recommendations of the report produced by this consultant, New Forests and the SFD made the decision to attempt to form collaborative partnerships with neighbouring palm oil plantations in order to overcome these problems. A representative of New Forests commented on the results of earlier dialogue with plantation owners and managers:

> "We now have a wildlife conservation agreement which is hopefully going to be signed by the plantations, and the SFD and SWD, to establish how we deal with [boundary incursions or poaching from plantation workers] and improve security and some education, or an honorary wildlife warden programme" (Representative of New Forests 2).

In November 2012, this agreement was formalised. The newspaper "The Malaysia Insider" reported this agreement as follow:

> "Four palm oil companies today made a pact to protect the Malua wildlife in Sabah. IOI Corporation Bhd, TH Group, Kwantas Corporation Bhd and the Selangor Agriculture Development Corporation have partnered Malua Biobank, a project managed by New Forests Asia that covers 34,000 hectares of lowland rainforest. The four companies with Malua Biobank and the State Government will be pioneering a new approach to protect the wildlife from illegal hunting in Sabah which remains a significant threat in the state" (Malaysia Insider 2012).

A site visit to Malua gave a different perspective on the operational side of the Malua Biobank (see photos in Appendix One). It was observed that the SFD operation for the project was relatively well organised in terms of wildlife protection and monitoring. On-site SFD employees were knowledgeable about the wildlife of the reserve and regular and detailed records of wildlife populations were kept. In addition, there were regular poaching patrols around the boundaries of the reserve. It was commented by staff that poaching did occur, and traps had been uncovered and destroyed, though these occurrences were relatively infrequent and mostly targeted more common species such as bearded pigs or sambar deer. No record of poaching of endangered species had been recorded in Malua, though it was noted that some elephants had been killed close to oil palm plantations elsewhere in Ulu Segama Malua, probably in response to these animals coming into plantations and destroying crops. A further problem observed in Malua was the state of the transport infrastructure, particularly bridges, which made access to many areas difficult. SFD staff commented that this compromised their activities. This provided evidence of the lack of funds available to the project as a result of poor biocredit sales. The forest in Malua showed obvious signs of damage caused by logging, though not to the extent observed in Northern Ulu Segama. Sighting and signs of a variety of wildlife were frequent, including several endangered species such as orang-utan, elephant, banteng and gibbon. The visit demonstrated that the levels of biodiversity in Malua provide the basis for ecosystem recovery if and when active forest restoration begins. It also demonstrated that the organisational basis exists in the reserve to extend the project into the restoration phase. However its key weakness, as demonstrated above, remains the provision of sufficient funding.

## 5. Conclusion

In relation to the primary purpose of this Chapter, as outlined in the introduction, the empirical example of Ulu Segama Malua demonstrates the influence of international institutions in two ways. Firstly, it shows how the SFD has adopted SFM and FSC certification in order to provide a framework for addressing specific policy problems and re-orientating its organisational aims and values. In the case of the Malua Biobank it also shows how the SFD and environmental organisations in partnership have adopted ideas associated with PES. Secondly, it shows how this partnership of the SFD and environmental organisations has then mobilised the resources of international funding agencies in both Northern Ulu Segama and Malua in order to implement forest restoration initiatives.

In relation to the second stage of the analytical framework, this empirical example has demonstrated the operation and interaction of the three aspects of policy frames as outlined in Chapter Four. The SFD and environmental organisations both defined policy problems differently. The formulation of the USM-SFMP became a means by which the different motivations and values of these two groups could be combined towards common objectives. This process of forming common policy problems subsequently shaped the policy action that was taken to solve these problems. This policy action manifested itself in forest restoration projects that fulfilled the objectives of both the SFD, by fitting with its organisational values and forwarding it political objectives, and the environmental organisations, by protecting the area's biodiversity. In order to fund these projects it became necessary to redefine the policy problems of Ulu Segama Malua in terms that would communicate to and persuade international funding agencies. This redefinition required presenting Ulu Segama Malua in more generally understandable terms that utilised the emotive appeal of orang-utans. This subsequently led to the generally successful implementation of forest restoration projects in Northern Ulu Segama. But a lack of funding from the Malua Biobank meant that less instrumental progress had been made in Malua. This lack of funds from sales of biocredits raised a further policy problem and potential solution of engaging with the palm oil industry in a biodiversity offset scheme. At the time of research this issue remained on-going, and represents one of the issues of the interaction of the USM-SFMP with its wider institutional context, which will be dealt with in more detail in Chapter Nine.

**CHAPTER EIGHT: ANALYSIS PART TWO - THE LOWER KINABATANGAN**

**Introduction**

This Chapter has a similar purpose to the last in investigated how forest conservation policy has been formulated and implemented in the case of the second empirical example, the Lower Kinabatangan. In the same way as the last Chapter, it is also concerned principally with the second stage of the analytical framework in assessing how policy actors defined policy problems, build partnerships with other organisations and implement policy action. In contrast to the last Chapter, it seeks to investigate the additional complications entailed in formulating and implementing a forest restoration policy strategy in a mixed use landscape involving a wide variety of different sectors. A map showing the administration of land in the Lower Kinabatangan and the location of conservation projects in the area is illustrated in Figure 6 below.
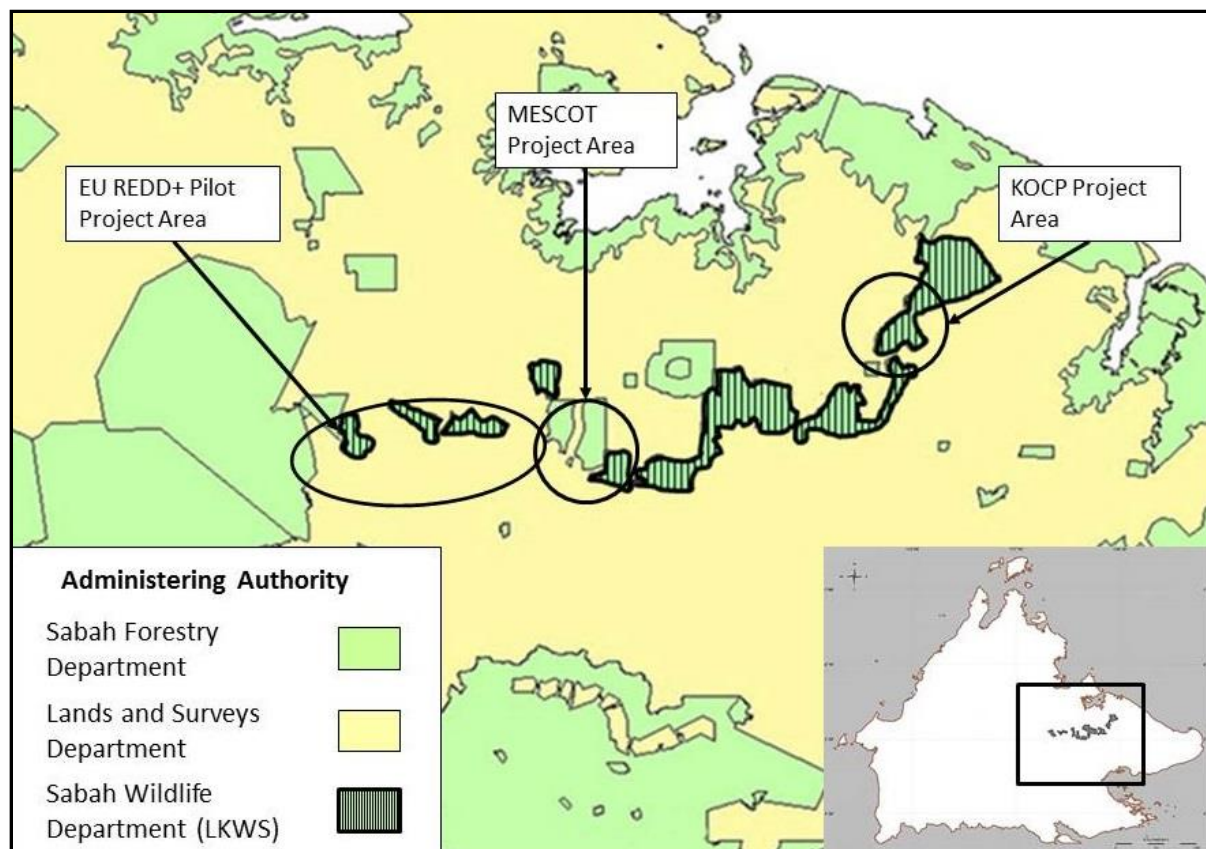


Figure 6: Land Administration and Project Sites in the Lower Kinabatangan

**1. Ecological Problems and Habitat Corridors as a Policy Response**

In Chapter Six it was observed that the Lower Kinabatangan floodplain had experienced severe deforestation as a result of conversion of most of the land area to oil palm plantation. This had left only a few areas of remaining forest, most of which were adjacent to the Kinabatangan River, and which because of seasonal flooding were not suitable for cultivation. From the 1990s, the increasing attraction of the area for tourism and the growing involvement of environmental organisations raised the profile of conservation issues in these remaining forests. As a result, in 2006 ten forest lots were consolidated into a protected area, the Lower Kinabatangan Wildlife Sanctuary (LKWS), which was to be administered by the SWD (see Figure 6). These lots were not contiguous, meaning that while deforestation for agriculture and timber production had mostly ceased, ecological problems relating to habitat fragmentation remained.

A representative of the DGFC described the recent history of the ecological problems that have emerged in the Lower Kinabatangan:

> "[When we first came to the area in the early 2000s] we had a large amount of wildlife in the Kinabatangan because I assume the individuals were pushed on to the river because of deforestation and agriculture from the whole floodplain. Since then we have seen a decrease in the wildlife. We have lost 300 orang-utans since 2002, we have seen a decrease of proboscis monkeys…on the other hand because there is a lot of openings, a lot of open grass, elephants are increasing…There's not much logging anymore. We have lost maybe one fifth since we have been here and most of the illegal logging stopped in 2002-2003. The biggest problem for Kinabatangan now is the habitat loss and fragmentation" (Representative of DGFC).

These issues were corroborated by a representative of the SWD. He stated that the particular problem in Kinabatangan is forest fragmentation which makes wildlife more vulnerable to catastrophe and genetic problems resulting from the isolation of small populations of certain species. This was caused by clearance for oil palm plantation as well as problems caused by drainage ditches that plantation owners dig through forest, often illegally. A particular issue is the illegal clearance of riparian zones where plantation companies have planted right up to the river banks. This has taken place despite the fact that this is illegal and that these areas are often subject to flooding and therefore often do not yield income because the oil palms die. These problems have led to a collapse of populations of key species, particularly orang-utans (Representative of SWD). In response to these problems, the principal policy objective of environmental organisations working in

the Lower Kinabatangan is the restoration of remaining habitat and the reconnection of forest fragments of forest through the development of habitat corridors.

Unlike USM, in the Lower Kinabatangan there is no single coordinating government agency and no management plan comparable to the USM-SFMP. While the SWD are responsible for the administration and management of the LKWS, other government agencies also have responsibilities in other parts of the wider Lower Kinabatangan floodplain. The SFD have responsibility for a number of forest reserves along the river while the Lands and Surveys Department has responsibility for state land, including the enforcement of riparian reserve rules. In addition, several interviewees highlighted that the SWD is a relatively weak and under-resourced government agency. This means that it has limited capacity to implement policy, is reliant on the support of NGOs and scientific advisors and, in comparison to other government agencies involved in the area, has limited influence with state level policy makers. Representatives of BORA, LEAP and HUTAN commented that the department has very little scope for enforcing rules, such as those relating to riparian zone, in the areas bordering and therefore affecting the LKWS (Representatives of BORA, LEAP and HUTAN).

The nearest equivalent of a policy framework for conservation is set out in the Orang-utan and Elephant Action Plans, which were published by the SWD in 2012. In these two documents particular emphasis was given to the issues of habitat connectivity. Action 2 of the Orang-utan Action Plan states:

> "Action 2: Reconnecting landscapes containing orang-utan sub-populations by creating contiguous corridors of natural forest".

Which it follows, emphasised in bold:

> "The highest priority of this Plan is to address the fragmentation process that renders the overall orang-utan population in Sabah non-viable in the long-term".

The plan further specifies

> "Wildlife corridors must be a minimum of 100m along each side of all rivers within the distribution [areas] of wild orang-utans (SWD 2012a: 18-19).

The Elephant Action Plan reiterates this priority. Action 6 of the plan specifies:

> "In established agricultural lands, the following actions have to be carried out:

To restore former Elephant migration routes which have been constricted by land use changes, through land purchasing, leasing from industry and communities, and replanting; and

To develop peaceful human-elephant conflict mitigation techniques. The rationale is to re-establish connectivity between isolated populations" (SWD 2012b: 21).

The problem with these policy statements is that without the cooperation of other interests the SWD has no means of implementing and enforcing these policy objectives. In the case of Ulu Segama Malua, the SFD was able to build partnerships towards defined policy aims from the relatively strong position of having exclusive possession of the whole area where policy initiatives would be carried out. In the Lower Kinabatangan, by contrast, implementation of policy solutions was a far more complex process. Aside from the problem of fragmented responsibility between government agencies and the relative weakness of the SWD, additional problems also existed as a result of the LKWS being located in a mixed use landscape where local communities, palm oil companies and tourist operators also need to be considered. The particular issues relating to each of these sectors is outlined below.

## 2. Coordination Problems

### 2.1 Problems with indigenous communities

Many of the problems faced by indigenous communities in Sabah were described in Chapter Six. These were stated in terms of exclusion from forests, loss of access to traditional resources and social, economic and political marginalisation. Interviews with representatives of NGOs that work with indigenous people corroborate these observations, further observing that communities have lost their economic and cultural connections to forests. As a result, many communities had reacted to these problems with either apathy and acquiescence or illegal action, both of which made it difficult to engage communities in conservation (Representatives of LEAP and PACOS). An environmental consultant summed up the nature of many of these problems:

"A lot of communities feel they've been marginalised, that all the land has gone to the [oil palm] companies, and they feel victimised…Many of them have stopped relying on forest resources for a living, because they've got their own little land where they plant oil palm.

137

They may hunt as a pastime but really relying on the forest is out of the window. Now communities have no idea what's going on in the jungle. Some of them see the forest as a wasted resource, it's not doing anything, it's an unnecessary luxury" (Environmental Consultant).

She further noted that the lack of connection to the forests and a marginal existence on small plots of lands mean that poverty amongst indigenous communities has become endemic. This is a particular problem in more isolated locations where lack of resources is exacerbated by lack of access to markets or amenities. She observed in the case of more isolated communities in the Lower Kinabatangan:

"You look at the communities around Malua [also on the Kinabatangan River]. They are dying. One village, they had five families and now they are all gone. And Kampung Balat, it's still there but it's small, very isolated" (Environmental Consultant).

As a result, many people from up-stream communities are moving downstream into the Lower Kinabatangan floodplain. The representatives of MESCOT have observed one consequence of this movement:

"Around Bukit Garam [a larger settlement in the Lower Kinabatangan], you see now a lot of squatter settlements, from people who come from up river, from places far from the roads, because there is no economic activity there" (Representative of MESCOT 1).

But it has also been observed that some displaced communities have reacted by creating illegal settlements, which in some cases has had detrimental impacts on conservation projects. A representative of WWF told how he had negotiated a deal with an oil palm company, Savit Kinabalu, who had agreed to set aside a large area of riparian corridor next to the river. He then described how he received an urgent call from the plantation manager:

"Savit Kinabalu, they set aside this land, then I get this call, and they say there's someone who comes in and they clear it, about 50 ha, planting oil palm" (Representative of WWF 3).

The representative of MESCOT continues with this story:

"This oil palm company, up the river, they don't use their land, they set it aside as forest, for forest. Then a community come down from up river, looking for new settlement because they cannot live up stream. They see this land and they settle. They clear 100ha and convert it to palm oil. For us we rely on the nature for our tourist activities. So we cannot see this

happen so we have to say no, stop, this for our future, our children so I email my friends, to Sam Mannan, to BCT, friends in Japan, send them the picture of this encroachment, and in following days the SFD comes and stops them converting this land. But one family does not move. They say you have to move, this is a riparian reserve, and the family says, if the plantation can open up right to the river bank, then why can't we do that too?" (Representative of MESCOT 1).

NGOs working with local communities commented that the various problems facing indigenous communities impact in different ways according to different contexts. A representative of PACOS illustrated this through the examples of the villages of Kuamut and Kampung Balat, two communities she worked with in the Lower Kinabatangan area. In the case of Kuamut, she observed that the main problem identified was isolation. This meant there was little access to infrastructure, services and markets, which in turn made the development of projects to improve livelihoods more difficult. This situation was made worse by the fact that they have little access to surrounding forests and therefore access to natural resources. In such circumstances, the focus of communities is largely a question of day to day survival and as a result community attitudes had lapsed into defensive conservatism and distrust of outsider. In the case of Kampung Balat the problems were different. While access here was much easier, the reaction of the community to progressive marginalisation was a prevailing attitude of apathy. This meant that the community had very little motivation to try and improve their circumstances even when opportunities were presented.

She further observed that while the cases of Kuamut and Kampung Balat demonstrated how communities can become passive and inward looking, some communities, particularly those in the western interior of Sabah, could be quite aggressive and hostile to outsiders. In such cases a completely different approach would be needed to establish partnerships. In general, she stated that the key to establishing such partnerships was to develop an understanding of the dynamics of each community and work at a pace that each community is comfortable with. In line with this, she stated that NGOs could not just impose solutions, but had to give space for communities to take ownership of development projects. In this respect she highlighted the crucial importance of identifying and developing leaders within the communities. In her opinion the role of NGOs has to be facilitation, since most communities are unlikely to initiate change themselves, as well as capacity building and education, since traditional skills have often been lost and they lack the knowledge to adapt into new livelihood strategies (Representative of PACOS).

A further problem facing indigenous communities is the issue of land rights. Representative of PACOS and LEAP observed that this was a very slow process, which was also compounded by the problem of corruption in native customary rights system that was observed in Chapter Six (Representatives of PACOS and LEAP). In addition, the representative of the BCT commented that while native customary rights grants had been made in the Lower Kinabatangan, these grants were typically around 6 ha and were therefore too small to be to be economically viable. This meant that local people have no option but to sell the land to palm oil developers, generally on unfavourable terms that do not reflect the true value of the land. As a result, native customary rights have often become a means of further extending the extent of oil palm plantations (Representative of BCT)

A representative of LEAP expanded on this issue, highlighting the role of the Lands and Surveys Department in this issue:

> "They just don't want to address NCR [native customary rights] claims. They say we can't deal with all the cases because there are too many, and all the natives do is turn round and sell the land to oil palm companies. That's what's happened in the Kinabatangan" (Representative of LEAP).

But she further added that in many cases this was merely being used as excuse not to confront the issue because to do some might "open up the floodgates" to hundreds of claims that have previously been ignored (Representative of LEAP).

Aside from problems that impede the establishment of partnerships with indigenous communities, the representatives of DGFC, SWD and HUTAN also commented on specific issue relating to the relationship between humans and wildlife. This is particularly the case with elephants trampling the crops and graveyards of local communities (Representatives of SWD, DGFC and HUTAN). The representative of SWD noted that while plantation companies are often able to deal with problem locally through erecting electric fences, at a wider scale this only makes this problem worse because elephants become even more restricted and are merely displaced to other locations (Representative of SWD).

However one advantage of the Lower Kinabatangan that sets it apart from many other rainforest areas throughout the world is the lack of hunting by indigenous communities. The representative of the DGFC observed:

> "Poaching is not a big problem. There are signs of some poaching like elephants getting caught in snares [for boars and deer] and it's mainly near to oil palm plantations, but as far

as the local community is concerned they don't hunt. Because of Islam the only species they can hunt is deer" (Representative of DGFC).

The representative of HUTAN corroborated this observation:

"Sabah has by far the best biodiversity in Borneo for the simple reasons, at least in the east of the state, that the people are not heavy hunters" (Representative of HUTAN).

The history of long term marginalisation and dispossession of indigenous people mean that the process of getting them to engage with conservation is necessarily a long term one. This has involved establishing trust, fostering leadership and providing financial incentives to local communities. Examples of how this has been achieved are described in greater detail in the next section of this Chapter.

*2.2 Problems with the palm oil industry*

Any attempt to establish habitat corridors in the Lower Kinabatangan must necessarily involve securing land currently under plantation and returning it to forest. However plantation owners have traditionally shown a reluctance to work with environmental organisations towards finding a balance between conservation needs and revenue generation. Moreover, plantation owners have routinely ignored environmental laws that do exist. This is a particular problem with enforcing the maintenance of riparian zones that forbid planting of oil palms close to rivers.

A representative of the SWD commented that at present most palm oil companies see little benefit from cooperating with environmental organisations. He also commented that the illegal conversion of riparian corridors remains commonplace. Currently legislation under the Land Ordinance specifies that planting should not take place within 50m of major waterways in order to protect rivers from pollution and reduce flooding. He observed that plantation owners often falsely excused conversion of riparian zones on the basis that the river course has changed or that riparian zones have been eroded (Representative of SWD).

The representative of DGFC observed that abuse of riparian corridors in uneven in the Lower Kinabatangan, stating that this is largely the result of the extent that different parts of the river could be observed by environmental organisations:

"Upstream from Batu Puteh there's a lot of encroachment on riparian corridors because there's not much control there. But from Batu Puteh to Abai, because of the presence of

Danau Girang, MESCOT, Sukau [where HUTAN are based], there is much less impact on the forest that is left" (Representative of DGFC).

A further reason cited for the abuse of riparian corridors is lack of enforcement by responsible government agents. A representative of New Forests commented that:

"You need the government to step up and sort out the issues with the riparian reserve and enforce the regulations... the Lands and Surveys and Water Departments either don't have the resources or the will, and probably a bit of both, to address it" (Representative of New Forests 2).

Recently this issue has received attention at the ministerial level of State Government. A recent local newspaper article reported on the reaction of the Minister of Tourism, Masidi Manjun, during a visit to the area:

"When asked why the government enforcement agencies are not taking legal actions against the perpetrators, Masidi replied that part of it was because the Land and Surveys Department is understaffed. But the bulk of the problem is due to the general attitude of the people...[He stated that] "It is obvious in the Land Ordinance and other related enactments that a riparian reserve cannot be alienated but our problem is our attitude of 'sikit-sikit boleh bah' (encroaching a little bit is permissible). We 'sikit-sikit' right up to the river bank. That is the problem. We don't take life seriously.""

In the same article the opinion of another State minister, Plantation Industries and Commodities Minister Bernard Dompok was reported saying:

""They cannot refuse [to give up riparian zones] because a riparian reserve is not included in their land title...When you are given a piece of land, there are terms of alienation...These are some of the things that I want highlighted and taken care of – taken into account seriously by the industry," He added that he had presented a paper which contained issues related to riparian reserves to the cabinet and stressed that his ministry wants things to improve based on the law" (Borneo Post 2011).

In response to these issues, a representative of the SWD stated that it was now a departmental objective to work closely with planters and the Lands and Surveys Department in order to overcome and resolve the problem of riparian corridor abuse (Representative of SWD).

However, aside from issues of illegal encroachment, problems also exist due to long standing tensions between the environmental and palm oil sectors. A representative of HUTAN summed up the nature of this suspicion from the point of view of an NGO:

> "The only thing we don't do is partnership with oil palm. First we don't feel like it. But also we don't feel it's good. It's just lip service what they do…they just want to green wash the industry. For this reason we don't want to work with them. We don't want their money. We try to engage with them but we want to stay independent of them" (Representative of HUTAN).

A representative of WWF Malaysia gave the alternate perspective to this conflict from the point of view of palm oil companies, but also commented on the possibility that relations may be starting to thaw:

> "Based on our experience what we see is the moment they [plantations owners] see WWF or other NGOs coming they say, 'oh problems again, NGOs again'. So what we do is say here we are and we want to sit down and discuss where we can work together…If you tell them this is what we want to do then they are more open, but it is difficult. Sometimes they say 'this is Malaysia, I can do what I like', but some of them say 'high time we give back to nature', something like that" (Representative of WWF 3).

This is leading environmental NGOs and the SWD to seek to find ways of building trust with plantation owners and define conservation issues in ways that do not necessarily imply confrontation, bad publicity or lost revenue. A representative of LEAP summarises how such an approach might work:

> "In some circumstances planters and conservation sector can create common ground by identifying uneconomical areas that could be restored to forest and turned into habitat corridors. Sometimes land purchase is the only option…in some cases where it's strategic and the need is immediate. But we're also looking at other ways to get them to voluntarily set aside land (Representative of LEAP)".

Representatives of SWD, DGFC and WWF Malaysia all highlighted the importance of identifying areas currently under plantation that are subject to seasonal flooding and therefore are unsuitable for growing oil palms. A representative of SWD further commented that one argument for establishing common ground with palm oil companies would be to demonstrate the benefits that could arise from working with conservationists in terms of improving the reputation of the industry

and avoiding bad publicity (Representative of SWD, DGFC and WWF 3). Various projects have sought to foster collaboration with plantation owners in these terms, each of which will be considered in the next section.

*2.3 The problem of capturing a share of tourism revenue*

As was stated in Chapter Six, tourism represents a key growth sector in Sabah's economy, and much of this tourism is related to the State's natural attractions. As a result, tourism has become a key economic argument for forest conservation at the level of the State Government. While this argument was instrumental in justifying the creation of the LKWS, very little of the profits of ecotourism have been channelled into conserving the forests that tourist companies rely on.

Representatives of HUTAN, DGFC and SEARRP all commented on the importance of the LKWS in attracting tourists. A representative of HUTAN identified that ecotourism provides a means of advancing conservation objectives as well as having an impact in shifting the local power balance in favour of conservation (Representative of HUTAN). In support of this assertion, a representative of DGFC also commented that:

> "They [the government] know they're getting money from their tourism, from the wildlife and no one is going to come to Sabah if the forest is gone, and Sabah is the last fortress for these wildlife in Borneo. And it's accessible. It's not like Kalimantan [in Indonesian Borneo] where it's very difficult to get to for tourists. It's a place where people can see wildlife" (Representative of DGFC).

Corroborating this argument, a representative of SEARRP observed that:

> "Kinabatangan probably generates more ecotourism bucks than all the rest of the forests in Sabah put together" (Representative of SEARRP).

However in spite of the potential economic and political value of ecotourism, several interviewees noted that this value is not being utilised to its full potential and is also creating negative side effects. In the first case a representative of SFD noted that in spite of the benefits they gain from biodiversity, tourism operators have been resistant to contributing to its protection in all but a token form (Representative of SFD 2). In addition, a representative of DGFC observed the lack of tourism revenue coming back from the government:

> "In terms of positives, obviously it brings a lot of money to the Government, but all the money goes to the Federal Government so we don't know what comes back…So what is

happening to the tourism money? I mean in the Kinabatangan we have just five rangers, and the Kinabatangan is the place where the most tourists go in Sabah. So if you have a return for each tourist, every year, you would be able to have more staff, but it doesn't happen" (Representative of DGFC).

A representative of WWF further observed that tourist money is not finding its way to the communities close to ecotourism attractions:

"A problem is all the tourists, they are rich, but they spend all the money in KK [Kota Kinabalu], so not spend in Sukau, so the economic spend is not there" (Representative of WWF 3).

In the second case, both of these interviewees identified that ecotourism is beginning to have negative effects on wildlife in the LKWS. The representative of WWF also commented that there is an argument for controlling the location of tourist lodges and directing them to less congested areas such as Batu Puteh or Abai (Representative of WWF 3). The representative of DGFC added to these observations:

"In terms of negative I think there is an impact of tourism in areas where it is overcrowded with lodges. In Sukau…there is a problem for wildlife with tour guides who don't follow the regulations. There is need for better wildlife spotting guidelines. There is a need for better control of ecotourism" (Representative of DGFC).

Therefore taking advantage of the potential revenue sources from tourism has become a policy goal for actors in the Lower Kinabatangan in order to finance the establishment of habitat corridors. This takes the form not only of obtaining funds from private tourism operators, but also in establishing projects that combine tourism with other objectives such as community engagement. Examples of projects that have sought to mobilise tourism towards conservation are outlined in the next section.

## 3. Forest Restoration and Habitat Corridor Projects in the Lower Kinabatangan

This section outlines the various ways that policy initiatives have been devised towards facilitating forest restoration and habitat corridor development in the Lower Kinabatangan. The forest restoration projects in and around the LKWS have been undertaken by a range of different organisations which are loosely connected through similar objectives and informal networks. Below is set out the development of five separate projects that seek to restore degraded forest and

establish forest corridors from differing perspectives. Each of these has sought to address the overarching policy problems of biodiversity loss by engaging with one or more of the sectors outlined in the previous section.

*3.1 HUTAN and the Kinabatangan Orang-Utan Conservation Project (KOCP)*

The HUTAN-KOCP approach to community engagement is defined principally in terms of the biodiversity of the LKWS in general and the protection of orang-utan in particular. The concentration on orang-utans has been a strategic decision given that this focus, as observed in the last Chapter, is particularly effective in justifying conservation projects to government agencies and international funders. On this subject the representative of HUTAN commented:

> "Honestly speaking I don't care about orang-utans. I like them but I like to use them because they are the only species people listen to about when I speak…they are the best tool I have available in Sabah" (Representative of HUTAN).

Subsidiary to this overarching aim, the KOCP has also developed into a programme that seeks to draw the priorities of indigenous communities together with those of forest conservation. In this respect, habitat connectivity forms a small though increasingly significant part of a wider project framework (see KOCP project location in Figure 6).

A representative of HUTAN describes the process of moving from a situation where the community of Sukau was detached from the forest and hostile to its animals, to a situation where there is now broad community support for conservation:

> "We of course realised that the way we look at orang-utans in the West and the way we look at them in Malaysia, and from a village like Sukau, is very different…In Sukau they do not look at orang-utans as a rare species. They look at them as a pest who destroys their crops so they don't see the point of sharing the forest with them. With orang-utans as well as elephants, they just want to get rid of them".

> "We realised that studying orang-utans was not sufficient to protect the species. We also had to work with the communities who live here".

> "We needed to identify economic activities in the village just to demonstrate the fact that to have these orang-utans as resources is luck, is a resource they can use and that they can get financial incentives for in the long run" (Representative of HUTAN).

146

In this process, he commented that while HUTAN would act as project initiators and coordinators, it was necessary to involve local communities in decision making. The resulting community based conservation projects took several dimensions. During a site visit to Sukau where I shadowed KOCP staff for several days, I was able to observed several programmes within the wider KOCP framework at first hand. The first involved an education and awareness programme in order to demonstrate the tangible benefits of the forest and its wildlife. The second dealt with mitigating the negative effects of human wildlife conflict through a specialist team that monitored elephants, provided electric fencing and trained staff to move elephants away from crops in a way that avoided harm to either the animals or livelihoods. The third aspect involved employing and training local people to carry out research and monitoring of wildlife, particularly orang-utans, as well as taking active conservation measures such as building bridges to allow orang-utans to cross waterways. The fourth aspect involved setting up businesses whereby local people could generate profits from biodiversity through ecotourism and sustainable harvesting of bird's nests. The fifth was the creation of an honorary wildlife warden programme which utilised the insider knowledge of local people to help enforce of regulations in the LKWS.

Forest restoration represents the sixth programme, which involves seed growing and tree planting along riparian corridors on both degraded land within the LKWS and on cultivated land between forest fragments. The development of this project is outlined in a report by HUTAN, which describes how it began in 2008, employing four local women. Up to 2010 the team restored four small plots of degraded land in the LKWS which had been encroached by oil palm plantations. In 2011 a larger plot for restoration was identified and the project was expanded, with an additional four staff employed. The following passage describes the way that HUTAN-KOCP has approached forest restoration, highlighting the importance of using scientific and experimental methods in order to maximise efficiency and minimise costs:

> "[In 2011] the team aims to reforest an area of more than 20 ha located in Lot 1 of the Lower Kinabatangan Wildlife Sanctuary. This site borders the Kinabatangan River… is completely bare and is in dire need of being reforested to recreate a contiguous corridor along the River. We estimate that more than 20,000 seedlings will be planted in this plot. In order to investigate the value of different planting approaches, the team will divide this plot in three sections that will be submitted to three different planting regimes…Seedling survival rate, growth and manpower needs will be monitored over the next couple of years. By monitoring the pros and cons of these three approaches, an optimal approach for human and financial resource use can be determined for future restoration plots. The final goal for

147

the KOCP team is to plant a minimum of 100 ha every year. This goal can be achieved by identifying methods requiring less seedling maintenance" (Ancrenaz 2011: 6).

More recently, the restoration element of the HUTAN-KOCP project has been expanded. A representative of HUTAN stated that this reforestation programme will be combined with a land buying campaign being undertaken by WLT, which is discussed in more detail below (Representative of HUTAN).

*3.2 The MESCOT project*

The MESCOT initiative differs from the HUTAN-KOCP project in that community development is the central priority, with biodiversity conservation being a subsidiary objective. This reflects the fact that this project is primarily driven by the community rather than an external NGO. MESCOT was initiated in 1998 in order to address damage caused by forest fires in the wake of a severe El Nino event (see MESCOT project location in Figure 6). The project was initiated through collaboration between WWF and the Sabah Ministry of Tourism, and was funded from WWF Norway and US philanthropic foundations. Its objectives were to restore neighbouring areas of forest, to be funded through profits from a community tourism venture (UNDP 2012).

The early phases of this project were not successful in securing support from the community. A representative of MESCOT commented that at first the village was sceptical and didn't believe it was possible (Representative of MESCOT 2), while another stated:

> "When they started the initiative, people were still doing illegal logging, they didn't like it that WWF was sending someone to establish community tourism, it have very little support" (Representative of MESCOT 1).

But he further observed that this situation slowly changed as the project matured. In the early 2000s WWF's involvement ended. Following this, in 2003 the community took ownership of the project and formed KOPEL (Koperasi Pelancongan Mukim Batu Puteh Kinabatangan Berhad), an ecotourism cooperative that involved four neighbouring villages. The first major challenge faced by the collective came about when a nearby ox-box lake that the community used for fishing and where they planned to construct a tourist camp became inundated by invasive weeds. Given that the project was no longer receiving financial support from WWF, MESCOT approached LEAP with a request to facilitate funding in order to drain the lake and remove the weeds. A representative of LEAP commented on how this plan developed:

"With MESCOT they knew what they wanted to do. They knew they wanted to clear the lake and they were right…I couldn't have foreseen that…They are the people close to the land, they could see that the ecosystem was dying and out of balance and needed to be restored" (Representative of LEAP).

She further commented that after funding was secured through LEAP's international contact network, over a period of 18 months the lake was drained and the invasive weeds removed. Following this, the community set up a basic ecotourist camp on the banks of the lake. This camp was observed on a site visit, as well as the process of continuing maintenance to keep the lake clear (see photos in Appendix One).

From 2006, the income from tourism began to rise rapidly, tripling in three years. This meant that MESCOT could use the profits in order to finance its second major objective, forest restoration. Then in 2007, LEAP brought MESCOT to the attention of Sam Mannan in the SFD. A representative of LEAP describes this meeting:

"They (the SFD) started off being, like, we couldn't care less, they weren't interested, then at some point, when MESCOT was showing all these successes, I said to them "give them 45 minute to tell them what you've done". Sam was like dumb struck. He said I am so used to communities doing illegal logging but you guys are, like, restoring forests, we want to work with you…they walked out with a contract to restore, what, 200 ha of forest" (Representative of LEAP).

A representative of MESCOT made the following observations about the same meeting:

"After eight years of the project, I did my presentation to Sam Mannan, and he says, wow, why don't I know about this. You people have planted this much trees. It's funny, sometimes the government, sometimes their staff they don't do the reporting, or it doesn't go to the high level" (Representative of MESCOT 1).

Following this, MESCOT were contracted to undertake forest restoration and siviculture in the nearby Supu Forest Reserve. A representative of MESCOT observed that this partnership illustrated the changing view of government departments towards indigenous people. He stated that originally there was a lack of recognition of indigenous people from government agencies. However he noted that their attitude, particularly that of the SFD, has now started to change. He also commented that since this first contract, MESCOT had also been contracted to do forest restoration within the LKWS by the SWD (Representative of MESCOT 2).

Both representatives of MESCOT stated that their methods were based principally on traditional local knowledge and trial and error. The first efforts had limited success because survival rates of seedling were low and the mix of species was limited. But now they plant more species, have developed better techniques for planting in flooded forest and they concentrate on trees that are good food sources for wildlife. As a result, survival rates and the quality of restoration have considerably improved (Representatives of MESCOT 1 and 2). A representative of LEAP corroborated this observation:

> "In a very non-scientific manner they've kind of tried around to see what works and what doesn't work and it seems like they've come to a formula of what works" (Representative of LEAP)

This progression over the years was observed on a site visit. Earlier attempts looked more like mono-cultures as a result of a lack of variety of seedlings and patterns of planting that were too regular and close together. Later attempts, including one that the present author participated in, involved a greater range of plants, including fruit trees specifically planted for the benefit of orang-utans (see photos in Appendix One).

A key success factor of the project that was identified by representatives of PACOS and LEAP was the importance of leadership. They noted that during the early stages of the project they identified a leader and worked on building his knowledge and confidence. Without the role of this project leader they stated that it would have been unlikely that the project could have succeeded to nearly the same extent (Representatives of LEAP and PACOS).

Consequently, a representative of MESCOT commented that most of the village now supports the project because a high proportion of them benefit, either through tourism and homestays, or through employment in forest restoration. During site visits this view was corroborated by discussions with several villagers, many of whom expressed pride in the achievements of their community and the fact that so many overseas tourists had chosen to visit them. He further observed that one of the consequences of the success of the project is that young people are now starting to stay in the village and not leave for the city. He stated that a particular issue for the future is training young people and identifying new leaders to replace the founders of the project (Representative of MESCOT 2). Another representative of MESCOT also commented on the relationship between economic incentives and broader changes in the values of the community. While economic incentives were most important at the beginning of the project, he observed that in the longer term it had begun to change attitudes in the way that forests were perceived and valued

and had fostered a greater appreciation of nature as a part of their community identity (Representative of MESCOT 1).

The representative of LEAP corroborated this view on the long the long term success of the project:

> "They're making RM 2m (c. £400,000) a year and one quarter of that is profit…400 people are being employed out of 1,500 people in four villages. And this from 13 years ago when none of this existed, when they were exploiting the forest doing illegal logging" (Representative of LEAP).

The MESCOT project is now being used as an exemplar community development project by organisations such as the UNDP (UNDP 2012). The MESCOT model is also now being applied and developed in other communities in the region, with the leaders of MESCOT working in partnership with NGOs such as LEAP and PACOS in a consultancy capacity. This is discussed in more detail in the next Chapter.

*3.3 WWF and collaboration with the palm oil industry*

The activities of WWF Malaysia in the Lower Kinabatangan have been defined primarily in terms of engagement with palm oil companies. As part of its Corridor of Life Project, which was introduced in Chapter Six, WWF Malaysia has had the longest experience of work on conservation in the Lower Kinabatangan. As the example of MESCOT shows, they were involved community conservation in the 1990s. However more recently their focus has shifted towards working with the palm oil industry in order to persuade companies to set aside land for conservation purposes. A representative of WWF explained the nature of this approach:

> "We don't so much concentrate on the big boys, like those in the RSPO, but on the smaller planters…Based from my experience [with the smaller plantations] they say "I don't have to go for RSPO, I'm just a small player here and it involves cost", so what do you do with these people? But they still have an impact on the environment. It is very important to engage them, so what we do is we identify what's the sustainability issue in the area then we say what they can do to contribute to the area. The point is we are trying to get best management practices. We go "this is the issue in the area", and tell them what they can do to help us" (Representative of WWF 3).

He then recounted an example of how some plantation owners can change their opinions and become engaged with conservation:

"There's this guy, perhaps a medium size planter. He planted right to the bank inside the wildlife reserve illegally, big area, so I've been trying to tell him for many years, and he just says "I don't have to do that, sue me". Then one day he says "ok I will destroy everything, plant back all the trees, and move back my electric fences". He built more than 10 wildlife bridges. I think he softened. I went to him and said you have done a lot of things and he said "yes, I feel guilty. I have to do something. I regret it, whatever I can do I will do it"" (Representative of WWF 3).

He then explained the key to establishing collaborative relationships with plantation owners:

"You can never come to an agreement with one visit. You have to keep knocking on their doors, build a rapport and it's the trust you can get. They don't have to trust you completely but once they feel you are genuine, you have no hidden agenda, I think there is a good chance of sitting down and doing good things" (Representative of WWF 3).

Consequently he stated that the approach of the WWF has achieved some level of success:

"We have two MOUs signed with plantations. One is to Savit Kinabalu. It's around Batu Puteh to Bukit Garam and they will set aside 1,100 ha of land along the riparian corridor, I think around 25 km along the river and 500m back from the river and set it aside for conservation. Once they planted along the river, but found the area was flood prone…The other one was Genting, around 90 ha around Lot 6 near Danau Girang. We are trying to get more, but the businesses, they say we don't want to give up our land" (Representative of WWF 3).

While these agreements demonstrate that the WWF have had some level of success, their approach has come in for criticism from several sources owing its relatively modest project output. These criticisms are summed up in the following observation from a representative of New Forests:

"WWF Malaysia has been trying to work with oil palm companies along the river for years. I mean they've had a few success stories but not a lot when you see all that oil palm down to the river" (Representative of New Forests 2).

WWF Malaysia's project approach tends to be based on fixed time frames, and they are now seeking an exit strategy from the Lower Kinabatangan in order to focus resources elsewhere in Sabah in projects such as Northern Ulu Segama (see Chapter Seven). As a result they are seeking to hand over the practical restoration of lands that have been acquired from palm oil companies to other

organisations. To this end, WWF established contact with Nestle. The representative of WWF commented on this:

> "We wanted to get the local communities trained, in the tree planting and the supply of seedlings. The idea is to train them to do business and at the same time do conservation. So Nestle, they heard about this, so they say they want to continue this activity, and engage with the local communities (Representative of WWF 3).

This led to the initiation of the Nestle RiLeaf project, which is described in the following press release:

> "The reforestation project targets to cover an area of 2,400 ha over a period of three years, which will result in a restored zone that will also form a natural buffer that will significantly filter two main pollutants of the river – soil sediments and chemical fertilizer run-offs – thereby giving the Kinabatangan river a chance to repair itself over the course of time. The project will also see Nestlé involved in capacity building of the local community, to actively encourage rural development by working with and buying forest seedlings from KAPOK (Komuniti Anak Pokok Kinabatangan), a community based forest seedlings producer, which comprises of entrepreneurs from four villages. KAPOK will be producing the seedlings and managing their plantings in riverside areas on both sides of the Kinabatangan. The initial phase will see the planting of 100,000 trees" (Nestle 2011).

This project has been widely criticised by a number of stakeholder in the area. Representative of MESCOT, DGFC and HUTAN all commented that the Nestle RiLeaf project has focused on planting trees in quantity rather than employing any method of ensuring the long term survival of these trees. As a result, it was observed that the long term impact of this project was likely to be negligible. In addition, they criticised some of the other working practices in this project. It was noted that planting had taken place on elephant tracts, where seedlings would be trampled, and that workers had been observed throwing plastic wrapping for seedlings into the river (Representatives of MESCOT, DGFC and HUTAN).

In addition to working with palm oil companies, the WWF has also attempted to engage with tourist lodges in the area. This has been a relatively small part of their approach in the Lower Kinabatangan, however one scheme has emerged, which is described by the representative of WWF Malaysia as follows:

"The idea of working with tourist lodges in Sukau and Bilit is to get them to make payment for conservation, because the way I look at it, the tourists, they go there for the wildlife basically. We have patrols in the area and that involves costs, so it's only fair that the tourism should give some money. Our suggestion is that for every tourist they pay a little bit to conservation. Of course it is difficult to do this, but in 2007 they started to do, so now they form an association, KITA [Kinabatangan Tourist Operator Association], where it is compulsory for everybody…so for every tourist who comes to the area, automatically 20 RM will go to the fund. I think they collect 300,000 RM (c. £60,000) and they commit that money to the patrolling done by WWF" (Representative of WWF 3).

This project has allowed for the employment of additional wildlife enforcement staff in the LKWS, which therefore helps to supplement the SWD's limited resources.

*3.4 The BCT and habitat corridor strategy*

The BCT was set up in 2006 in close collaboration with the SWD. Its specific aim is to facilitate the acquisition of land for habitat corridors in the Lower Kinabatangan area. It core mission is stated as:

"To secure, protect, restore and sustainably manage key ecological corridors and ensure habitat connectivity with collaboration from local stakeholders (including local communities, oil palm plantation industries, timber production industries and government agencies). This mission will indirectly support viable populations of global priority mammal species and at the same time help to tackle climate change". (http://borneotrust.com/borneotrust).

A representative of BCT stated that their approach has traditionally been on land purchase. This fitted in with an overarching strategy of the SWD to establish a habitat corridor along the whole length of the Lower Kinabatangan. He estimated that the overall cost of developing such a corridor would be approximately RM 40m (c. £8m). The strategy is to target both individual palm oil companies and palm oil associations, both for funding and to find sites to buy land. In the former case they tend to target smaller oil palm companies, which he stated are easier to deal with than larger ones, where collaboration is complicated by bureaucratic management structures. In the latter case they are working with the Malaysian Palm Oil Board, and to a lesser extent the Malaysian Palm Oil Council. Much of the current funding for the BCT comes from Japan, including a partnership scheme where they receive 1% of the total profits on products produced by participating companies that use palm oil as an ingredient. Otherwise, funding is provided by individual and corporate donations, mostly from Japan (Representative of BCT).

While the scope of the BCT strategy is ambitious, the extent of their land acquisition to date has been limited. The representative of BCT stated that they had only purchased 22 ha of land. Commenting on this record, representative of the SFD observed that this was "negligible" and that LEAP, despite this being only a small aspect of their work, had succeeded in buying more land for habitat corridors than BCT (Representative of SFD 2). However since these interviews BCT, in conjunction with the Ministry of Tourism, has acquired a more substantial area of 100 acres for the purposes of habitat connectivity in conjunction with a major ecotourism operator. This is described in the following BCT press release:

> "Myne Resort is aiming to support the conservation initiative, together with Borneo Conservation Trust, to maintain 100 acres of natural forest as orang-utan habitat and key ecological corridor for the Bornean Elephants. Mr Ouh Mee Lan, the Managing Director of Myne Resort, has recently pledged to support the implementation of Sabah Mega Biodiversity Corridor that is initiated by Borneo Conservation Trust in Sabah, by managing their land (which is still covered by natural forest) as an orang-utan conservation and observation area" (http://borneotrust.com/borneotrust/).

More recently the focus of the BCT has moved towards concentrating on a REDD+ pilot project that will aim to create a larger habitat corridor to the west of Batu Puteh. This initiative is dealt with in more detail in the next section.

### 3.5 The WLT habitat corridor project

The approach of the WLT is to mobilise funding from a range of international partners in order to providing finance for conservation. Their project selection strategy is therefore defined in terms of the priorities of their funding partners, who in general are primarily concerned with biodiversity conservation. They do not aim to work with any one particular sector or group, but rather they are concerned with facilitating inter-sector collaboration towards biodiversity conservation. The WLT therefore acts as a bridging agent between local project partners and international funding sources. Within their model, the WLT delegate project implementation to local project partners and are only involved with implementation in an advisory and overseeing capacity. In the case of the Lower Kinabatangan these on-site partners are LEAP and HUTAN.

A representative of the WLT described how the organisation first became involved in the Lower Kinabatangan. In 2007, LEAP approached them about funding land purchases for a habitat corridor in the Kinabatangan. This led to the formation of a partnership between WLT, LEAP and HUTAN. She

stated that the principle attraction of the Lower Kinabatangan was the significant threat to an area of high biodiversity value, adding that the biodiversity in the Lower Kinabatangan was "as good as it gets". The presence of orang-utans was considered a particular benefit in attracting funders. However she commented that because WLT principally targets corporate donors, the emotive appeal of orang-utans it not as critical as for NGOs such as WWF who raise money through public campaigns. She also cited the benefit of stable government and the receptive and proactive attitude of government agencies to conservation issues. Finally she cited that the habitat corridor strategy was attractive to WLT because it fits closely with their wider organisational strategic model that traditionally focuses on land acquisition for conservation purposes (Representative of WLT 1).

However she also noted the problem of high land prices in the Lower Kinabatangan. Because of the high profitability of palm oil cultivation, land values are in some cases up to $5,000 per acre. In addition, because of high levels of profitability, plantation owner are often very reluctant to sell. This means that they have to target small areas of forest very carefully in order to have any significant effect, which involves liaising with local project partners to identify uneconomical land that plantation owners may be prepared to give up. This factor can put off some funders who in many cases prefer to fund projects with higher impact in terms of scale. She noted as an example that by comparison some land in the Amazon could be bought for as little as $100 per acre (Representative of WLT 1).

In spite of this problem, the WLT has been able to raise substantial funds towards land purchases in Sabah. This funding has been used to support land purchases, with HUTAN and LEAP identifying land and negotiating with landowners. This has required HUTAN and LEAP to use their existing contacts and expertise to coordinate with plantation owners, local communities and a number of government departments. The most recent project has involved WLT running a large fundraising campaign in the U.K. in order to finance the acquisition habitat corridor to the north of Sukau. This project is described on the WLT website:

> "With the funds raised WLT will be able to help create the Keruak Corridor, which will link Keruak Forest Reserve with one part of Lower Kinabatangan Wildlife Sanctuary. The corridor is being created in partnership with WLT's partner NGO in Malaysia, HUTAN. The first phase of the project will secure a stretch of several properties along the north bank of the Kinabatangan River. After the completion of the first phase, if funds can be raised, the project will move into a second phase to widen the corridor. To create the Keruak Corridor WLT needs to raise in the region of one million pounds. This is a lot of money for a relatively

small area, but land is very expensive in Borneo because of the booming palm oil sector". (http://www.worldlandtrust.org/projects).

A representative of HUTAN corroborated this statement:

> "WLT is raising funds to acquire land for Kinabatangan, land that is privately owned and available for sale. Our current goal is to secure a contiguous corridor of forest between Kerouak forest reserve and Lot 2 of the LKWS, and after this land will be incorporated within the LKWS. We [KOCP] will replant trees and assist the forest generation processes according to what is needed (i.e. only on bare lands)" (Representative of HUTAN).

A recent press release by WLT revealed that, as of February 2014, nearly £900,000 had been raised towards this project. As a result, HUTAN and LEAP had been able to purchase 17 out of 26 lots identified to complete Keruak corridor, with funds secured for the purchase of the remaining lots. This project represents a successful example of coordination between an international NGO and two local NGOs, who have in turn been able to further collaborate with a complex range of other stakeholders towards conservation aims (http://www.worldlandtrust.org/news/2014/02/ borneo-rainforest-appeal-million-pound-target-sight).

## 4. The EU REDD+ Pilot Project

### 4.1 The origin of the EU REDD+ project

More recently, a new approach to funding the creation of habitat corridors has emerged though a grant from the EU delegation to Malaysia to develop a REDD+ project in the Lower Kinabatangan (see project location in Figure 6). This project has been initiated through funding from the EU delegation to Malaysia and is intended to link with State and Federal level REDD+ programmes. As a legacy of past reluctance at the federal level to engage with international conservation initiatives, Malaysia has been relatively late in its efforts to implement a REDD+ strategy. However, as was shown in Chapter Six, this attitude has begun to change. The Sabah REDD+ Readiness Road Map document sets this context:

> "The Federal Government has acknowledged the importance and potential benefits of involvement in the REDD+ mechanism; thus the Ministry of Natural Resources and Environment has called for REDD+ to be implemented in tandem with the other pillars under the Bali Action Plan, namely finance, technology transfer and capacity building, to ensure

sustainable development while preserving forests and their many co-benefits" (Kugan et al 2011: 9).

Consequently Sabah, and particularly the SFD, has begun to enact plans for a State REDD+ plan that is integrated with, but separate from, a wider Malaysian REDD+ strategy. The Sabah REDD+ Road Map document justifies their approach:

> "In view of the declining revenue from the forestry sector, Sabah Forestry Department believes that this source of income from forests must be explored and developed to out-compete other agricultural crops. In other words, it is crucial to make trees worth more standing than cut down with economic incentives, such as REDD-plus, to protect forests" (Kugan et al 2011: 5).

As part of this strategy, the SFD are working closely with WWF Malaysia. A WWF representative stated that they are well positioned to assist in this process owing to their extensive networks, resources and technical expertise in REDD+ planning. She stated that their role was particularly in establishing baseline data and implementing a monitoring, reporting and verification structure both in Sabah and in Malaysia as a whole (Representative of WWF 2).

In specific relation to the Lower Kinabatangan pilot project, the Sabah REDD+ Road Map goes on to state:

> "SFD is in the midst of getting funds from the EU for its demonstration projects. EU has had an initial discussion in securing €4 million to be utilised for the next 5 years commencing 2013 for supporting activities involved in "Tackling Climate Change through Sustainable Forest Management and Community Development"" (Kugan et al 2011: 28).

The representative of the EU delegation to Malaysia expanded on the content of this project. She stated that the project is intended as a pilot that should link up with and inform the wider federal and state level REDD+ strategy. They are investing €4m and covering 80% of the costs, with 20% to be covered by the State Government. The particular aim of the project is to provide a pilot that can be rolled out quickly and be a guide for future implementation, given that REDD+ in Malaysia is still in early stages. Within this aim, the primary emphasis was on using REDD+ as a vehicle for indigenous community development, though biodiversity conservation also formed a secondary objective. She stated that their funding will assist planning for three pilot projects in Sabah, all of which will be focused on achieving not only carbon sequestration benefits but also community benefits. One of these pilots is intended to fund habitat corridors in the Lower Kinabatangan in the

area between Batu Puteh and Malua, where the worst abuses of riparian corridor rules have taken place (Representative of EU Delegation).

The EU REDD+ Action Plan states the central objectives of the project as follows:

> "The Action will generate specific experience and lessons learned to support the refinement and implementation of the Sabah State REDD+ strategy and showcase the potential of community engagement in REDD+ activities".

This document goes on to describe the rationale behind the proposed form of a REDD+ pilot in the Lower Kinabatangan as follows:

> "Without targeted action it is anticipated that the remaining forests along the Kinabatangan River between Dermakot and Batu Puteh will be steadily cleared and converted to oil palm plantations and other land uses. This will lead to significant carbon emissions as well as negatively affect the importance of the area for biodiversity and also welfare of local communities".

In the process of implementing this project, the importance of inter-sector partnerships is given particular prominence:

> "This project will establish mechanisms to facilitate cooperation between government agencies from different sectors together with NGOs, private sector and the local communities. This will help to enhance interagency cooperation and address some of the problems arising from conflicts or gaps in individual agency and sectoral policies".

More specifically, the document highlights the value of utilising the model provided by the MESCOT project:

> "The community development programmes will draw on the successful experience of MESCOT, a community cooperative at Kampung Batu Puteh…Support will be provided to expand the facilities of MESCOT to act as a training and support centre for other villages in the pilot areas…It is proposed that this activity will be led by MESCOT with technical support from BCT, HUTAN, LEAP and other partners" (EU Delegation 2011: 6-19).

Overall, the EU-REDD+ project will be coordinated by the SFD. However in the case of the Lower Kinabatangan sub-project, authority and funding has been delegated to the SWD. The SWD in turn

have delegated responsibility for the initial plans to the BCT. At the time of research this project was in an early project development phase, with BCT acting as coordinator.

*4.2 Stakeholder reservations about REDD+*

In interviews, a number of potential technical and financial issues that could impede the implementation of a REDD+ pilot project in the Lower Kinabatangan were identified. Firstly, a representative of the EU Delegation noted the limitations of their involvement in the project. She commented that they have limited staff and will not be able to closely oversee the project. But in addition, she also cited the problem of their short term horizons in Malaysia. She stated that project comes at the end of a seven year funding cycle and that after this they are likely to downscale their assistance in Malaysia. This is because Malaysia is a middle income country and overall strategy of the EU is to target poorer countries. She stated that the EU could only support an initial feasibility study and that it will be necessary to find another funding partner to support the project after the first stage. Also, from a wider perspective, she cited worries about REDD+ in general in terms of the uncertainties surrounding international negotiations to set up REDD+ compliance mechanisms (Representative of EU Delegation).

Other interviewees also expressed reservations about the project in technical and financial terms. A representative of HUTAN commented:

> "The problem with REDD+ with communities and the Kinabatangan is that it is more designed for big areas like Ulu Segama. I don't know how it is going to work in the Kinabatangan" (Representative of HUTAN).

Other interviewees highlighted the issue of opportunity cost. A representative of SEARRP summed up these concerns:

> "There is no way that given current trends carbon money is going to come anywhere close to [revenue from] oil palm" (Representative of SEARRP).

This observation was expanded on by representatives of WLT and RSPO. The former commented that Sabah was at a disadvantage because of the focus of its REDD+ plans on reforestation. This is because of the additional expense of reforestation in comparison with avoided deforestation and the difficulties of calculating the carbon benefits of forest restoration. This, he stated, might make a REDD+ programme in the Lower Kinabatangan less attractive to investors compared to cheaper and more simple avoided deforestation projects elsewhere in the world (Representatives of WLT 2). The

latter further commented that even if a workable mechanism could be agreed at the international level (which he doubted) the revenue would not come close to covering the opportunity cost of foregoing oil palm revenue (Representatives of RSPO).

A representative of WWF Malaysia further observed that the Kinabatangan pilot could also run into other technical problems:

> "With REDD+ we are looking at capacity, looking at methodology, the MRV [Monitoring, reporting and verification] system, setting up processes and practices and systems in the State to enable it to happen…we haven't jumped into pilots because there are other agencies who are more keen to do this, and we are interested in processes and practices. You can jump into your pilots, but if the processes are not there to support, at the end of it your pilot isn't going to work" (Representative of WWF 2).

Beyond technical and financial problems, other reservations were raised by representatives of DGFC, HUTAN and SFD about the complicated and intangible nature of REDD+ and thus the limitations of its appeal to a wide range of stakeholders (Representative of DGFC, HUTAN and SFD 2). A representative of DGFC put these reservations in the following terms:

> "Talk about REDD+ in the press? Tell me, what they going to say? [interviewee makes a raspberry sound]… Take an example. The Minister of Tourism, we had a courtesy call last week so we did this on purpose, we put out a press release about the population of proboscis monkey with all the pictures of the oil palm and the deforestation and he says [interviewee bangs on the table] "we have to do something, this is very alarming". But REDD+, he doesn't even understand it" (Representative of DGFC).

It was noted by a representative of PACOS that these problems were of particular concern for justifying the project to indigenous communities, who are intended to be the main beneficiaries of the project. She commented that while she could see some potential benefits, such as providing a spur to government departments to take the rights of indigenous people more seriously, she felt that it hadn't been explained well to local communities. As a result they tended to look at REDD+ more as something to be suspicious of and something that would threaten their small land holdings, rather than something that could be of benefit to their long term well-being (Representative of PACOS).

A representative of MESCOT corroborated this observation:

"Overall the concept, as long as it protect the nature here, for me that's good but we need to do more on the details, like I said earlier, [concerning problems with the Land and Surveys Department and unclear tenure for communities] before we can implement the project. The most important thing is to bring the communities, all the stakeholders, the government departments round the table to discuss this…and then get everyone's agreement on the issues. There are some problems. There are conflicts with the villages, like Lokan and Bukit Garam, who have planted along the river and if you want to build the corridor it means where you going to put the people? We need to resolve these problems before we start this. They have small plots, they have graveyards, they are worried they are going to lose this" (Representative of MESCOT 1).

He also expressed reservations about their place in the project and how they related to BCT as main project coordinators. This was a particular concern, given that MESCOT were intended to be central to the original conception of the Plan. He stated:

"With BCT and the REDD+ project, I am a bit confuse on their rules for this project" (Representative of MESCOT 1).

This is corroborated by an observation from a representative of New Forests:

"With the EU project there seems to be a lack of communication. Like with MESCOT, they [BCT] brought them in really late, and yet it was supposed to be the focus of the project, it's meant to involve communities and they're supposed to be the centre of it" (Representative of New Forests 2).

These concerns and criticisms remain to some extent provisional given that the project is in its early stages. However they do suggest that a greater level of planning and coordination is needed if the project is to achieve its stated aims.


## 5. Conclusion

In relations to the requirements of the second stage of the analytical framework, this Chapter showed that the more divergent ways actors defined forest conservation policy problems in the Lower Kinabatangan made the implementation of policy more complex than in Ulu Segama Malua. As a result, the action taken to address forest conservation problems in the area has been more fragmented. The Chapter began by considering the way that environmental organisations defined

the problems of the Lower Kinabatangan in biodiversity conservation terms, relating particularly to problems of habitat fragmentation. From this, these actors identified that in order to overcome these policy problems they needed to establish a strategy of forest restoration and habitat corridors. However, the particular features of working in a mixed use landscape meant that these solutions raised further problems of establishing common policy objectives with indigenous communities and palm oil companies, while also seeking to capture a share of tourism revenue for the purposes of conservation. The absence of a comparable government coordinator to the SFD in Ulu Segama Malua meant that different environmental organisations took different approaches to devising strategies in order to engage with these different sectors in the process of contributing to overall habitat connectivity objectives.

Unlike the situation in Ulu Segama Malua where the definition of policy problems, implementation of policy action and the formulation of persuasive arguments to attract international funder was clear and coordinated, in the Lower Kinabatangan this process was less clear. What developed was a number of different local level projects based on different means of dealing with the dual needs of creating habitat corridors and building partnerships towards a broadly similar objective. The relative achievements of these projects was variable, with those projects targeting local communities proving better at reaching stated objectives than those targeting palm oil producers. The broader significance of the contrast between the two empirical examples will be considered in more detail in the following Chapters, where the outcomes of both empirical examples are viewed in their wider context.

**CHAPTER NINE: ANALYSIS PART THREE –FOREST CONSERVATION POLICY IN INSTITUTIONAL CONTEXT**

**Introduction**

The purpose of this Chapter is to consider the policy initiatives that were described in the previous two Chapters in their wider institutional context. This will specifically investigate how individual projects have been able to coordinate and contribute towards creating wider state level forest conservation policy strategy and conversely how they have been limited in doing this by persisting institutional barriers. This Chapter aims to fulfil the requirements of the third stage of the analytical framework by looking at how policy output interacts with the institutional context from which it originated, and how this context limits the output of forest conservation initiatives. In fulfilling these research requirements, it aims to contribute to answering the second research question on the institutional barriers to vertical institutional interplay. It also aims to contribute towards answering the theoretical research question in identifying where policy actors were able to construct new policy directions and how they were limited by historical legacies.

**1. The Institutional Achievements of Forest Conservation Policy**

This section addresses areas where the policy initiatives outlined in the last chapter have altered the wider institutional context of Sabah in favour of forest conservation. From the empirical research, two aspects of institution building, relating to political influence and scaling up of projects level achievements to landscape and state levels, can be identified.

*1.1 The growth of political influence in favour of forest conservation*

A central aspect of where the empirical examples are reflective of wider trends in favour of environmental conservation in Sabah as a whole is in the growth of political pressure to protect the State's forests in particular and its environment in general. Much of this pressure has emerged through the development of institutionalised networks of government agencies, NGOs, scientists, local communities and international funders, all of whom have an interest in protecting and restoring Sabah's forest. These networks have developed from project level partnerships, many of which have been developed in the initiatives taking place in Ulu Segama Malua and the Lower Kinabatangan. The representative of LEAP cited as an example the way that the Malua Biobank, and

in particular its advisory committee, had a role to play in overcoming tensions between organisations and thus contributing to the development of wider conservation networks:

> "There used to be so much competition, so much non-cooperation, but then we all got talking twice a year [in the Malua Advisory Committee] and it's all really changed" (Representative of LEAP).

As a result of long standing experience, gained in large part through conservation projects in Ulu Segama Malua and the Lower Kinabatangan, there are now several international and local environmental organisations operating in Sabah with extensive expertise and strong connections with both international funders and government agencies. Prominent in this network are what a representative of LEAP referred to as a group of "usual suspects", composed of the NGOs LEAP, HUTAN, BORA and WWF Malaysia and the scientific organisations SEARRP and DGFC (Representative of LEAP). As was shown in Chapters Seven and Eight, each of these organisations has connections with either the SFD or SWD or both. Each fulfilled different functions in terms of facilitating funding from international organisations, indigenous community liaison, scientific advice, project management and the transfer of knowledge and best practices to government agencies. Each has been able to fill gaps in forest governance that government does not have the resources or capacity to fulfil. These organisations have also been able to widen the range of stakeholders involved in conservation in Sabah. This can be seen in terms of long term partnerships with indigenous communities like Sukau and Batu Puteh. It can also be seen in the case of international funders such as YSD and Arcus, both of whom have established continuing partnerships with organisations in Sabah and now fund multiple conservation projects in the State.

An illustration of the level at which this network of actors now operates is found in a 2013 report in the local newspaper the "Borneo Post". This article reported how senior representatives of the SFD, LEAP, HUTAN, BORA, WWF Malaysia, DGFC and SEARRP had collaborated towards an action plan for expanding the protected area estate, increasing compliance with certification standards on state owned land and reviewing policies on elephant protection. This action plan was presented in person in a meeting with the Chief Minister of Sabah, thus showing that these organisations are expanding their influence to the highest level of State Government (Borneo Post 2013).

In a number of interviews, a particularly valuable feature of the development of these conservation networks that was highlighted was the importance of international organisations in generating political pressure. This can be seen particularly in the case of Ulu Segama Malua. Several interviewees commented on the way that the SFD has used the projects in Ulu Segama Malua

strategically by inviting large international organisations to become involved in forest restoration projects. A representative of the SFD commented on this strategy in relation to the contribution of YSD and WWF in Northern Ulu Segama:

> "In the big picture these contributions may not be much in terms of money, but they offer protection to an area because you've got big organisations donating towards it so any kind of conversion or logging will become controversial, and the government doesn't like bad publicity" (Representative of SFD 2).

In addition, a representative of WWF Malaysia noted the importance using the credibility of internationally accepted standards such as FSC certification, which mobilise the weight of international pressure to the same ends:

> "With the current moves by the Forest Department, to ensure that most of the activities meet international endorsement, certification, whatever has an international flavour, makes it very difficult for the state government to change anything because if you remove those standards there's going to be a whole lot of fall out, politically" (Representative of WWF 1)

Representatives of BORA and the SFD also noted the important role that WWF Malaysia has played in mobilising its influence in the international level. The representative of BORA commented that the WWF has an important political role in conservation in Sabah because of the reluctance of the State Government to upset the WWF and risk the bad international publicity this might entail (Representative of BORA). A representative of the SFD corroborated this point with an example:

> "In Malua there's this 90 ha biodiversity experiment…The area was earmarked for logging and the permit for logging had already been issued, and because I knew about the existence of the project I went to my director, and I told him there's this big experiment there and we shouldn't be logging the area, because I said WWF has contributed to some restoration work so it wouldn't look good. Actually WWF only donated RM 25,000 [approximately £5,000], it's a very small amount…but the fact that there was WWF involvement, he didn't like that at all and he very grudgingly withdrew the permit to log the area" (Representative of SFD 2).

In the case of the Lower Kinabatangan, the strategic use of large international organisations has not been as closely coordinated. However examples outlined in Chapter Eight show a comparable process taking place in a more piecemeal fashion. This is demonstrated by recent initiatives involving Nestle and the EU Delegation, which while subject to criticism, have brought a similar level of involvement from high profile international organisations. A further aspect of this process is in the

use of national and international media to raise the profile of the Lower Kinabatangan. DGFC and SWD have been particularly active in this respect through engagement with Malaysian television and newspapers, in addition to international media groups such as the BBC, National Geographic and Al Jazeera (Representatives of SWD and DGFC).

Two particular examples were cited by a number of interviewees that illustrated the way that political pressure from conservation networks has impacting on political decision making at the State Government level. The first of these was the decision by the State Government to create the largest protected area in Malaysia. At the end of my field work period it was announced in the newspaper "The Malaysia Star" that the Chief Minister of Sabah had recommended the reclassification of a large part of the permanent forest estate to full protected area status. In a series of enactments over 2012 and 2013, all of Ulu Segama Malua was incorporated, along with the existing conservation areas of Danum Valley, Maliau Basin and Imbak Canyon, into a contiguous 500,000 ha protected area (The Malaysia Star 2012). The representative of SEARRP commented that this reclassification was in large part attributable to the political pressure generated through the involvement of high profile international organisations in the forest restoration initiatives undertaken in Ulu Segama Malua. This allowed the SFD to present a strong case in lobbying the State Government for enacting this reclassification (Representative of SEARRP). This development, which can be directly linked to one of the two empirical examples, represents a decisive reversal of the historic trajectories of land use that were observed in Chapter Six. In the past, with a few small scale exceptions such as Danum Valley, protected area status has only been accorded to areas with marginal economic value for alternative uses. This case shows the first example of a large scale area being protected for conservation purposes where alternative uses such as oil palm or timber plantations could have proved highly profitable alternative uses.

The second example relates to a campaign in 2010 against a coal fire power station, which involved several of the organisations also involved in Ulu Segama Malua and the Lower Kinabatangan. The representatives of LEAP, DGFC and WWF Malaysia commented that this power station, located outside the town of Lahad Datu near to Ulu Segama Malua, would have increased $CO_2$ emissions and threatened nearby marine ecosystems. A group of environmental organisations formed an alliance that was able to mobilise public pressure against its construction, leading to the plan being abandoned. This, they stated, was the first example of a project sponsored by the State Government and economic elites being overturned as a result of public pressure on environmental grounds (Representative of LEAP, DGFC and WWF 1). A representative of LEAP describes the wider implications of this campaign.

"That coalition was a huge shift for Sabahans. The public saw this movement and really got behind it. The ground has really shifted…Sabahans learned oh my god we can create change, in fact we need to make change and be heard. No one got killed, no one was arrested and we got something done" (Representative of LEAP).

She further noted how this success fitted into the wider political context of Sabah. The ruling UMNO coalition, which has controlled the Federal Government since independence, has recently come under pressure of losing its parliamentary majority. As a result, its continued hold on power is dependent on electoral support from the Bornean States of Sabah and Sarawak, which are the only states where UMNO retains an overall electoral majority. She commented that:

"It became so political, and UMNO were afraid if they moved ahead with it they would lose Sabah, and Sabah holds such an important role in the political balance for the country" (Representative of LEAP).

The representative of WWF Malaysia also commented on the growing effectiveness of the combination of environmental civil society and public opinion in Sabah:

"Sabah's like a special case. The power of the people in Sabah means that people get together and they can stop things, like the coal fire plant in Lahad Datu" (Representative of WWF 1).

While this movement cannot be directly attributed to the initiatives undertaken in the two empirical examples, it does show how these initiatives are representative and part of a wider state level movement that is beginning to have concrete political results. Placed in a wider context, a representative of HUTAN made the following observation about this movement:

"Things have changed a lot in 15 years from a point where everyone though Sabah was pristine forest all over to where people here now realise we are losing our wildlife and because of this there are all sorts of opportunities we are going to miss. With all this social media it's impossible to keep people in ignorance anymore" (Representative of HUTAN).

A representative of the SFD also corroborated these observations:

"I am quite positive for the future. With the NGO influence in decision making and greater transparency this will all come together…I think the system is becoming more transparent. It's just a natural process I think, like what's going on in the Middle East [the Arab Spring], people can only take so much" (Representative of SFD 2).

This movement has created the political climate that has given organisations involved in conservation networks the impetus and confidence to build on the achievements of past projects and scale them up to a state wide level.

*1.2 Knowledge transfer and scaling-up of past initiatives*

This process of scaling up existing projects was a theme repeatedly stated in several interviews. The way that this process is developing in practice can be seen in terms of the diffusion of technical expertise through expanding conservation networks. It can also be seen in the explicit objectives of particular organisations to replicate their successful practices and transfer them to other projects in the State.

The representative of SEARRP introduced the first aspect, highlighting the importance of the base of scientific and technical knowledge and expertise that has been built up in Sabah as a result of a range of different projects:

> "In terms of conservation and restoration policy, Sabah is as well placed as any country in the tropics. You've got an almost unparalleled scientific base to work with and possibly pound for pound it's got more technical and science background than anywhere in the tropics with the possible exception of Costa Rica. Even though major questions exist about the technicalities of forest restoration you could now have a pretty good stab at putting together a sensible state wide restoration plan as things stand given the knowledge base" (Representative of SEARRP).

Because of this technical knowledge, different projects have been able to interact and exchange knowledge, of which numerous instances were identified during the fieldwork. For example, a representative of YSD commented on how the project in Northern Ulu Segama borrowed past forest restoration projects:

> "For Northern Ulu Segama we have brought in the project managers for FACE and Inikea [a restoration project in the permanent forest estate which is funded by Ikea] as well. We don't work in isolation and we want to reach out to see what else is going on. (Representative of YSD).

Another example can be seen in the case of the Malua Biobank. A representative of New Forests commented that in the project to establish cooperation with neighbouring oil palm plantations, which was described in Chapter Seven, they had explicitly sought to replicate ideas from the KOCP in

the Lower Kinabatangan. These included the Honorary Wildlife Warden Scheme and initiatives to manage human-wildlife conflict. This observation was corroborated in the following press release that was reporting the newspaper "The Malaysian Insider":

"The partnership will focus on improving boundary security within the plantations, recruiting and training oil palm workers as Honorary Wildlife Wardens, managing human-wildlife conflicts, and improving environmental awareness of workers and their children living in the oil palm plantations" (The Malaysian Insider 2012).

Other less specific examples of knowledge transfer and institutional capacity building that were highlighted in interviews were HUTAN's work on training SFD staff in wildlife monitoring and the work of LEAP and PACOS in providing training in alternative livelihood strategies to indigenous communities throughout the State (Representatives of HUTAN, LEAP and PACOS).

In relation the second aspect, that of scaling-up practices that were established in previous projects, a number of NGOs explicitly cited that this was a core part of their future strategy. A representative of HUTAN summarised how his organisation has sought to expand from its original local project base in Sukau to work at state and international levels:

"At HUTAN we have these three approaches. There is the local based in the Kinabatangan, then we are also involved with the State Government, then there is the Borneo and international level. There are not many organisations I know of that have this approach and these skills" (Representative of HUTAN).

He also stated that a particular focus of HUTAN's work has been using expertise developed at a local level and applying it to a new initiative on the wider impact of deforestation across Borneo. He commented that the importance of this project was not only its direct findings and their potential policy implications, but also in terms of the potential for widening international networks. He commented in relation to his main project partner, the Arcus Foundation (see also in regard to Northern Ulu Segama in Chapter Seven):

"What is important with Arcus is that through them we can get access to the most important organisations, to the World Bank, the EU or the UN" (Representative of HUTAN).

A different example of scaling-up is provided by the partnership between MESCOT and LEAP, and the objective of replicating the MESCOT model in other communities. The representative of LEAP commented on her motivation for pursuing this objective:

"With MESCOT, what we've created there, it's shifting people's perspectives on what's possible. And if that can be scaled up, that's what I want to put my attention to. That's what I get excited about" (Representative of LEAP).

A representative of MESCOT expanded on this process and the advantages that the knowledge and contacts created through building MESCOT can give to other communities:

"To replicate this project, for me to approach the other communities is much more easier because some of them are my family, my friends, we can speak their language and it is easier to get their trust. Our next step is to replicate the model up stream on the river, to Abai [a village close to the mouth of the Kinabatangan River]. What we want to do is introduce the model. As long as they follow the model to start they can start to develop their own model according to their area".

He further noted on this example:

"For Abai we need capital to start it, for the capacity building, planning for project development, planning for forest restoration. Luckily we have a lot of partners, a lot of NGOs and government agencies especially NGOs like LEAP and they can bring in the funding. We can bring them into the project with the Wildlife Department and Forestry Department and develop this and that, how to promote and develop the tourism. Abai has the advantage. They don't have to start from scratch like us. For MESCOT we have to start from A. For Abai they start from B, maybe D. But we cannot give them the easy answer. They have to find their answer" (Representative of MESCOT 1).

The representative of LEAP commented on the progress of this scaling-up process to date:

"We already have two projects, no three now, coming to approach us and MESCOT to do the same thing MESCOT are doing. We borrow from the model, but also we find what's unique about the new community then we tell them to come over and see what MESCOT is doing" (Representative of LEAP).

In addition to these examples, two more recent larger scale initiatives have emerged in Sabah, both of which are in the early stages of planning and both of which aim to build on past experience and achievements to develop landscape level approaches to forest conservation. The first of these is a GEF-UNDP funded project entitled "Biodiversity Conservation in Multiple-Use Forest Landscapes in Sabah, Malaysia". This project is to be sited in the Gunung Rara-Kalabakan Forest Reserve, which is

located to the immediate east of Ulu Segama Malua. The primary objective of this project is stated as:

> "To institutionalize a multiple-use forest landscape planning and management model which brings the management of critical protected areas and connecting landscapes under a common management umbrella, implementation of which is sustainably funded by revenues generated within the area".

Following from these objectives, the project document cites several ways that it will seek to build on knowledge and expertise that has been developed in previous projects. Firstly, it cites the important role of NGO networks:

> "Local-based NGOs [the document previously mentions HUTAN, LEAP, BORA, BCT and PACOS] have on-going partnerships with State departments and/or international organizations in conservation efforts in Sabah with main focus in forests and people. They also undertake studies to provide the scientific basis for sustaining the supply, utilization and management of natural resources. These NGOs will be appointed as implementing partners of the Project if they have on-going activities or interests in supporting the implementation of selected activities within the project landscape. Where possible, these NGOs will provide co-financing to support project activities. A representative from these NGOs will be selected to be a member of the Project Board".

The document further states the importance of building on and replicating existing policy models:

> "The approach will be further strengthened through a strong reliance on partnerships with donors and other stakeholders across the region…as a means of covering more ground and stimulating further replication…The proposed management arrangement is designed to harness the strengths and synergies of existing institutions in overall project guidance, coordination and management".

Finally the document also cites the advantages created by the commitment to and experienced gained by the SFD in implementing a range of more innovative funding mechanism:

> "There are various avenues to explore and the site is well placed to develop sustainable financing options given the existing precedents in Sabah and the Government's demonstrated support for REDD+, biodiversity offsets, certification etc." (GEF-UNDP 2013: 39-108).

The second proposed regional level project is entitled "Forever Sabah". This initiative was introduced by LEAP and has subsequently been adopted by the SFD. The representative of LEAP introduced the form of the Forever Sabah model:

> "Forever Sabah is based on "Forever Costa Rica". The idea is to develop a sinking fund which can then be used to fund a range of projects throughout the state. This would be designed to scale up conservation to a truly state and landscape level strategic approach" (Representative of LEAP).

She went on to state that Forever Sabah aims to build on past initiatives, models and achievements, and to strengthen collaboration between local communities, NGOs, government agencies and the private sector. The objective was to establish larger scale and more formalised partnerships with international funders and intergovernmental organisations. In this process, she observed that it was important to create a message that fires the imagination but also has "scientific teeth". She commented that, similar to the observation made about partnerships in Ulu Segama Malua made in Chapter Seven, the roles of the SFD and LEAP are complementary, with LEAP developing international partnerships and the SFD promoting the project to State Government decision makers (Representative of LEAP).

A representative of the SFD commented that the Department was very interested in Forever Sabah and were preparing to promote it to a wider audience at the Rio 20+ conference. Given that the SFD are looking at using, in his words, a "basket of different policy instruments" that are combined within a coordinated framework, he commented that Forever Sabah might provide a means of fulfilling this role, even if at the time is was only a very raw set of ideas. As a result, he stated that the Forever Sabah project featured high on the SFD's forest conservation agenda (Representative of SFD 1).

The representative of LEAP further stated that this approach was now gaining attention in the State Cabinet (Representative of LEAP). However, in spite of this progress, some observers from conservation organisations have taken a more cautious view of its potential. The representative of SEARRP sums up these views:

> "Forever Sabah is a laudable idea in principle and it's eye-catching in terms of marketing to Rio +20, but it might prove difficult to implement in practice" (Representative of SEARRP).

Nonetheless, a "First Wave" formulation of this project has recently been developed that has crystalized many of the ideas that were expressed at the time of my research. This conceives of a

coordinated strategy of interconnected projects involving forest restoration and connectivity, sustainable agriculture and resource use, and community development. The project is being coordinated by LEAP, SFD, SEARRP, BORA, RSPO and PACOS (Forever Sabah 2014).

## 2. Institutional Barriers to Forest Conservation Policy

In spite of the achievements outlined in the previous section, interviewees expressed concerns about a wide range of barriers imposed by pre-existing institutions in Sabah. These were expressed in terms of economic development policy, ecotourism, the palm oil industry, pressure on the SFD to maintain revenue, government administrative arrangements and the continued neglect of the needs of indigenous communities. Each of these issues is addressed in turn below.

### 2.1 Economic development policy

Many of the persisting barriers to forest conservation policy stem from the continuing emphasis in State and Federal policy on economic growth. Current economic development policy in Sabah is set out in the Sabah Development Corridor Blueprint. This document, which was referred to in Chapter Six, outlines an approach to diversifying the State's economy away from reliance on natural resource exploitation. Its content is encapsulated in the following passage from the Chief Minister of Sabah's introduction to the project:

> "The main aim of the SDC Blueprint is to enhance the quality of life of the people by accelerating economic growth, promoting regional balance and bridging the rural-urban divide while ensuring sustainable development. The SDC programmes, which will be implemented over a period of 18 years from 2008-2025, will be guided by the following principles: capturing higher value economic activities; promoting balanced economic growth with distribution; and ensuring sustainable development via environmental conservation" (IDS 2008: 5).

From one point of view this passage represents a continuation of the economic development discourse that has prevailed in Malaysia since independence, as already mentioned in Chapter Six, where economic growth is considered as synonymous with quality of life. Where this statement differs from the past is the prominence given to sustainable development and environmental conservation as central pillars of economic policy.

However, a representative of LEAP challenged the extent that the Sabah Development Corridor policy represented genuine intentions to place sustainable development and environmental conservation in the mainstream of government policy. She commented on her observations from a three day trade convention on the Sabah Development Corridor:

> "You know the Economic Transformation Programme? The Sabah Development Corridor. There's going to be 56 projects that are going to get fast tracked, all in oil palm, and oil and gas, and food processing and tourism. There was this workshop and Sabahans weren't deciding. It was all West Malaysians…, like a fait accompli and not many Sabahans had any influence on it. And the way that so few Sabahans know what's going on about the ETP, that's really shocking" (Representative of LEAP).

She further commented that all of these projects would be passed by the State Government without any environmental impact assessment. This, she commented, suggested that the reality of the Sabah Development is more a reflection of a "business as usual" approach to economic policy and showed few signs of genuine commitment to stated intentions to take environmental considerations more seriously. Her comments about the dominance of West Malaysians also demonstrate the limited extent that politicians in Sabah are able to re-orientate wider economic policy in the face of pressure at the federal level.

From a more general perspective, a representative of HUTAN further commented on the difficulty of changing the direction of State Government economic policy:

> "Most people in the State Government don't know how to get conservation and development together and they don't want to know…What I want is both conservation and development, but that is really scary for some people, so that is why it is so difficult to go through" (Representative of HUTAN).

These observations suggest that the stated intentions of the State Government to promote sustainable development are not yet matched by the actions of policy makers. This corresponds to the observation of the Malaysian NGO Federation that was stated in Chapter Six in relation to Government sustainable development policy, that "in essence the words are in the right place but in truth the actions are not" (MNF for Rio +10, 2003). These stated intentions may express the genuine intentions of policy makers, and it may be that in future they will yield more concrete results in terms of policy output. However, at present the legacies of past emphasis on economic growth without regard to environmental considerations still present a significant obstacle to advancing

these intentions. The tension between these legacies and the growing pressure for environmental conservation outlined in the previous section can be illustrated in the case of the tourism, palm oil and forestry industries.

*2.2 The limitations of ecotourism*

An example of the problem of balancing economic development and environmental conservation is demonstrated in the approach of the Sabah Development Corridor to tourism. As was noted in Chapter Six, tourism has been promoted as a means of encouraging forest conservation. However several interviewees commented on the limitations of this argument.

In regard to tourism, the Sabah Development Corridor Blueprint states:

> "The tourism strategy is to target high-yield and long stay visitors. It aims to enhance Sabah's position as a premier eco-adventure destination, as well as a high-end second home destination with luxury holiday villas and lifestyle activities. Investors will be courted to anchor new signature tourism products here" (IDS 2008: 18).

In this document there is little reference to how this approach to tourism development would impact on the environment and there was an implicit assumption that ecotourism and sustainable development were synonymous. However, representatives of both LEAP and MESCOT commented on the problem of the emphasis of this policy on high-yield luxury tourism. They observed that such tourism represented the most environmentally damaging sector of the tourism industry due to the high levels of waste and consumption of resources in luxury hotels and lodges. They further observed that there seemed to be a lack of understanding amongst policy makers of how to achieve genuinely low impact tourism (Representatives of LEAP and MESCOT 1). A representative of SEARRP further observed that ecotourism may not be as much of an advantage for conservation as it might at first appear:

> "To some extent the case for ecotourism is being over-egged. I'm not sure there is any correlation between ecotourism dollars and forest cover…you could probably get down to 20% forest cover before most tourists noticed…most tourists if they see a semi-captive orang-utan in a patch of forest outside their five star hotel then they've had their ecotourist experience. Not many of them want to trek around Danum Valley of Maliau Basis to really experience the forest" (Representative of SEARRP).

In addition, a representative of SFD claimed that eco-tourism is of limited benefit given that lodge operators are only concerned with profit and contribute only the minimum that they can get away will while still convincing tourists of their ecological credentials (Representative of SFD 2).

The limitations of ecotourism, excepting the cases of community ecotourism in the MESCOT and KOCP projects, as a source of funding for forest conservation were observed in Chapter Eight. It was seen how limited contributions of tourist operators were in protecting the wildlife their operations rely on. Moreover, there were no examples of the development of ecotourism in Ulu Segama Malua. As a result, the potential of tourism as a means of supporting conservation in both empirical examples remains under-utilised. What this means is that, somewhat paradoxically, the Lower Kinabatangan, which of the two empirical examples has the strongest economic justification for forest conservation policy, is the one where forest conservation policy has been least effective in achieving its aims. Further reasons for this disparity are revealed in the limitations on conservation policy outlined in the rest of this section, the majority of which have the most detrimental effects in the Lower Kinabatangan.

*2.3 The problems of engaging with the oil palm industry*

The position of the palm oil industry also demonstrates an equivocal attitude to sustainable development and environmental conservation. While in the previous two Chapters it was demonstrated that some companies have shown willingness to consider their environmental impact more seriously, prevailing attitudes in much of the industry remain suspicious of environmental organisations.

A representative of the RSPO observed that the palm oil industry was divided on the issue of how to manage its environmental reputation in international market places. He commented that there was division between companies that accept that they have to do something to improve the image of the industry, set against another section that is highly conservative and sees international pressure to make them more sustainable as "neo-imperialism" (Representative of RSPO).

The views of a representative of YSD demonstrated the former side of this division. On the subject of Sime Darby's motivations for funding conservation projects she insisted:

> "We are not doing green washing. Of course there is a benefit to the company but it is not a direct link to the profits. We want to be seen as sustainable, not only in our operations but in what we do".

She commented on the way she perceived the division in the industry on the issue of sustainability and conservation:

"We want to be benefiting the world…that's what I hope people will see us as, rather than as a company who is putting money into conservation just to cover up other things that are going on in the company….it's unfair that people accuse us of covering up because that's the exact opposite of what we are doing…Because of those lone rogue planters [who work unsustainably] the rest of us get a bad name" (Representative of YSD).

A representative of the RSPO outlined the perception of companies on the latter side of the division that are resistant to pressure for the industry to improve its environmental reputation. He stated that a substantial section of the industry was characterised by a conservative and defensive attitude to environmental issues. Further, he commented that there are some grounds for the view held by many that environmental pressure represented a western double standard, given that not nearly as much attention is given to the detrimental effects of similar crops grown in the developed world, such as soy and maize. This, he stated, led to a perception amongst some companies that they were being unfairly persecuted and demonised because they competed with biofuel producers in the West (Representative of RSPO).

The way that these perceptions of persecution have been expressed bear similarities to long standing discourses on "neo" or "eco-imperialism", which were first employed in the 1990s by Prime Minister Mahathir. As a result, this perception can be traced back to the legacy of the period of isolationism in Malaysia prior to the 2000s, which was described in Chapter Six. A prominent proponent of this argument is the CEO of the Malaysian Palm Oil Council, Dr Yusef Basiron. In a published collection of his regular blogs, Dr Basiron has set out his views, which are particularly vitriolic about the role of Western environmental NGOs. The following passage represents an illustration of these views:

"Have they [western NGOs] ever wondered on the implications of their actions which may affect the livelihood and families of oil palm farmers in distant countries? Many of these farmers are probably living a hand to mouth existence and struggling to feed their families with a sustainable source of income. Terrorising the oil palm industry by publishing blatant lies can be likened to Somali pirates who live on immoral earnings by attacking defenceless ships passing by".

He has also expressed the view that the palm oil industry is routinely discriminated by developing world government. The following passage is representative

> "If the EU governments manipulate the emissions saving figures to disqualify palm oil from being used as a normal raw material for biofuel, they too are guilty of colluding with the NGOs by setting up a trade barrier against the agricultural produce of a developing country" (Basiron 2011).

An example of his views relating to conservation in Sabah is represented by the following passage, where Dr Basiron refers to the findings of a study on orang-utans in and around oil palm plantations conducted by Dr Marc Ancrenaz of HUTAN:

> "In my view the most important finding is the report by Dr Ancrenaz that orang-utans do indeed feed on the loose fruits of the oil palm…A recent survey revealed that the orang-utan population in Sabah has not declined because the permanent forest area has not changed outside over the last five years. The study further revealed that the orang-utan population in the non-permanent forest areas is increasing. More surprisingly orang-utans living near oil palm plantations feed on loose oil palm fruitlets and benefit from all year round availability of a healthy food source which is naturally rich in Vitamins A and E, giving the orang-utans healthy shiny coats. This suggests that oil palm and conservation can successfully operate side by side" (Basiron 2011).

Following a 2009 conference on orang-utan conservation in Sabah, the Malaysia Star reported that Dr Ancrenaz refuted this statement and argued that he had been misrepresented:

> "Yusof [Basiron's] suggestion that oil palm plantations are good habitats for orang-utans was quickly dispelled by orang-utan conservationist Dr Marc Ancrenaz, co-director of the Kinabatangan Orang-utan Conservation Project, who has researched the primate in the Kinabatangan region for the last 12 years…Dr Ancrenaz clarified that although orang-utans have been found chewing on oil palm fruits, the behaviour should not be interpreted to mean that plantations are a viable ecosystem for the Asian great ape… [He noted that] plantations alone cannot support the orang-utan in the long term. The nutrients are insufficient and the animals will likely starve to death" (Malaysia Star 2009)."

In a subsequent personal communication, a representative of HUTAN corroborated this report. This exchange, it was explained, has been a major cause of the reason why HUTAN are so reluctant to work with the oil palm industry, as detailed in the previous Chapter (Representative of HUTAN).

These views have been a contributory cause of divisions in the industry. A representative of DGFC commented that the statements of Dr Basiron were creating strains between other organisations representing the industry, including the Malaysian Palm Oil Board (Representative of DGFC). The representatives of the BORA, BCT, LEAP and SWD also commented that the position of the Malaysian Palm Oil Council was undermining attempts to establish a sustainable palm oil certification scheme under the RSPO. It was noted that large plantation owners often completely ignore RSPO regulations even where they are members and as a result to credibility of the RSPO is being progressively eroded (Representatives of BORA, BCT, LEAP and SWD).

As a result of these tensions, the palm oil industry does not present a united face. This has meant that conservation led organisations have found it difficult to coordinate engagement with the industry as a whole. Different conservation organisations have pursued different channels to engage with the palm oil industry. New Forests and LEAP have chosen to work with the RSPO. The BCT, DGFC and SWD have engaged with the MPOC and MPOB. SEARRP, WWF Malaysia and the SFD have sought to engage directly with individual palm oil companies. In these circumstances, representatives of SFD and New Forests have stated that efforts to make palm oil companies adopt less environmentally destructive practices and compensate for past and present environmental damage will be difficult without State Government legislation. To date, they observe, this has proved difficult to achieve (Representative of SFD 2 and New Forests 1 and 2).

As a consequence the palm oil industry continues to represent one of the most significant barriers to forest conservation policy, both in the case of the two empirical examples and in Sabah as a whole. In the case of Ulu Segama Malua it has proved difficult to engage the industry in a biodiversity offset programme in the Malua Biobank and at the end of the period of my research this problem remained on going. In the case of the Lower Kinabatangan the cooperation of the palm oil industry is much more integral to the habitat connectivity strategy, and as a result the consequent difficulties faced in establishing collaborative relationships with plantation owners are correspondingly more serious.

*2.4 The SFD and the pressure to generate revenue*

A different aspect of the pressures to balance economic development and environmental conservation is presented by the wider position of the SFD in the context of the whole Permanent Forest Estate. As was shown in Chapters Six and Seven, the SFD has been engaged in a concerted attempt to realign its policy position from an emphasis on revenue generation to an emphasis on

forest stewardship. However, this realignment is compromised by pressures from the State Government. As a representative of the SFD commented:

"SFD are under continuous pressure to be able to show financial results to those at ministerial level" (Representative of SFD 1).

The representative of BORA corroborated this view, commenting that the SFD had to struggle hard to maintain its commitment to SFM in the face of pressure to maintain revenue. He stated that future SFD policy was likely to involve a strategy where the Permanent Forest Estate would become a mixed use landscape of fully protected forests and intensive fast growing timber plantations. He further observed that this strategy may benefit conservation provided that this is done in a transparent and coherent way. However, he expressed the fear that due to a general lack of transparency and coherence in State Government policy this might not happen in practice (Representative of BORA).

In contrast to this observation, a representative of the SFD defended this strategy of combining timber plantations and conservation in the following terms:

"[The SFD] is looking at putting more and more areas under legal protection, excluding it from logging, just so we pre-empt any move in future to convert areas to plantation and try to focus production on actual tree plantations…I think we need to promote conservation by focusing on high yield fast growing plantations so we don't have to go and mess up the natural forests again" (Representative of SFD 2).

However, the representative of SEARRP commented on these plans in less optimistic terms:

"The argument coming out is that in order to keep substantial areas of natural forest intact and under protection, they [the SFD] have to convert X number of thousands of hectares to timber plantations…but you just don't know what deals have been done behind closed doors…I hate to think, as a quid pro quo, what has had to be agreed for Sam [Mannan] to get away with [making Ulu Segama Malua a protected area]".

Following this, he expressed similar concerns to those voiced by the representative of BORA:

"The danger is that it [clearance for timber plantations] will be a free for all, with little or no landscape planning, where licensees will be able to convert sections of their FMUs [forest management units] piecemeal in an uncoordinated way" (Representative of SEARRP).

Given the observation made in the first section of this Chapter, these problems do not suggest that there is a threat to already protected areas such as Ulu Segama Malua. Rather the risk is that forest conservation policy will only apply in practice to selected areas that have high profile populations of charismatic species such as orang-utans, while the ecosystems of the majority of Sabah's forests where these species exist in smaller numbers or not at all are at risk of being disregarded. This problem therefore limits the extent to which the achievements of the initiatives undertaken in Ulu Segama Malua can have wider significance at landscape and state wide levels.

*2.5 Institutional barriers in State Government administration*

Aside from issues about achieving a balance between economic development and environmental conservation, a recurrent theme in many of the interviews were problems resulting from the organisation of State Government administration. Many of these issues, stated in terms of the land tenure system, corruption, lack of transparency and poor inter-departmental coordination, were introduced in Chapter Six. A representative of LEAP summarised many of these problem in a description of a recent workshop on the Forever Sabah initiative:

> "What came up really strong in the brainstorm was people being really frank about the problems – corruption, corruption, corruption, institutional dysfunction, fragmentation of government departments, no capacity. Those are the real big obstacles, so it was clear that nothing was going to shift with the same old structures, the same institutional behaviours in place…So opening up and transparency and accountability are really core to shifting anything in Sabah. Anything else would just be a band aid" (Representative of LEAP).

Expanding on these observations, other interviewees revealed three main aspects of these "old structures" and "institutional behaviours" that impacted on forest use. These were the long standing close relationship between political and economic elites, the system of land tenure and risk aversion in government agencies.

On the first aspect, a representative of the SFD made the following observations about the links between government and business in the Malaysia, citing the example of the dominance of state supported conglomerates:

> "They [the conglomerates] are all made up of UMNO [the ruling coalition] cronies…trying to run not just the civil service but the economy, by forcing private companies out, buying them up with tax payers funds then controlling the economy. It's not enough that a certain

group of people control 95% of the civil service, they want to control the economy too and they form big government linked companies which I think is not healthy in the long run".

He also commented on the position of politicians and their impact on forests:

"Politicians are very powerful in Malaysia, and sometimes they think they are above the law and they do things with impunity and get away with a lot, and in a way our forests have been a victim of that, you know. So we need to protect our forests from politicians" (Representative of SFD 2).

The representative of SEARRP corroborated these views, highlighting the nature of the relationship between timber companies and the political elite:

"There are still serious problems with the relationship between timber companies and the State Government in terms of funding political parties. The forests are still seen as a cash cow for political parties, particularly in election campaigns, to keep the coffers of political parties topped up" (Representative of SEARRP).

On the second aspect, in Chapter Six it was described how much of Sabah had been divided between state land under the administration of the Lands and Surveys Department and the Permanent Forest Estate under the administration of the SFD. One consequence of this division has been the rivalry between these two departments. A representative of BORA commented on the history of this relationship. He described how when the SFD was founded in 1968, the Lands and Surveys Department regarded the SFD as an interloper that had usurped many of its powers. As a result, he observed that there has emerged a complex web of conflicting and overlapping responsibilities and thus a long term enmity between the departments. This meant that it became very difficult to develop coherent land use policy in areas where both departments had responsibility. He commented that this problem was best illustrated in the example of the difficulties faced in creating a coordinated mixed use policy strategy in the Lower Kinabatangan (Representative of BORA).

A further problem with this system was the observation that the Lands and Surveys Department had become a *de facto* advocacy group for the palm oil industry. An Environmental Consultant commented that the department had allowed palm oil companies, in her words, "to get away with murder" in areas such as the abuse of riparian zones and the treatment of indigenous communities. While observations from Chapter Eight show that there has been some movement amongst state ministers to deal with this problem, the Lands and Survey Department remains a significant barrier to forest conservation policy initiatives (Environmental Consultant).

However it was noted that not all institutional legacies were necessarily detrimental to forest conservation. Some interviewees observed that the land tenure system had become in some respects an advantage. Representatives of the RSPO and the SFD both commented that if a strict revenue maximisation rationale was applied to land use policy in Sabah, then a very large proportion of the permanent forest estate would be de-gazetted and converted to oil palm (Representatives of RSPO and SFD 2). That this has not happened, in spite of the emphasis of state and federal policy on economic development, can be attributed to the institutional bulwark now provided by the Land Ordinance. Representatives of the SFD and SEARRP both commented that in order to de-gazette areas of the Permanent Forest Estate, the decision has to be passed through the State Legislature, a process that would be time consuming and political difficult (Representatives of SFD 2 and SEARRP). As a result, a representative of the SFD commented that the land tenure system had become "something we are stuck with". This means, with the change in policy direction of the SFD and the clearing of most remaining state land, the Land Ordinance has changed from being one of the main drivers of deforestation to an effective break on further deforestation (Representative of SFD 2)

The third aspect of the system of government that has impacted on forest policy is risk aversion. A representative of New Forests observed how this problem has fostered a conservative perspective in many government agencies and has therefore impeded policy innovation:

> "People in government departments in Malaysia are usually risk averse. There's a lot of career risk for the head of a small government department to put their head above the parapet and support an unproven initiative" (Representative of New Forests 1).

A representative of BORA observed a different problem that results from risk aversion. He commented that when dealing with other branches of government, the main concern of most government agencies is, in his words, "not to step on each other's toes". This means that that a long term culture has developed amongst government of agencies keeping to their own delineated spheres of influence, which has in turn meant that it has become very difficult to initiate coordinated inter-departmental policy action (Representative of BORA).

This culture of risk aversion has had some impact on the SFD. A representative of SEARRP commented that the SFD has been able to risk comprehensive policy realignment because it had been forced by the material necessity of the "timber famine", which threatened it continued existence in its current form. As a result, it has little to lose in pursuing policy innovation. However a representative of BORA qualified this observation. He recounted how, in the early 2000s, Sam Mannan refused to sanction the conversion of large sections of Ulu Segama Malua for timber

plantation (see Chapter Six) and was temporarily demoted as a result. This meant that since his reinstatement he has been much more cautious about direct confrontation with state ministers, and has preferred a more subtle approach to initiating policy change.

The consequences of these institutional constraints in the State Government system have meant that a gap has developed between stated policy and policy implementation. This links the problem of embedded institutional practices to the problems of implementing sustainable development policies in Sabah that were introduced at the beginning of this section. The representative of SEARRP summarised this problem in the following statement:

> "There is a gulf between the policies in place that are mostly perfectly adequate and the delivery on the ground which is mostly woefully inadequate" (Representative of SEARRP).

These observations about the organisation of State Government administration show that the problems arising from embedded institutional practices are felt unevenly across the State. In the case of Ulu Segama Malua, the dominant position of the SFD and its willingness to fundamentally re-orientate its organisational values and practices meant that these problems were relatively slight, and moreover the Land Ordinance may actually be of benefit to forest conservation policy. This contrasts sharply with the Lower Kinabatangan, where fragmentation between government agencies and the lack of support for forest conservation amongst some of these agencies presents a serious obstacle to implementing a habitat connectivity strategy in the area.

*2.6 Continuing problems for indigenous communities*

In Chapters Six and Eight it was observed that indigenous communities had been subject to a long term history of marginalisation and dispossession. In Chapter Eight it was further observed that some attempts were being made within the State Government system to reverse these problems. However several interviewees commented that in spite of recognition in some government agencies of the need to deal with the social and economic problems facing indigenous communities, substantial barriers to a reorientation of policy still existed.

The first of these barriers is the native customary rights system. Representatives of PACOS and LEAP both observed that some progress was being made towards recognition of native customary rights claims, and at the time of research the first large native customary rights claim was being contested in the courts. However, they further commented that the problems observed in the last section, of successful corrupt claims and disregarded genuine claims, remained extant (Representatives of PACOS and LEAP). This observation was corroborated by a representative of the SFD who stated:

"There's a lot of native customary rights claims these days. I tell you a lot of them are bogus…so there's a threat to natural forest from these NCR [native customary rights] claims" (Representative of SFD 2).

Much of this problem has been attributed to the Lands and Surveys Department. A representative of PACOS commented that the Lands and Surveys Department have consistently shown a lack of recognition of indigenous people and little will to deal with many of the problems created as a result decades of dispossession. Much of this can be attributed to the observations made above about the general unwillingness of government agencies in Sabah to change from established practices and the particular bias of the Lands and Surveys Department towards private landowners and palm oil companies (Representative of PACOS).

A further problem that was observed is that government agencies, even when they are apparently trying to address problems faced by indigenous communities, demonstrate a lack of comprehension of the problems they are trying to solve. A representative of LEAP made the following observation in relation to the Lands and Surveys Department:

"They are bringing in this communal title that will realise huge chunks of land that have to be used as a joint venture with the Government where they [communities] have to develop what the Government say. I was talking to the head of the Land and Survey Department. He said he thought it was a great idea. That they're going to get security of tenure, they're going to get all this Government investment and we're going to teach them how to use the land. I said to him "don't you think they already know what they want to do with their land and it's not this?" He replied "no they don't know, they are *kampung* [Malay for village] people, simple people, they don't know". So I thought to myself "I understand why these people can't sit round a table together"" (Representative of LEAP).

Related to this, a representative of PACOS commented that while the attitude of the SFD to local communities had improved in the past ten years, their appreciation of community issues was also sometimes ill-conceived. As an example, she cited a workshop that the SFD ran in the village of Kuamut, which was intended to train local people in making handicrafts. She observed that after the workshop villagers could see little point to the exercise given they remained excluded from the forest and as a result therefore couldn't get access to the materials to make the handicrafts. She commented that this initiative was probably motivated more by the requirements of FSC certification rather than any genuine attempt to improve community livelihoods. She concluded that

the SFD will only do anything for communities if they perceived that there is something in it for them from a financial or political point of view (Representative of PACOS).

These issues have reinforced the general distrust of outsiders felt by many indigenous people and therefore impedes further progress towards establishing partnerships with indigenous people for the purposes on forest conservation. This has wider consequence of limiting the ability to integrate neighbouring communities into forest conservation initiatives in the case of Ulu Segama Malua and the wider Permanent Forest Estate, as well as limiting the ability to replicate the successful community conservation initiatives in the Lower Kinabatangan.

## 3. Institutional Limitations in the Conservation Sector

In the interviews it was revealed that the institutional barriers to the implementation of forest conservation policy lay not only in the continuing historical legacies of the emphasis on economic development in Malaysia and the system of government administration in Sabah. Barriers to conservation also manifested themselves in the institutions of conservation funding and implementation of conservation policy at both international and state levels. At an international level, many of the interviewees were critical of general features and limitations of donation based funding. Moreover, they were also critical of PES based mechanisms that have been devised to overcome these limitations. In addition, problems relating to coordination and cooperation between different environmental organisations, particularly in the Lower Kinabatangan, were also noted.

### 3.1 Criticisms of donation based funding

Criticism of traditional donation based conservation funding were stated in terms of the biases of international funding organisations, the concentration on large scale and eye-catching projects of greater public appeal, a lack of conditionality in funding agreements and the difficulty of integrating the contributions of different donors towards larger scale initiatives.

On the first issue, it was observed that conservation funding at an international level often privileged western conceptions of environmental problems and showed a lack of understanding of local level issues. A representative of WWF Malaysia commented that developed world conservation funding organisations have a tendency to assume that methods that are applicable in the developed world will be applicable in developing world settings, which she observed in practice was often not the case (Representative of WWF 1). Further, a representative of LEAP commented that there is a "north

knows best" attitude amongst many international funders that, while well intentioned, shows a lack of understanding of local level particularities. She illustrated this issue through the example of her participation in a global great ape conservation workshop. She recounted how the involvement of local communities had been treated almost as an afterthought in plans to develop a multilevel conservation strategy. When asked her opinion of this strategy, she responded:

> ""You say involve local communities? Local communities are involved in ways you and I don't know. They live with great apes, they are doing some amazing work and we should support them. But they're not even in this room. We are making these decisions and they're not even here"…Afterwards two people came up to me and said "thank you for pointing out our arrogance"….It's not like they're being wilfully exclusive, that's just the way things work out" (Representative of LEAP).

Corroborating these points, an environmental consultant commented that developed world NGOs often romanticise local communities as "noble savages". This, she stated, was a view that fails to reflect an accurate picture of village life and its internal conflicts, and also that communities are often estranged from forests and therefore see little benefit in conserving them (Representative of LEAP and Environmental Consultant).

On the second issue, the representatives of SEARRP, HUTAN and LEAP identified that international conservation organisations are disproportionately attracted to large scale eye-catching projects (Representatives of SEARRP, HUTAN and LEAP). The views of the representative of SEARRP summarise this view:

> "I don't know we've got anything big enough to attract the funders on a big scale [in Sabah]. It isn't the sort of headline grabbing story, like, say, the Amazon, that is easy to sell…Without something very substantial to put on the table we are not going to get the funding, but if you try to be realistic and do something achievable you are not going to excite anyone" (Representative of SEARRP).

From an international NGO perspective, a representative of WLT corroborated this view. She stated that Sabah has the problem that it doesn't involve large land areas. This means that it does not have the same appeal to funders as larger forest areas such as Amazonia (Representative of WLT 1). Further to this, while many interviewees highlighted the importance of the appeal of orang-utans in promoting conservation in Sabah, a representative of HUTAN observed that this led to a dependence on orang-utan related donation funding. This meant that conservation in Sabah was in danger of

becoming narrowly single issue focused, which would limit the ability to tackle larger environmental problems at a landscape level of scale.

A third problem of international conservation funding that was identified was that conservation funding in general lacks clear targets and conditions on project output. A representative of HUTAN commented on this subject that:

> "Conservation is rarely monitored or evaluated towards results. It's amazing, it's the only field I know of where people [funders] do not care. It's like 'we failed, never mind, have the money, do it again'…The thing is most people who give money out for conservation like to feel good about themselves. They don't want to know more" (Representative of HUTAN).

As a result, he argued that prevailing conservation funding approaches were fostering a "culture of failure" in the conservation sector as a whole. Corroborating this, the representative of the BCT observed that international funders often lack any realistic perspective about the practicalities of achieving results on the ground. He commented that there seemed to be an assumption amongst many funders that you just put money in and somehow everything just happens without questioning how the money is actually being used (Representative of BCT). In addition, a representative of SEARRP commented on a further problem of achieving accountability in donation based funding:

> "If you look at the projects that have been successful in Sabah it's those no regrets CSR type projects that have worked. But the problem is that they can't be output focused because they just don't have the baseline data" (Representative of SEARRP).

A fourth problem of international conservation funding that was identified was the difficulty of coordinating different donor led projects or pooling the resources of different donors. A representative of WLT stated that the difficulty of donation based conservation funding is that different donors have different requirements as conditions for funding. This makes coordinating different contributions problematic (Representative of WLT 1). On the same issue, a representative of WWF Malaysia characterised these problems as follows:

> "It's difficult to pool money from donors when sources of money come from many different agencies. The sources of money are very small and sometimes donors have different conditions and different expectations attached to that money so you can't lump it all into one amount. Some companies want to get involved, some just let you get on with it, some want detailed monthly reports and monitoring" (Representative of WWF 1).

The representative of YSD gave a funders perspective on this issue. Firstly, she stated that in contrast to most funders, they were more business orientated, focusing on project output and proving "value added". Given the relative stringency of their funding model, she commented in relation to the Northern Ulu Segama project:

"Other funders [implying the WWF project in Northern Ulu Segama] are contributing, but they don't contribute on a consistent basis like us. It's more ad hoc….We don't want to do co-funding because we want to have control, we want to ensure that the objectives are being met, we want to ensure that what we do means something" (Representative of YSD).

As Chapters Seven and Eight demonstrated, donation based funding has had some level of success at a localised level, but it is limited in its ability to contribute to larger scale coordinated initiatives. Therefore, as a representative of New Forests commented:

"That's [corporate and philanthropic donations] the route conservation funding has gone down in the past and it's been woefully inadequate to stem the tide of forest loss" (Representative of New Forests 1).

*3.2 Criticisms of PES and REDD+*

In Chapter Five a number of general criticisms in the literature on PES and REDD+ were outlined in terms of their implementation at a local level. Many interviewees in Sabah expressed similar scepticism about these mechanisms. Criticisms of PES and REDD+ took the form of either reservations about the underlying values behind these mechanisms or concerns about their technical feasibility. In the first case, a representative of HUTAN expressed his concerns in terms of western bias and moral objections to the monetisation of nature:

"I have very mixed feelings. In theory I see the value, but in practice I don't really believe in it…I see it as an idea established by western societies. It's not going to work because it's capitalism, and it's capitalism that's destroying the environment. It's not possible…I have two problems. We should not assign monetary value to protect things. And I'm really concerned that this could be a way to use even more natural resources and at the same time feel good about what we do" (Representative of HUTAN).

The representative of DGFC expressed similar reservations about REDD+ in terms of its application to local level implementation:

"I think it's business, it's creating a lot of money, a lot of jobs for people in the West…What I see is what people do on the ground. You can do what you want in Europe, at the EU, at the international level, but if you don't connect to people on the ground then the forest is still going to disappear. It's all a big idea made by people in offices and it doesn't reflect the reality on the ground" (Representative of DGFC).

A representative of the SFD also objected to the use of markets to fund conservation, expressing a preference for a government regulatory approach

"PES – it should be supported by government regulation. It shouldn't be dictated by economics, by market demands. It's so difficult to put a value on all the services of the forest, it's so subjective, to me it's quite impossible. I see so many projects and they come up with so many different values and who's to say what's right or wrong. I don't like those kinds of studies. I don't think they conclude anything" (Representative of SFD 2).

On the second set of criticisms, representatives of the RSPO and the EU Delegation commented on the size and scope of REDD+, which they feared was too large to reach an international consensus on (Representatives of RSPO and EU Delegation). Other interviewees expressed concerns about the dependence of REDD+ and PES on international markets, particularly in the light of the Euro crisis that was taking place at the time of research. A representative of SFD stated:

"I talked to someone on carbon financing you know, and he told me you can forget about any of your REDD stuff and carbon financing because in the current global situation in Europe no one is going to give money for anything substantial apart from maybe a token amount for publicity" (Representative of SFD 2).

A representative of SEARRP also expressed concerns about how the potential economic instability of PES and REDD+ markets could compromise conservation in Sabah:

"The problem [with ecosystem service trading] is you are putting the future of very large areas of forest into a mechanism which you have absolutely no control over" (Representative of SEARRP).

A further technical issue that was raised was the complex nature of PES and REDD+. A representative of WWF Malaysia, whose specialism was in REDD+ and PES, made the following observation:

"One of the problems with REDD+ is that there are so many experts, all trying to sell their ideas and what should be the best methodology, but we couldn't find the right methodology to fit Sabah in practice" (Representative of WWF 2).

Given that an expert in the field made this observation, it is not surprising that other non-experts have found it difficult to understand. Representatives of DGFC and HUTAN, aside from reservations about whether it is morally right to put a monetary value on nature, both expressed they were put off from REDD+ and PES because they found them too complicated (Representatives of DGFC and HUTAN). As the observations of representatives of MESCOT and PACOS stated in Chapter Eight demonstrate, this is even more of a problem in indigenous communities.

These general criticisms of PES and REDD+ have been compounded by the apparent failure of the Malua Biobank and the recent poor sales of carbon credits from the FACE project (see Chapter Seven). In 2011, Sam Mannan expressed the position of the SFD on PES in the light of practical experience:

"At present there are no alternative big ticket incomes that can match timber from rainforests – carbon money is an illusion at present, REDD+ is neither here or there, environmental services do not pay at present and the unfulfilled promise list goes on…green solutions in the end must be financially and economically viable. The bottom line is vital – money does talk!!" (SFD 2011: 12)

From a wider stakeholder perspective, representatives of HUTAN, SEARRP, SFD and WWF Malaysia expressed similar reservations, largely connected to the failure of the Malua Biobank to meet financial expectations (Representatives of HUTAN, SEARRP, SFD 2 and WWF 1). A representative of SEARRP, an organisation that is closely involved with both the Malua Biobank and the FACE projects in an advisory capacity, provided the most comprehensive views on this issue. He stated firstly that:

"The record of payments based programmes in Sabah is dismal, which is a considerable concern. The record of project implementation is very good…but financially they are loss making efforts on a significant scale…it's just not being translated into cash".

He then expanded on these problems:

"As a general view none of these projects are making any money for the State or any of the local partners and I think there is a growing fatigue on the part of the Forest Department and to some extent the State Government in terms of supporting these projects essentially

as loss leaders. Over the last five years interest in these projects has been burgeoning and there has been a fairly regular drum beat of consultants talking telephone numbers in terms of how much money Sabah could make from forest related PES, mostly carbon. To date they are all costing the state money both in terms of foregone revenue and direct costs" (Representative of SEARRP).

As a result of the failure of PES to deliver financial returns to date, he further commented that this could foster a perception within the State Government that conservation cannot pay for itself. This, he argued, could ultimately endanger any gains made by conservation organisations to date (Representative of SEARRP).

*3.3 Problems of cooperation between environmental organisations*

The problems that have originated from conservation funding at an international level have been mirrored by problems of cooperation between conservation organisations at state and local levels. While it was noted in the first section of this Chapter that the development of a network of environmental organisations has been a significant driver in the implementation of forest conservation policy and institutional change, tensions and differences nonetheless exist between different groups. While the coordinating role of the SFD has minimised many of these issues in the case of Ulu Segama Malua, differences between environmental organisations were more apparent in the case of the Lower Kinabatangan. These have manifested themselves in terms of lack of coordination, differences of opinion on the issue of engagement with the private sector and different objectives.

In the first case, a representative of WWF Malaysia stated her opinion of the problems facing the conservation sector in terms of coordination:

"The government, the private sector, communities, NGOs and academics – they all need to sit down together and sort out where we are heading, what we are doing and how do we fit in, because we see quite a lot of projects or funded programmes which are replicating and it's a bit of a waste of money. We have to maximise the resources we have but there are still some conflicts. The problem is the stakeholders are always the same and there is a need to coordinate better" (Representative of WWF 1)

However, several interviewees commented that many of the problems of poor coordination stem from WWF Malaysia itself. For instance, a representative of New Forests commented on how WWF Malaysia would sometimes carry out small studies or projects in Malua without informing either the

New Forests or SFD staff who were responsible for the management of the area. A representative of BORA, who in the past worked for WWF, explained that this problem arose from the fact that prior to the late 1990s WWF Malaysia was the only environmental NGO permitted to work in Sabah. This meant they did not have to consider competition within their own sector. He observed that when other NGOs, such as HUTAN, arrived in Sabah, they tended to remain aloof and therefore have a poor record of collaboration with other conservation groups (Representative of BORA).

The lack of coordination between WWF Malaysia and HUTAN in the Lower Kinabatangan is instructive in this respect. Whilst representatives of both organisations avoided making explicit reference to tensions, it was made implicitly clear that there was very little contact between the two organisations. A representative of WWF Malaysia stated that they did not want to "step on the toes" of other organisations (Representative of WWF 3), while a representative of HUTAN put their relationship in the same terms:

> "When we started [in 1998], there was the Partners for Wetlands Project, and one of their priorities was to work with oil palm so we decided not to do this because the WWF wanted to do it and we didn't want to seem like we were stepping on their toes. We didn't want to have two organisations doing the same thing" (Representative of HUTAN).

The problem of poor coordination between NGOs has proved a particular problem in the Lower Kinabatangan. A representative of the BCT expressed a fear that organisations active in the Lower Kinabatangan were talking endlessly about plans but had produced no coordinated strategy, and as a result nothing was getting done. This becomes more of a problem as more organisations become involved. For instance, he observed that at the time of research there was very little communication from the WWF about the Nestle RiLeaf project, despite the fact that other organisations were doing similar work towards the same ends (Representative of BCT).

A representative of MESCOT commented on the problem of poor coordination in the Kinabatangan from a community perspective. The lack of communication from BCT on the EU REDD+ project has already been noted. In addition, it was noted that until recently there has been little coordination between MESCOT and DGFC, in spite of the fact that DGFC and Batu Puteh are only half an hour's boat ride apart. This had led to local resentment in Batu Puteh, a problem that was only resolved following a visit to the village by the Director of DGFC. After what has been described as a confrontational meeting, it was agreed that the field centre would involve Batu Puteh more in their activities and give employment opportunities to villagers. In a later field trip it appeared that these

problems had been resolved, and MESCOT and DGFC were beginning to work together in areas such the identification of riparian zone abuse (Representatives of MESCOT 1 and DGFC).

Much of this problem in the Lower Kinabatangan can be attributed to the lack of a strong coordinating government agency to fulfil the role that the SFD plays in Ulu Segama Malua. While the SWD could potentially fill this role, representatives of HUTAN and DGFC commented that severe funding shortages and lack of sufficiently qualified staff meant that in practice the capacity of the SWD to fulfil such a role was limited. Representatives of other organisations who do not work as closely with the SWD were more critical, commenting on a chronic lack of organisation, lack of transparency in working practices and the difficulty of contacting senior figures (Representatives of BORA, LEAP, SEARRP and New Forests 2).

In terms of the second issue, the question of how far conservation organisations should collaborate with the private sector has proved a consistent dilemma. The representative of LEAP stated her opinion of the subject:

> "We cannot make any relevant, legitimate plan if we don't factor in the Economic Transformation Project [see previous reference to the Sabah Development Corridor]. If we don't we are in denial, we are kidding ourselves…We have to engage with this. If we go back to our little projects we are just going to be taking the crumbs under the table and doing our tiny little projects just to feel good about ourselves" (Representative of LEAP).

But her position on working with economic interests has brought her into disagreement with other environmental organisations. The following statement about the reaction of representatives of HUTAN and DGFC to her plans to work with Shell as part of the biodiversity offset programme in Malua illustrates this point:

> "They said [to me], you're selling out, you can't do that to conservation, you can't just put a price on it [the natural environment]" (Representative of LEAP).

This dilemma has been demonstrated throughout the analysis Chapters, with different organisations taking a different position on the issue collaboration with the private sector. This ranges on a spectrum from the more principled position of HUTAN, which avoids relationships with organisations it perceives to be environmentally damaging, to the active pursuit of a wide range of private sector partnerships employed by WWF Malaysia.

The third aspect of disagreement between conservation organisations that was identified was the different opinions about how best to prioritise the finite resources available for conservation. This manifests itself in a division between those most closely involved in the Permanent Forest Estate (including Ulu Segama Malua) and those more active in the Lower Kinabatangan. From the former perspective a representative of SEARRP commented that:

> "For me the focus should be on restoring lowland forest and less on establishing connectivity, especially where that would be extremely expensive [implying Lower Kinabatangan]. We need to focus on the large expanses that still exist in Sabah" (Representative of SEARRP).

In contrast, from the latter perspective a representative of HUTAN argued that the future of conservation lies in mixed use and multi-stakeholder landscapes. Therefore, in his opinion, the Lower Kinabatangan should be prioritised not only in itself, but as a model for general wider application (Representative of HUTAN). Supporting this argument, representatives of LEAP and MESCOT highlighted that conservation should not consider humans as separate from nature, but should focus on how people, particularly local communities, can be reconnected to the natural environment. From this perspective they also considered that the Lower Kinabatangan had greater importance and wider relevance (Representative of LEAP and MESCOT 1).

Over the course of four visits to Sabah between the beginning of 2011 and the end of 2013, it was observed that cooperation between environmental organisations was improving. This can be demonstrated by some of the cooperative initiatives outlined in the first part of this Chapter, as well as examples such as the improving relationship between MESCOT and DGFC. However difference of opinion and approaches remain. This is less of an issue when there is a coordinating authority such as the SFD. The case of Northern Ulu Segama demonstrated how different donor led projects could be integrated into a wider strategy where such a coordinating authority existed. However it remains an underlying problem in the circumstances of the Lower Kinabatangan where such a coordinating authority is not present.


## 4. Conclusion

This Chapter addressed the third stage of the analytical framework in showing how the policy initiatives outlined in Chapters Seven and Eight were able to successfully combine with or change existing institutional arrangements, and conversely how they were limited by institutional barriers. It

showed firstly how the initiatives in the two empirical examples contributed to promoting forest conservation at a wider level through fostering the emergence of policy networks that have in turn generated political pressure for environmental protection at a state level. It has also shown how these initiatives have led to the development of expertise, the building of institutional capacity and the generation of financial resources that are being used to expand and replicated past achievements into a state wide forest conservation strategy. In this, the empirical examples can be considered as representative of and contributory to a wider movement, rather than a direct primary cause of a changing policy environment in favour of forest conservation.

The Chapter also demonstrated that these achievements remain circumscribed by institutional barriers at the state level. The difficulty of reconciling economic development and conservation has made it difficult to integrate the tourism and palm oil industries into environmental partnerships. In addition, in spite of progress towards forest conservation in Ulu Segama Malua, the SFD's freedom in respect of the rest of the Permanent Forest Estate is also restricted by revenue generation considerations. In addition, institutional legacies in state administration, which remains conservative, fragmented and in many cases unsupportive of forest conservation, have limited the implementation and expansion of forest conservation policy while also continuing to foster distrust of outsiders amongst indigenous communities. The Chapter reveals that these problems have impacted unevenly, with the Lower Kinabatangan being limited by institutional barriers to a greater extent than Ulu Segama Malua. As a result, less progress towards achieving policy objectives has been achieved in the Lower Kinabatangan in spite of stronger economic arguments for its conservation than is the case in Ulu Segama Malua. Going beyond institutional barriers in Sabah, the Chapter also revealed that forest conservation is limited by shortcomings in the institutional arrangements of international conservation funding.

These countervailing institutional pressures for and against forest conservation have generated unresolved tensions in land use institutions in Sabah. This has led to a situation of uncertainty about the future direction of forest conservation. These tensions and uncertainties will be addressed in more detail in relation to the analytical framework and to the research questions in the following two Chapters.

**CHAPTER TEN: DISCUSSION**

**Introduction**

The purpose of this Chapter is to discuss the findings of the previous five in relation to the analytical framework that was set out in Chapter Three. Each section follows one of the three stages of this framework. The first summarises the findings of Chapters Five and Six, supplemented by empirical findings in the analysis Chapters, in order to show how the broader multilevel institutional context of forest policy in Sabah created the antecedent conditions for policy change. The second section then shows how policy actors in the case of both empirical examples took advantage of these antecedent conditions to construct policy frames towards restoring Sabah's forests. This considers the three aspects of policy frames outlined in Chapter Three and how they led to the formation of the policy initiatives described in Chapters Seven and Eight. Section three then summarises the findings of Chapter Nine by considering the relative success of the policy initiatives in each empirical example when related to their wider institutional context. Relating this discussion to the subject of the research questions, the features of vertical institutional interplay that are observed at each stage are highlighted in each section.

**1. Analytical Framework Stage One: Institutional Context**

The creation of the antecedent institutional conditions for forest policy change in Sabah involved the intersection of three developments. First was the emergence of new institutions of forest governance at an international level. The second involved changes in policy in Sabah which ended a period of political isolationism and made Sabah more potentially receptive to forest policy ideas and discourses devised at the international level. The third was a crisis in resource use in Sabah that brought long term land use institutions there in to question. These led to a situation that corresponds to Schön and Rein's conception of a "frame-shift" in institutional context that was introduced in Chapter Three (Schön and Rein 1994).

The first of these developments was outlined in Chapter Five and expanded on in the analysis Chapters. The emergence of global forest governance institutions and resulting policy instruments can be characterised as an attempt to reconcile economic development and revenue generation with the conservation of forest biodiversity and ecosystem services at a global level. To this end a range of different policy approaches have been devised which have subsequently been applied in Sabah. SFM and FSC certification have created recognised standards and organisational templates

for sustainable timber production. The emphasis on partnership governance has created a means of bringing divergent interests from government, environmental and private sectors together into collaborative relationships. PES and REDD+ have created mechanisms that aim to generate revenue from forest ecosystem services and thus give forests an economic value in situ. Other international initiatives from outside the mainstream of international forest governance as outlined in Chapter Five were also identified that had application in the two empirical examples. The first of these involved projects that aim to integrate conservation and development in local communities, which originated in a movement in the 1990s. The second was the movement towards sustainable palm oil, which has been initiated more recently in partnership between international NGOs and palm oil companies. The aim has been to create similar standards to sustainable forest management and timber certification with the aim of minimising the adverse environmental impacts of palm oil production, particularly in respect to deforestation.

The second of these developments was outlined in Chapter Six and expanded on in the analysis Chapters. This showed how over the later 1990s and 2000s Malaysia became more receptive to international ideas in general and the ideas of sustainable forestry and conservation in particular. This occurred both as a result of changing attitudes in government and pressure from the non-governmental sector. In the first instance, Chapter Six showed how the Federal Government came to a realisation that it needed to minimise the potential damage to its international diplomatic reputation and natural resource export earnings caused by the record of deforestation in Malaysia (Hezri and Hasan 2006). This led a qualified acceptance of the principles of SFM in forestry policy and a greater willingness to work with more moderate environmental organisations, both international and domestic. In addition, following the retirement in 2001 of Prime Minister Mahathir, who was the main driver of Malaysia's isolationist policy direction, the country became less hostile to international institutions and associated policy instruments in general (Brosius 1999). These movements also coincided with the more effective organisation of an environmental civil society in the country and a slowly growing awareness of the level of deforestation and forest degradation taking place amongst the general public (Weiss 2005). Domestic civil society was able to increase its effectiveness due to partnership with new international organisations that have become active in the country. It also benefited from electoral insecurity of the ruling coalition which meant that the government has become less repressive and more receptive to public pressure. As was seen in Chapter Nine, this has been particularly the case in Sabah, where alliances of local and international organisations have been able to overturn government decisions which might have had adverse environmental impacts.

However it would be unlikely that these two developments would have had as significant an impact in catalysing policy change in Sabah without the effect the third development, namely the material factors that have brought the institutional system of land use in Sabah into question. The example of neighbouring Sarawak, where the same antecedent conditions exist, provides an example of how little impact environmental considerations have had in a situation where there is still considerable revenue to be made from unsustainable timber extraction. In Sabah such a situation no longer exists. As was outlined in Chapter Six and expanded on in Chapter Seven, land use is Sabah is governed by the Land Ordinance, which was designed in the colonial era and adapted following independence in order to maximise the profitability of the natural resource use (Dolittle 2004, McMorrow and Talip 2001). This legislation established a long term historical trajectory characterised by large scale deforestation and forest degradation. In the past two decades Sabah has experienced a dramatic fall in timber revenue as a result of the exhaustion of profitable timber in its Permanent Forest Estate. At the same time, most suitable land outside the Permanent Forest Estate has now been converted to commercial agriculture, principally as oil palm plantations. As a result, the institutional system of land and resource use that has been dominant in Sabah since the late 19th Century has reached an impasse where the Permanent Forest Estate is generating little revenue and unless areas of this estate are declassified, there is no more land to expand agriculture(Reynolds et al 2011). This has thus created the material conditions to catalyse policy change, whether in terms of more sustainable use of the State's natural resources or the reclassification of existing commercial forest in order to expand land available for oil palm.

The consequences of the intersection of these three developments have been to create a "frame-shift" that opened a window of opportunity for forest policy change. In this process three features of interplay between institutions at different levels of scale could be observed (Schön and Rein 1994). Firstly, at the broadest level, changes in Federal policy led to greater levels of interplay between Malaysia and international institutions in general, meaning that emerging global forest governance institutions had more scope to be able to exert an influence in Sabah. Secondly, as a result of this broader development, the SFD was able to adopt the ideas and instruments of global forest governance institutions in order to address specific state level needs. Thirdly, because Malaysia became more open to international influence, this meant that civil society institutions at international, nation and state level were better able to collaborate towards pursuing forest conservation objectives. These led to a situation where the influence of international organisations and policy ideas and discourses could be mobilised towards constructing new forest policy directions.

**2. Analytical Framework Stage Two: The Construction of Policy Frames**

In Chapter Three policy frames were defined as having three aspects. Firstly they involve the way that actors make sense of policy situations by defining policy problems in a particular way. This subsequently biases the action these actors take to address these problems as well as the way they use communication and persuasion to convince other actors to support this course of action (Schön and Rein 1994). These three aspects were used to form the basis of the second stage of the analytical framework.

*2.1 Policy problem definition*

Relating to the first aspect, the two empirical examples showed how actors defined policy problems in two ways. These two forms of problem definition respectively biased the nature of the two other aspects of frames. The first of these was the way that the policy actors who initiated policy action in each example defined problems internally according to their respective organisational motivations and values. This biased these actors towards forest restoration based policy initiatives, in the case of Ulu Segama Malua in restoring degraded forests and in the case of the Lower Kinabatangan creating habitat corridors. The second related to the way policy problems were defined externally as a result of the subsequent identification of the need to secure the support of other actors from other sectors in order to implement forest restoration policy objectives. This involved the need to use communication and persuasion to convince these other actors of the merits of supporting forest restoration policy initiatives. The need to develop partnerships with a range of sectors meant that the initiating government agencies and environmental organisations had to define policy problems according to both fundamental organisational values and more pragmatic motivations.

In Ulu Segama Malua the first form of problem definition could be seen in the way that the SFD and environmental organisations defined policy problems in order to formulate the USM-SFMP. In Chapter Seven it was observed that the SFD and environmental organisations placed different emphasis on the importance of revenue generation and biodiversity conservation. Originally, the primary objective of the SFD was to generate revenue for the State Government in order to maintain its continuing influence in the State Government system of land administration. Given the collapse in timber revenue and the threat of conversion to oil palm plantation, it had to redefine the meaning of revenue generation from short term profit to long term stewardship and sustainable forestry. Thus the way the SFD defined policy problems in Ulu Segama Malua was shaped by the necessity of changing its organisational values and practices in a way that would maintain its political influence and its continued control of half the State's land area. In order to do this it sought to attract the

support of environmental organisations operating in Sabah in order to draw on the expertise, influence and resources of these organisations and thus strengthen its position in advancing its policy objectives. This meant that the way it defined policy problems in Sabah's forests had to consider both revenue generation and biodiversity conservation in order to align itself with the values of these organisations.

The values of environmental organisations were generally rooted in the objective of biodiversity conservation and at a fundamental level they considered that the biodiversity of Sabah's forests should be protected for its intrinsic value irrespective of financial considerations. However they also pragmatically accepted that in order to advance conservation policy objectives they also had to define policy problems in terms of revenue generation in order to align with the organisational values of government decision makers. In this respect they were prepared to give support to the SFD's political and financial objectives in Ulu Segama Malua because they perceived that the SFD's new policy direction provided a means of advancing their more fundamental objectives. As a result, the SFD and environmental organisations were able to define the policy problems that underpinned the USM-SFMP in such a way that both revenue generation and biodiversity conservation objectives were given priority. A common policy approach that could reconcile the values and motivations of both the SFD and environmental organisations was through forest restoration, which both fitted with the SFD's forest stewardship objectives and the environmental organisations conservation objectives.

In the Lower Kinabatangan the internal process of defining policy problems was different because it did not involve the need to achieve a compromise between actors with significantly different underlying values and motivations. In this empirical example the policy problems that led to the subsequent formation of a habitat connectivity policy strategy were defined between the SWD and environmental organisations. The fundamental values of all of these actors were motivated by the aim of biodiversity conservation. Consequently a habitat connectivity strategy emerged from the identification of what they perceived was the most pressing conservation problem in the Lower Kinabatangan, namely the consequences of habitat fragmentation.

In both empirical examples further policy problems were then identified that related to the need to widen policy partnership to include actors from other sectors. In order to do this the government departments and environmental organisations involved in the each example explicitly adopted a multi-sector partnership governance approach in line with international trends in forest governance that were observed in Chapter Five. This was particularly the case with the SFD which, as was shown

in Chapter Seven, made multiple references to the fostering of multi sector partnerships in its policy statements and annual reports. Two principle reasons motivated this aspect of policy definition. The first was the need to raise financial resources in order to implement forest restoration. The second was the need to secure support from other actors within Sabah whose support or opposition could have a significant effect on the outcomes forest restoration policy initiatives.

In the case of the motivation to generate financial support, the approach taken in both examples mostly involved attracting international funding organisations. In order to do this it proved necessary to redefine policy problems in more general terms that would align with the interests of these funders. In this the role of environmental organisations such as LEAP and HUTAN, both of which operated both within Sabah and at a wider international level, proved crucial. These organisations were able to use contact networks in order to communicate with international funding organisations and persuade them of the benefits of supporting forest conservation in Sabah. One of the most prominent ways that this was done, as identified in both Chapters Seven and Eight, was through emphasising the threat to orang-utans. As was seen in Chapter Seven, the threat to orang-utans was used as a central justification for the initiatives in both Northern Ulu Segama and the Malua Biobank. In the Lower Kinabatangan orang-utan conservation was given similar prominence. This was evinced by the fact that one of the main SWD policy documents outlining habitat connectivity strategy was specifically concerned with orang-utan conservation and that the NGO HUTAN made orang-utan conservation its central organisational *raison d'etre*. As the comments made by the representative of HUTAN in Chapter Eight show, this emphasis does not reflect the core values of environmental organisations in Sabah, which are principally concerned with biodiversity as a whole. Rather it represents a pragmatic way of making the profile of conservation in Sabah most appealing to international funders. As was observed in Chapter Nine, this emphasis on orang-utans had potential negative consequences because it could lead to projects being defined in narrow terms to the exclusion of wider concerns of conserving ecosystems as a whole. However this approach was adopted out of necessity in the absence of significant means of funding conservation in more holistic ways.

The way that orang-utans were used in both empirical examples had both scientific and emotive features. From a scientific perspective, the threat to orang-utans was established through the research of NGOs and scientific organisations. In the case of Ulu Segama Malua the most prominent research was the two studies by HUTAN that established the decline in orang-utan numbers during the 2000s (Ancrenaz et al 2007, Ancrenaz et al 2010). In the Lower Kinabatangan the threat to the genetic diversity of orang-utans posed by habitat fragmentation was established in the study by

Bruford et al (Bruford et al 2010). These scientific studies fulfilled the role of making the claims about this threat to orang-utans credible to an international audience. Orang-utans were also used to appeal on an emotional level. Because of their emotive and eye-catching appeal, it was noted in the analysis Chapters that orang-utans provide effective visual publicity at a general international level. As a consequence, as the funding criteria of the organisations active in Northern Ulu Segama showed, international funders were particularly drawn to projects that deal with threats to high profile "charismatic species" such as the orang-utan.

The motivation to secure support of other actors within Sabah involved three principle sectors; local communities, the State Government and the palm oil industry. In the case of local communities, as shown in Chapter Eight, the construction of common definitions of policy problems could be seen in the contrasting approaches of the KOCP and MESCOT projects. The central objective of both KOCP and MESCOT was to integrate community development and biodiversity conservation. But both projects approached policy problems from opposite directions. In Sukau, HUTAN initiated the KOCP primarily from the perspective of problems facing biodiversity in general and orang-utans in particular. This emphasis was based on the need to take a scientific and species specific approach in order to appear apolitical and thus secure the support of government agencies while at the same time appealing to external funders. However, as the KOCP evolved, it was recognised that a principle problem of conservation in the Lower Kinabatangan was the relationship between local communities and wildlife. This led to a realignment of the project from a research emphasis to one that gave greater emphasis to creating economic incentives for conservation and mitigating human-wildlife conflict. In Batu Puteh the MESCOT project developed in a different direction. Because this project took a more bottom up approach with greater levels of community leadership, problems were initially defined primarily in terms of community development and economic incentives. Biodiversity conservation was initially seen in secondary terms as a means towards this end rather than an end in itself. However as the project developed and matured, biodiversity conservation became a more central part of community values and thus a more central objective of the project.

In the analysis Chapters four main ways of securing support from the State Government were identified. The first was justifying conservation in terms of revenue. Given the emphasis of the State Government on economic development that was highlighted in Chapters Six and Nine, this proved a significant factor in securing government support for the protection of the LKWS as a result of the revenue from tourism in this area. As Chapter Nine showed, this issue of revenue generation has in contrast proved a significant problem for the SFD to overcome in the case of the Permanent Forest Estate. The second was the mobilisations of influential organisations. In Chapter Nine it was

identified that the value of international funders lay not only in their financial resources but also their political influence on the State Government. The third was scientific evidence. As was observed in Chapter Seven, scientific findings have proved valuable in lending credibility when promoting conservation policy to State Government decision makers. The fourth was the lobbying ability of an influential government agency. This was demonstrated by the contrast between the effective role of the SFD in promoting forest conservation in Ulu Segama Malua and the less effective role of the SWD in achieving the same ends in the Lower Kinabatangan.

As both empirical examples showed, defining common policy problems between actors promoting forest conservation and the palm oil industry proved the most difficult of the three sectors. Palm oil producers are principally concerned with revenue generation. Because of the high levels of profitability of palm oil in international markets and the support of government agencies such as the Lands and Surveys Department, they had little need to consider biodiversity in order to fulfil their core economic objectives. This made it difficult to persuade palm oil producers that the destruction of Sabah's biodiversity represented a policy problem that needed to be addressed. In Ulu Segama Malua this was observed in the problems of persuading palm oil companies to participate in a biodiversity offset programme in the Malua Biobank. In the Lower Kinabatangan this was demonstrated in the limited and piecemeal success of the WWF and BCT in persuading palm oil companies to set aside land for habitat corridors. These examples showed that where palm oil companies were prepared to collaborate in conservation work, it was in circumstances where the impact on profitability was limited. This was seen in the case of the honorary wildlife warden scheme for the protection of Malua or the setting aside of seasonally flooded land in the Lower Kinabatangan. Where collaboration meant foregoing profits at a more significant level, much less progress was made. Where significant contributions were made, these were from very large companies such as Sime Darby where the outlay of money from corporate social responsibility budgets for projects such as the one in Northern Ulu Segama represented a small fraction of their total revenues.

The observations above demonstrate a contrasting picture of the way common policy problems were defined in the two empirical examples. In the case of Ulu Segama Malua, both the SFD and environmental organisations both perceived a need to initiate a forest restoration strategy because of the threat of conversion to oil palm, even though their fundamental reasons and values for pursuing such a path were different. As a result it proved relatively straightforward for them to form a partnership based on commonly defined policy problems. Following the establishment of this partnership, the subsequent problems faced by this partnership were the need to secure the

resources of international funders and the support of the State Government. In doing this, Ulu Segama Malua benefited from the coordinating role and political influence of the SFD in leading the project, as well as the complementary skills and attributes of environmental organisations. While there were some attempts to establish partnerships with palm oil producers and local communities, such partnerships were not indispensable to fulfilling the objectives of the USM-SFMP. There were some attempts to establish partnerships with palm oil producers and local communities. However, given that most of the work required to implement the USM-SFMP took place within the Permanent Forest Estate, the participation of these groups was not essential to fulfilling the core aims of the project.

In the Lower Kinabatangan the situation of defining common policy problems was made more complicated by the fact that the cooperation of local communities and palm oil companies was indispensable to implementing a habitat connectivity strategy. This meant that environmental organisations operating in the Lower Kinabatangan had to consider a wider variety of perspectives in defining policy problems than just the need to generate funding and secure State Government support. As was seen in Chapter Eight, the development of partnerships proved to be achievable with the local communities of Sukau and Batu Puteh, but only as a result of a long term process of building trust and institutional capacity. It proved more difficult with the palm oil industry and by the end of the research period for this Thesis progress in this direction remained limited.

*2.2 Policy action*

The policy action responses that were devised in the case of the two empirical examples were shaped by the way that policy problems were defined. This corresponds with the definition of frames outlined above, where policy problem definition, in addition to providing a way of making sense of complex policy situations, biases the scope of possible policy action solutions to these problems (Schön and Rein 1994). In the analysis Chapters it was seen that the policy responses that were devised to deal with policy problems in both empirical examples were formulated around a number of ideas and policy instruments deriving from international institutions, each of which were outlined in Chapter Five and restated in the first section of this Chapter. These ideas and policy instruments were employed in order to draw together different actors' conceptions of policy problems, align these policy problems with the priories of international funders and provide a practical means of implementing forest restoration strategy. They can thus be seen as the focal points around which policy frames were constructed. From another perspective they also represent the visible objects and activities conceived of in interpretive policy analysis, which were introduced

in Chapter Four (Fischer 2003, Yanow 2000). In this sense they served to bind together the divergent subjective meanings and motivations of policy actors into policy communities with common objectives.  Five different focal policy approaches could be identified from the empirical examples. Each reflected the influence of international ideas and institutions as outlined in Chapter Five. In each case they fulfilled instrumental functions in facilitating implementation and communicative functions in mobilising the support of a variety of actors at multiple levels of scale. Each of them represented a means of reconciling revenue generation and conservation.

The first approach was SFM and FSC certification. As outlined in Chapter Seven, these standards were employed by the SFD as a means of overcoming the policy problem of re-orientating its strategic direction towards an emphasis on long term stewardship and as a means of developing partnerships towards this end. Because of its adoption of these standards at the core of its organisational values, the SFD was thus biased towards policy approaches that paid more attention to biodiversity conservation and the rights of indigenous communities in order to be in compliance with the principles of these standards. From an instrumental point of view these standards then provided an organisational template on which the SFD could change its practices, build the organisational and institutional foundations for a new policy approach and access new markets with potential price premiums for sustainable timber. From a communicative point of view this policy approach was used to build its credibility and legitimacy in the eyes of potential partners. Firstly, they provided a means of attracting the support of environmental interests at the local level as a result of the new emphasis of their policy approach on biodiversity conservation. Secondly they also proved effective in establishing credibility with and thus attracting support of international funding organisations such as Yayasan Sime Darby and New Forests.

The second approach, which was addressed in the case of both empirical examples in Chapters Seven and Eight, was corporate and philanthropic donor funded conservation. This represents a traditional and well established approach to drawing on international resources in order to overcome specific policy problems through discrete conservation projects in developing world settings (Arts 2002). In Chapters Seven and Eight a number of examples were outlined which showed how government agencies and environmental organisations in Sabah actively courted international donors in order to fund particular conservation projects. This approach biased these projects towards certain particular characteristics. They all fulfilled local instrumental policy objectives, but in addition they needed to fit with the requirements of funding agencies and thus be defined in terms that would attract the resources of international funders. In the case of the projects undertaken in Northern Ulu Segama these involved defining policy problems around an identified threat to orang-

utans, which fitted with the funding strategy of Yayasan Sime Darby, the Arcus Foundation and WWF Malaysia. In the Lower Kinabatangan a land purchase strategy for creating habitat corridors fitted with the funding model of the World Land Trust. Additionally, organisations such as LEAP and HUTAN also sought to draw on donor funding that specifically targeted community development. A notable feature of these projects, which characterises donor funding in general, is their relatively small and discrete size. However the example of Northern Ulu Segama demonstrated how such projects can be integrated into a broader strategy. This approach to conservation in particular demonstrated the importance of environmental NGOs in acting as bridging agents between the project, state and international levels.

The third approach, addressed principally in Chapter Eight, involved establishing integrated community development and conservation projects. Both the KOCP and MESCOT projects originated in an international movement in the late 1990s that sought to overcome problems associated with environmentally damaging practices by local communities by attempting to integrate community development and conservation objectives (Cronkleton et al 2011). As part of this movement, HUTAN and WWF, and later LEAP in the case of MESCOT, were involved in introducing the ideas associated with this movement into Sabah. The projects that followed this model in Sabah were therefore biased towards an approach that emphasised the development of alternative livelihoods that would incentivise conservation in these communities. In the case of KOCP, this involved ecotourism development, mitigation of human-wildlife conflict, non-timber forest resource exploitation and employment in conservation research and forest restoration. In the case of MESCOT, this involved integrating ecotourism with forest restoration, in the process providing employment opportunities in a range of activities and securing government forest restoration contracts. These projects demonstrated the long term and context sensitive nature of such projects in the need to develop trust, foster community leadership and change the cultural values of communities towards forests and their wildlife. While the principle function of community conservation in these two projects was at the local level, both also had an international dimension in the way that they continued to be funded and supported. Both HUTAN in the case of KOCP, and LEAP in the case of MESCOT acted as intermediaries between communities at the local level and funders at the international level.

The fourth approach was PES and REDD+, which was introduced respectively in Chapters Seven and Eight. As was shown in Chapter Seven, LEAP were instrumental in establishing contacts between the SFD and New Forests in order to initiate the Malua Biobank, while the EU REDD+ pilot project was initiated through the connections of a number of government agencies and environmental organisations with the EU delegation to Malaysia. In principle the PES mechanism of the Malua

Biobank and the REDD+ pilot project in the Lower Kinabatangan represented an ideal means of overcoming the wider problem of reconciling conservation and long term revenue generation. However, as was identified in Chapter Nine, there has been a divergence between principle and application both in instrumental and normative terms. In instrumental terms the problem to date, particularly in the case of the Malua Biobank, has been realising anticipated revenue. While it is too early to make this claim about REDD+, similar misgivings were expressed about its potential to yield sufficient funds to facilitate forest restoration and habitat connectivity objectives, especially given the high costs of land and high profitability of palm oil in the Lower Kinabatangan. As was shown in Chapter Nine, this had a particularly negative effect on the attitude of the SFD to these mechanisms. In normative terms, the particular bias of PES and REDD+ towards commodifying and marketising the natural environment have also created problems of aligning with the values of local level policy actors. At a fundamental level many actors in environmental organisations expressed moral reservations about the idea using market mechanisms to put a price on nature, given that their values tend to be expressed in terms of the intrinsic value of biodiversity. As a consequence of these limitations, PES and REDD+ have proved relatively weak as a medium for drawing together the support of a wide range of local organisations. These problems remain to some extent provisional given that the Malua Biobank and the EU REDD+ pilot have had limited time to embed and mature, and may yet provide substantial and sustainable funding in future. However the inability of these mechanisms to generate initial enthusiasm amongst local stakeholders represents a limitation on their ability to reach maturity. The statements of many policy actors in Sabah suggest a prevailing attitude amongst local organisations of acquiescence to the latest trend in forest conservation rather than genuine commitment.

The fifth approach was sustainable palm oil production. As was shown in each of the analysis Chapters, this approach was the least successful and most problematic, given that engagement with palm oil producers in conservation remains limited. As discussed above, the establishment of common policy problems with palm oil companies has been limited by the lack of incentive on the part of these companies to accept the need to act sustainably or support conservation. But this problem is exacerbated by a mutual suspicion between the palm oil industry and environmental organisations. From the perspective of palm oil producers there is a perception amongst many that their industry is being unfairly demonised by environmentalists, which has in turn fostered an entrenched conservatism. From the perspective of some environmental organisations such as HUTAN there is a perception that palm oil companies have no interest in paying for the environmental damage that the industry has caused, and what little action they have taken only

amounts to superficial 'green washing'. This has meant that it has been difficult for the values of either sector to intersect within a common definition of policy problems, which consequently made the formulation of policy action difficult. Further to this, as was outlined in Chapter Nine, the RSPO, which has been created to encourage sustainability in the palm oil industry in a similar way to the FSC in the timber industry, has been limited by poor compliance amongst members and obstruction from trade organisations such as the MPOC.

None of these approaches have been used in isolation in either of the empirical examples. Rather, in each of the initiatives described in Chapters Seven and Eight, a combination of different approaches was employed. In the case of Northern Ulu Segama SFM and FSC certification were used as an operational basis and means of attracting donors. Corporate and philanthropic funding then provided the financing for the three projects. In addition, the involvement of Yayasan Sime Darby incorporated a sustainable palm oil element, while to a small extent community development and conservation was used in the employment of local communities to carry out forest restoration work. In the case of the Malua Biobank, again SFM and FSC certification formed the operational basis and established the credibility of the project. The funding aspect then used a PES model and further attempted to combine PES with sustainable palm oil through a proposed biodiversity offset scheme, though to date with limited success. In the case of the MESCOT project, the community development and conservation approach provided the overarching framework. In addition, philanthropic donations via the contacts of LEAP provided external support for the project. The community development and conservation approach also formed the basis of the KOCP. Building on this, HUTAN and LEAP then used contacts with the WLT to add a philanthropic donation element to the project in the purchase of land for habitat corridors that would then be restored by the KOCP forest restoration team. Both the WWF and BCT approaches to establishing collaboration with the palm oil industry fitted within the sustainable palm oil approach. But both initiatives also involved philanthropic and corporate donations, in the case of the former the involvement of Nestle to fund tree planting in land set aside by palm oil companies and in the case of the latter philanthropic funding from donors in Japan to fund land purchases. The EU REDD+ pilot project represents an attempt to integrate PES and REDD+ with community development and conservation, while also attempting to engage with the palm oil companies that had planted in riparian reserves.

What can be seen from a frame analysis of the policy initiatives undertaken in Ulu Segama Malua and the Lower Kinabatangan is the construction of an overarching common policy frame. The way that policy problems were defined in both cases involved attempts to reconcile economic and political with biodiversity conservation objectives, and thus define common policy problems

between actors with different values and motivations. Different international policy ideas and instruments that were specifically devised with the aim of reconciling economic and conservation goals were then used as focal points to draw a range of actors together into policy partnerships. These partnerships involved not only actors based in Sabah, but also actors operating within international institutional contexts. The actors in these partnerships assumed different roles in the implementation of forest restoration initiatives to address identified policy problems.

But within this broader frame, different approaches were taken at the local level to address particular project specific needs. The form that these initiatives took in local situations was biased according to the ways different actors perceived policy problems in specific project level situations and the particular features of the policy instruments employed to overcome these problems. Thus in Ulu Segama Malua the relatively discrete number of actors involved was reflected in the construction of a well-coordinated and integrated policy frame. This was based on the clear definition of policy problems between actors that were set out in the USM-SFMP, which in turn determined how appropriate partners and policy instruments were mobilised to address these problems. In the Lower Kinabatangan, by contrast, the wider number of actors involved and the variable influence of different actors in different locations was reflected in the construction of a more diffused policy frame. While it was relatively easy to define the overall policy problem of habitat fragmentation between environmental organisations and the SWD, the action needed to be taken to address this problem varied according to the need to develop partnerships with local communities or palm oil companies in different localities. This was reflected in the form of forest connectivity policy implementation in the Lower Kinabatangan, which became more a number of loosely affiliated projects based on different ideas and practices that aimed towards broadly similar ends, rather than an integrated coordinated strategy.

The process of constructing forest conservation policy frames in the two empirical examples demonstrated three main interrelated features of interplay between state and international level institutions. Interplay was firstly observed in the transfer of ideas and discourses. All of the policy initiatives employed in the empirical examples reflected wider aspects of global forest governance. At a general level both examples utilised a partnership governance approach and adopted normative principles derived from global forest governance institutions such as SFM or community forestry in order to reconcile economic development and conservation needs. More specifically, all of the projects in the empirical examples were centred on policy instruments derived from global forest institutions. The use of these ideas was important not only for the practical implementation of projects but also for forming the arguments used to secure the support of project partners. In

addition, the examples showed that it was important that these international ideas intersected with the values of local actors, as shown by the relatively strong support for sustainable forest management and community conservation contrasted with the relatively weak support for PES and sustainable palm oil.

The second feature of interplay that was observed was the transfer of resources. It is important to note that none of the projects undertaken in the two empirical examples could have been implemented without the assistance of international funders. This importance stemmed not only from the financial contributions but from the political influence of the contributors. As a consequence the form of the projects undertaken in the two examples were to a large extent shaped by the objectives of these funding organisations, as shown, for instance, in the particular emphasis on orang-utan conservation.

The third feature of interplay that was observed was the role of agency. The mobilisation of the resources and ideas of international institutions took place because particular actors were able to use their contacts and expertise to facilitate the interaction between state and international levels, both in terms of fundraising and knowledge transfers. This feature of interplay demonstrated the value of actors such as LEAP, HUTAN and WWF which operated at multiple levels and were thus well equipped to provide a bridging function between institutions at these different levels. It also reveals the importance of policy agents in being able to adopt multiple perspectives in formulating and implementing policy according to both fundamental organisational values and pragmatic consideration based on the need to develop multilevel partnerships.

### 3. Analytical Framework Stage Three: Policy Output in Wider Institutional Context

As was stated in the previous section, a principle purpose of the policy initiatives undertaken in the two empirical examples, aside from the instrumental objectives of restoring degraded forest and habitat connectivity, was reconciling economic development and conservation. However a paradoxical finding of the analysis, as observed in Chapter Nine, was that the example where the economic arguments for conservation were strongest, the Lower Kinabatangan, was also the one where the achievement of policy objectives was the most incomplete. The last section highlighted the contrast between the two empirical examples in terms of the relative complexity of constructing common policy frames between a range of different actors. But in addition, much of this contrast can be traced to the interaction of forest conservation policy initiatives with the wider institutional

212

context of each example, given that both represent very different facets of Sabah's institutional system of land use.

In Ulu Segama Malua the justification for conservation in strictly revenue generating terms was relatively weak. In Northern Ulu Segama substantial funding was raised from corporate and philanthropic donations. However the purpose of this was to fund restoration and did not generate any profits to the SFD or State Government. The Malua Biobank was initiated with the intention of generating long term revenue; however to date sales of biocredits have been limited. Given the expense of forest restoration, the projects in Ulu Segama are currently generating a net loss to the State with little prospect of generating significant revenues in the immediate future. In contrast, the economic arguments for conservation in the Lower Kinabatangan are relatively strong. This area generates substantial and growing profits from ecotourism, which depends on the biodiversity of the LKWS. Moreover this profitability is in a sector that the State Government has targeted as a priority in its economic development strategy (IDS 2008). However the institutional circumstances in Ulu Segama Malua were more favourable for conservation than in the Lower Kinabatangan. This meant that while in the absence of institutional barriers it should have been easier to integrate economic and conservation goals in the Lower Kinabatangan, in practice it was Ulu Segama Malua where more substantial progress towards achieving forest conservation policy objectives was made. Three aspects of institutional context could be identified that marked the contrasting institutional context of each example. These were the form of the institutions of land use in Sabah, the way these land use institutions were administered, and the relative applicability of policy instruments derived from international forest governance institutions to each case.

The first of these aspects related to the relative position of Ulu Segama Malua and the Lower Kinabatangan within the system of land use set as out in the Land Ordinance. As was observed in Chapter Nine, in Ulu Segama Malua the SFD and environmental organisations were able to turn the Land Ordinance, a piece of legislation that in the past has been a main driver of deforestation and forest degradation, into a bulwark against further deforestation. Because changes in land use designation require ratification by the State Legislature, the institutional system of land use now makes it difficult to de-gazette areas of the Permanent Forest Estate for conversion into palm oil, even though there are strong arguments for this in economic terms. This bulwark was further strengthened by the re-designation of the area as part of a wider protected area.

In the case of the Lower Kinabatangan the system of land use made the implementation of conservation policy difficult, particularly in the case of habitat connectivity. The Lower Kinabatangan

is a patchwork of land designated variously as nature reserve, state land, grants of native customary title and forest estate. This led to a complex and opaque mosaic of land ownership where assembling land for habitat corridors was particularly difficult. An example of this situation was observed in the case of the relatively small habitat corridor being funded by the World Land Trust, which involved the purchase of 26 separate parcels of land. Moreover, even where the Land Ordinance should in theory benefit conservation, as in the case of riparian corridor rules, the lack of capacity or will of the Lands and Surveys Department to enforce these rules meant that they were routinely ignored in practice.

In terms of the way these institutions of land use were administered, Ulu Segama benefitted from being controlled by a single government department that held a relatively strong position within the State Government system of administration. This meant that there was a single coordinating authority that was able to implement a coherent strategy of interlinked projects, and moreover was able to link the strategy of Ulu Segama Malua into a wider state level strategic approach to the whole of the Permanent Forest Estate. This meant that the SFD was able to effectively coordinate all the other organisations involved in the USM-SFMP and therefore minimise the potential negative consequences of competition between environmental organisations. It was also able to target its own resources and expertise, as well as those of environmental organisations and international funders, to where there was greatest need. Its position of influence in the State Government meant that its Director had direct access to the highest levels of decision making. In addition it was able to use the bargaining power and leverage of designating some areas with lower conservation value for forest plantation in return for protecting areas of higher conservation value, even though some environmental organisations expressed concerns about this strategy.

In contrast, the Lower Kinabatangan was administered by a number of different government departments. This led to a situation of institutional fragmentation and poor coordination between these departments. Moreover the department principally concerned with conservation and habitat connectivity strategy, the SWD, had a relatively weak position in the State Government system of land administration. In comparison with the SFD, the SWD had limited material resources, institutional capacity and leverage with State Government decision makers. This meant that it was less able to coordinate the range of environmental organisations involved in the area and as a consequence there was more rivalry and competition between these organisations. It was also limited by its lack of influence on land areas outside the boundaries of the LKWS, even though the way these areas were used had a significant impact within the LKWS. Further to this, the fact that tax revenue from ecotourism went to the Federal rather than State Government, and given that the

SWD had little capacity to tap the resources of tourist operators, this meant that the principle argument for reconciling conservation and economic development in the area remained underutilised.

The different institutional contexts of Ulu Segama Malua and the Lower Kinabatangan also affected the extent to which international ideas, policy instruments and resources were applicable and effective in each example. SFM and FSC certification proved an applicable template for the SFD's overall operational strategy, which could then be applied to enhance the credibility and institutional integrity of its policy approach in Ulu Segama Malua and attract both donor based and PES based funding. Furthermore, in the case of Northern Ulu Segama it was able to draw together several donors into one area, define policy problems at different levels of institutional scale and thus overcome some of the limitations of donor based funding in terms of limited scale and narrow issue specific focus. While the PES model in the Malua Biobank has failed to achieve significant revenues to date, in general Ulu Segama Malua is well positioned to take advantage of PES revenue should this become more substantial in future. Institutionally the area benefits from stable and relatively simple administrative arrangements under the auspices of a single government department which is committed to conservation. In addition, opportunity cost is low because of the lack of timber revenue, it represents a large contiguous land area of land which would appeal to potential REDD+ and PES funders and the SFD benefits from the expertise and experience drawn from the Malua Biobank and Face projects. As a consequence, the area is well placed to take advantage of potential future REDD+ income in the event that a substantial international funding mechanism becomes operational.

The mosaic land use situation seen in the Lower Kinabatangan meant that different international ideas and instruments were applicable. The presence of significant populations of indigenous people meant that the integration of community development and conservation became a core principle of several projects in the area. This was the case not only with MESCOT and KOCP, but also with the EU REDD+, Nestle RiLeaf and World Land Trust projects, each of which had community development aspects. In addition, the presence of indigenous communities meant that the Lower Kinabatangan were able to access sources of funding associated with community development that were not available in the case of Ulu Segama Malua. But the other international ideas and discourses outlined in the previous section proved to be more limited in their application in the Lower Kinabatangan than in Ulu Segama Malua. The inapplicability of SFM and FSC certification meant that the area did not benefit from an established and credible guiding organisational framework in the same way as was seen in the case of Ulu Segama Malua. Sustainable palm oil, as observed above, proved limited

in success owing to the particular problems of engaging with palm oil companies. The potential for implementing PES and REDD+ was limited by administrative fragmentation which would mean there would be a lack of clear coordinating authority over any project. In addition the small areas of land involved would mean that the quantity of ecosystem services generated, whether in terms of biodiversity or carbon, would be small, and in any case PES or REDD+ revenue would be unlikely to offset the profitability of palm oil. These two factors would limit the attractions of the area for PES and REDD+ funders. International donor funding was also more limited in its application owing to the lack of clear coordinating authority. In the case of the World Land Trust project, donor funding was well coordinated and targeted towards specific goals. However, in contrast, the Nestle RiLeaf project revealed some of the weaknesses of donor funding, in large part due to the lack of clear ecological goals, conditionality or coordination with other organisations active in the area.

As a result, the extent to which the output of forest conservation policy initiatives succeeded in embedding in their wider institutional context and achieving their objectives, or conversely whether they were impeded by persisting institutional barriers, proved to be to a large extent context sensitive. The empirical examples show that areas outside the Permanent Forest Estate faced more institutional barriers to forest conservation policy that areas under the administration of the SFD. This meant, as was stated above, that the less economically viable of the empirical examples proved more successful in fulfilling its policy objectives. In addition, Ulu Segama Malua was at an advantage in the extent that it could use international ideas and associated policy instruments. As was noted in Chapter Nine, the ideas and discourses originating from the institutions of global forest governance bring with them their own institutional limitations. Ulu Segama Malua proved better placed to mitigate these limitations and strategically mobilise their advantages. In the Lower Kinabatangan, while the integrated community conservation and development approach did prove effective in the long term, the limitations of the other approaches were more apparent.

This does not mean that Ulu Segama Malua does not face continuing problems. The inability to generate revenue from non-timber sources still presents a threat in the circumstances of wider economic or political crisis. In such circumstances it could not be guaranteed that the decision to make the Ulu Segama Malua a protected area might not be reversed. Also, in a wider context, it remains unclear what consequences the protection of biodiversity rich areas such as Ulu Segama Malua might have in leading to the conversion of other parts of the Permanent Forest Estate to timber plantation. Nonetheless, the output of policy in Ulu Segama Malua has had some notable achievements. As was demonstrated in Chapter Nine, this can be seen in terms of building organisational capacity, developing expertise, fostering policy networks, changing broader attitudes

to the value of forests in the Sabah as a whole and ultimately leading to a change in its legal designation.

A further observation about the output of forest conservation policy in the empirical examples was that the division between the Permanent Forest Estate and state land was not absolute. The formation and implementation of forest conservation policy within the Permanent Forest Estate also had consequences for the forests of Sabah as a whole. The development of networks and closer collaboration between environmental organisations in Ulu Segama Malua had wider benefits for the development of conservation networks across the State. The influence of the SFD, as a powerful organisation, had state-wide benefits of changing overall attitudes to forest conservation and, as was observed by several international organisations, fostering a wider perception that Sabah is a place where conservation funding can lead to effective results. An example of this benefit is the case of Yayasan Sime Darby, which having developed contacts in Sabah through two large projects within the Permanent Forest Estate, now funds a number of projects elsewhere in Sabah, including two projects in the Lower Kinabatangan. In addition, there has been a cross fertilisation of ideas between the Lower Kinabatangan and Ulu Segama. The improving attitude of the SFD to local communities that has resulted from its commitment to the principles of the FSC influenced it relationship with the community of Batu Puteh, which in turn has been instrumental in the long term success of the MESCOT project. In the other direction, the SFD and New Forests have borrowed from the honorary wildlife warden concept developed in LKWS and replicated it in the partnership with palm oil companies neighbouring Malua. Furthermore, in the Lower Kinabatangan there has been notable success in changing the economic position and cultural attitudes to forests in local communities to the point there are plans to replicate of the MESCOT model and make community conservation the central focus of the EU REDD+ pilot project. The knowledge gained in long standing community conservation projects in the Lower Kinabatangan has application for the SFD in terms of informing best practice as it seeks to build stronger partnerships with local communities on the margins of the Permanent Forest Estate elsewhere in Sabah.

This stage of the analytical framework reveals another feature of interplay between institutions at different levels of scale. This relates to the extent that higher and lower level institutions are compatible, and therefore the extent that the influence of international institutions can be mobilised in local level institutional contexts. In this the contrast between Ulu Segama Malua and the Lower Kinabatangan is instructive. This contrast shows that the features of interplay outlined in the last section, which were the mobilisation of ideas and resources from international institutions through the medium of bridging agents, are not enough alone to successful implement policy initiatives.

Successful implementation also requires that the institutional setting of these policy initiatives allows for these ideas and resources to be targeted in an effective and coordinated way, and also in a way that mitigates the limitations of these ideas and resources. In this Ulu Segama Malua proved to have a far more conducive institutional context to apply these ideas and resources that the Lower Kinabatangan.

**4. Conclusion**

This Chapter discussed the empirical findings of this Thesis in the context of the analytical framework as set out in Chapter Three. It showed firstly how the intersection of wider institutional changes at international, national and state level, along with changes in the material circumstances of Sabah's forests, created a situation where actors in Sabah could initiate new directions in forest conservation policy. It then showed the process by which these actors constructed policy frames in order to implement these initiatives. In both empirical examples this process involved actors defining policy problems according to both their organisational values and motivations and more pragmatic consideration that derived from the need to build policy partnerships. The way that policy problems were defined between different actors then biased the policy action to be taken to address these problems. The policy initiatives were constructed around a number of ideas and discourses deriving from international institutions. These ideas and discourses fulfilled the purposes of creating the practical framework for implementing forest restoration projects, securing funding to finance these projects and drawing different actors together towards common policy aims. The output of the forest restoration initiatives demonstrated the contrast between the two empirical examples. While the economic justification for conservation was stronger in the case of the Lower Kinabatangan, the institutional circumstances for implementing forest conservation policy were more favourable in Ulu Segama Malua. As a result, it was in Ulu Segama Malua where policy actors were able to achieve their policy objectives more effectively. Relating these findings to the empirical research questions, each of these stages demonstrated the influence of the interplay between institutions at state and international levels. This could be seen in the way such interplay created the preconditions for policy change, how interplay took place in the transfer of ideas and resources through bridging agents in the construction of policy frames and the relatively favourable local institutional context for the facilitation of interplay. These observations on the way vertical institutional interplay took place in the empirical examples will form the basis for addressing the research questions in the next Chapter.

**CHAPTER 11: CONCLUSIONS**

**Introduction**

The purpose of this Chapter is to address the research questions set out in Chapter Two and reflect on the methods and theory used in the course of the research. The intention is to relate the findings of the previous Chapters back to the theoretical literatures set out in Chapter Two. Section one addresses the first empirical research question by considering how policy actors have used ideas and discourses originating from institutions at higher levels of scale to introduce new forest policy initiatives in Sabah. Section two addresses the second empirical research question by considering the institutional limitations imposed on actors in using these higher level ideas and discourse from a historical institutionalist perspective. Section three then addresses the theoretical research question by considering how a combination of constructivist and historical approaches can contribute to existing literature on vertical institutional interplay. In this section the intention is to also to consider the empirical objectives of this Thesis that were set out in the introduction of producing empirical findings that have general application to the subject of forest governance in developing world settings. The Chapter ends by reflecting on the research journey taken over the course of this Thesis. It considers the strengths and weaknesses of the analytical framework and research methods, as well as other research directions that could have been taken. It then considers two further areas of theory that the Thesis was unable to address in detail, but which raise questions for further research.

**1. Conclusion Part One: First Empirical Research Question**

In Chapter Two the first empirical research question was posed as follows:

"How do agency, ideas and discourse shape local policy through the influence of vertical institutional interplay?"

This question was addressed in the second stage of the analytical framework, which concentrated on the way that policy actors constructed policy frames. As was shown in the last Chapter, in the two empirical examples this process of frame construction had a number of multi-level aspects. These multi-level aspects involved the transfer of ideas, discourses and resources between the state and international levels, the role of policy actors in facilitating these transfers and the impact of these ideas and discourse in shaping local policy initiatives.

These aspects accord with much of the work on constructivist institutionalism that was presented in Chapter Two. In line with Schmidt's theoretical approach, in each empirical example policy actors used international ideas and utilised discourses based on these ideas in order to define policy problems, devise policy initiatives and build policy partnerships towards implementing these initiatives. Furthermore, the way that ideas and discourses were mobilised corresponded to Schmidt's classifications of cognitive and normative ideas, and coordinative and communicative discourses (Schmidt 2008, 2011). In addition the role of actors in the empirical examples also corresponded with the observations of Hay and Rosamond about the way that national and subnational policy actors translate and convert international ideas to lower levels of institutional scale (Hay & Rosamond 2002). Further to this, several actors in the two empirical examples assumed the role of policy entrepreneur in mobilising, combining and reshaping these ideas towards new forest conservation policy directions. This corresponds with the observations of both Lieberman and Campbell (Lieberman 2002, Campbell 2004).

The value of these theoretical concepts in explaining how agency facilitates vertical institutional interplay through ideas and discourses can be seen when the multilevel roles of the key actors involved in the empirical examples are considered in more detail. As was observed in the last Chapter, at the core of the policy initiatives in both empirical examples was a group of key actors that operated at both state and international levels. These actors were thus well placed to act as conduits to introduce ideas and discourses derived from international institutions into Sabah and assume the role of policy entrepreneurs. These ideas and discourses then became the focal points for the policy initiatives observed in each example. They were used not only as a means of practical knowledge transfer, but were also used as the basis for persuasion in order to raise financial resources from international funders and also as a focus for building policy partnerships between state level actors. Each one of these key actors fulfilled different functions in this process as follows:

WWF Malaysia operated from an explicitly multilevel perspective, given that it had roles in specific projects at a state level, was organised nationally to deal with environmental problems at a federal level and was also affiliated with WWF's global conservation networks and programmes. In this global capacity, WWF were instrumental in introducing several international ideas on forest conservation into Sabah. These included FSC and RSPO certification, both of which it had a significant role in establishing, REDD+, where it was involved in devising a state wide REDD+ readiness plan and community conservation which it introduced through the MESCOT project. At a more localised level, WWF was involved in mobilising international funding to specific projects in

Northern Ulu Segama and the Kinabatangan. It also had a significant role in using its international profile to exert international pressure on State Government decision makers.

LEAP was positioned between the state and international levels through two principle roles. The first of these was facilitating conservation and community development projects within Sabah and the second was raising funds and political influence through its contacts in the USA. It was responsible for introducing the Biobank PES concept in Malua through its contacts with New Forests and has consistently promoted the idea of community conservation and development, particularly in its long term support of MESCOT. A key function of LEAP was its role as bridging agent to a variety of international funders such as the World Land Trust in the case of the Lower Kinabatangan and the Arcus Foundation in the case of Northern Ulu Segama.

HUTAN originated in France and took an explicitly multilevel perspective, viewing conservation at project, state and international levels. As such it fulfilled a number of roles in facilitating connections between the state and international levels. It had a role in introducing community conservation and development ideas through the KOCP in Sukau. It facilitated the dissemination of international knowledge and expertise in conservation through its capacity building work with government departments. It had a key role in developing research and knowledge about orang-utans that was then used to promote forest conservation to international funders. In addition it has also been involved with fundraising through its role as project partner with WLT.

SEARRP and DGFC had similar roles in connecting scientific research in Sabah to the wider international academic community. Both introduced international scientific research ideas and associated expertise respectively in the case of both Ulu Segama Malua and the Lower Kinabatangan. The knowledge gained from international researchers in both cases was then used to devise and develop forest restoration and habitat connectivity strategies in both empirical examples. Additionally this knowledge was used as a means of establishing the credibility of these policy approaches when being communicated at the international level.

While the SFD and SWD did not take an explicitly multilevel perspective and were principally concerned with state level concerns, in partnership with environmental organisations they both had key roles in facilitating vertical institutional interplay. Both organisations provided environmental organisations with legal sanction for their activities and gave the policy initiatives undertaken in both examples legal legitimacy. This legal support had a key role in attracting the financial and political support of international organisations. In addition both played a coordinating role between the various organisations, both local and international, that were involved in the two empirical

examples. Given its greater influence and resources the SFD was able to fulfil this role more effectively.

These multilevel roles can be conceptualised using Schmidt's discursive approach to institutional analysis. First is the way that the ideas and discourses used in policy initiatives had, in line with Schmidt's conceptualisation, cognitive and normative functions (Schmidt 2008). The ways that policy problems were defined and international ideas and discourses were used to address these problems all had practical functions in the implementation of specific policy initiatives. Each of the actors outlined above used ideas towards practical ends. This could be seen for instance in terms of the adoption of SFM as a practical framework or the use of scientific ideas to inform the implementation of forest restoration strategies. But each also used ideas and discourses as a normative medium for aligning values and drawing actors together into policy partnerships. Thus using the same examples as above, SFM was also adopted as a means of establishing credibility and common values with potential partners at both state and international levels. Similarly, scientific research established the threat to orang-utan populations, which was then used as the basis for justifying conservation at the international level in a form that would correspond with the values of international funders. Taking this conceptualisation further, it can also be observed that actors used ideas according to both their fundamental organisational values and more pragmatic considerations in order to align their positions with the values of partner organisations. Thus a key aspect of the role of agency in facilitating vertical institutional interplay was the ability of actors to utilise ideas in multiple ways according to both practical policy implementation and partnership building purposes.

In line with another of Schmidt's conceptualisations, discourses based on these ideas took both coordinative and communicative forms (Schmidt 2011). In the case of coordinative discourse, the partnerships between government and environmental organisations within Sabah were coordinative in the sense that they were developed within a close network and involved the clear coordination of complementary attributes towards specific policy aims. This could be seen particularly in the case of the USM-SFMP, where the SFD and environmental organisations devised a coordinated strategy using a number of international ideas at its core. Within this strategy clear roles were devised, with the SFD acting as coordinator and political advocate to the State Government, HUTAN and SEARRP acting as technical advisors and WWF and LEAP acting as bridging agents to international funders. In the case of communicative discourse, the way discourses were used to establish partnerships with international funders took a more communicative form. This involved locally based policy actors developing persuasive arguments in order to align specific local policy objectives with the more general values and objectives of these international organisations. Thus international ideas and

instruments such as FSC certification or PES proved useful in translating local policy objectives into terms that would be more credible and understandable at an international level.

The multi-level aspects of the use of ideas and discourses demonstrate the utility of Schmidt's distinction between ideas and the way ideas are communicated through discourse (Schmidt 2008, 2011). This also links with Hay and Rosamond's observation of the way ideas are used differently at different levels, and how global ideas and discourses are used strategically towards national and subnational aims (Hay and Rosamond 2001). Central to the way that policy actors in Sabah were able to facilitate and mobilise vertical institutional interplay was the way that ideas were communicated differently to different audiences. In addition, the empirical examples show that each policy initiative was the result not only of a single policy approach, but of a combination of approaches. Thus the empirical examples show how actors have developed strategies that combine ideas deriving from international institutions in ways that were appropriate to particular local circumstances, and then justified these strategies discursively in ways that were most appropriate to the level at which they are communicated. This thus demonstrates the value of actors who are able to understand the different requirements of partnership building at different levels and strategically navigate between these levels.

Thus what can be seen is that key policy actors acting as policy entrepreneurs used ideas and discourses in order to facilitate interplay between the institutions of global forest governance and state level forest governance institutions in three principle ways. The first was the development of partnerships through the medium of common ideas and discourses that were then cemented into institutionalised networks, which then had a continuing role in advocating forest conservation. The second was the transfer ideas and discourses in the form of knowledge and expertise derived from the international level, which facilitated institutional capacity building at the state level. The third was the use of ideas and discourses as a means of persuasion to attract funds from international organisations, which facilitated policy implementation and generated political influence in favour of forest conservation. In combination these three factors led to a substantive reorientation of forest policy and the institutional direction of forest governance from one that was characterised by unsustainable timber extraction to one characterised more by sustainable forestry and forest conservation.

**2. Conclusion Part Two: Second Empirical Research Question**

In Chapter Two the second empirical research question was posed as follows:

"How do historical institutional continuities limit the influence of vertical institutional interplay on local policy?"

This question was addressed primarily through the third stage of the analytical framework. In this it was observed in Chapters Nine and Ten that the main institutional barriers to forest conservation policy could be seen in terms of State Government economic development policy, the system of land use administration and the limitations of international forest conservation funding. Further it was observed that these barriers manifested themselves to a far greater extent in the Lower Kinabatangan that in Ulu Segama Malua. This meant that policy instruments derived from international forest policy institutions could be integrated more effectively into the existing institutional context of the latter than in the former.

The way that these institutional barriers have emerged and persisted can be conceptualised according to the theoretical work on historical institutionalism that was presented in Chapter Two. This body of theory emphasises the role of long term historical continuities in shaping institutional behaviour. It conceives of these continuities as constraints on actors in pursuing courses of action that conflict with embedded institutional practices (Hall and Taylor 1996). It was further observed in Chapter Two that more recent work in the field of historical institutionalism has sought to amend the static nature of earlier forms of this approach by considering the role that individual agency and ideas have in effecting incremental change to these historical continuities (Streek and Thelen 2005, Lieberman 2002, Campbell 2004).

The description of the historical development of land use institutions in Sabah set out in Chapter Six corroborates much of this work. This showed how a system of land use developed during the colonial era and continued following independence, which was motivated by the goal of utilising land according to its most profitable use. This was enshrined in the Land Ordinance, which represented the main legislative instrument for land use in the State (Dolittle 2004, McMorrow and Talip 2001). This led to long term patterns of deforestation and forest degradation as a result of the conversion of forest to commercial agriculture plantations and the intensive extraction of timber (Reynolds et al 2011). These long term patterns can be characterised as a 'path dependency', where the institutions of land use became set towards the purpose of natural resource extraction in order to generate export earnings, principally to serve the interests of Sabah's economic and political elite

(Hall and Taylor 1996, Hezri and Hasan 2006). However, as was also observed in Chapter Six and the analysis Chapters, this system reached a crisis in the 1990s and 2000s owing to the exhaustion of profitable timber in the permanent forest estate and the conversion of most available land outside this estate for commercial agriculture (Reynolds et al 2011, McMorrow and Talip 2001). This led to a situation that corresponds to Streek and Thelen's concept of "drift", where institutions no longer fulfil the functions they were originally intended for but still persisted as embedded practices (Streek and Thelen 2005).

This can be illustrated through the contrast between the two empirical examples. In the case of Ulu Segama Malua, the area was not generating revenue. In order to utilise it most profitably according to the original purposes of the Land Ordinance it would have made short term economic sense to convert it to oil palm or timber plantation (Reynolds et al 2011). However, in spite of pressure for conversion, Ulu Segama Malua remained as natural forest, and moreover was re-designated as a protected area. In contrast, the Lower Kinabatangan assumed a significant economic value because of its attraction as an ecotourism destination. This economic value relied on the continued viability of its wildlife, particularly charismatic species such as the orang-utan, and this continued viability depended in the long term on solving the problem of habitat fragmentation. Yet progress towards a habitat connectivity strategy has been hampered as a result of a complex and fragmented system of land administration, which made the development of habitat corridors between forest fragments difficult. Therefore the persistence of these institutions cannot be explained through their ability to maximise revenue, as a rational choice explanation of institutions would hold (Shepsle 2006), or through any obvious deeper cultural significance, as a sociological explanation of institutions would hold (March and Olson 2006). Rather the persistence is better explained through the political difficulty of changing historically embedded institutions even where they no long fulfil their original intended functions. A representative of the SFD encapsulated this situation, characterising the Land Ordinance simply as "something we are stuck with" (Representative of SFD 2 – see also Chapter Nine).

The contrast between the two empirical examples can be further conceptualised according to new approaches to historical institutionalism that concentrate on the role of ideas and agency in managing historical institutional legacies. In Chapter Two Streek and Thelen conceptualised the way that incremental institutional change can be achieved by actors "layering" new ideas onto existing institutional arrangements (Streek and Thelen 2005). Both Lieberman and Campbell further conceptualised how policy entrepreneurs respond to problems arising from their institutional context by translating new ideas into a form that corresponds with this context then combining the

two (Lieberman 2002, Campbell 2004). This leads to the modification of institutional arrangements that still reflect historic continuities but are adapted in order to better suit new circumstances. The role of the SFD in the case of Ulu Segama Malua provides a good example of this process. In Chapters Seven, Nine and Ten it was observed that the SFD, acting as a policy entrepreneur, took advantage of the difficulty that the Land Ordinance places on re-designating land as a bulwark against conversion to oil palm or timber plantation. It was thus able to re-orientate a piece of legislation that had been a driver of deforestation to a barrier against it. It then introduced new international ideas and discourses, and combined them within the confines of existing institutional arrangements in order to reconfigure its organisational values and objectives. Because of greater administrative fragmentation and the absence of a well positioned policy entrepreneur, it proved considerably more difficult to combine existing institutional arrangements with new ideas in the Lower Kinabatangan.

Therefore the limitations on actors using international ideas and discourses towards forest conservation policy depended, as was observed in the last Chapter, on the extent that these ideas and discourses were compatible with existing historically embedded state level institutions. Further to this, as was shown in the last Chapter, these limitations were to a large extent context sensitive. In the case of Ulu Segama Malua this context was relatively uniform, meaning that it was possible to direct these ideas and resources in a consistent and coordinated way at a larger scale. In the Lower Kinabatangan this context was, by contrast, fragmented and variable along the length of the river. Consequently, where a policy entrepreneur did exist to translate international ideas and resources to a local level, as for instance in the case of HUTAN in Sukau, the scope of their action was limited to a small locality where they had sufficient authority and where particular policy instruments proved appropriate. Given the variability of institutional context, a range of different policy approaches had to be applied according the particular circumstances of these different localities. Therefore, because it proved necessary to implement projects in a more limited and piecemeal fashion, it proved much more difficult to link individual projects into a coordinated strategy. Taking this observation further, because the problem of habitat fragmentation was a landscape level one, and because there was a lack of institutional uniformity across this landscape, a problem of misfit arose between this problem and the institutions that sought to address it (Young 2002: 55-57). From this point of view it can be seen that the institutional context of Ulu Segama Malua fitted much more closely with the problem at hand, and as a result ideas and instruments derived from international institutions were able to be applied much more effectively. This issue of institutional fit will be addressed further in section five of this Chapter.

This issue has implications for the stated policy ambitions of several actors in Sabah to scale up the achievements of past and present forest conservation projects to a coordinated landscape level forest conservation strategy. The contrast between Ulu Segama Malua and the Lower Kinabatangan shows that the barriers that exist to forest conservation projects can be expressed to a large extent by institutional boundaries. The USM-SFMP was able to achieve substantial progress in implementing forest conservation policy within the confines of a single forest reserve. MESCOT and KOCP were able to achieve similar progress at a small scale within the confines of the communities of Batu Puteh and Sukau. In these circumstances it has been possible to modify institutional arrangements within the limits of 'harder' pre-existing institutional boundaries (Bell 2011). Less progress was achieved in the Lower Kinabatangan at a landscape level where a habitat connectivity strategy needed to engage across these institutional boundaries. In attempting to implement a state wide forest conservation strategy, the scale of such a strategy is greater and the number of institutional boundaries and potential hostile actors to be overcome is correspondingly greater too. Therefore the problem of implementing a forest conservation strategy at a state level becomes more problematic and goes beyond a question of modifying institutions within the confines of 'harder' institutional arrangements to one of effecting more comprehensive institutional change. This issue of institutional change is dealt with in greater detail in section five of this Chapter.

This raises the problem of how far actors pursuing forest conservation in Sabah can continue to rely so heavily on the ideas and funding that derives from international institutions. In Chapter Nine it was shown that these international ideas and funding sources were at their most effective when applied to projects carried out in a discrete area with the broad support of all actors involved in that area. This was particularly the case in Northern Ulu Segama, MESCOT and KOCP. The impact of these ideas and funding sources have proved less successful for addressing situations that cross institutional boundaries and involve attempts to establish partnerships with sectors less amenable to conservation such the oil palm industry. Much of this can be attributed to the voluntary nature of global forest governance institutions, which have no binding force in international law (Pulzl and Rametsteiner 2002, Gulbrandsen 2004). All of the international approaches observed in the empirical examples are correspondingly characterised by their voluntary nature. The lack of ability to engender anything more than token support from the palm oil industry and the limited funds raised through the Malua Biobank provide the most obvious examples of the limitations of voluntary policy approaches. As a consequence, potential for using ideas, discourses and funding derived from international institutions to tackle more entrenched institutional barriers has been circumscribed. The step from policy change within existing institutional boundaries to more substantial institutional

change involving the restructuring of these boundaries will require a harder legislative response from the State Government backed up by adequate enforcement.

What can be seen from these observations is that the barriers to forest conservation policy presented by historical continuities in state level institutions represent a different form of institutional interplay. It was observed above that institutional interplay occurs where "the operation of one set of institutional arrangements affect the results of another or others" (Young 2008: xvi). In the last section it was observed that actors facilitated a positive process where international institutions affected the results of state level institutions through the transfer of ideas and discourses. In this section it was state level historical institutional legacies and conservative actors whose interests lay in the maintenance of the institutional status quo that limited and therefore affected the extent to which international institutions could exert an influence in Sabah. Thus it can be seen that the limitations of historical institutional legacies represent a negative form of vertical institutional interplay. In this sense negative is used not in a normative sense. Rather, according to Young's definition set out above, interplay still occurs because lower level institutions affect higher level institutions by limiting their impact. Thus interplay still occurs, even though this interplay does not result in any change, and can therefore be considered negative, in contrast to positive interplay that does lead to change. The way this limiting, or negative, form of institutional interplay manifested itself can be seen in four principal ways. Firstly, pre-existing institutional legacies limited the application of international ideas, discourses and resources and led to geographical variations in the effectiveness of subsequent policy initiatives in different localities. Secondly, they limited the scale at which the influence of international institutions could facilitate forest conservation policy and presented barriers to scaling up local project level achievements. Thirdly, they provided a means by which conservative actors could mobilise resistance to the influence of international institutions and forest conservation policy. Fourthly, they exposed the limitations of international institutions based on voluntary compliance and determined the extent that actors advocating forest conservation policy could mitigate these limitations.

**3. Conclusion Part Three: Theoretical Research Question**

In Chapter Two the theoretical research question was posed as follows:

"How can a combined constructivist and historical approach to institutional analysis contribute to existing literature on vertical institutional interplay?"

In order to answer this question it is necessary to go beyond Sabah and identify where the findings of this Thesis have general applicability to other locations in the developing world and to the theoretical literature on institutional interplay. This general applicability can be seen in the light of the observations made in Chapter Two about the reasons for the concept of institutional interplay being proposed in the first place. It was observed that this was due to the increasing "institutional density" of institutions dealing with natural resources which increasingly transcend national boundaries (Young 2002: 8-9). The problem raised by the theoretical approach taken in the literature on institutional interplay, particularly in its vertical form, is its basis in rational choice and normative approaches to institutional analysis (Young 2002: 29-50). As was observed in Chapter Two, weaknesses in these approaches have been observed in relation to their lack of attention to the role of agency, the operation of institutions at the local level and institutional dynamics (Selin and VanDeveer 2003, Young 2008:43-45, Vatn and Vedeld 2012, Loewen 2005). But the findings of this Thesis raise a further issue of how far these theoretical approaches remain applicable in general given the increasing globalisation of natural resource policy and institutions, and the institutional dynamism these entail. In addition, as Schmidt has observed, it raises questions about how far approaches that emphasis continuity are applicable in the increasingly uncertain global context characterised by climate, security and economic instability (Schmidt 2011).

As was first stated in the Introduction, Sabah presents an example of more general trends around the world where forest governance institutions are moving from predominately nation state to more multilevel arrangements (Humphreys 2008). In these circumstances the example of Sabah shows that rational choice and normative approaches are more suitable for explaining the former circumstances, but are less equipped to explain the more complex dynamics entailed in the latter. In the period prior to the 1990s in Sabah, as described in Chapter Six, the development and maintenance of the institutions of land use administration were geared towards short term revenue maximisation. This corresponds to a rational choice understanding where institutions are based on fixed preferences of material self-interest (Shepsle 2006). In line with a normative approach, this system was also underpinned by the prevailing normative values in the State and Federal Governments that emphasised the importance of economic development as the best means to achieve social wellbeing. These material and normative foundations were mutually supporting in that each justified the other, and were not subject to serious contestation (Hezri and Hasan 2006, Jomo and Hui 2004). The reason for this institutional stability lay in the relatively simple institutional circumstances that existed in Sabah following independence. Land and natural resource use in Sabah were controlled by an economic and political elite that was able to direct natural resource

exploitation with little opposition from other sectors (Yong 2006, White 2004). This elite group of politicians and businesses inherited a well-defined institutional system from the British and were able to exploit natural resources predominantly at the state level with little interference from either the Federal Government, international pressure or the influence of an organised civil society (Dolittle 2004). Moreover, the institutional system yielded consistently high levels of profits from timber extraction that furnished both tax revenue to the state and personal wealth to politicians and timber companies, meaning that there was little incentive for this system to change (Jomo and Hui 2004). In these circumstances it is possible to sustain a conceptualisation of institutions that emphasises stability underpinned by fixed rational preferences and normative values.

The use of rational choice and normative approaches to explain the institutional system of land use in Sabah breaks down in the more complex circumstances that arose in the 1990s and 2000s. This period demonstrated a shift from a stable to a more unstable institutional situation in forest governance characterised by greater contestation between a wider range of actors operating at a range of levels of scale. In these circumstances established conceptions of economic interests and normative values could no longer be taken as given and became open to conscious reconstruction by different policy actors (Blyth 2002, Weiss 2005, Brosius 1999). The impetus for this shift can be explained in material terms by the exhaustion of timber income and available land for the expansion of commercial agriculture (Reynolds et al 2011). But much of the subsequent contestation that arose can be attributed to the growing influence of international institutions in disseminating new ideas and providing new sources of revenue to underpin new ways of defining the value of forests. This therefore affected the way that policy actors defined and subsequently dealt with problems arising from these material issues.

The result of this has been a situation characterised by tensions between the impetus for change created by new ideas and discourse and inertia created by existing national and subnational institutions. This tension can be conceptualised in line with the observations made in the previous section as falling between positive and negative interplay,. where the influence of In the positive sense higher level institutions affect lower level ones by initiating change, changes institutions at lower levels, and negative interplay, where while in the negative sense lower level institutions block the influence of affect higher level institutions by blocking their influence. In Sabah there has not been a shift from one state of equilibrium to a new one as older forms of new institutionalism would expect (see for instance Pierson 2000, Collier and Collier 1991). Rather there has been a shift to a different situation characterised by greater dynamism and uncertainty that has resulted from these tensions.

In this, Sabah does not represent an isolated example. As was observed in the Introduction and Chapter Five, the situation in Sabah is reflective of general trends in global forest governance. It was observed that forest governance throughout the world has moved away from a conception that forests are solely a sovereign national resource. However, because of the non-binding nature of global forest governance, the impact of ideas and policy instruments for improving the sustainability of forest management has been limited by their voluntary nature (Pulzl and Rametsteiner 2002, Dimitrov 2006, Gulbrandsen 2004). The consequence of this has been that forest governance throughout the developing world has become fragmented at a number of levels from global to local (Humphreys 2006, Werland 2009). National governments and conceptions of forests as a resource for short term revenue generation have retained a strong influence, but they now have to compete with global conceptions of forest governance associated with SFM and trends associated with greater devolution of forest management to local levels (Chan and Pattberg 2008, Wiersum 2013). Given these global trends, it would be expected that an analysis of the tensions that have arisen in forest governance institutions in Sabah would also be applicable to and representative of in other settings in the developing world. Moreover, given that Sabah has been early to adopt many of these trends, the findings of this these can inform the implementation of policy based on international ideas and discourses in other locations in the developing world that are at a later stage of developing sustainable forestry policy.

Given this more contested institutional landscape of forest governance in general, this Thesis has sought to adopt a different approach to conceptualising vertical institutional interplay by exploring alternative theoretical approaches. This has entailed an investigation of the applicability of historical and constructivist approaches to conceptualising the interaction of higher level institutions with those at national and subnational levels, and the subsequent effect of these interactions on forest governance and policy. What has emerged is that neither approach offers a complete explanation. Rather both are useful in conceptualising the tensions between positive and negative forms of vertical institutional interplay. These tensions can be seen to have manifested themselves according to normative, administrative and material dimensions.

In the case of the normative dimension, this implies a tension between the norms underpinning existing national and subnational institutions and the norms of global forest governance. In Chapter Six it was observed that the Malaysian and Sabahan Governments have traditionally legitimised the exploitation of natural resources on the basis of the normative priorities of promoting the wider societal benefits of economic development and modernisation (Dolittle 2004, McMorrow and Talip 2001). But in Chapter Five, Werland observed that "forest have become denationalised with norms

increasingly set by environmental interests and a broader set of other sectors" (Werland 2009: 448). The empirical findings in Chapters Seven to Ten suggest that neither of these two normative positions now apply wholly in the case of Sabah's forests, but rather a contested situation has arisen between the two. But this contestation is complicated by other normative positions such as the promotion of indigenous rights and the protection of biodiversity for its intrinsic value. It also applies not only in contestation between different sectors and actors, but has led to normative ambivalence within sectors and individual actors. This can be seen in the case of the SFD, which is caught between the objectives of implementing SFM and pressure to generate revenue. It can be seen in NGOs between the principles of biodiversity conservation and the pragmatic needs of collaborating with other sectors. It can be seen in the oil palm sector between the needs of profitability and the need to manage the industry's worsening environmental reputation in international markets. Consequently the role of policy agents has become more important given that actors are no longer able to follow uncontested, taken for granted values. Instead their positions depend on their ability to navigate tensions between historically embedded institutional values and those encapsulated in new international ideas and discourses.

In the case of the administrative dimension, this tension has manifested itself in the relative effectiveness of different forms of institution building, in particular the contrast between 'soft' and 'hard' institutions (Bell 2011). As was observed in the last Chapter, there has been most progress in embedding new ideas and discourses in the 'softer' aspects of network development and institutional capacity building. In addition, in areas under the authority of the SFD there has been progress in terms of embedding new ideas and discourse in more localised administrative arrangements and some level of change in the legal status of reserves such as Ulu Segama Malua. But it has proved significantly more difficult to combine new ideas and discourses within the state-wide systems of land use administration and the legal constraints of the Land Ordinance. This means that the impact of new ideas and discourses depends on the extent that they either fit within or cross administrative boundaries. In this, the example of Ulu Segama Malua showed the advantages of implementing new policy initiatives within a single administrative area and the Lower Kinabatangan shows the disadvantages of implementing new policies in an area with a patchwork of different administrative responsibilities. As a result, a tension has emerged in spatial scale between areas administered by government agencies that favour new ideas and discourses and areas administered by agencies that have a greater interest in maintaining the existing status quo.

In the case of the material dimension, the initial impetus for the introduction of new ideas and discourses emerged from the physical effects of environmental destruction. In the case of Ulu

Segama Malua this took the form of the timber famine and in the Lower Kinabatangan it took the form of biodiversity loss and habitat fragmentation. But this does not imply that a material explanation for creating a new institutional climate will suffice. The observations of Hannigan outlined in Chapter Three demonstrated that physical phenomena such as deforestation cannot become policy problems unless they are constructed as such by policy actors (Hannigan 1995: 54-55). The findings from Sabah accord with these observations, given that the policy coalitions in both empirical examples had to define environmental issues in specific ways using a variety of ideas and discourses in order to present these issues as policy problems to a wider audience. In doing this these coalitions sought to redefine the meaning of material self-interest. Both empirical examples showed that material self-interest is not fixed according to a rational choice approach, but is mutable and constructed according to ideas in line with the observations of Blyth outlined in Chapter Two (Blyth 2002).

Therefore what can be seen in Sabah is a case of tension between different perceptions of self-interest between different temporal and sectoral priorities. In addition to the traditional conception of forests as a source of revenue to be exploited or land to be converted to commercial agriculture, different completing perceptions of material interest have become influential. The tension between different perceptions of material interest has manifested itself in a number of ways. It can be seen in Ulu Segama Malua in the dilemma the SFD faces between its aspirations to define its interests in terms of long term stewardship and the continued pressure to generate short term income. It can be seen in the Lower Kinabatangan in the conflicts between different and shifting conceptions of material interests of the palm oil industry, ecotourism operators and local communities. It can be seen in the State Government in the tension between older views that see forests and natural resources as an easy source of revenue set against a realisation of the need to take account for the wider values of ecosystem services and the need to diversify the State's economy away from natural resource use dependence. It can also be seen at an international level in the benefits and limitations of international sources of funding for conservation. As a consequence of these tensions it has proved difficult for policy actors to adopt clear policy objectives at broader levels of policy beyond localised projects and significant barriers continue to exist to implementing landscape level strategies, particularly in the more complex multi-sector circumstances of the Lower Kinabatangan.

Based on the observations on global forest governance made in Chapter Five, it is to be expected that similar tensions between existing national and subnational natural resource use institutions and global forest institutions will be replicated in other locations throughout the developing world. Given that vertical institutional interplay is becoming more prevalent in forest governance throughout

developing world, a need arises to conceptualise the greater levels of tension, uncertainty and dynamism than multilevel and multi-sector institutional arrangements necessarily entail. Therefore, by addressing this tension, uncertainty and dynamism, this study has wider value in fulfilling the empirical objective of this thesis of producing generally applicable findings about forest governance in developing world settings. Further to this, these findings also fulfil the theoretical objective of contributing to existing literature on vertical institutional interplay. By using constructivist and historical approaches it has provided a new approach to this concept that can account for both the influence that international institutions have on the shape of local level forest policy and the aspects of national and subnational institutions that impede these influences. In doing this it has reconceptualised vertical institutional interplay as a tension between positive and negative forms. In addition, through the contrast between the two empirical examples, it has also provided a means of conceptualising the fine grain variations and complexity that exists at the interface of the tension between these two aspects at a micro level. Therefore it shows the additional value of the theoretical approach adopted in this Thesis, in that it is able to account for vertical institutional interplay at both micro and macro levels, as well as providing a means of connecting the two.

## 4. Conclusion Part Four: Reflections on Analysis and Methods

This section moves beyond conclusions based on the research questions to reflect on how suitable the analysis and methods used were for answering these questions. It considers the relative merits of the analytical framework and research methods, as well as what alternative approaches I could have taken in the research journey undertaken in this Thesis.

The formulation of the analytical framework used in this Thesis was driven by the needs of the research questions. In order to fulfil these needs, the analytical approach adopted needed to connect the micro level processes of policy formulation and implementation with broader macro level institutional context. As a result, Schön and Rein's approach to policy frame analysis was adopted because it provided a means of conceptualising each of these levels and drawing them together (Schön and Rein 1994).

However in doing this I had to guard against a number of potential problems that can arise from analytical approaches that seek to simplify and discipline empirical data. Firstly, there is a temptation for the researcher to interpret data in order to fit it neatly into the categories of the analytical approach rather than allowing the data to speak for itself. Secondly, such approaches may

become rigid and linear, and fail to reflect the complexity, circularity and 'messiness' of the subject matter under study. In order to avoid such problems it was necessary for me to remain constantly aware that the analytical approach used was heuristic device designed to make sense of the complexity of the empirical examples from a particular perspective. As such it was necessary to accept that this approach would produce a simplified view of the phenomenon under study according to a particular perspective that was intended to make sense of this phenomenon. Therefore such a heuristic device necessarily involved a compromise between the objectives of conducting a thorough exploration of the empirical material and the practical limitations of the need to produce a focused and coherent study according to predefined aims.

In managing this compromise, the methods of establishing validity and credibility that were outlined in Chapter Four proved useful. The analytical framework involved not just the use of policy frame analysis, but also a wider study of the institutional context of forest conservation policy both at state and international levels. By establishing this context I was able to take a broader view on the process of formulating and implementing forest conservation policy than would have been the case if I had concentrated solely on policy actors. This meant I was able to conduct interviews and analyse data in the light of this wider knowledge and therefore be in a better position to judge the credibility of the interview data. In addition, by using data triangulation I was able to cross check the finding of the interviews with documentary analysis, non-participant observation and a review of secondary studies. By conducting both participant and peer validation I was able to further cross check findings in order to ensure that they corresponded with other's perspectives on the theory and empirical subject matter used in this Thesis.

It is recognised that other possible approaches to data analysis could have been employed. In the process of formulating the analytical framework I also considered the use of discourse analysis. A prominent means of using discourse analysis to study policy is Hajer's conception of discourse coalitions. This approach focuses on the way policy actors form coalitions through the construction of policy "storylines" and therefore emphasises the role of actors in driving the formulation and implementation of policy (Hajer 1995). In this sense, this approach fulfils the requirements of the research questions in taking an actor centred approach to the study of policy, which in turn also accords with the discursive institutionalist perspective advocated by Schmidt (Schmidt 2008). A potential value of adopting this approach would have been that it would have provided a flexible approach to conceptualising the fluid and multi-perspective nature of policy as a social construction. In addition, it would also have provided a means of emphasising the dynamics of power that take place between actors within the policy process. However the research questions of this Thesis are

concerned not only with the way actors shape policy, but also what constraints are imposed on in shaping policy. I considered that a discursive approach would bias my approach too far towards a constructivist position and therefore would have failed to capture both the constructive and constraining aspects of institutions that are implied in the research questions. In addition, I considered in general that frame analysis provided a more well-defined approach to considering policy from an interpretive perspective in a way that would be able to better integrate historical and constructivist theoretical positions. In contrast, I considered that discourse analysis was a more diffuse analytical method that would not have provided sufficient focus to organise complex empirical data and derive both theoretically and practically relevant conclusions.

A further area of reflection that I had to consider was the extent to which the methods employed in this Thesis were appropriate for answering the research questions. Again this process involved a compromise between the need for comprehensive exploration of the empirical subject and the practical needs to generate a manageable and focused data set. The first aspect of this reflection relates to the selection of empirical examples. For the purposes of the research questions, Sabah proved to be an appropriate research setting. It demonstrated a wide range of examples of the way ideas and discourse derived from the institutions of global forest governance had influenced local policy actors in devising new policy initiatives for forest conservation and also demonstrated the limitations on these actors that resulted from pre-existing institutional legacies. This meant that it provided a means of drawing general conclusions in relation to the main bodies of theory employed in this Thesis. In addition it was also reflective of the trends in global forest governance outlined in Chapter Five, which gave the findings applicability to other contexts outside Sabah.

Further to this, the selection of the two empirical examples provided representative and contrasting pictures of the multilevel dimensions of forest conservation in Sabah as a whole. However I recognised that different approaches could have been taken to selecting empirical examples. For instance the original conception of the project was to study only the Lower Kinabatangan alone, an approach that would have been able to focus more closely on the land use conflict between conservation, palm oil, tourism and indigenous communities in this area. Similarly I could have decided to concentrate solely on examples from the Permanent Forest Estate and therefore focused on the range of different approaches taken by the SFD including other areas such as Deramakot and Gunung Rara Kalabakan (see Chapter Four). Such approaches may have provided a more cohesive study that could have concentrated on particular aspects of vertical institutional interplay, such as the role of the SFD as policy entrepreneur in the Permanent Forest Estate or the particular role of NGOs in the Lower Kinabatangan. The decision to select both examples was made explicitly in order

to capture the value of insights that were provided by the contrast between the two examples (Ritchie et al 2003: 78-80). It is recognised that in following this research direction I have had to sacrifice some richness and depth of detail that could had been generated from a single example study.

By selecting contrasting empirical examples, I subsequently had to deal with further compromises in the way that data sources were selected, particularly in the selection of interviewees. A different perspective could have been gained into the land use contests existing in Sabah if I had also interviewed representatives from the palm oil industry, tourist lodges and the State Government. This may have been appropriate and practically feasible had I dealt with one empirical example alone. Similarly, by dealing with a single example I would have had more scope to investigate policy implementation at levels below organisational leaders and project managers by interviewing less senior representatives of organisations who were more responsible for practical ground level work. In doing this it may have been appropriate to spend more time at specific project sites and give a greater weight to the observational aspects of the research. This may also have allowed me to gain a greater insight into the process of policy implementation in individual projects. However, I judged that by concentrating on the contrast between different examples rather than aiming for more depth in a single example, I was better able to reflect the way vertical institutional interplay influenced forest conservation policy in Sabah as a whole. This approach allowed me to consider how some actors were active in the context of both examples, giving a further perspective on the multiple roles that key policy entrepreneurs played and showing how the two examples were interrelated within a wider context. In addition a single example approach would not have yielded the insights into the different impacts of institutional barriers in different localities. As a result I would have lost one of the principle findings of the research and would therefore have been more limited in answering the research questions. For these reasons I believe that this approach to data selection, while it did involve some compromises, was the appropriate one to take in order to address the main aims and objectives of this Thesis.

The final aspect of the research methods that I had to reflect on was the ethics of my role as a researcher. Much of this relates to my position as a European conducting social research in an East Asian context. As was noted in Chapter Four, this issue related to a tradition of mistrust of foreigners in Malaysia, a lack of willingness of Malaysians to speak out against the Government and my own implicit cultural biases. As was also observed in Chapter Four, Kvale and Brinkmann characterise such ethical issues as "fields of uncertainty" where the requirements of a qualitative researcher in such situations is to recognise and manage ethical issues rather than necessarily try to solve them or

deal with then through following set protocols (Kvale and Brinkmann 2009: 68-76). In the process of conducting empirical research I encounter particular issues in this area that inevitably biased my results. I was always conscious of the need to manage my own cultural preconceptions, draw on past experience of working in foreign settings and make every effort to understand the empirical subject matter from a Malaysian perspective. But in practice, for a number of reasons that were difficult to overcome, I was generally able to yield better quality interview data from western interviewees than from Malaysians.

There were a number of reasons for this. The first was that because I was less self-conscious of potential cultural misunderstandings and had more common cultural references with western interviewees, it was much easier to establish a rapport in the short space of time of an interview. Secondly I found that in general western interviewees, in comparison with Malaysians, were more open in expressing personal opinions and motivations, rather than expressing more generic organisational values that could be gleaned from policy documents. Thirdly I found a greater degree of mistrust from the outset with many of the Malaysian participants. The most obvious example of this is the refusal of the organisation Yayasan Sabah to participate, but I also encountered expressions of nervousness about dealing with potentially sensitive issues in other interviews with Malaysians. This is not to criticise Malaysians in general, who I generally found extremely hospitable and helpful over the course of the research. Moreover this observation is only a general one and there were notable exceptions. Rather it points to areas where I hindsight I could have improved the quality of data from Malaysian participants. One of these areas would have been to spend more time in an observational capacity in Malaysian organisations. I found that this proved particularly useful in establishing trust and rapport in the case of my site visit to the MESCOT project in Batu Puteh. Another area is in language. While English proved a completely adequate medium for conducting interviews, the ability to speak Malay to a higher level on a casual basis may have been an advantage in terms of building trust and rapport. While taking the steps might have improved the data collection aspect of the research, there were steps I could take to mitigate any problems. In line with the suggestions of Kvale and Brinkmann outlined above, this involved being aware of and reflecting these potential weaknesses throughout the fieldwork, making allowances in interviews and using alternative sources to verify the data obtained in interviews (ibid).

**5. Conclusion Part Five: Reflections on Theory and Further Research Directions**

In answering the second empirical research questions in section two of this Chapter, I alluded to the wider conceptual issues of institutional fit and institutional change. These issues were considered in parallel with the issue of institutional interplay throughout the research and at different stages it had been intended to include them as part of the overall Thesis. I found in the course of the research that to include one or other of these conceptual issues in tandem with vertical institutional interplay would prove too ambitious within the scope of a single project. However they do provide directions for future research.

The problem of institutional fit was mentioned in Chapter Two as, along with institutional interplay, one of the three analytical foci of the wider work of Young and others on the role of institutions in environmental governance. This concept deals with the relative degree of fit or misfit between institutions governing natural resources and the physical attributes of the ecosystems that they govern (Young 2002: 55-56). This is particularly pertinent when problems arise in these ecosystems and the institutions designated to deal with these problems do not match the scale at which these problems take place.

The contrast between Ulu Segama Malua and the Lower Kinabatangan, as noted in in Chapter Ten and section two of this Chapter, provides an illustration of this issue. The problem of forest degradation in Ulu Segama Malua was one that was matched by a coordinating authority that administered the whole area that problem manifested itself within. This match was not a perfect one, given that some of the problems in this area related to nearby oil palm plantations, which the SFD could only partially address. Nonetheless, given the reorientation of the SFD's policy focus to one that emphasised forest conservation and stewardship, as well as its relative influence with State Government decision makers, the scale of the institutions that governed Ulu Segama Malua proved adequate to address the problem of forest degradation in this reserve. In contrast, the scale of the institutions responsible for addressing the problem of habitat fragmentation was less adequate in the case of the Lower Kinabatangan. Because the LKWS was not a contiguous area, its problems transcended its boundaries to a far greater extent than was the case in Ulu Segama Malua. Therefore in order to address this problem by developing habitat corridors there was a need for governance that covered the whole extent of the Lower Kinabatangan floodplain, rather than only the remaining forested areas. The fragmentation of administrative responsibility in the area, the relative weakness of the SWD and the additional problems created by the need for the cooperation of palm oil companies, local communities and tourism companies meant that coordinated

governance in the areas was at best incomplete. Therefore the Lower Kinabatangan represents a good example of the consequences of misfit between the institutions governing forests and the ecological problems of these forests.

This problem of institutional misfit in the Lower Kinabatangan shows that in order for habitat connectivity strategy to be effective there is a need to reorientate existing institutions and create new ones that better address the ecological problems faced in the area. This leads on to the second conceptual issue introduced above, namely how can institutions be changed in the specific context of Sabah and how does institutional change take place at a more general theoretical level. As was shown in Chapter Two, institutional change represents a dominant theme in the wider literature on new institutionalism. This is because of the perception that earlier approaches in this body of theory were too static, which led to the formulation both ideational approaches within historical institutionalism and constructivist approaches in order to overcome these shortcomings. This has led to a broader debate on the question of the relative importance in institutional analysis of structure, characterised by institutional continuities that are resistant to change, and agency, characterised by the extent that actors have autonomy to use ideas to reconstruct their institutional context (Schmidt 2008, Hay 2006, Steinmo 2008).

This is not a debate that has been resolved, nor is it the place to attempt to resolve it in this Thesis. However the findings of this Thesis raise some potential avenues for further research into this area. In the two empirical examples it can be seen that in some respects there has been significant institutional change in favour of forest conservation. But in other respects institutions remain much as they were before the crisis in resource use that emerged in 1990s and 2000s. With regard to change, there was considerable progress in shifting the underlying normative values of several key actors, the development of forest conservation networks and the transfer of knowledge, expertise and resources in order to building institutional capacity. On the basis of these achievements there has been a more recent movement to scale up existing projects into a state wide forest conservation strategy. With regard to areas where change has been less apparent, as noted above in sections two and three of this Chapter, this has been primarily in terms of administrative boundaries, legislation and spheres of interest of different government agencies. In terms of these 'harder' institutional constraints, the only example of institutional change was the legal re-designation of Ulu Segama Malua to protected area status, and even this did not involve any substantial reconfiguration of administrative arrangements.

This suggests a further research direction into the smaller scale dynamics of institutional change. In general new institutional literature, like that of the literature on institutional interplay, operates at a higher 'broad brush' level involving general themes and concepts. The analysis in this Thesis, which combines constructivist and historical approaches at a project and actor level, has potential for facilitating a detailed investigation into the way institutional change takes place between different localities according to different institutional circumstances. This could then be used to consider the cumulative impact of changes in these localities and how these incremental changes contribute to institutional change at higher levels. In the case of Sabah this would involve a longitudinal study that covers a period longer than the one considered in this Thesis. By considering the example of Sabah over a more extended period it may be possible to see whether multiple changes in more informal institutional arrangements at a small scale can create sufficient momentum to effect change in more formal and larger scale institutional arrangements. Such findings could then be applied to the conceptual issue of fit, in order to show how in the long term it is possible for policy actors to reconfigure misfit institutional arrangements incrementally. As the findings of this study have shown, over the short period of research institutional changes have occurred both as a result of intended strategy and opportunism in response to contingent circumstances. Therefore the approach adopted in this Thesis has potential to produce a more nuanced understanding of the process by which policy actors seek to change institutions to match policy problems. By doing this it would be possible to conceptualise institutional fit and the way actors overcome problems of institutional misfit in a way that goes beyond the focus on intentional institutional design that characterises much of the existing literature on the subject (see for instance Young 2002: 166-175, Ostrom 2010 and for criticisms Taylor 2010). This would have the result of better reflecting the 'messy' and complex challenges faced by policy actors and the practices they devise to overcome these challenges in the process of addressing environmental problems.

**Chapter 12 – Policy Recommendations**

**Introduction**

This final Chapter outlines a number of practical policy recommendations that have emerged from the empirical research into forest governance in Sabah. The findings of this Thesis show that forest conservation policy in Sabah is at a transition from a fragmented approach based on individual projects and protected areas towards more integrated strategies that focus at the landscape level. It was revealed that the most progress towards the goal of realising landscape level forest conservation was made in the areas of network development, institutional capacity building and mobilising political pressure. It was also revealed that the main institutional obstacles to realising this objective were the emphasis of wider State and Federal policy on economic development, administrative divisions and institutional fragmentation. The purpose of this final Chapter is firstly to consider the relative merits of different policy instruments that have emerged from global forest governance institutions and their applicability in the institutional context of Sabah. Secondly it will then assess how policy makers can best target limited resources towards building on areas where progress has been achieved and finding solutions to the problems imposed by institutional barriers.

**1. The Limitations of Market-based policy instruments**

Several of the forest conservation policy instruments that have been adopted in Sabah are focused primarily on promoting forest conservation though economic incentives, which in turn are rooted in conceptions of actor motivations based on conventional economic rationality (see for instance the explanation of rational choice institutionalism in Chapter Two and market based policy instruments in Chapter Five). This was particularly the case in the promotion of PES, REDD+ and biodiversity offsetting, which for the purpose of this chapter are referred to collectively as market-based policy instruments. However, one of the key conclusions drawn from the contrast between the two empirical examples was that the relative success of forest conservation initiatives was not primarily dependent on economic factors. As was demonstrated in the analysis Chapters, the economic case for forest conservation was stronger in the Lower Kinabatangan than in the Ulu Segama Malua, but it was in the latter rather than the former where forest conservation policy has proved most successful. The contrast between the two examples showed that other factors were of greater importance in determining the success of policy initiatives both in terms of dealing with ecological problems and developing new institutional arrangements more favourable to forest conservation. The first of these factors was the relative level of coordination and agreement of clear objectives between stakeholders in each area. Second was the relative success in mobilising political pressure

on the State Government. The third was the relative complexity of institutional context and administrative arrangements, and the ability of policy actors to reorientate these arrangements to their advantage. These findings bring into question the appropriateness of focusing forest conservation policy in Sabah primarily on economic incentives.

It is not suggested here that market-based policy instruments for forest conservation should not be pursued altogether. Rather, it is suggested that a policy focus that prioritises economic factors is likely to be ineffective when it fails to consider other issues such as embedded administrative arrangements or conflicts of normative values between actors. Market-based policy instruments such as PES, REDD+ and biodiversity offsetting appeal in theory owing to their promise to overcome the problem of integrating forest conservation with the generation of sustainable long term revenue (McDermott et al 2012). However, the literature on the application of these instruments has demonstrated that their successful implementation relies on a number of institutional preconditions. Firstly, they require the support of government, either for creating an enabling policy environment in the case of voluntary schemes or creating rules and regulatory frameworks in the case of compulsory schemes (Santos et al 2011, Porras et al 2011). Secondly, they require sufficient expertise, financial resources and institutional capacity to implement technical requirements such as establishing baseline data, measures of conditionality and additionality, and mechanisms for monitoring, verification and reporting (Corbera et al 2009, McDermott et al 2011). Thirdly, they require well defined property rights and a means of enforcing contracts that are necessary to make the rules and regulations of market based policy instruments binding (Lyster 2011, Borner et al 2010).

The observations of Karsenty and Ongolo (see Chapter Five) show that these preconditions are often absent or difficult to establish in Developing World contexts (Karsenty and Ongolo 2012). From the findings of this Thesis, this observation can be applied to Sabah. Firstly, it was observed that the support of the State Government for forest conservation in general and market-based policy instruments in particular has been equivocal, with expressions of support not necessarily backed by policy implementation. Secondly, it was observed that while there is a strong base of scientific research and expertise in Sabah, there is a significant lack of expertise, financial resources and institutional capacity to convert this research into practical policy implementation. Thirdly, it was observed that the capacity to enforce regulations that already exists is weak, for instance in the case of regulations on poaching or riparian zones, while property rights in areas such as the Lower Kinabatangan are often unclear (in addition to the findings of the analysis Chapters see also GEF-UNDP 2013). Other observations were also made that called into question the appropriateness of

market-based policy instruments in the context of Sabah. There was a growing scepticism voiced amongst a wide range of policy actors, including leading figures in the SFD, NGOs and scientific organisations, about these instruments on both practical and normative grounds. These concerns included opportunity cost issues, the difficulty of attracting the voluntary participation of palm oil companies, uncertainties about international markets and moral reservations about the attaching a market value to nature.

Based on these observations, a key policy relevant finding of this Thesis is to urge caution about the application of these instruments in Sabah. This is not to say that in principle these instruments cannot achieve effective results for conservation. Rather the suggestion is firstly that economic incentives are not enough alone. Secondly the suggestion is that at present forest conservation policy in Sabah does not have the necessary institutional capacity to successfully implement market based policy instruments.  Moreover, it should be recognised that attempts to prematurely implement such mechanisms entail substantial risks. The implementation of market-based policy instruments requires substantial costs in terms of establishing administrative systems to facilitate transactions and monitor continuing compliance (Vatn 2010). Consequently, the first risk is that scarce resources will be channelled into unproven projects that yield poor returns, both in terms of biodiversity conservation and revenue, which could have been directed to other more effective but less innovative forest conservation initiatives elsewhere. The second and more fundament risk, as was observed in Chapter Nine, is that the failure of market-based policy instruments could damage the credibility of forest conservation with both State and Federal Governments by fostering a perception that 'conservation doesn't pay'. This could subsequently endanger the future progress of forest conservation policy in Sabah as a whole.


**2. Policy Recommendations**

Rather than focusing on economic incentives, the recommendations of this chapter are that resources would be better targeted towards those factors that this Thesis has identified as most significant in determining the relative success of forest conservation initiatives, namely coordination, political pressure and existing administrative arrangements. This would allow policy actors to build on existing initiatives with the longer term overall objective of fostering an enabling institutional environment for landscape level conservation. Based on the findings of this Thesis, five policy recommendations are identified in areas where progress has been made to date but where room exists for further progress:

*1. Building on existing networks*

Networks and stakeholder coordination were identified as an area where both substantial progress has been made but where significant weaknesses remain. Evidence of the development of common objectives and strong collaborative relationships exist in individual projects undertaken in Northern Ulu Segama, as well as those associated with MESCOT and KOCP. However there is less evidence of common objectives and cooperation between actors in connecting individual projects. Sabah has the benefit of a number of effective NGOs that have been successful in developing expertise and generating funding. In some cases these NGOs have been able to work together very effectively, but problems still remain in terms of communication, diverging objectives and conflicts. Therefore, there is a need to develop more formalised multi-stakeholder fora to overcome these problems. This is particularly the case in coordinating projects in the Lower Kinabatangan, as well as connecting forest conservation initiatives within and outside the Permanent Forest Estate. Forever Sabah represents one such example of how this might be achieved (see Chapter Nine). By establishing better coordination and clearer commonly agreed objectives, policy coalitions will be in a better position to widen networks to include other actors both within and outside Sabah. More recent evidence from Sabah that emerged after the end of the research period of this Thesis suggests that further progress is already taking place in this direction, such as the recent collaboration between DGFC and MESCOT that was noted in Chapter Nine.

*2. Expanding institutional capacity*

Several effective scientific research organisations and environmental NGOs have established the foundations for building institutional capacity towards implementing landscape level forest conservation strategies. However, as was highlighted during several interviews and also noted in a recent GEF-UNDP report, the organisational frameworks, technical expertise and monitoring and reporting systems for realising landscape level strategies are lacking (GEF-UNDP 2013). During the research for this Thesis, institutional capacity building was recognised by a number of interviewees as a priority area where resources could be targeted in an effective and achievable way. This would involve applying Sabah's strong scientific research base to building broader practical expertise in monitoring biodiversity, assessing wider ecosystem benefits of forests, implementing forest restoration initiatives and establishing organisational systems for landscape level conservation. In addition, the examples of MESCOT and KOCP demonstrate the potential value of local community conservation. But it was also observed in a wider sense in Chapter nine that there is a lack of capacity in communities throughout Sabah to realise this potential. Therefore building on lessons

learned from projects such as MESCOT and KOCP should also be a priority. By doing this policy actors in Sabah would be in a stronger position to present arguments for forest conservation to State Government policy makers, make Sabah more attractive to international funders and implement more complex policy instruments such as PES or biodiversity offsetting.

*3. Building political momentum*

The findings of this Thesis have shown that there is a growing political momentum for conservation in Sabah, but progress in this direction is by no means secure. Therefore there is a need to generate further political pressure, both from within and outside Sabah, with the longer term aim of changing wider normative attitudes to the way forests are valued, emphasising long term planning and considering a range of ecosystem services. It was identified in the research that the value of international funders lies just as much in their political weight as their financial resources. Therefore there is a need to continue attracting international organisations, but in a way that is more coordinated and better coordinated towards wider scale strategic objectives. Another important priority is to develop the potential of public support for forest conservation in a similar way to that seen in the campaign against the coal fire power station in Lahad Datu (see Chapter Nine). Recent developments have shown that public pressure can now have more effective results than in the past owing to the less secure position of State and Federal Governments, the greater public awareness of environmental problems and the growth of social media. In doing this, there is a need to foster greater societal identification with and ownership of forests by making them more open for public access, particularly in the case of the Permanent Forest Estate. In addition, it is also necessary back up political pressure with scientific data that is more applied and demonstrates the value of the ecosystem services of forests in terms of water quality, non-timber resources, recreation and cultural identity. By applying greater levels of political pressure incrementally, there is potential in the long term to change the normative orientation of land use institutions and thus make it easier to tackle the more entrenched institutional barriers to landscape level forest conservation.

*4. Enforcement of existing regulations*

The findings of this thesis show that a key short-term priority of forest conservation needs to be more the effective enforcement of environmental protection regulations that already exist rather than attempting to devise and implement new ones. The representative of SEARRP encapsulated this issue in the statement: "There is a gulf between the policies in place that are mostly perfectly adequate and the delivery on the ground which is mostly woefully inadequate" (Representative of SEARRP). This could be seen in a number of areas in Sabah, the most prominent of which was the

lack of enforcement of riparian zone rules in the Lower Kinabatangan. In principle, enforcement of these rules represents the most potentially achievable and cost-effective means of contributing to landscape level conservation in the Lower Kinabatangan. It would not involve the expenditure of purchasing land or of changing legislation, just the will to implement policies that already exist. The findings of the analysis Chapters showed that in recent decades Sabah has succeeded in overcoming a number of prevalent illegal activities such as illegal logging or illegal conversion of sections of the Permanent Forest Estate to plantation. Overcoming riparian encroachment represents the next step in a long term progression, and with more effective conservation networks, greater publicity and more pressure on the State Government, circumstances are favourable to taking this step. At the time of writing, very recent actions in the Lower Kinabatangan by MESCOT, the SWD and DGFC suggest that this is already beginning to happen. Once the capacity to enforce existing laws is in place, Sabah will be in a better position to deal with the resistance of the palm oil industry to sustainable land use and effectively regulate the industry. This is of crucial importance given that voluntary means of achieving this to date have only had very limited success. In addition, Sabah will also be in a better position to implement more ambitious landscape level policy strategies based on policy instruments such as REDD+ or biodiversity offsetting.

*5. More effective mobilisation of existing funding sources*

Generating long term and reliable funding remains a fundamental problem for forest conservation in Sabah, hence the appeal of market-based policy instruments as a means of overcoming this problem. However there is potential to mobilise existing sources of funding more effectively before adopting such instruments. NGOs such as LEAP and HUTAN have demonstrated that by cultivating international contact networks it is possible to convert one-off contributions into more long term funding partnerships, as could be seen in the case of WLT and the Arcus Foundation. In addition, it has been seen that by generating more funding from international sources, the State Government is correspondingly prepared to contribute matching funds. Furthermore, by following the previous four recommendations, Sabah will be increasingly perceived amongst funders as a place where funding can be utilised effectively towards conservation goals. As was noted in Chapter Nine, donation based funding is not ideal. However, examples from Ulu Segama Malua and the Lower Kinabatangan do demonstrate how its limitations can be minimised and how it can be targeted and coordinated more effectively. Another potential and underutilised source of funding is from ecotourism. It has been seen that the proportion of profits channelled into conservation from ecotourism is limited, in spite of the direct link between the health of forest ecosystems and these profits. Therefore there is a need to find ways of capturing more of this revenue, whether directly or indirectly. This might

involve charging compulsory entrance fees to tourists to enter reserves such as LKWS. It might involve expanding community ecotourism based on the models of MESCOT and KOCP. In the case of Ulu Segama Malua it might also involve opening up whole new areas of formerly closed forests to tourism ventures. Therefore potential exists from a number of sources to develop more substantial and more sustainable funding before moving onto more complex market-based policy instruments.

## 3. Concluding Remarks

The purpose of these recommendations is not to suggest how all of the problems facing forest conservation in Sabah can be overcome. Many of the institutional barriers facing forest conservation have a level of intractability at the present time that cannot be confronted in a single step. Rather the intention is to identify where achievable steps in the current context can be taken towards a position where these barriers can be tackled more effectively, as well as identifying approaches that may be less achievable and potential risky in the short term. In addition, the intention is not to attempt to devise new ways of implementing forest conservation policy. It is recognised that policy actors in Sabah have considerable knowledge of the problems of forest conservation in Sabah, that they are aware of the range of policy instruments available to them and where appropriate are already in the process of implementing these instruments. Rather the intention is to present a broad and independent overview of forest governance in Sabah to suggest which approaches already being undertaken should be prioritised in order to achieve the most effective outcomes.

This Chapter has shown that there are some approaches that should be prioritised in the short term because of their achievability, immediate need and their value in developing the foundations for later stages of policy development. All of these approaches are currently being pursued to a greater or lesser extent, and moreover have in many cases demonstrated significant progress since research for this Thesis began in early 2011. The Chapter has also shown that there are some approaches that would be better deferred to a time when the institutional preconditions for their effective implementation have been developed to a greater extent. Therefore in summary, this Chapter has shown that progress towards reversing long term trends of environmental degradation are already being made and that a range of effective approaches are being employed towards furthering this aim. But it has also shown that there is a need to consider strategically what approaches and objectives should be prioritised on the basis of achievability in the short term in order to develop the foundations developing more comprehensive solutions in the long term. In doing this, to a certain extent there is a need to resist the 'latest trends' in global forest governance and the associated

pressures of international organisations. Instead it may be more appropriate to pursue targeted solutions that are most suitable for Sabah, which in order to retain the control necessary to develop such targeted solutions should be implemented and funded as far as possible from within Sabah.

**BIBLIOGRAPHY**

Adger, N. Brown, K. Tompkins, L. (2005). The political economy of cross-scale networks in resource co-management. *Ecology and Society 10, (2)*

Aiken, S. (1993). Struggling to save Malaysia's Endau Rompin rainforest, 1972–1992. *Environmental Conservation, 20,* 157–162.

Agrawal, A. Chhatre, A. Hardin, R. (2008). Changing Governance of the World's Forests. *Science, 320,* 1460

Alfred, R. Ambu, L. Nathan, S. Goossens, B. (2010). Current Status of Asian Elephants in Borneo. *Gajah, 35,* 29-35

Ancrenaz, M. (2011). *HUTAN reforestation efforts in Kinabatangan –2010*. HUTAN, Kota Kinabalu

Ancrenaz, M. Goossens, B. Gimenez, O. Sawang, A. Lackman-Ancrenaz, I. (2004). Determination of ape distribution and population size using ground and aerial surveys: a case study with orang-utans in lower Kinabatangan, Sabah, Malaysia. *Animal Conservation, 7,* 375–385

Ancrenaz, M. Gimenez, O. Ambu, L.  Ancrenaz, I. Andau, P. (2007a). Aerial surveys give new estimates for orang-utans in Sabah, Malaysia. *PLoS Biology 3 (1)*

Ancrenaz, M. Dabek, L. O'Neil, S. (2007b). The costs of exclusion: Recognizing a role for local communities in biodiversity conservation. *PLoS Biology, 5, (11)*

Ancrenaz, M. Ambu, L. Sunjoto, I. Ahmad, E. Manokaran, K. (2010). Recent surveys in the forests of Ulu Segama Malua, Sabah, Malaysia, show that orang-utans can be maintained in slightly logged forests. *PLoS One 5 (7)*

Arts, B. (2002). 'Green alliances' of business and NGOs. New styles of self-regulation or 'Dead-End Roads'? *Corporate Social Responsibility and Environmental Management. 9, (1)* 26–36.

Arts, B. Buizer, M. (2009). Forests, discourses, institutions: A discursive-institutional analysis of global forest governance. *Forest Policy and Economics, 11,* 340–347

Baker, S. (2006). *Sustainable Development*. Routledge, London

Barry, J. (2004). From environmental politics to the politics of the environment. The pacification and normalization of environmentalism? In Wissenburg M. Levy, Y (eds.), *Liberal Democracy and Environmentalism. The End of Environmentalism?* Routledge, London

Basirion, Y. (2009). *Getting the Facts Straight: CEO's Blog.* Malaysian Palm Oil Council, Kuala Lumpur, Malaysia

Bass, S. (2002). *Global Forest Governance: Emerging impacts of the Forest Stewardship Council; and suggested research questions*. Paper presented at International SUSTRA Workshop, 9-10 December 2002, Berlin

Baumgartner, F. Jones, B. (1993). *Agendas and instability in American politics*. University of Chicago Press, Chicago, IL

Beland, D. (2009). Ideas, institutions, and policy change. *Journal of European Public Policy, 16, (5)* 701–718

Beland-Lindahl, K. (2008). *Frame analysis, place perception and the politics of natural resource management*. Doctoral thesis, Swedish University of Agricultural Sciences

Bell, S. (2011). Do We Really Need a New 'Constructivist Institutionalism' to Explain Institutional Change? *British Journal of Political Science, 41,* 883-906

Bell, S. (2012). Where Are the Institutions? The Limits of Vivien Schmidt's Constructivism. *British Journal of Political Science, 42,* 714-719

Berkes, F. (2002). Cross-Scale Institutional Linkages: Perspectives from the Bottom Up. In: Ostrom, E. Dietz, T. Dolšak, N. Stern, P. Stonich, S. Weber, E. (Eds.) *The Drama Of The Commons.* National Academy Press, Washington D.C.

Berkes, F. (2004). Rethinking community-based conservation. *Conservation Biology, 18,* 621-630.

Berkes, F., and C. Folke. (2002). Back to the future: ecosystems dynamics and local knowledge. In Gunderson, L. and Holling, C. (eds.) *Panarchy: understanding transformations in human and natural systems* (pp. 121-146). Island Press, Washington, D.C.

Bernstein, S. Cashore, B. (2004). Nonstate Global Governance: Is Forest Certification a Legitimate Alternative to a Global Forest Convention? In: Kirton, J. Trebilcock, M. (eds.) *Hard Choices, Soft Law:*

*Voluntary Standards in Global Trade, Environment and Social Governance,* pp. 33-63. London, Ashgate Press.

Berry, J. Phillips, O. Lewis, S. Hill, J. Edwards, D. Tawatao, N. Ahmad, N. Magintan, D. Khen, C. Maryati, M. Ong, R. Hamer, K. (2010). The high value of logged tropical forests: lessons from northern Borneo. *Biodiversity Conservation 19,* 985–997

Bluffstone, R. Robinson, E. Guthiga, P. (2013). REDD+and community-controlled forests in low-income countries: Any hope for a linkage? *Ecological Economics, 87,* 43–52

Blühdorn, I. Welsh, I. (2007). Eco-politics beyond the paradigm of sustainability: A conceptual framework and research agenda. *Environmental Politics, 16 (2)* 185-205

Blyth, M. (2002). *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century.* Cambridge University Press, Cambridge

Börner, J. Wunder, S. Wertz-Kanounnikoff, S. Rügnitz-Tito, M. Pereira, L. Nascimento, N. (2010). Direct conservation payments in the Brazilian Amazon: scope and equity implications. *Ecological Economics, 69*, 1272-1282.

Borneo Conservation Trust, http://borneotrust.com/borneotrust/

Borneo Post (2012). Three Sabah NGOs support 'Protection Forest' initiative, [online] http://www .theborneopost.com /2012/08/25/three-sabah-ngos-support-protection-forest-initiative

Brockington D, Duffy R, Igoe J, (2008). *Nature Unbound*. Earthscan, Abingdon

Brosius, J. (1999). Green dots, pink hearts: Displacing politics from the Malaysian rain forest. *American Anthropologist, 101*, 36–57.

Bruford, M. Ancrenaz, M. Chikhi, L. Lackman-Ancrenaz, I. Andau, M. Ambu, L. Goossens, B. (2010). Projecting genetic diversity and population viability for the fragmented orang-utan population in the Kinabatangan floodplain, Sabah, Malaysia. *Endangered Species Research, 12,* 249–261

Business Biodiversity Offsets Programme, http://bbop.forest-trends.org/pages/ biodiversity_ offsets

Campbell, J. (2004). *Institutional change and globalization.* Princeton University Press, Princeton, NJ

Cash, D. Adger, N. Berkes, F. Garden, P. Lebel, L. Olsson, P. Pritchard, L. Young, O. (2006). Scale and cross-scale dynamics: governance and information in a multilevel world. *Ecology and Society, 11, (2)*

Cashore, B. (2002). Legitimacy and the Privatization of Environmental Governance: How Non-state Market-driven (NSMD) Governance Systems Gain Rule-making Authority. *Governance, 15, (4)* 503–29

Castree, N. (2008). Neoliberalising nature: the logics of deregulation and reregulation. *Environment and Planning A, 40,* 131–152.

Chan, S. Pattberg, P. (2008). Private Rule-Making and the Politics of Accountability: Analyzing Global Forest Governance. *Global Environmental Politics, 8, (3) 103-121*

Chin, J. (2008). Going Against the Tide: Sabah and the 2008 Malaysian General Election. *Asian Politics & Policy, 2, (2)* 219–235

Cleary, M. Eaton, P. (1996). *Tradition and Reform: Land Tenure and Rural Development in Southeast Asia.* Oxford University Press, Kuala Lumpur

Collier, R. Collier, D. (1991). *Shaping the Political Arena.* Princeton University Press, Princeton, NJ

Collins, N. Sayer, J. Whitmore, T. (1991). *The Conservation Atlas of Tropical Forests, Asia and the Pacific.* IUCN, Macmillan, London

Corbera, E. Soberanis, K. Brown, K. (2009). Institutional dimensions of Payments for Ecosystem Services: An analysis of Mexico's carbon forestry programme. *Ecological Economics, 68, (3),* 743–761

Corbera, E. Schroeder, H. (2011). Governing and implementing REDD+. *Environmental Science & Policy, 14, (2)* 89-99.

Cronkleton, P. Barton Bray, D. Medina, G. (2011). Community Forest Management and the Emergence of Multi-Scale Governance Institutions: Lessons for REDD+ Development from Mexico, Brazil and Bolivia. *Forests, 2,* 451-473

Cubbage, F. Harou, P. Sills, E. (2007). Policy instruments to enhance multi-functional forest management. *Forest Policy and Economics, 9,* 833–851

Death, C. (2010). *Governing Sustainable Development: Partnerships, protests and power at the World Summit*. Routledge, London

Denzin, N. (1988). Triangulation. In Keeves, J. (Ed.), *Educational research, methodology, and measurement: An international handbook* (pp. 511-513). Pergamon Press, Sydney

Dimitrov, R. (2006). *Science and International Environmental Policy: Regimes and Non regimes in Global Governance*. Rowman and Littlefield, Lanham, MD

Dolittle, A. (2004). Powerful Persuasions: The Language of Property and Politics in Sabah, Malaysia (North Borneo), 1881–1996. *Modern Asian Studies 38, (4)*, 821–850

Ellison, K. Hawn, A. (2005). Liquid assets. *Conservation, 6 (2)*

EU Delegation to Malaysia (2011). *Tackling climate change through sustainable forest management and community development in Sabah Action description for direct award.* EU delegation to Malaysia, Kuala Lumpur

Falkner, R. (2003). Private Environmental Governance and International Relations: Exploring the Links. *Global Environmental Change*, *3, (2)* 72-87

Fidelman, P. Evans, L. Fabinyi, M. Foale, S. Cinnera, J. Rosen, F. (2013). Governing large-scale marine commons: Contextual challenges in the Coral Triangle. *Marine Policy, 36, (1,* 42–53

Fidelman, P. Ekstrom, J. (2012). Mapping seascapes of international environmental arrangements in the Coral Triangle. *Marine Policy, 36, (5),* 993–1004

Fischer, F. (2003) *Reframing Public Policy.* Oxford University Press, Oxford

Fletcher, R. Breitling, J. (2012). Market mechanism or subsidy in disguise? Governing payment for environmental services in Costa Rica. *Geoforum, 43,* 402–411

Flick, U. (2002). *An Introduction to Qualitative Research.* Sage, London

Forest Stewardship Council (1996). *FSC Principles and Criteria for Forest Stewardship*. Forest Stewardship Council, Bonn

Forever Sabah (2014).*Forever Sabah: Supporting Sabah's transition to a diversified equitable green economy*. Forever Sabah, Kota Kinabalu

Gameson, W. (1995). Constructing Social Protest. In Johnson, H. Klandermans, B.  (eds.) *Social Movements and Cultures* (pp.85-106). Basic Books, New York, NY

GEF-UNDP (2012). *Biodiversity conservation in multiple-use forest landscapes in Sabah, Malaysia.* Project Document. GEF/UNDP, New York

Gehring, T. Oberthür, S. (2006). Institutional Interaction in Global Environmental Governance. The case of Cartagena Protocol and the World trade Organization. *Global Environmental Politics 6, (2),* 1-31.

Gehring, T. Oberthur, S. (2008). Interplay: exploring institutional interaction. In Young, O. King, L. Schroeder, H. (eds.) *Institutions and environmental change: principal findings, applications, and research frontiers.* (pp. 187-224). MIT Press, Cambridge, MA

Gibson, C. Ostrom, E. Ahn, T. (2000). The concept of scale and the human dimensions of global change: a survey. *Ecological Economics, 32*, 217-239.

Giessen, L. (2013). Reviewing the Main Characteristics of the International Forest Regime Complex and Partial Explanations for its Fragmentation. *International Forestry Review, 15, (1),* 60-70

Glaas, E. Juhola, S. (2013). New Levels of Climate Adaptation Policy: Analyzing the Institutional Interplay in the Baltic Sea Region. *Sustainability, 5,* 256-275

Glasbergen, P. Groenenberg, R. (2001). Environmental partnerships in sustainable energy. *European Environment, 11*, 1–13.

Glasbergen, P. (2011). Understanding Partnerships for Sustainable Development Analytically: the Ladder of Partnership Activity as a Methodological Tool. *Environmental Policy and Governance, 21,* 1–13

Goffman, E. (1974). *Frame Analysis: An Essay on the Organisation of Experience*. Northwestern University Press, Boston

Gómez-Baggethun, E. de Groot, R. Lomas, P. Montes, C. (2010). The history of ecosystem services in economic theory and practice: From early notions to markets and payment schemes. *Ecological Economics, 69,* 1209–1218

van Gorp, B. (2007). The constructionist approach to framing: bringing culture back in. *Journal of Communication, 57,* 60–78

Guéneau, S. Tozzi, P. (2008). Towards the privatization of global forest governance? *International Forestry Review, 10, (3),* 550-562

Gulbrandsen, H. (2004). Overlapping public and private governance: can forest certification fill the gaps in the global forest regime? *Global Environmental Politics 4 (2),* 75–99

Hai, T. Ng, A. Prudente, C. Pang, C. Yee, J. (2001). *Balancing the Need for Sustainable Oil Palm Development and Conservation : The Lower Kinabatangan Floodplains Experience.* Paper presented to ISP National Seminar 2001: Strategic Directions for the Sustainability of the Oil Palm Industry, Kota Kinabalu, Sabah, Malaysia, 11-12 June, 2001

Hajer, M. (1995). *The Politics of Environmental Discourse. Ecological Modernization and the Policy Process*. Clarendon Press, Oxford

Hall, P. (1993). Policy paradigms, social learning and the state: the case of economic policy-making in Britain. *Comparative politics, 25,* 275–296

Hall, P. Taylor, R. (1996). Political science and the three institutionalisms. *Political Studies, 55,* 936–57

Hamzah, A. Mohamad, H. (2012). Critical success factors of community based ecotourism: case study of Miso Walai homestay, Kinabatangan, Sabah. *The Malaysian Forester 75, (1),* 29-42

Hannigan, J. (1995). *Environmental Sociology: A Social Constructivist Perspective*. London, Routledge.

Hardin, R. (1982). *Collective Action.* Johns Hopkins University Press, Baltimore ML

Hay, C. (2001). The invocation of external economic constraint: a genealogy of the concept of globalization in the political economy of the British Labour Party, 1973–2000. *The European Legacy 6, (2),* 233–49

Hay, C. (2006). 'Constructivist Institutionalism'. In Rhodes, R. Binder, S. Rockman, B. *The Oxford Handbook of Political Institutions* (pp. 56-75). Oxford University Press, Oxford

Hay, C. Rosamond, B. (2002). Globalization, European integration and the discursive construction of economic imperatives. *Journal of European Public Policy, 9 (2),* 147-167

Heclo, H. (1972). Review Article: Policy Analysis*. British Journal of Political Science, 2,* 83–108.

Hezri, A. & Hasan, N. (2006). Towards sustainable development? The evolution of environmental policy in Malaysia. *Natural Resources Forum, 30,* 37–50

Hill, M. (2005). *The Public Policy Process.* Pearson Education, London

Humphreys, D. (2001). Forest negotiations at the United Nations: explaining cooperation and discord. *Forest Policy and Economics, 3,* 125-135

Humphreys, D. (2008). The Politics of "Avoided Deforestation": Historical Context and Contemporary Issues. *International Forestry Review, 10, (13),* 433–442.

Humphreys, D. (2009). Discourse as ideology: Neoliberalism and the limits of international forest policy. *Forest Policy and Economics, 11,* 319–325

Humphreys, D. (2006). *Logjam: Deforestation and the Crisis of Global Governance.* Earthscan, London

Idrus, R. (2010). From Wards to Citizens: Indigenous Rights and Citizenship in Malaysia. *Political and Legal Anthropology Review, 33, (1),* 89-108.

Institute of Development Studies (2008). *Sabah Development Corridor socio-economic blueprint 2008-2025.* Institute of Development Studies, Kota Kinabalu

IPCC (2007). *Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. IPCC, Geneva

ITOCHU Corporation (2011). Activities to restore the Tropical Rainforest and conserve Borneo's ecosystems, [online] www.itochu.co.jp/en/csr/

Jacquemont, F. Caparrós, A. (2002). The Convention on Biological Diversity and the Climate Change Convention 10 Years after Rio: Towards a Synergy of the Two Regimes? *Review of European Community and International Environmental Law, 11, (2),* 139-80.

Jomo, K. Hui, W (2003). The political economy of Malaysian Federalism: economic development, public policy and conflict containment. *Journal of International Development, 15,* 441–456

Kaphengst, T. Ma, M. Schlegel, S. (2009). At a tipping point? How the debate on biofuel standards sparks innovative ideas for the general future of standardisation and certification schemes. *Journal of Cleaner Production, 17,* 99–101

Karsenty, A. Ongolo, S. (2012). Can "fragile states" decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD+ mechanism. *Forest Policy and Economics 18,* 38-45

Kingdon, J. (1984). *Agendas, Alternatives and Public Policies.* Longman, New York, NY

Kintisch, E. (2009). Deforestation Moves to the Fore in Copenhagen. *Science, 326* (11)

Klooster, D. (2010). Standardizing sustainable development? The Forest Stewardship Council's plantation policy review process as neoliberal environmental governance. *Geoforum, 41,* 117–129

Kooiman, J. (2000). Societal Governance: Levels, modes and orders of social-political interaction, in J. Pierre (ed.) *Debating Governance*. Oxford University Press, Oxford

Kugan, F. William, H. (2012). *Sabah REDD+ preparedness roadmap for the State of Sabah 2011-2013*. Paper presented at workshop on Malaysia's REDD+ readiness project, 31 July – 01 Aug 2012, Hyatt Regency, Kota Kinabalu

Kvale, S. Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Sage, London

Lackman-Ancrenaz, I. Ancrenaz, M. Saburi, R. (2001). *The Kinabatangan Orangutan Conservation Project (KOCP).* Paper presented at "The apes: challenges for the 21st century", Brookfield Zoo, Chicago Zoological Society.

Larson, A. (2010). Forest tenure reform in the age of climate change: Lessons for REDD+. *Global Environmental Change, 21 (2)* 540-549

Lebel, L. Garden, P. Imamura, M. (2005). The politics of scale, position, and place in the governance of water resources in the Mekong region. *Ecology and Society, 10, (2)*

Lederer, M. (2011). From CDM to REDD+: What do we know for setting up effective and legitimate carbon governance? *Ecological Economics, 70 (11)* 1900-1907.

Leete, R. (2007). *Malaysia: from Kampung to Twin Towers: 50 Years of Economic and Social Development*. Oxford Fajar, Shah Alam, Malaysia.

Lele, S. Wilshusen, P. Brockington, D. Seidler, R. and Bawa, K. (2009). Beyond exclusion: alternative approaches to biodiversity conservation in the developing tropics. *Current Opinion in Environmental Sustainability, 2,* 94–100

Levy, M. Young, O. Zürn, M. (1995). The Study of International Regimes. *European Journal of International Relations, 1, (3),* 267-330

Lieberman, R. (2002). Ideas, institutions, and political order: explaining political change. *American Political Science Review 96, (4)*, 697–712.

Lincoln, Y. Guba, E. (1985). *Naturalistic Inquiry*. Sage, London, New Delhi.

Loewen, H. (2006). *Towards a dynamic model of the interplay between international institutions, Working Paper, No. 17*. German Institute of Global and Area Studies, Hamburg

Lyster, R. (2011). REDD+, transparency, participation and resource rights: the role of law. *Journal of Environmental Science and Policy, 14, (2),* 118–126

McAfee, K. Shapiro, E. (2010). Payment for ecosystem services in Mexico: nature, neoliberalism, social movements, and the state. *Annals of the Association of American Geographers 100 (3),* 579–599

McDermott, C. Levin, K. Cashore, B. (2011). Building the Forest-Climate Bandwagon: REDD and the Logic of Problem Amelioration. *Global Environmental Politics, 11, (3),* 85-103

McDermott, C. (2012). REDDuced: From sustainability to legality to units of carbon—The search for common interests in international forest governance. *Environmental Science and Policy, 35,* 12-19.

McGinley , K. Alvarado, R. Cubbage, F. Diaz, D. Donoso, P.  Jacovine, L.  de Silva, F. MacIntyre, C. Zalazar, E. (2011). Regulating the Sustainability of Forest Management in the Americas: Cross-Country Comparisons of Forest Legislation. *Forests, 3,* 467-505

McMorrow, J. Talip, M. (2001). Decline of forest area in Sabah, Malaysia: Relationship to state policies, land code and land capability. *Global Environmental Change, 11,* 217-230

Majail, J. Webber, D. (2006). *Human dimension in conservation works in the Lower Kinabatangan*. Conference paper to Fourth Sabah-Sarawak Environmental Convention, Le Meridien Hotel, Kota Kinabalu, 5th September 2006

The Malaysia Star (2009). Split by oil palm [online], http://www.thestar.com.my/story/?file=%2f2009 %2f10%2 f27%

The Malaysia Insider (2012). Palm oil companies unite in Malua wildlife conservation [online], http://www.themalaysianinsider.com/business/article/palm-oil-companies-unite-in-malua-wildlife-conservation

Malaysian NGO Forum for Rio+10 (2003). *NGO Perspectives for Advancing Sustainable Development in Malaysia. Review of Agenda 21 Implementation in Malaysia*. Malaysian NGO Forum for Rio+10, Kuala Lumpur

Mannan, S. Awang, Y. (1997). *Sustainable forest management in Sabah.* Presented at proceedings Seminar on Sustainable Forest Management organised by Sabah Forest Department, Kota Kinabalu, Sabah.

Mannan, S. Kitayama, K. Lee, Y. Chung, A. Radin, A. Lagan, P. (2008). *ITTO Tropical Forest Update: RIL for biodiversity and carbon conservation.* Sabah Forestry Department, Sandakan

March, J. & Olsen, J. (1989). *Rediscovering institutions: the organizational basis of politics.* Free Press, New York, NY

March, J. Olson, J. (2006). Elaborating the New Institutionalism In The Oxford Handbook of Political Institutions. In: Rhodes, R. Binder, S. Rockman, B. (eds.), *The Oxford Handbook of Political Institutions*, (pp. 56–74). Oxford University Press, Oxford

Marsh, C. Greer, A. (1992). Forest land-use in Sabah, Malaysia: an introduction to Danum Valley. *Philosophical Transactions of the Royal Society B, 336,* 331–340.

Marshall, C. Rossman, G. (2006). *Designing qualitative research*. Sage, Thousand Oaks, CA

Medhurst, W. (1983). British North Borneo. In P.Kratoska, (ed.), *Honorable Intentions: Talks on the British Empire in South-East Asia delivered at the Royal Colonial Institute. 1874–1928*. Oxford University Press, Singapore

Mert, A. (2009). Partnerships for sustainable development as discursive practice: Shifts in discourses of environment and democracy. *Forest Policy and Economics, 11,* 326–339

Millennium Ecosystem Assessment (2005). *Ecosystems and Human Wellbeing*. Island Press, Washington

Moss, T. Newig, J. (2010). Multilevel Water Governance and Problems of Scale: Setting the Stage for a Broader Debate. *Environmental Management, 46, (1),* 1-6

Oberthür, S. (2001). Linkages between the Montreal and Kyoto Protocols. Enhancing Synergies between Protecting the Ozone Layer and the Global Climate. International Environmental Agreements: Politics, Law and Economics, 1, (3), 357-77.

Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *Proceedings of the National Academy of Sciences, 104, (39),* 15181–15187

Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change, 20, (4),* 550–557

Paavola, J. Gouldson, A. Kluvánková-Oravská, T. (2009). Interplay of Actors, Scales, Frameworks and Regimes in the Governance of Biodiversity. *Environmental Policy and Governance, 19,* 148–158

Pagiola, S. (2008). Payments for environmental services in Costa Rica. *Ecological Economics 65,* 712–724.

Pagiola, S. Platais, G. (2007). *Payments for Environmental Services: From Theory to Practice*. World Bank, Washington

Palmer, A. Chaytor, B. Werksman, J. (2006). Interaction between the World Trade Organization and International Environmental Regimes. In: Oberthür, S. Gehring, T (eds.) *Institutional Interaction in Global Environmental Governance: Synergy and Conflict among International and EU Policies*, (pp. 181-204). MIT Press, Cambridge, MA.

Parsons, W. (1995). *Public Policy; An Introduction to the Theory and Practice of Policy Analysis.* Edward Elgar, Cheltenham

Pattberg, P. (2005). The institutionalization of private governance: How business and non-profit organizations agree on transnational rules. *Governance: An International Journal of Policy, Administration, and Institutions, 18 (4),* 589–610.

Payne, J. (1997). *The Kinabatangan Floodplain: An introduction*. WWF, Kota Kinabalu

Peters, G. (2000). Governance in Comparative Perspective, in J. Pierre, ed. *Debating Governance*, Oxford University Press, Oxford

Peters, G. Pierre, J. King, D. (2005). 'The politics of path dependence: political conflict in historical institutionalism', *Journal of Politics 67, (4),* 1275–300.

Phelps, J. Webb, E. Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance? *Science, 328,* 312–313.

Pierre, J. (2000). Introduction: Understanding Governance, in J. Pierre (ed.) *Debating Governance*, Oxford University Press, Oxford

Pierson, P. (2000). Increasing returns, path dependence, and the study of politics. *The American Political Science Review, 94,* 251–267.

Pistorius, T. Schaich, H. Winkel, G. Plieninger, T. Bieling, C. Konold, W. Volz, K. (2012). Lessons for REDD+: A comparative analysis of the German discourse on forest functions and the global ecosystem services debate. *Forest Policy and Economics, 18,* 4–12

Pokorny, B. Johnson, J. Medina, G. Hoch, L. (2010). Market-based conservation of the Amazonian forests: Revisiting win–win expectations. *Geoforum, 43 (3)* 387-401

Porras, I. Chacón-Cascante, A. Robalino, J. and Oosterhuis, F. (2011). PES and other Economic Beasts: Assessing PES within a Policy Mix in Conservation for biodiversity conservation and ecosystem services provision. In Ring, I. Schröter-Schlaack, C. (eds.) *Policy Mix - Assessing the role of economic instruments in policy mixes*. Helmholtz Centre for Environmental Research: Leipzig

Powell, W. DiMaggio, P. (1991). *The new institutionalism in organisational analysis.* University of Chicago Press, Chicago, IL

Pulzl, H. Rametsteiner, E. (2002). Grounding international modes of governance into National Forest Programmes. *Forest Policy and Economics, 4*, 259–268

Redford, K. Adams, W. (2009). Payment for ecosystem services and the challenge of saving nature. *Conservation Biology 23*, 785–787.

Rein, M. Laws, D. (1999). *Controversy, Reframing and Reflection*. Paper presented at a Conference on Theory, Policy and Society, University of Leiden, 22 June.

Reischl, G. (2012). Designing institutions for governing planetary boundaries – lessons from global forest governance. *Ecological Economics, 81,* 33-40

Reynolds, G. Payne, J. Sinun, W. Mosigil, G. Walsh, R. (2011). Changes in forest land use and management in Sabah, Malaysian Borneo, 1990 -2010, with a focus on the Danum Valley region. *Philosophical Transactions of the Royal Society B, 366,* 3168-3176

Ritchie, J. (2003). The Applications of Qualitative Methods to Social Research. In Richie, J. and Lewis, J. (eds.) *Qualitative Research Practice: A Guide for Social Science Students and Researchers* (pp.24-46). Sage, London

Ritchie, J. Lewis, J. Elam, G. (2003). Designing and Selecting Samples. In Richie, J. and Lewis, J. (eds.) *Qualitative Research Practice: A Guide for Social Science Students and Researchers* (pp. 77-108). Sage, London

Rooney, J. (1981). The notorious Papar/Putatan Land Case. *Millhilliana 2*, 71-6

Rosendal, G. (2001). Impacts of Overlapping International Regimes: The Case of Biodiversity. *Global Governance 7*, 95-117.

Rosendal, G. Andresen, S. (2011). Institutional design for improved forest governance through REDD: Lessons from the global environment facility. *Ecological Economics, 70,* 1908–1915

Ros-Tonen, van Andel, T. Morsello, C. Otsuki, K. Rosendo, S. Scholz, I. (2008). Forest-related partnerships in Brazilian Amazonia: There is more to sustainable forest management than reduced impact logging. *Forest Ecology and Management, 256,* 1482–1497

Rutherford, M. (1994). *Institutions in economics: the old and the new institutionalism.* Cambridge University Press, Cambridge

Sabah Forestry Department (2012). *Annual Report 2011*. Sabah Forestry Department, Sandakan, Malaysia

Sabah Forestry Department (2011). *Annual Report 2010*. Sabah Forestry Department, Sandakan, Malaysia

Sabah Forestry Department (2010). *Annual Report 2009*. Sabah Forestry Department, Sandakan, Malaysia

Sabah Forestry Department (2009). *Ulu-Segama Malua sustainable forest management project – an approach to wildlife habitat rehabilitation in Sabah.* Sabah Forestry Department, Sandakan, Malaysia

Sabah Forestry Department (2009b). *Malua Wildlife Habitat Conservation Bank: Malua Forest Reserve Management Plan 2008-2013*. Sabah Forestry Department, Sandakan, Malaysia

Sabah Government (1968). Sabah Land Ordinance. Sabah Government, Kota Kinabalu

Sabah Tourism (2001). *Annual Tourism Statistics*. Sabah Tourism Research Division, Kota Kinabalu

Sabah Tourism (2013). *Annual Tourism Statistics*. Sabah Tourism Research Division, Kota Kinabalu

Sabah Wildlife Department (2012). *Orang-Utan Action Plan*. Sabah Wildlife Department, Kota Kinabalu

Sabah Wildlife Department (2012). *Elephant Action Plan*. Sabah Wildlife Department, Kota Kinabalu

Santos, R. Clemente, P. Antunes, P. Schröter-Schlaack, C. Ring, I. (2011). Offsets, Habitat Banking and Tradable Permits for Biodiversity Conservation. In Ring, I. Schröter-Schlaack, C. (eds.) Policy Mix - Assessing the role of economic instruments in policy mixes.  Helmholtz Centre for Environmental Research: Leipzig

Schmidt, V. (2008). Discursive institutionalism: the explanatory power of ideas and discourse. *Annual Review of Political Science 11,* 303–326.

Schmidt, V. (2011). Speaking of change: why discourse is key to the dynamics of policy transformation. *Critical Policy Studies, 5 (2),* 106-126

Schön, D. Rein, M. (1994). *Frame reflection: toward the resolution of intractable policy controversies*. Basic Books, New York, NY

Schouten, G. Glasbergen, P. (2011). Creating legitimacy in global private governance: The case of the Roundtable on Sustainable Palm Oil. *Ecological Economics, 70,* 1891–1899

Selin, H. VanDeveer, S. (2003). Mapping institutional linkages in European air pollution politics. *Global Environmental Politics, 3, (3),* 14–46.

Shepsle, K. (2006). Rational choice institutionalism. In: Rhodes, R. Binder, S. Rockman, B. (eds.), *The Oxford Handbook of Political Institutions*, (pp. 56–74). Oxford University Press, Oxford

Sikor, R. Stahl, J. Enters, R. Ribot, J. Singh, N. Sunderlin, W. Wollenberg, L. (2010). REDD-plus, forest people's rights and nested climate governance. *Global Environmental Change 20 (3),* 423–425.

Skjærseth, J. (2006). Protecting the Northeast Atlantic. One Problem, Three Institutions. In: Oberthür, S. Gehring, T. (eds.) *Institutional Interaction in Global Environmental Governance. Synergy and Conflict among International and EU Policies*, (pp. 102-125). MIT Press, Cambridge MA

Snape, D. Spencer, E. (2003). The Foundations of Qualitative Research. In Richie, J. and Lewis, J. (eds.) *Qualitative Research Practice: A Guide for Social Science Students and Researchers* (pp. 2-23). Sage, London

Stern, N. (2006). *Stern Review: The Economics of Climate Change*. Cambridge University Press, Cambridge

Streeck,W. Thelen, K. (2005). Introduction: institutional change in advanced political economies. In W. Streeck and K. Thelen, (Eds.). *Beyond continuity: institutional change in advanced political economies.* Oxford University Press, Oxford

Steinmo, S. (2008). "What is historical institutionalism?" In Porta, D. Keating, M. (eds.) *Approaches in the Social Sciences*. Cambridge University Press, Cambridge

Stokke, O. (2001). *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes.* Oxford University Press, Oxford

Stokke, O. (2007). Interplay Management, Niches, and Arctic Governance. In: Oberthür, S. Stokke, O (eds.), *Institutional Interplay and Global Environmental Change: State of the Art and Perspectives.* MIT Press, Cambridge MA

Strauss, A. Corbin, J. (1990). *Basics of qualitative research*. Sage, Newbury Park

Taylor, P. (2010). Conservation, community, and culture? New organizational challenges of community forest concessions in the Maya Biosphere Reserve of Guatemala*. Journal of Rural Studies, 26*, 173–184

Thelen, K. (1999). Historical institutionalism in comparative politics. *Annual Review of Political Science, 2*, 369–404.

Thomas, P. Lo, F. Hepburn, A. (1976). *The Land Capability Classification of Sabah.* Ministry of Overseas Development, Tolworth, U.K.

Thompson, M. Baruah, M. Carr, E. (2011). Seeing REDD+ as a Project of Environmental Governance. *Environmental Science and Policy, 14 (2)* 100-110

Toh, S. Grace, K. (2006). *Case study: Sabah forest ownership*. In Forestry Policy and Institutions Working Paper 14, Understanding forest tenure in South and Southeast Asia. Food and Agriculture Organisation, Rome

United Nations (1992). Agenda 21, Ch. 11. Combating Deforestation. United Nations Conference on the Environment and Development. Rio de Janeiro, 3–14 June.

United Nations General Assembly (2008). *Non-legally binding instrument on all types of forests*. Resolution adopted by the General Assembly on the report of the Second Committee (A/62/419 (Part I))

UNDP (2008). *Sustainable Community Forest Management in Sabah.* UNDP, Kuala Lumpur

UNDP (2012). *Equator Initiative Case Study Series: MESCOT, Malaysia*. UNDP, New York

UN-REDD (2011). *The UN-REDD Programme Strategy 2011-2015*. UN-REDD, Geneva

Vatn, A. Vedeld, P. (2012). Fit, interplay, and scale: a diagnosis. *Ecology and Society 17(4)*, 12

Vincent, J. (1997). Resource depletion and economic sustainability in Malaysia. *Environment and Development Economics, 2*, 19–37.

Visseren-Hamakers, I.  Glasbergen, P. (2007). Partnerships in forest governance. *Global Environmental Change, 17,* 408–419.

Weiss, M. (2005). Prickly ambivalence: State, society and semi-democracy in Malaysia. *Commonwealth & Comparative Politics, 43 (1)*, 61-81

Werland, S. (2009). Global forest governance — Bringing forestry science (back) in. *Forest Policy and Economics, 11,* 446–451

White, N. (2004). The Beginnings of Crony Capitalism: Business, Politics and Economic Development in Malaysia, c. 1955–70. *Modern Asian Studies, 38 (2),* 389-417

Wicke, B. Sikkema, R. Dornburg, V. Faaij, A. (2011) Exploring land use changes and the role of palm oil production in Indonesia and Malaysia. *Land Use Policy, 28,* 193–206

Wiersum, K. (2013). International forest governance regimes: Reconciling concerns on timber legality and forest-based livelihoods. *Forest Policy and Economics, 32,* 1–5

World Land Trust (2013). Borneo rainforest appeal million pound target sight [online] http://www.worldlandtrust.org http://www.worldlandtrust.org / news/ 2014/02/ borneo-rainforest-appeal-million-pound-target-sight

Wunder, S. (2005). *Payments for Environmental Services: Some Nuts and Bolts.* Occasional Paper No. 42. Center for International Forestry Research, Nairobi, Kenya

Wunder, S. Engel, S. Pagiola, S. (2008). Taking stock: a comparative analysis of payments for environmental services programs in developed and developing countries. *Ecological Economics 65,* 685–698.

WWF Malaysia (2004). *Kinabatangan A Corridor of Life: Brochure for Partners for Wetlands Project*. WWF Malaysia, Kota Kinabalu

Yanow , D . (1996). *How Does a Policy Mean? Interpreting Policy and Organisational Actions*. Georgetown University Press, Washington, DC

Yanow, D. (2000). *Conducting Interpretive Policy Analysis.* Sage, Thousand Oaks, CA

Yanow , D . (2006). Neither Rigorous Nor Objective?  In D. Yanow and P. Schwartz-Shea (eds.), *Interpretation and Method: Empirical Research Methods and the Interpretive Turn* . ME Sharpe, New York

Yayasan Sime Darby (2011). *Yayasan Sime Darby 2011 Annual Report*. Yayasan Sime Darby, Kuala Lumpur

Yee, K. (2004). Sustainable development and the social and cultural impact of a dam-induced development strategy: the Bakun experience. *Pacific Affairs, 77, (1).* 50-68

Yong, C. (2006). *Forest governance in Malaysia: An NGO perspective*. Report produced by FERN, Utrecht, Netherlands

Young, O. (1994). *International Governance: Protecting the Environment in a Stateless Society.* Cornell University Press, Ithica NY

Young, O. (2002). *The institutional dimension of environmental change: fit, interplay, and scale.* MIT Press, Cambridge MA

Young, O. (2006). Vertical interplay among scale dependent resource regimes. *Ecology and Society, 11, (1)*

Young, O. (2008). Institutions and environmental change: the scientific legacy of a decade of IDGEC research. In Young, O. King, L. Schroeder, H. eds. *Institutions and environmental change: principal findings, applications, and research frontiers.* (pp. 3-45). MIT Press, Cambridge MA

Young, O. (2010). Institutional dynamics: Resilience, vulnerability and adaptation in environmental and resource regimes. *Global Environmental Change, 20, (3),* 378–38

**APPENDIX ONE**

**1. Photos of site visit to MESCOT in Batu Puteh**



MESCOT Head quarter, which serves multiple purposes of office, reception and community centre



MESCOT seed bank for forest restoration work

Ecotourism camp run by MESCOT



Restored ox-bow lake next to ecotourism camp – the area to far left shows a boom that prevents innundation by invasive weeds covering)

Early MESCOT forest restoration site– this photo shows that trees are planted close and regularly with little species variety



Later MESCOT forest restoration site – this photo shows more naturally spaced planting with greater species variety, including fruiting trees to support wildlife

Stick planting represents an innovation by MESCOT, a method that has been devised to ensure greater survival rates in seasonally flooded areas.



Tree planting activity – this photo shows measuring out and placing trees at appropriate spacings

Forest restoration work being carried out by women of Batu Puteh

**2. Photos of Site Visit to Malua Biobank**



Seed bank for FACE carbon offset programme



Degraded forest – photo shows that trees are over grown with climbing lianas

Camera traps for remote wildlife monitoring



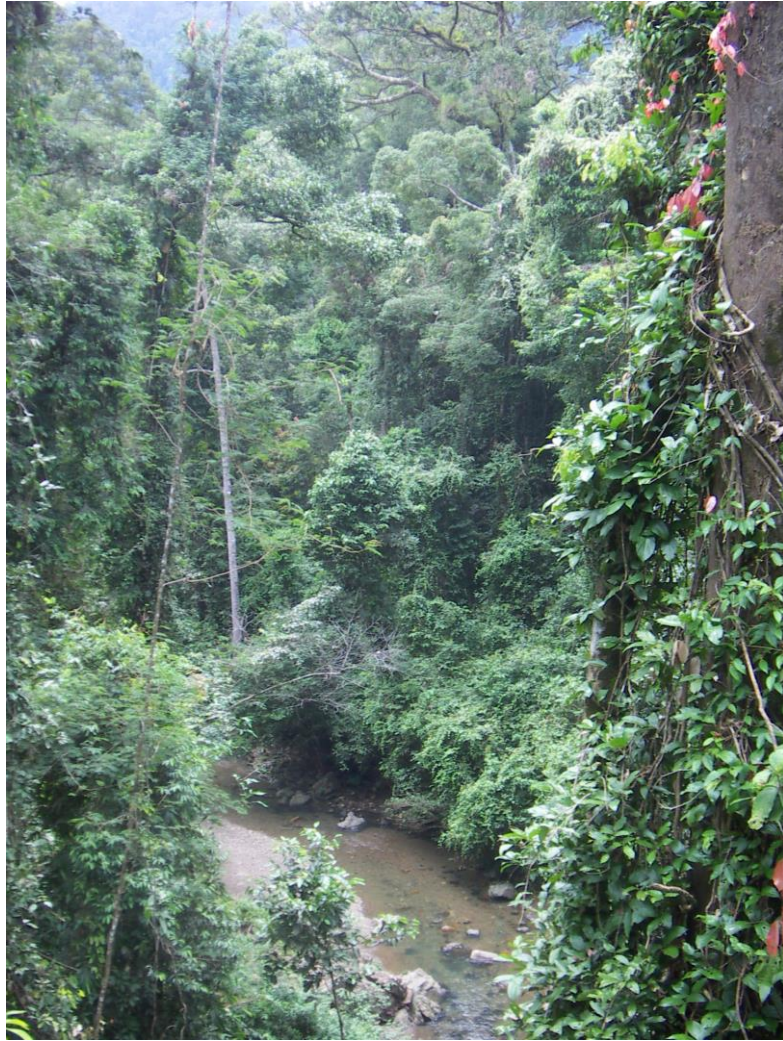Artifical salt lick

SFD staff maintaining boundaries of reserve against poachers



Wildlife bridge across river to promote movement of wildlife, particularly orang-utans

Virgin rainforest within Danum Valley protected area, to the south of Malua

**APPENDIX TWO – THEMATIC INTERVIEW SUMMARY**

This summary is based on the first interview with the representative of LEAP. It has been amended to preserve the anonymity of the interviewee and other policy actor who have been referred to.

**Issues in Institutional Context**

Lands and surveys department are reluctant to deal with native customary rights issues

Institutional barriers exist in NGOs and conservation sector to working with corporates – example of other NGOs criticism of interviewee getting in contact with Shell over proposed no net loss scheme.

At international level global financial problems have impeded the effectiveness of Malua Biobank and its ability to link to other projects such as proposed no net loss scheme.

Coal fire example demonstrated that institutions are changing. The project had been endorsed by the Malaysian PM and Sabah Chief Minister in a "behind closed doors deal". The decision was reversed by the PM because it might risk ruling party losing power in Sabah. Example of how democratic process is becoming stronger and how the political situation is less fixed than in the past.

A Benefit of Sabah is everything is in place to form foundations of a conservation economy - "it is small enough to be manageable but large enough to matter".

Workshop on Forever Sabah brought out key institutional problems perceived by stakeholders – the main points were corruption, institutional dysfunction, fragmentation of government agencies, and government capacity. Therefore any solution has to base itself in changing institutional behaviour – "anything else would just be a band aid".

International conservation NGOs take a very western centric view by default. Local people are not part of policy making process and subject to "north knows best" top down logic. This has a strong influence on how large developed world funders perceived and operate. It reflects implicit ignorance of local circumstances even though it cannot be described as "wilfully elitist" – the intentions are generally good.

**Defining Policy Problems**

Major normative problem is the artificial separation of humans from nature. Interviewee takes the view that the two are fully integrated. A major issue is therefore how to link people and nature back together again. This is made worse by the fact that local communities have become very marginalised.

Collaboration of LEAP and MESCOT originated after MESCOT lost support of WWF. LEAP stepped in to secure continued funding as a result of need to solve problems of invasive weeds on lake where MESCOT wanted to site an ecotourism camp. Funding was needed to the drain the lake.

A problem at state level is that the Vision 2020 policy is entirely conceived in terms of economic development. This policy is part of a wider economic transformation programme. This aims to fast track 56 projects in oil + gas, agriculture, tourism etc. The process of founding these projects lacks transparency and involves little or no environmental consideration. The process was also dominated by west Malaysians and much of the programme has been presented locally as a fait accompli. It was perceived as a means of doling out contracts to cronies.

A problem of oil palm industry is that profits generated and bonuses have led to huge speculation in real estate, which is creating its own ecological destruction.

A problem of native rights is that the Lands and Surveys department is reluctant to open a flood gate of NCT rights applications. However pressure is growing, especially through PACOS. Potential solution has been the idea of communal title, however this does not necessarily solve any problems – local people view it with suspicion since it will not particularly empower them and it is perceived as too government controlled. It is representative of a general perception that local people do not know what they want and have to be told what they want – "government knows best". This policy is perceived by MESCOT as highly patronising.

**Communication and Persuasion**

Coal fire plant campaign was an example of large scale coalition forming. Civil society groups got together to fight the project. Coalition included LEAP, PACOS, WWF, Malaysia Nature Society, Sabah Environmental Protection Agency. Proved that civil society is becoming 'more potent' and that "Sabahans learned that they can effect change without political and social up heaval".

LEAP were used in MESCOT project as facilitator in terms of raising profile at international level and bridging to funding agents.

LEAP are aiming to facilitate links with oil palm through clean energy and bio mass projects.

The interviewee was the key contact in introducing the CEO of New Forests to the SFD in order to found the Malua Biobank.

Malau Biobank has been useful in broader sense in bringing LEAP, BORA, HUTAN, DGFC, SEARRP, SFD and SWD together into a common forum of the advisory committee. Interviewee is chair of this. This has reduced the inter-organisational competitiveness between NGOs and led to greater dialogue.

No net loss in Malua provides an example of how economically framed mechanisms can better convert to the language and objectives of policy makers in government. This did create a degree of consensus between government departments and NGOs.

Forever Sabah is a means of creating a large scale approach that could be communicated to SFD as a way of overcoming the timber famine. This was linked into an integrated strategy that leads to a transition to a diversified conservation based economy.

Forever Sabah workshops involved HUTAN, BORA, SEARRP, DGFC, RSPO, WWF, MESCOT, Yayasan Sabah, SFD and PACOS. Interviewee describes this emerging network as "the usual suspects". Interview has then aimed to develop support from Director of the SFD and also be begin bringing in external funding. The fact that this type of policy is backed by organisations in the US, especially WWF, makes it easier to establish a case to US funders.

Forever Sabah is aiming to link to local communities to private sector. Also important is establishing common ground at higher levels by giving the project "scientific teeth" and going with SFD to Rio +20 in order to disseminate ideas at a higher level. Another key aspect is translating ideas into a language that business, policy makers and government can understand. Relationship with SFD – complimentary in the sense that LEAP coordinate the process of building arguments and SFD will then push it politically at the state level.

In partnership terms she recognises that the government will not initiate policies – it is for NGOs and the private sector to do the leg work first then take the findings to government decision makers. In the interviewee believes that a bottom up solution is more appropriate.

Top down approach of government and NGO sector shows problems of communicating and establishing common ground with communities. There is often very little attempt to understand what local people actually want, which creates particular problems with building trust.

**Implementing Policy Solutions**

The solution in MESCOT was to use start-up funds from foreign donors brought in by LEAP, then build basis for sustainable income through ecotourism and volunteer tourism which could then fund forest restoration programme. This has become self-run by the community and is now profit making. It represents a "model for Asian ecotourism".

Another policy solution is land acquisition. This is fairly hard given complicated land tenure and cost of land. They are currently trying to buy 22ha at Kampung Bilit. This is owned by an oil palm company, and LEAP are working in partnership with the WLT on this. This is a limited approach but sometimes it is the only way to solve immediate problems.

Malua Biobank was implemented in Malua instead of Kinabatangan because Kinabatangan was considered by New Forests to be too complex. It was based on biodiversity offset models operating in US and Australia. SFD also wanted the Biobank because in 2006 there was pressure to convert Malua following multiple logging rounds. The Biobank provided and argument against this. The land is now under agreement for 50 years.

No net loss has become another possible policy solution. This idea originated out of the Malua Biobank. A director at New Forests put the interviewee in contact with BBOP in order to draw up an alternative funding approach for the Malua Biobank. This idea was then introduced to Minister of Tourism, got approval and was then put out to other government agencies. The problem is finding a corporate partner to base a pilot project.

Forever Sabah is based on approaches from Costa Rica and Mexico of creating an integrate conservation policy strategy underpinned by a sinking fund. It is an approach that is heavily backed by WWF in the US. Funding to date has been piecemeal, though the State Government has tended to be prepared to match funding brought in from outside. The aim is "to take funding to a higher level and be more organised about it". The aim is to go beyond just "picking up the crumbs for under the table".

The interviewee's preference is for a mixed integrated policy approach that includes REDD+, RSPO, world heritage site, Ramsar, land rights and others. The aim of Forever Sabah is to bring 10 projects identified in an arc across Sabah and connect them up. The project should also aim to be complementary with economic development policies.

# APPENDIX 3 - THEMATIC CHART

| | HUTAN | LEAP | SEARRP | DGFC | YSD | BORA | SFD 1 | SFD 2 | New Forest 1 | New Forests 2 | PACOS | SWD | BCT | WWF 1 and 2 | WWF 3 | WLT 1 and 2 | EU Delegation | MESCOT 1 and 2 | Environmental Consultant | RSPO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Institutional Background** | | | | | | | | | | | | | | | | | | | | |
| Economy | | | | | | | | | | | | | | | | | | | | |
| Civil Society | | | | | | | | | | | | | | | | | | | | |
| Culture | | | | | | | | | | | | | | | | | | | | |
| Government Structure and Land Use | | | | | | | | | | | | | | | | | | | | |
| Conservation Sector | | | | | | | | | | | | | | | | | | | | |
| **Policy Problems** | | | | | | | | | | | | | | | | | | | | |
| Economic | | | | | | | | | | | | | | | | | | | | |
| Ecological | | | | | | | | | | | | | | | | | | | | |

| Government and legal structures |
| Institutional Capacity |
| Indigenous Communities |
| Coordination problems |
| **Partnerships and Capacity** |
| Legality |
| Credibility |
| Economics |
| Trust |

| Political Pressure |
| Coordination and facilitating relationships. |
| Publicity and dissemination to external funders |
| Science |
| Conservation outcomes |
| **Policy Instruments** |
| Market based instruments |
| Community conservation |
| Eco-certification |
| Donation based projects and CSR |
| No net loss/offsets and compensation |
| Land Acquisition |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Eco-tourism** | | | | | | | | | | | | | | | |
| **Legislation and Regulation** | | | | | | | | | | | | | | | |
| **Mix use landscape policy** | | | | | | | | | | | | | | | |
| **Restoration and Forest Corridors** | | | | | | | | | | | | | | | |
| **Multi-instrument policy** | | | | | | | | | | | | | | | |
| **International Classifications** | | | | | | | | | | | | | | | |