THE SHIFTING GOVERNANCE OF STATE FORESTRY IN BRITAIN: A CRITICAL INVESTIGATION OF THE TRANSITION FROM PRODUCTIVISM TO POST-PRODUCTIVISM

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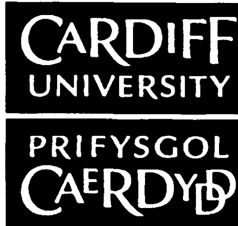

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SUMMARY

This thesis brings together key ideas on social nature, governance and regulation to provide a critical investigation of the shifting governance of state forestry in Britain. It is claimed that the state forestry sector has undergone a transition in recent years from a position within a regime of intensive industrial production to one based on post-industrial forestry, in which the traditional emphasis on timber production now sits alongside more recent trends towards the 'socialisation' of forestry. Using evidence drawn from semi-structured interviews with policy actors from within the forestry sector and other rural, environmental and local government agencies the paper will examine whether these new forms of social forestry have been accompanied by new accumulation and governance systems or merely represents shifts in the discourse of forestry and forests promoted by the state. The paper then shifts to the sub-national scale to examine the implementation of national systems of forestry at the local level. Evidence from research undertaken in mid-Wales, UK on socio-cultural productions, representations and consumptions of nature within two forest communities are utilised to highlight the significance of past nature productions in influencing local understandings of nature and forestry and helping us to better understand the contested nature of forest landscapes in Wales. This serves to highlight the complex relations between national regulatory systems, local policy actors and local socio-natural systems.

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PREFACE

In recent decades increasing attention has been paid, in both academic and policy circles, to the changing nature of state forestry in the UK. Much of the discussion has centred around claims of a recent shift in the dominant paradigm of forestry production and regulation, from an era of industrial forest expansion, geared to the intensive production of timber, to a new system of 'post-industrial' forestry (Mather, 2001). Despite the vast differences between these two approaches, a common feature remains in the form of the Forestry Commission - a state forestry service established after the First World War to supply timber for the national reserve and which was awarded a broad range of powers to acquire large tracts of land for the development of mass industrial forests in rural areas of Britain.

For most of the twentieth century, the Commission worked within an extremely industrial regime of production and regulation, which involved the development of extensive plantations of coniferous trees, the rigid regulation of its forest estates, limited interactions with other land-use and rural agencies, and the virtual exclusion of local communities from decision-making processes concerning these forests. Over the last three decades, however, this regime of forestry has encountered a series of challenges. Firstly, the practice of industrial forestry, particularly its destructive effect on the rural landscape, began to be questioned by a range of rural, environmental and local organisations and interest groups, leading to the publication of several hard-hitting reports in the early to mid-1980s (Winter, 1996). In particular, concerns were raised over the ecological impact of large-scale programmes of afforestation, as well as the structure of the Commission's planting incentives, which was claimed amounted to 'subsidised vandalism' of the environment (Miller, 1999: 129). Further attention has recently been focused on addressing nature conservation concerns and capturing the wider environmental benefits of forestry (Farmer and Nisbett, 2004). This has occurred at a time when forestry policy has become increasingly subjected to supra-national influences, with the introduction of national legislation and various global and European governmental agreements on environmental sustainability emphasising the potential of forestry to fulfil environmental, economic and social functions, while cause damage to other ecosystems (Mather, 2001).

Secondly, the vulnerability of the Commission has been continually tested by a series of political and fiscal crises. In the early 1990s, the Commission was faced with further criticism for failing to adapt its structures to changes in public aspirations and policy priorities, leading to rumours that the public forest estate would be privatised. The proposal was eventually rejected following a successful campaign by an 'unlikely alliance of environmentalists, ramblers, timber users and private landowners' (Mather, 2001: 251) who argued for the need to retain the state forests in the public sector for reasons of maintaining public access and delivering the new multi-purpose objectives to which the Commission was now fully committed. In recent decades, employment numbers within the forestry sector have fallen dramatically, and with an over-production of timber within the global market and higher production costs than in other countries, the economic return from productivist forestry has declined substantially. In response to these pressures, the Commission has been forced to broaden its approach by emphasising the wider economic, environmental and social benefits of forestry. This approach has centred on the idea of multi-purpose forestry, with greater emphasis now placed on the role played by forestry in relation to recreation, tourism, health and education.

Consequently, the Forestry Commission has promoted a different model of 'post-industrial' forestry over recent years. Within this new regime, whilst there remains a concern to make economic profit from felled timber, forests are now viewed by the Commission as contributing to a broader range of social, economic, environmental and cultural objectives. As the Commission has positioned the forestry sector within a broader network of environmental, economic and social agencies, so it has had to develop a broader and more inclusive system of forest governance. An important component of this more inclusionary form of forest governance has been the attempted involvement of local communities in decisions concerning the management and future development of forest spaces.

A great deal of literature has subsequently emerged over the last half century to chronicle and reflect on the history of the Commission, providing detailed descriptions of shifting policy contexts and land resource issues and conflicts bound up with forests and forestry. Whilst such concerns are indeed extremely valuable in

setting out the context for this research, it is not the intention of this thesis to re-iterate what has previously been set out in detail. Rather, it seeks to provide a more critical investigation of the governance of state forestry in Britain. In doing so, the thesis responds directly to weaknesses in recent accounts of a shift in the dominant regime of forestry and of the wider benefits of forest spaces, which could be argued have tended to come from those located within the forestry sector itself. The resulting observations have been applied within the social science and geographical literatures with very little critical examination of their validity and reliability. Some authors (for example, Mather, 2001 and Tsouvalis, 2000) have recently sought to correct this weakness by developing a more meaningful understanding of the changing nature of forestry production and regulation. This has involved engagement with the broader and more critical theoretical literatures associated with political economy, regulation and post-materialism. However, despite their usefulness and relevance to this thesis, these investigations have also been rather limited in their account of the emergence of post-industrial forest spaces, primarily due to their predominant focus on national discourses of forestry, based on analyses of national policy documents as well as interviews with key national policy actors. What has been absent from this work is any consideration of the geographies of this transition, in particular the degree to which local environmental, socio-cultural, economic and political processes have influenced and shaped the implementation and development of the new forestry regime in particular spaces.

Drawing on a recent study by Milbourne et al. (2008), this thesis demonstrates the need for a spatially sensitive account of the development of post-industrial forestry in the UK. It is argued that greater recognition needs to be given to the complex geographies bound up with the implementation of national regimes of forestry in the UK, and the significant roles played by the local socio-natural context in facilitating and, in some cases, resisting the implementation of new forestry regimes in particular spaces. The value of this approach is demonstrated by drawing on research undertaken in two rural post-industrial forests in mid-Wales, where recent attempts have been made by the Commission to initiate post-industrial modes of forestry through consultations with forest stakeholders and local communities about the future of the forests.

In order to achieve this objective the aim of this thesis is to provide a critical investigation of the shifting governance of state forestry in Britain, with specific emphasis on the transition from productivism to post-productivism. Accordingly, the remainder of the thesis will be set out as follows.

The preliminary chapter is designed to position recent shifts in forestry governance and regulation within emerging academic discussions concerning the nature of the contemporary working context in which the forestry sector is currently located. In carrying out this task, a critical review of recent theoretical developments in studies of governance and regulation is provided.

Chapter Two presents the methodological approach that will be used to guide the thesis; providing a discussion of the research philosophy underpinning the research, introducing the research instruments that have been developed and utilised in the pursuit of the research objectives, before setting out the research strategy, detailing the research methodologies adopted.

Chapter Three presents the empirical material gained from the national phase of the research, focusing specifically on the shifting nature of British forestry policies. The remainder of the chapter then shifts to the national level to investigate the more recent development of distinctive Welsh forestry policies. The analysis considers how the perceived transition towards new models of forestry has been interpreted by forestry policy actors in Wales, and proceeds to investigate the extent to which these have impacted on the governance of forestry at the national level.

Chapter Four provides a brief introduction to the case studies chosen as the substantive focus of the local empirical stage of the research, thus allowing the local empirical chapters to be contextualised. Chapter Five presents the empirical results gained from the in-depth case studies of the governance of two forests in mid-Wales, established by the Forestry Commission under the productivist model of forestry in the mid-twentieth century. A detailed account of the struggles experienced within the political economies of the two case studies as the forest was established and developed from the post-war period onwards is provided drawing on a wide range of material. The focus then shifts to the present day as Chapter Six provides a detailed

investigation of the various changes that have recently occurred within the forestry sector in both areas, focusing specifically on the attempted implementation of new systems of forestry governance.

In Chapter Seven, the key findings from the empirical study are discussed in line with the key themes of the research, drawing on the existing literature on governance and regulation.

1.
GOVERNANCE, RURALITY AND NATURE
Exploring emerging discourses of state forestry in Britain

1.1 Introduction

Recent years have witnessed a convergence between, on the one hand, a growing interest in questions of democracy and governance, and on the other, investigations of emerging conflicts between the protection of the environment and the socio-economic well-being of communities in post-industrial societies (Rhodes, 1997; Memon and Hawes, 2000; Mather, 2001; Wilson, 2004). In particular, a growing body of literature has emerged around issues of conflict over the management of forest resources in particular regions, which have raised important questions concerning the appropriate governance of these environmental resources. This is nowhere more apparent than in the UK, where over the last few decades environmental and industry organisations, as well as the wider public, have frequently called into question the way in which forestry policy is administered by the state-sponsored Forestry Commission. References to the 'blunt', 'remote', 'highly bureaucratic' and 'top-down' nature of the Commission's activities during the course of the twentieth century have become increasingly common in recent literature on forestry (see, for example, Nail, 2008; Tsouvalis, 2000). The way that British forestry policy has been developed, implemented and evaluated in the past has similarly been criticised for lacking transparency and accountability, with decisions seen as left to technical and 'scientific' experts, to the exclusion of wider environmental and community interests. In the face of these criticisms and concern over the detrimental effects of over half a century of intensive industrial forestry practices, the Commission has come under increasing pressure to alter its styles of regulation and governance.

Attention has therefore been given to the recent emergence of new systems of forestry governance and regulation, highlighting the need to examine their impacts and the extent to which they might offer ideas which correct the criticisms levelled at earlier approaches to forestry policy and practice. What becomes clear from this limited literature is that there remain unresolved contradictions and tensions between competing stakeholder interests over the management and regulation of forest spaces,

in particular between stakeholders who place greater emphasis on the biodiversity and environmental value of these spaces, those who argue for a greater balance between the need to protect and conserve forest environments alongside the maintenance of local economies, and those who continue to advocate the continued exploitation of forests for productivist objectives. This chapter proposes that the concept of environmental governance provides a useful theoretical inroad through which to investigate these emerging issues. Recent geographical research on environmental governance has drawn heavily on institutional theories of political economy familiar to economic geography to analyse how processes of neoliberal globalisation have led to a radical reconfiguration of the organisational and institutional arrangements through which socio-environmental relations are governed (Himley, 2008). In the process, geographers have stressed the interests served by these reconfigurations as well as how governance arrangements are contested by differentially empowered social and political actors.

This chapter therefore positions recent shifts in forestry governance and regulation within emerging academic discussions concerning the nature of the contemporary working context in which the forestry sector is located. In carrying out this task, a critical review of recent theoretical developments in studies of governance and regulation is provided, with specific emphasis on their recent application within the rural field to analyse and understand recent changes in the emphasis and direction of rural policy and in the institutions charged with delivering such policy. Their limited use in studies of forestry reveals a combination of unpursued leads that indicate a potentially productive line of research, which seeks to further develop recent efforts to position forestry within more complex networks of governance and regulation. Various similar strands of the research which have tended to remain separate are brought together to provide a conceptual framework through which the dynamics of forestry can be better understood. It therefore draws together theories and empirical findings from a number of different disciplines, including the institutional theories of political economy and the more recent emergence of a distinctive, and decidedly critical, body of work on 'cultures of nature', in which attention has been given to ideas of 'social nature' – the way in which nature is bound up with broader economic, political and socio-cultural processes (see Castree and Braun, 2001).

1.2 Introducing Theories of Governance

1.2.1 Introduction

> Governance has become the defining narrative of British government at the start of the new century, challenging the commonplace notion of Britain as a unitary state with a strong executive.
>
> (Rhodes, 2000, p.6; quoted in Newman, 2001, p.11)

In recent decades there has been much discussion in academic and policy circles about the changing nature of the contemporary public policy environment, both in terms of participants and how it is ordered and operates. This has mainly occurred in literature associated with the concept of 'governance'. Such a concept is deployed with various meanings, but generally refers to multi-actor participation and influence in relation to public-good outcomes. One oft-quoted explanation offered by Rhodes (1997) suggests that governance signifies 'a change in the meaning of government, referring to a *new* process of governing; or a *changed* condition of ordered rule; or the *new* method by which society is governed' (1997: 46, emphasis in original). Within these new and emerging processes, it has been argued that traditional forms of government relying on hierarchical public structures have been replaced by a broader system of governance, in which the state is now viewed as 'facilitator and as co-operating partner', 'steering' action within complex social systems (Kooiman, 2000: 3; see also Kooiman, 1993). These shifts are seen to have emerged amid a growing acknowledgment that responses to diverse, dynamic and complex societal issues (such as environmental change) transcend traditional approaches to public policy-making and delivery, requiring sustained co-ordination, coherence and input among a wide variety of actors, both governmental and non-governmental (Pierre, 2000; Newman, 2001; Kooiman, 2003).

Accordingly, during the last two decades in particular, the concept has been widely applied across a range of policy areas. The priorities attached to the achievement of effective governance varies according to the policy area in question but at its heart are issues such as how powers are exercised in managing national and local resources. Governance debates therefore potentially touch upon a wide range of questions, including the accountability and transparency of government action, participation of

stakeholders in the decision-making process, administrative levels of government and the overall effectiveness of management policies (Coffey, 2003).

1.2.2 Rural Governance

Of particular relevance to this thesis, recent changes in the emphasis and direction of rural policy and in the processes through which rural policy is now formulated has stimulated a growing body of research on rural politics, policy and governance (Woods and Goodwin, 2003). As Cloke et al. (2000) observe, the origins of these new forms of governance can be traced to the New Right ideologies of the 1980s, which promised a rolling-back of government, but delivered instead a shift in the form of government characterised by the rise of quangos. The increased availability of European funding has also urged local, regional and national actors to work in new ways to plan for and administer rural development programmes, which has further promoted the 'long-standing ethic and cultural package of self-help' within rural areas (2000: 112). As a result, the institutional framework through which rural areas are governed has now been transformed from a top-down, hierarchical system to 'an emphasis on promoting and/or steering the self-organisation of inter-organisational relations' (Jessop, 1995: 324). The new structures and processes of governance that have emerged have given rise to 'tangled hierarchies' (1995: 310), comprised of a complex web of interdependent actors drawn from the public, private and voluntary sectors. These have now become the favoured mechanisms for rural policy formulation and delivery, from European to local level, as emphasised through the increased dependence on localised policy networks and partnerships extending beyond the formal structures of 'traditional' government (Goodwin, 1998: 6).

1.2.3 Environmental Governance

Of further interest to this thesis, nature-society geographers have also adopted the term environmental governance to problematise the traditional equation of resource regulation / environmental management with the actions of the administrative state (Bakker and Bridge, 2007). These attempts at theorising the production and consumption of particular environmental resources has been prompted by the growing role of non-state actors (consumers, NGOs, and social and community movements) and new international institutions (such as global environmental accords on climate

change and international trade) in the governance of socio-environmental relations (Liverman, 2004; see also, Dalby, 2002).

As Bakker and Bridge (2007) note, a complex interplay of forces has led to this decentring of power over natural resource and environmental decision-making. On the one hand, authority has been wrested from the state. This has occurred, for instance, through the challenges posed by historically marginalised groups as they have struggled to influence decisions regarding resource development within their territories. This has led to a contestation of state dominance in resource questions, with critiques of state-led, Western science-based resource management as instrumentalist and economistic (Himley, 2008). On the other hand, the state has ceded authority over resource questions, as witnessed in the reduction of formal state regulatory and administrative capabilities associated with the implementation of neo-liberal policies, which as will explored later in the chapter, have emphasised the growing emergence of public-private 'partnerships' and market-based mechanisms as a means to achieve effective resource management and use (Liverman, 2004; McCarthy and Prudham, 2004; Robertson, 2004; 2007). In summary, the concept of environmental governance has provided geographers with an analytical framework through which to examine the multiple and overlapping organisational and institutional systems through which access to natural resources are structured and negotiated and decisions regarding resource use and environmental management are now taken.

1.2.4 Forestry Governance

Given the extent of the changes that have occurred within the British forestry sector in recent decades and the continuing influence of ongoing policy initiatives within the three devolved administrations, it can be argued that the field of forestry is one where the governance debate is particularly prominent. Accountability, transparency, participation and decentralisation are central factors underpinning the successful transition to the sustainable management of forest resources. Accountability is particularly important in sectors such as forestry where a large majority of the sector is managed by the public sector but where decisions concerning the production and regulation of forest spaces have, especially in the past, occurred largely out of public

view and scrutiny. Access to information and transparency in policy are thus critical as a means of ensuring accountability. They are also a precondition for meaningful public participation in decision making. Decentralised management can also improve policy effectiveness by allowing measures to be tailored to local needs, as well as providing opportunities for participation in decision making by local stakeholders. Finally, all of these governance issues can contribute to heightened public awareness of environmental issues.

Much has been written over the last two decades about the complex changes that have recently occurred within the forestry sector, with specific attention being placed on how the period of industrial commercial forestry which continued largely unquestioned until the dawn of the 1980s has now given way to a new 'post-productivist' regime of forestry (Mather, 1991; 1998; 2001). The concepts of productivism and post-productivism have become increasingly popular in geographical research in recent decades and have been successfully deployed as a descriptor of the fundamental changes in the political culture within which agriculture now operates, as well as to understand the changing social and economic fabric of rural space (see Marsden et al., 1993; Marsden, 1998; Wilson, 2001; Wilson and Rigg, 2003).

Mather (2001) suggests, however, that the post-productivist regime, although under researched, is more clearly developed in forestry than in agriculture. He employs the concept of 'post-industrial' forestry (2001: 251) to characterise the physical manifestation of this post-productivist forestry transition, within which wider priorities relating to environmental conservation, landscape aesthetics and recreation provision now predominate over traditional output and profit-oriented goals. He suggests that the emergence post-industrial forest spaces should be viewed as reflecting a societal shift towards 'post-materialism', associated with increased levels of affluence and leisure time, and the Commission's attempts to draw advantage from these new and emerging markets. He also goes on to highlight how these changing priorities have led to the emergence of new systems of governance and regulation, with increased opportunities for interaction between different stakeholder groups, thus allowing formerly politically marginal actors (such as environmental groups or local

grassroots organisations) into forestry decision-making and policy formulation networks. It is suggested that these arrangements represent the Commission's retreat from its previously dominant position as sole policy maker to one of 'co-ordinator', 'manager' and 'facilitator' of the many stakeholders now embedded in new forest governance networks (Mather, 1998: 120).

A similar assessment is also provided by Tsouvalis (2000) in her historical review of state forestry in Britain, which argues that Britain's forests have been transformed into multi-purpose forests, which as well as being providers of timber are 'sustainable, biodiverse, fit for recreation and aesthetically pleasing' (2000: 182). However, she appears more cautious about the potential and limitations of the emerging post-productivist approaches to achieve more sustainable and inclusive outcomes. Whilst supporting Mather's (2001) claim that there has been a relative shift in forestry policy-making power between the Commission and non-state actors, she also acknowledges that state and grassroots actors may in fact hold differing viewpoints on what should and should not constitute the Commission's ultimate goal of sustainable forest management. Indeed, as Memon and Wilson (2007: 749) emphasise, the multi-level nature of the governance environment implies that 'any given resource is characterised by a multitude of different political, social, economic and cultural "expectations" exerted by various actor groups'.

In a similar vein, McCarthy (2005, 2006) in his study of community forestry in the United States suggests that stakeholder groups acting at different 'layers' in the environmental management process exert different pressures on forest resources (for example, conservation interests versus timber production interests), which often result in environmental conflicts. In such situations, while stakeholder groups with common interests over the management of forest resources may enter into partnerships, opposing groups will be in continual conflict with each other, which can lead to the polarisation of certain groups and interests. Identifying the configuration of the new forestry policy networks is therefore only the first step in understanding the dynamics of the governance environment, as stakeholder coalitions do not always result in increased influence to shape policies.

1.

Returning to the British forestry sector, this highlights a need to develop a better understanding of the key actors which hold the power in forestry policy networks, and to determine what their specific interests are in relation to forest spaces. This would respond directly to some important questions raised by Tsouvalis (2000) about the extent to which post-industrial systems of forestry represent a break from the past, particularly given her suggestions that hierarchical governance structures and scientific systems of knowledge creation continue to dominate the new forestry regime.

In proceeding with a review of the governance literature it is important to acknowledge at the outset that despite the various changes that have occurred, the slate can never be wiped completely clean (MacLeod and Goodwin, 1999; Newman, 2001; Lowndes, 2005). Many accounts within the literature have indeed highlighted continuities within the public policy environment, particularly in terms of the distribution of power and resources (see Imrie and Raco, 1999; Davies, 2002). Taking this into account, Kooiman (2003: 142) suggests that what is significant is a consideration of the many factors which now have an influence on the act of governing:

> There seems to be a shift away from more traditional patterns in which governing was basically regarded as 'one-way traffic' from those governing to those governed, towards a 'two-way traffic' model in which aspects, problems and opportunities of both the governing system and the system to be governed are taken into consideration.

Thus as Sibeon (2000: 297) asserts, it is important to pay attention to the reality of the policy environment rather than relying solely on accounts within the academic literature.

Accordingly, whilst the governance literature will be initially drawn upon in order to contextualise the various changes that have occurred within the forestry sector during recent decades, the main aim will be to examine the policy environment and the particular elements of it that are of relevance to forestry. This will be achieved through interrogating the governance literature in order to determine its usefulness in helping to gain an understanding of the complex picture that emerges. The key underlying

concern is how the Commission has experienced this changing environment in terms of the definition and realisation of forestry policy objectives.

1.2.5 Interrogating the Governance Literature

It can be argued that recent literature on rural governance raises a number of important questions relating to the dynamics of the governance environment, which may be of particular relevance to this thesis. In particular, Edwards et al. (2000) have utilised the governance approach to chart the growth and nature of partnership working as a vehicle for the implementation of rural development policy in Wales, specifically in the field of economic regeneration. Among their key findings, partnerships were identified as a key feature of rural regeneration strategies across Wales, with most of the small towns and rural districts surveyed demonstrating a plethora of locally-based groups formed around issues relating to community development, civic regeneration, business development, training, sustainability, transport or tourism. Their contribution to reconfiguring power relations within the study areas was noted, given their ability and success in bringing together a range of actors from a wide spectrum of public, private and voluntary organisations to engage in collective action over policies that previously were indisputably the responsibility of the public sector. Similarly, Cloke et al. (2000) in their study of homelessness in Taunton utilise the governance perspective to emphasise how 'a wide range of actors and agencies are now required to contribute resources and skills to a 'tangled web of policy-making', thus leading to a clear shift in both the meaning and nature of traditional forms of government. They draw on Rhodes' (1997) notion of policy networks to demonstrate how 'previously functional networks based on central or local government departments have been made more complex with the addition of new actors and agencies from the private and voluntary sectors' (1997: 112).

Drawing on similar ideas offered by Kooiman (1993) and Stoker (1998), governance is therefore understood as an 'interactive process', whereby no single actor, public or private, is able to easily command, steer or regulate a particular process of exchange. Thus, a key challenge is to ensure that all interactions are rooted in trust and subject to rules negotiated by all network participants, thus leading to agreements and results that are:

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> ...not the outcomes of authoritative implementation of pre-established rules, but rather the results of a 'co-production' of the administration and its clients. (Offe, 1984: 310; quoted in Rhodes, 1997: 57)

Within the context of forestry, attention would therefore turn to the shift emergent in forestry governance structures, whereby the implementation of the new policy of multiple objectives accepted by the Commission must more readily involve the engagement of wider stakeholders, including various communities of interest and local groups. Reflecting on these changes, Turner (1998) a UK Forestry Policy Officer for the Royal Society for the Protection of Birds, identifies six sectors which currently work in partnership with the Commission including parliament, government departments and agencies, country and regional enterprise authorities, regional and local authorities, as well as non-governmental organisations (Stanley et al., 2005). Whilst this seemingly reflects the academic accounts of a shift away from government towards a much more complex system of governance, it is unclear whether the emerging institutional networks and approaches to policy development and implementation have been successful in bringing about a more inclusive system of forestry governance. This is a key concern for this thesis, particularly given that Macnaghten et al. (1998: 3) suggest that:

> ...professional rural specialists and recreation providers appear to have a somewhat higher opinion of the Forestry Commission than do many members of the public. The former understand the Commission to be a *leader* in the rural recreational field, as part of its commitment to multi-purpose forestry, whereas many of the latter continue to see it loosely as a commercially-driven timber-producing organisation, albeit with recreational and environmental fringes. (original emphasis).

This suggests, therefore, that there remain a number of unanswered questions concerning the exact nature and dynamics of these more 'pluralist' forms of governance. Accordingly, it can be argued that the academic literature on governance discussed above fails to engage with some of the detail of the changes that are claimed to have taken place. In particular, it is possible to identify a number of weaknesses relating to the role of the state and conceptions of power.

As a starting point, the tendency within concepts of governance to refer to the emergence of 'self-governing' and 'interdependent' networks alongside a decline in the relative power and autonomy of the state, and their subsequent inclusion under the

notion of 'governing without government' (Rhodes, 1997: 46), appears to imply that traditional forms of government are now rendered obsolete by the emergence of the 'new' governance mechanisms. This fails to acknowledge that the state may in fact retain important features and functions within these new processes of governing. Lowndes & Skelcher (1998: 331) suggest that such accounts reflect 'the myth of progress' – that is, the idea of governance as superior to traditional forms of government and implying a neat transition from one form of governing to another. They propose that a more accurate account would be achieved through undertaking a more critical analysis of the intricacies of multi-organisational and multi-actor collaboration, thus highlighting elements of both continuity and change (e.g. Shaw, 1993; Ward, 2000; Davies, 2005; Lowndes, 2005). The work by Edwards et al. (2000) would indeed appear to draw attention to the messiness and complexity of new structures of governance. In their study, they observed that the state continued to play a dominant role in regeneration activity at the local level, maintaining their capacity to promote, instigate, fund and resource a wide range of partnerships. The representation of state institutions on partnership committees was also widely noted, as was the tendency for decisions concerning the scope and location of the partnerships to be made according to the existing scalar hierarchy of the state.

The issues raised in these studies effectively highlight the realities of these new processes of governing, whereby the state no longer assumes a 'monopoly of expertise' or resources (Stoker, 1998: 18), but instead relies on a plurality of interdependent institutions and actors drawn from within and beyond government. Implicit within the new processes of governance, however, is the continued dominance of the state in influencing, guiding and shaping the actions of others actors. Drawing on these insights, a key concern within this thesis is to determine the degree to which the Commission continues to play an important role in guiding and shaping the forestry agenda in Wales, thus focusing attention on the emergence and functioning of new forestry governance structures and processes. The continuation of a vertical governance regime would perhaps suggests that Commission actors may not be entirely comfortable within the new governance environment, particularly in respect of the new facilitation and negotiation requirements that have been placed

upon them. These undoubtedly require skills over and above those required to manage other more traditional governing styles (Jackson and Stainsby, 2000: 15).

The findings of Cloke et al. (2000), for example, uncovered evidence of a significant degree of state orchestration and control in relation to the new governance arrangements, which appears to contest the common perception within the governance literature of partnerships emerging from an entirely 'spontaneous' process of multi-actor governance and giving rise to an almost 'organic' process of co-ordination (Newman, 2001: 20). This state instrumentalism was shown in a number of ways. Firstly, the growing dependence on partnerships and policy networks was seen to have emerged as a direct response to the need for 'joined-up action' (Carley, 2000; Stoker, 2004) in order to respond to the growing problem of homelessness in Taunton. Recognising that past efforts within the voluntary sector had failed to adequately deal with gaps in service provision locally, the state thus played an important 'co-ordinating' role by bringing together a wide range of government actors, business interests and voluntary agencies to work in partnership in order respond to the needs of homeless people. However, whilst this would appear to have created opportunities for more 'pluralist participation' (Fox and Miller, 1995: 149) within the local governance environment, key local authority agents were still heavily submerged in the new partnership arrangements, enrolling participants, setting the agenda, scheduling activities and manoeuvring the outcomes (Cloke et al., 2000: 131). State actors were therefore still located in a dominant position within a 'vertical hierarchy of power' (Peck and Tickell, 1995; Bennett et al., 2004).

Their actions also appeared to point to the exercise of 'self-interest'. Although some progress was made in developing informal contacts between the local authority and various different organisations, the council's decision to adopt a partnership approach was seen to be motivated by a desire to limit pressure on financial resources and also to draw on external resources and expertise (see Ward, 2000). In this sense, the promotion of partnerships and networks could be viewed as a means of retaining authority by ensuring a capacity to act through combining the resources of others (Davies, 2002: 314). These insights would be particularly useful in understanding the 'pro-active' stance adopted by the Commission in response to various challenges to its

authority, particularly the threats of privatisation of the public forest estate during the early 1990s. Efforts by the Commission to broker new partnerships with various environmental groups could be interpreted as the operationalisation of what (Jessop, 1997: 575; 2001: 15) terms 'meta-governance', whereby the aim was to create a public image of the Commission being active in addressing issues. Through adopting a rhetoric of partnership, the Commission was in a sense able to create a united front, which appeared to be bringing together a wide variety of interests and organisations. It could also be interpreted as an useful and effective way of avoiding blame and deflecting public criticism when things did not go according to plan.

Further to this, the preparation of a policy statement accepting the principle of multiple-purpose forestry earlier in the decade was, as Winter (1996: 297) notes, an opportunity for the Commission 'to seek to regain the initiative in a debate that was fast slipping away from it'. Through these actions, it was therefore seen to be forging new roles for itself, possibly in an attempt to re-assert its power and distinctiveness 'in an era of dwindling powers' and maintaining a key role in 'organising the self-organisation of partnerships, networks and governance regimes' (Jessop, 1997: 575). In this sense, the Commission, from its central position, may have been enabled to control and police various forms of governance with the aim of making it work better, whilst also ensuring that the objectives of partnerships were not in conflict with its overall objectives (Edwards et al., 2001; Davies, 2005; Geddes, 2006). Whether this is indeed the case within the forestry sector at present requires further investigation, paying particular attention to the various conflicting pressures and constraints that surround the instigation and implementation of new forms of governance.

Linking on from this, the study by Edwards et al. (2000) also raises important questions concerning legitimacy, accountability, power relations and equitable resource allocation, echoing similar concerns raised by Jones and Little (2000: 182) over this increased dependence on networks and partnerships as key mechanisms for rural policy delivery. Whereas the old structures of local and central government were elected, the new governance arrangements are largely appointed and often involve voluntary and community groups in an unpaid capacity. The privileging of key actors within emerging networks and partnerships can also lead to considerable power

imbalances between the wide range of actors involved in these new forms of rural governance. Edwards et al. (2001) thus conclude that although partnerships, as a key mechanism of new local governance, do ensure the inclusion (in some way or form) of new partners in the delivery of policies:

> ...as long as those partnerships have no direct accountability to the public, remain dominated by state sector representatives, funding and resourcing, and operate within structures established by state agencies, then it is the state which continues to govern governance. (p.308)

In support of this claim, Murdoch and Abram (1998: 41) have also observed that while 'the emergence of alliances as key mechanisms of local governance ensures the inclusion of new partners in the delivery of policies and services', the level of wider participation in such partnerships and networks is inevitably controlled by established organisations and actors with sufficient resources and skills. This may explain the lack of equality observed in such partnerships in reality, which would call into question the observation made in academic literature that all actors are 'equal' within the governance environment. In the example of forestry, the influence of privileged actors in developing, defining and disseminating dominant policy discourses, together with the changing relations of power between various actors engaged in the governance process, would be of particular interest (Stanley et al., 2005). This may in fact indicate how and why certain actors are able to maintain a dominant position within the governance environment.

1.2.6 Reflecting on the Concept of Governance

The preceding discussion has shown that work which draws on a governance perspective has greatly improved our knowledge of the dynamics surrounding new forms of rural and forestry policy formulation and delivery. There is no doubt that this growing body of research on rural governance has made an important empirical contribution within rural studies, particularly given that until recently it was a barely explored field of academic enquiry (Goodwin, 1998; Little, 2001). However, it can be argued that within many of these studies the concept has been used in a rather descriptive manner to interpret key changes that have occurred at the local or national level, with little investigation of how the concept itself can further the agenda for both rural and forestry research. As Woods and Goodwin (2003: 250) note such investigations should focus on the 'how and why' of these new emerging mechanisms

of governance, rather than simply providing a detailed account of their materialization and continuation. The turn to governance is also subject to critical appraisal against traditional virtues of good governance such as accountability, transparency and the tailoring of measures to local needs. Such questions are crucial, particularly given recent claims that the transition towards post-industrial forestry has been characterised by considerable spatial unevenness (Milbourne et al, 2008). This thesis now seeks to address these questions, in an effort to gain a better understand the dynamics of the recent shift towards new systems of forestry governance.

1.3 Understanding Changes in Forestry Governance and Regulation

1.3.1 Introduction

It can be argued that more recent research into economic and rural re-structuring has an important role to play in enhancing our understanding of the economic and spatial processes that underlie recent changes within the forestry sector. In particular, during recent years regulation theory has been used extensively in geographical research to broaden analyses of economic and rural re-structuring to encompass politically contested processes of historical change in capitalist societies, thereby transcending the more simplistic accounts of a shift in the dominant mode of production and regulation. Through its ability to integrate the structural dynamics of capitalism with the institutional forms of society it provides a valuable conceptual framework for understanding processes of capitalist growth, crisis and reproduction. Its value also lies in its acknowledgement that 'the form and evolution of the economic landscape cannot be fully understood without giving due attention to the various social institutions on which economic activity depends and through which it is shaped' (Martin, 2003; quoted in Himley, 2008: 436).

Studies utilising regulation theory have, for the most part, focused on governance issues revolving around the production and consumption of particular resources. Since its inception, it has gained currency in a variety of social science disciplines as a tool for understanding the relations between, on the one hand, inherently contradictory and crisis-prone processes of capitalist accumulation and, on the other hand, the assemblage of institutional forms and social practices (what is termed the 'mode of

social regulation').that guides, regularises and stabilises the accumulation for more or less extended periods (Dunford, 1990; Jessop, 1995, 1997b; Himley, 2008: 437). The next section will consider its component features in greater detail.

1.3.2 The Regulation Approach

The regulation approach to the political economy of contemporary capitalism has enjoyed remarkable and growing popularity as 'one of the main theoretical industries of the last three decades (Jessop, 1997a: 287; Goodwin, 2001: 71). Its origins lie in work undertaken by a group of French economists in the mid-1970s, who were concerned with analysing the nature and dynamics of the 'Atlantic Fordist' form of post-war capitalism and its subsequent crisis. Their main concern was to understand how capitalism could survive in spite of its inherent antagonisms, contradictions and crises – all of which made continuing accumulation improbable and generated major ruptures and structural shifts as capital developed (Lipietz, 1987; MacLeod, 1997: 531; Jessop, 2006: 37). This interest grew out of a profound dissatisfaction with the neoclassical economists' emphasis on the continued reproduction of capitalism through the laws of supply, demand and exchange, together with their failure to address the contribution of 'extra-economic' mechanisms to capitalist reproduction. Allied to this was a strong reaction against the Althusserian view of the 'impersonal, quasi-automatic, self-reproduction' of any given mode of production (Jessop, 1995: 309; Goodwin, 2006: 305).

Thus, rejecting this emphasis on 'structural unity' within the reproduction of capital, the regulation theorists proceeded to emphasise the 'unity of unity and struggle' in regulation, and began to integrate radical political economy with analyses of the state and civil society to show how economic and extra-economic factors interact to stabilise the capital relation (Jessop, 2006: 7). Emphasis was also placed on the contribution of such non-economic supports (themselves socially, culturally and politically constructed and contested) in determining the temporal and territorial nature of accumulation and economic growth. Their approach therefore aimed to develop a 'historically and geographically grounded account' of capitalism's development (Goodwin and Painter, 1997: 15) which had at its focal point the 'changing combinations of economic *and extra-economic* institutions and practices

which help secure, if only temporarily and always in specific economic spaces, a certain stability and predictability in accumulation' (Jessop, 1997a: 288).

The emphasis on 'extra-economic' mechanisms associated with the Parisian regulationists led to a focus on four distinctive concepts; an *industrial paradigm*, referring to the dominant technical and social division of labour (one such model is mass production); a *mode of regulation,* comprising an ensemble of rules, norms, conventions, patterns of conduct, social networks, organisational forms and institutions which mediate and structure the relationship between production and consumption, leading to the stabilisation of a *regime of accumulation* in the medium- to long-term. When all three complement each other sufficiently to secure a long wave of economic expansion and social stability, the resulting complex is analysed as a *model of development* (Jessop, 1997; Mackinnon, 2001; Goodwin, 2005). This temporary 'institutional fix' (Peck and Tickell, 1995: 21) is, however, unable to fully contain the contradictions of capitalism, leading to periods of structural crisis in which a mode of regulation shows itself to be unsuited to an accumulation system. This may be because the emergence of a new regime is being inhibited by an outdated form of regulation or because the regime has itself reached the limits of its potential. To overcome a crisis, a new relationship between accumulation and regulation must be established (Murdoch, 1995; Mackinnon, 2001). This regulationist terminology was used in Aglietta's study on the historical formation and structural crisis of Fordism in the USA. In this context, the regulation approach provided a powerful narrative in and through which to explore the trajectory of post-war economic growth in Europe and North America, relate this to earlier stages of capitalism, understand the crisis of Fordist production which emerged in the mid-1970s, and to consider possible solutions to that crisis (Jessop, 1995; Jessop 1997; Mackinnon, 2001; Goodwin, 2005).

From this original insight, the influence of the regulation approach has steadily diffused throughout European and North Atlantic academic communities, in such diverse fields as economic geography, urban and regional theory, rural studies and political economy (MacLeod, 1997). This ongoing research programme can be analysed in terms of the development of several distinct 'schools' and successive

phases or 'generations' (Jessop, 1990, 1997; Mackinnon, 2001; Goodwin, 2005). Much recent work has sought to elaborate upon the first-generation approaches and important developments have been made in widening and deepening its agenda and applicability by extending into new theoretical and empirical areas and developing opportunities for cross-fertilisation with other disciplines and fields of research (Jessop, 2006a). It can be argued that important innovations have been made, which have sought to fill some 'missing links' in the ongoing regulationist research project and enhance our understanding of social regulation (Jessop, 1990; Peck and Tickell, 1992; MacLeod, 1997). In particular, while regulation theorists have traditionally prioritised the nation-state as the pivotal scale of governance, geographers adopting the regulation approach have emphasised the ways in which broader-scale modes of governance may be mediated at the subnational scale, thus creating local and regional modes of social regulation grounded in the histories and socio-political dynamics of particular places (Gertler, 1988; Painter and Goodwin, 1995; Peck and Tickell, 1992; Tickell and Peck, 1992). As Dunford (1990: 303) explains, regulation theory therefore seeks to investigate 'why growth and crises assume different intensities and characteristics in different nations and regions'.

It is precisely such spatial unevenness that is currently absent from existing work on forestry. Notwithstanding the value of recent studies carried out within the industrial forest spaces of the South Wales Valleys (Bishop et al., 2001; Kitchen et al., 2002; Marsden et al., 2003;; Milbourne et al., 2008), on the whole, it could be argued that geographers within this field have failed to sufficiently consider the role of social relations of production and changing governance structures in influencing the transition towards new systems of forestry. Relatively little critical scrutiny has thus been given to the claimed shift towards post-industrial systems of forestry in the UK. Such a claim is supported by Goodwin (2006), who notes that many of the claims made about the wider socio-economic and environmental benefits of forestry have tended to come from those located within the forestry sector. It appears that social scientists and geographers have therefore accepted their validity without any real critical assessment having been undertaken. Echoing observations made by Milbourne et al. (2008), it therefore becomes clear that further regulationist accounts are therefore required in a broader range of local forest spaces in order to develop a more

accurate picture of changes within the forestry sector. This may indicate whether the emergence of multi-functional or social forms of forestry represent a shift away from previous systems of accumulation or merely a change to the mode of social regulation of forestry within particular forest spaces. The following section now looks to existing regulationist work in geography in order to develop an understanding of how regulation theory can be mobilised in analyses of economic-environmental interactions.

1.3.3 Nature in Regulation Theory

As indicated in the preceding review of recent research within the regulationist tradition, the application of regulation theory to the study of nature has been relatively limited to date, with most work either avoiding any engagement with questions of nature on the basis of their insignificance to the research in question, or treating the complex interactions between the environment and processes of accumulation merely as a 'passive backdrop' against which the contradictions and expansion of capital are played out (Bridge and McManus, 2000: 15; Bridge, 2000: 237). Most of the attention of those seeking to understand capitalist nature has been occupied by analyses aimed at explaining the production of nature as commodity within advanced capitalist economies and societies, which draw heavily on Marxist theoretical perspectives (Escobar, 1999). Whilst this body of work only partially articulates with the regulationist approach it has played a role in informing recent attempts to develop more overt linkages between regulation theory and nature. Before exploring these new possibilities for integrating nature into recent approaches to political economy, it is first necessary to briefly turn attention to this literature in order to further investigate what Smith (1984) termed the 'production of nature'.

The Marxist political economy approach to questions of nature pays particular attention to a series of historical political-economic processes through which capital came to appropriate and, in many cases, exploit different forms of nature, implying its transformation into a distinctively 'second' or 'capitalist' nature - one 'made and remade as a commodity form within the logics of capitalist production and competitive accumulation' (Castree and Braun, 1998). As Katz (1998: 46) observes, nature came to represent an 'open frontier for capitalism' providing an arena for

continued economic expansion. Within the landscape of this 'second' nature, the competitive and accumulation imperatives of capitalism brought together all manner of environments, social institutions and labour processes to produce different natures from new. According to Escobar (1999: 7) capitalist nature thus came to represent a hegemonic regime, with the growing dominance of 'production of nature' ideas destroying any distinction between 'first' and 'second' nature.

Central to regulationist accounts of the socio-institutional arrangements that serve to contain the crisis tendencies of resource development under capitalism have been recent attempts to develop a more 'eco-friendly' understanding of nature's production (O'Connor, 1988; Altvater, 1993). This is seen to feed into a more sophisticated conception of nature politics, which challenges and complicates the traditional Marxian emphasis on the economic in order to examine in greater detail the ecological contradictions inherent in socio-natural relations (Castree, 2002). In order to do this, geographers have increasingly turned to eco-Marxism, drawing most notably on O'Connor's (1988) well-known work on the 'second contradiction of capitalism'; Altvater's (1993) focus on the conflict between the economic process of valorisation and the physical ecological laws governing the transformation of matter; and Benton's (1989) argument about the 'naturally unintended consequences of production' (Castree and Braun, 1998: 7). The common objective of these approaches is to move beyond the conventional, dualistic interpretations of separate economic and ecological crises by explaining how ecological problems might emerge from particular patterns of production, and how ecological conditions might in turn influence the rate and form of growth (Bridge, 2000).

Altvater (1993) locates the ecological contradiction in the 'dual character' of the labour process, which gives rise to conflict between the economic process of valorisation and the physical ecological laws governing the transformation of matter (Castree and Braun, 1998; Bridge, 2000). On the other hand, O'Connor (1988, 1998) and Benton (1989) theorise environmental degradation in terms of a 'second contradiction of capitalism' and locate the contradiction centrally within the process of commodification. They draw attention to the antagonistic relationship between, on the one hand, the forces and relations of production and, on the other, the conditions

of production, particularly external nature (Himley, 2008). For O'Connor, the contradiction lies in capital's tendency to destroy (rather than reproduce) its own conditions of production, thus leading to a crisis of underproduction, which threatens profits and the reproduction of capital.

The above accounts are particularly useful for examining the difficulties experienced by the Commission during the industrial period of intensive afforestation in effectively commoditising nature. During the post-war period the shortage of good quality agricultural land for afforestation often meant that the Commission was left with no alternative but to establish large industrial forests on poorer marginal land in the uplands. The harsh physical conditions, together with the poor quality of the soils made the execution of planting programmes in the uplands a high risk strategy for the Commission as there was no guarantee that anything would grow. In fact, as Ryle (1969) notes, the planting programmes proved increasingly problematic, relying on intensive manual labour due to the unsuitability of the land for new and emerging machinery. Although many of the Commission's upland forests matured successfully, much of the timber has been left to stand due to its poor quality.

Referring to the notion of an ecological contradiction, Bridge and Jonas (2002) draw attention to the deeply contested and conflict-ridden nature of resource development activities. They suggest that these struggles may be expressed in a variety of forms, including conflicts over access to resources, the socio-spatial distribution of the benefits and burdens of resource extraction, and cultural values assigned to nature (Himley, 2008: 438). However, despite underlying tendencies towards conflict, they emphasise that:

> [T]he most striking thing about resource production and consumption is that...resource extraction activities are rendered reasonably coherent for significant periods of time...This is because potential conflicts are often negotiated through historically and geographically specific socio-political struggles that become codified as the institutions and social practices within which resource extraction activities are embedded. By defining what is economically, technologically, and politically possible at particular moments, such institutions can lend coherence and stability to efforts to extract, process, market, and consume natural resources (2002: 759-60).

These accounts are particularly relevant when considered within the context of the state forestry sector in Britain, particularly when reflecting on the Commission's

approaches to forestry production and regulation. Throughout most of the twentieth century, the Commission was characterised by a vision and a remarkable constancy of purpose as it relentlessly pursued its mission of protecting and expanding Britain's forests in order to increase their commercial value and profitability, and to ensure an adequate supply of timber. Despite this, the introduction and subsequent implementation of scientific forestry management practices proved more problematic than first envisaged. Frequent changes in government policy and recurrent periods of political instability tested the vulnerability of the long-term strategy for forestry, and the Commission was continually put under pressure to justify its continued existence (Ryle, 1969). Accordingly, the rationale for afforestation shifted from the 'strategic reserve' argument to targets such as import substitution and rural employment, yet remarkably, afforestation remained the principal focus of policy (Stewart, 1985; Oosthoek, 2000). However, during the latter decades of the twentieth century, the advent of mechanisation together with the dramatic reduction in the price of timber within the global market signified that the justifications underpinning the profitable production of timber from the natural environment were no longer viable. Growing concern over the destructive nature of industrial forestry, together with more recent commitments to the principles of sustainability have forced the Commission to re-align its priorities, once again in an effort to justify its continued existence.

Despite these interpretations of the many ecological contradictions of capitalism and their tendency to give rise to periodic crises, as Bridge (2000) notes, few studies have looked to the regulation approach as a means of explaining how these contradictions are managed and stabilised over time. For example, a number of studies have sought to develop linkages between regulation theory and the concept of sustainable development (see Drummond and Marsden, 1995; Gibbs, 1996), but, overall, their usefulness in advancing the regulationist research agenda has been questioned due to their preoccupation with the periodisation of economic transition (which, as discussed earlier, remains a common criticism of regulationist inspired work). The one exception is Lipietz's (1992) study *Towards a New Economic Order*, in which a broad regulation approach is adopted in order to examine the significance of nature within the shift from Fordism, to liberal productivism (Bridge and McManus, 2000). By placing nature at the centre of his study on economic change, his work illustrates how

nature can simultaneously represent a contradiction within Fordist modes of production and a source of consumption-based growth opportunities under a liberal productivist regime. The one weakness of this investigation, however, is that it remains to be grounded in the specific processes of institutional and environmental change at the local and regional level (Bridge and McManus, 1998).

A more recent study by Drummond et al. (2000) goes some way towards responding to this criticism and further emphasises the value of employing a regulationist approach within rural research. Drawing on the work of Peck and Tickell (1992; 1994; 1995) and Moulaert and Swyndedouw (1989) the authors seek to develop a more localised understanding of periods of stability, crisis and restructuring in the agricultural industry, thus looking beyond providing a standard description of the make-up and constitution of relatively stable periods of growth. Using regulation theory as a conceptual framework, the authors identified a number of key issues for further analysis, including the possible emergence of both winners and losers within any given period of restructuring, especially when a phase of expanded consumption is unlikely; the manner in which change is resisted; and the varying form of experimentation during extended periods of crises (Goodwin, 2006). These issues are then empirically examined through an in-depth study of contemporary agricultural crises in Australia, New Zealand and Britain, in order to further investigate the possibility of different forms of crises operating at different scales within different countries. Similarly, Drummond (1996) adopts a regulationist approach to explain how economic and political imperatives have historically conditioned the unsustainable environmental outcomes in the Australian sugar industry. The analysis explicitly recognises the existence of contradictions within particular economic forms and explains environmental outcomes by reference to the way these contradictions are played out in specific circumstances (Bridge, 2000). Its acknowledgment of the sectoral and geographical specificity of economic and environmental change also sets it apart from most regulationist research on nature which have confined their analysis to a high level of abstraction or to the emergence of contradictions at the macro-level.

Recognising the need for continued theoretical development along these lines, Bridge and McManus (2000) call for the development of a modified version of regulation

based around what they term 'intermediate concepts', which are sensitive to different spatial, temporal and sectoral contexts. They propose a set of 'vertical linkages' that 'can connect concepts of regulation theory with place-specific processes and translate them across different analytic and spatial scales' (2000: 18). Their study takes up this challenge by adapting key conceptual components of regulation theory to shed light on the shifting nature-capital landscape in British Columbia. Of most significance to this thesis, their study highlights how the industrial forestry sector has overcome recent challenges to its operations from environmentalists by altering the mode of social regulation and incorporating discourses of sustainability into forestry policy, without any major consequences for the accumulation system (Goodwin, 2006: 231). In addition to these studies, Escobar (1996: 47), in defining what he terms the 'ecological phase' of capitalism, observes how in the context of proliferating environmental problems, the accumulation of 'uniform' nature became an obstacle to capital accumulation for both social and ecological reasons, instigating a process of accumulation of 'diverse' or 'flexible' nature. In this sense capitalism reversed its dismissive opposition to environmental movements and embraced various brands of environmentalism. Recent efforts by the Commission to incorporate discourses of sustainability, together with various commitments to biodiversity conservation and community empowerment into systems of accumulation and modes of social regulation could be interpreted as a reflection of this tendency, creating new meanings of forestry. A regulationist interpretation of these changes would thus represent a transition from:

> '...an expansionary, anti-environmental regime of accumulation bent on "capitalising nature" to a "post-modern" one obliged to sustainably manage its own ecological future in the interests of profitability and survival' (Bridge and McManus, 2000: 40).

Bridge and McManus' (2000) work represents an important step towards positioning nature more centrally in regulation theory, not only through its emphasis on particular sectors of nature production, but also through its ability to consider how accumulation systems associated with particular 'nature industries', such as forestry and mining, are fixed in particular spaces in relation to local modes of social regulation. However, while these studies usefully point to the complex sets of interactions between industrial capital, the state and environmental organisations, it pays less attention to the socio-cultural nature of the spaces under investigation and, in particular, largely

ignores how communities within these spaces are involved in local accumulation systems and modes of regulation.

In responding to these concerns, a handful of empirically-grounded studies have recently been undertaken, which have drawn upon regulation theory in order to analyse the implications for resources and the environment of socio-economic restructuring. Goodwin et al. (1995) have shown that a regulationist approach offers a great deal of potential to investigate a whole host of new and emerging research questions relating to the wider rural economy, society and environment. As they state:

> Far from closing down research by attempting to fit it into a Fordist/post-Fordist straitjacket, a regulationist inspired approach can open up new and significant avenues of enquiry for rural studies. By drawing on regulation theory we can locate and conceptualise rural change within a framework which acknowledges that this is part and parcel of more general attempts to regulate the continuing contradictions and crises of capitalism. But, it is also a framework which acknowledges that rural change is distinctive and diverse (1995: 1258).

Their study demonstrated how contemporary rural change was having a crucial impact on the lives and futures of rural residents in Wales. The general picture of declining rural communities presented in the case-study analysis contrasted starkly with persistent images of idyllic rural life and enabled the authors to link rural change to broader sets of social and economic shifts. However, key to their findings was that rural change was not in any way uniform, or easily predictable, but was instead a socially constructed process influenced by particular combinations of political, economic, social and cultural relations operating at the local spatial scale. Yet, within these localities, this re-shaping and re-ordering of society was found to be rather unstable and characterised by a partial process of regulation, based on low incomes and an associated increase in poverty and deprivation; a continued decline in agricultural employment giving way to a rural economy based largely around insecure and low-paid service sector employment; and a widespread experience of housing problems and transport difficulties, leading to problems of isolation. Allied to this, notions and feelings of community belonging were held to be disappearing fast, amidst processes of in-migration and social recomposition. Such adverse social and cultural conditions were seen to differ significantly from those found in more favoured rural areas in England. Drawing on the work of Painter and Goodwin (1995; 1996) discussed earlier in this chapter, it demonstrated how the diversity and

difference between rural areas could be further explored through the notion of 'regulation as process', thus placing an emphasis on the 'ebb and flow of regulatory processes' through time and across space, rather than simply looking for a simple shift towards more coherent modes of regulation (Woods and Goodwin, 2003: 252).

A number of other researchers are in agreement on this point (see Cloke and Goodwin, 1992; Marsden, 1995; Marsden 1999) and argue that there exists significant and widespread variation in the way different rural areas will be affected by the political, social, cultural and economic changes impacting upon them:

> Cultural and political power are shifting dramatically in rural areas, and the shape and form of their particular dynamic will help to produce and sustain different norms and customs of regulation in different rural places.
>
> (Goodwin et al., 1995; Marsden, 1995: 1181)

They emphasise that some areas have been significantly affected by the current crisis in agriculture and are being drawn into new patterns of commodification, acting as places of heritage and consumption, whilst others are more heavily involved in the new hi-tech service sector economy (Cloke and Goodwin, 1992; Goodwin et al., 1998). This draws attention to the situation in the rural areas of Britain, where some areas dominated by forestry have been successful in attracting a great deal of new investment to enhance the recreational and conservation value of forest spaces (for example, parts of the New Forest and lowland areas). It could be argued, however, that in other areas dominated by large-scale afforestation (such as the upland and industrial areas of Wales) recent attempts to implement programmes of environmental governance based on stabilising local social and ecological relations with forest natures have been less successful.

A recent study by Milbourne et al. (2008) which seeks to provide a spatially sensitive account of the development of post-industrial forestry in the UK found that the forestry sector in this area has witnessed a series of 'crises' in its system of accumulation. These crises have been largely influenced by the collapse of the local mining sector, declining employment opportunities in the local state forestry sector and a general global fall in timber prices, which has removed the economic rationale for timber production. They argue that this has led to the promotion of new forms of 'social forestry' based around changes to the social mode of regulation, including the

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involvement of a broader range of actors in the governance of the forests, increased consultation with local communities and the attachment of new social meanings to the forest spaces. These attempts to 're-construct' forestry have, however, encountered a series of obstacles, as particular sets of historical and place-based nature-society relations, formed around ideas of industrial nature, have led to the development of considerable social distance between forestry, forests and local communities. These findings are subsequently utilised in order to provide a critical examination of the geographies of the transition towards post-industrial forestry.

It would be interesting to investigate whether similar economic, social and cultural conditions can be observed in the upland areas of mid-Wales, particularly as these areas have become increasingly vulnerable to the decline and re-structuring of the agricultural and industrial base. As well as considering the role of socio-cultural conditions in influencing the success, or otherwise, of the new regime of post-industrial forestry being promoted by the Commission, it would also be important to consider how the physical characteristics of the forest systems and its associated ecological systems have impinged on and shaped the organisational and institutional systems through which the forest spaces are governed, both now and in the past. Recent work undertaken by Bakker (2003) and Perreault (2006) on the regulation of natural resources in New York and Bolivia, respectively, would therefore be particularly useful in this respect, as their analyses suggest that the structures used to govern natural resources (in this case, water and gas) were deeply influenced by the material characteristics of the resources themselves.

Whether this would hold true in the case of the governance of upland forest spaces would be of particular interest, allowing further investigation into the approaches adopted by the Commission in the establishment of large-scale industrial forests in these areas. As discussed previously, the difficult conditions in these areas would undoubtedly have proved challenging for the Commission, requiring large-scale investment in both the creation of an efficient workforce and in the development of new sivilcultural techniques suited to the physical character of the landscape. The manner in which the Commission manipulated both physical and human factors in the establishment of the forests, and the struggles that ensued as vast areas of agricultural

land was transformed into large-scale industrial forests would be worthy of further investigation, particularly given the way in which historical accounts refer to the Commission's 'exploitative' practices and its 'brazen' attitude to the hill-farming areas of Wales (Evans, 1991: 72).

Similarly, returning to the present day, it would be interesting to investigate the degree to which past activities and the physical character of the forest spaces themselves have impacted on socio-natural relations, thus requiring interrogation of the way in which the forests are socially constructed by local communities. This highlights the need for further investigatations of the varying strategies of regulation which condense around the particular contradictions and conflicts thrown up by local social, economic, environmental and cultural conditions, thus emphasising the importance of further locally-grounded, context-sensitive analyses.

These studies have shown that applied correctly, the regulationist approach holds significant potential to link the study of economic processes in the countryside to concerns surrounding rural policy, the state and political activity. While a regulationist approach can illuminate how changes in governance and policy can help (or hinder) continued accumulation, it cannot explain these changes themselves. Instead, the concepts of governance and regulation need to be complemented by theoretical frameworks that are able to direct further attention towards notions of power and the influence of local socio-cultural conditions within new governance arrangements. This may be provided by two approaches – theories of social nature, which may provide a useful insight into how changes in governance and policy are interpreted (and resisted) within specific rural localities, and theories of governmentality, which provide an insight into the state strategies through which changes in governance and policy are framed. The following sections consider these approaches in turn.

1.3.4 Introducing Social Nature

The previous section has demonstrated that regulationist approaches hold significant potential to improve our understanding of the key shifts emerging within the rural landscape, linked to changes in governance and policy. However, what becomes clear

from reviewing the literature is that the lack of theoretically-based empirical explanation of many of the emerging issues remains a key weakness. Indeed, as has been shown, while much of this work has been grounded in different rural spaces, the main focus has tended to be on the natural resource and environmental aspects of these spaces (in particular, drawing on specific examples from the agriculture, food and forestry industries) rather than on the ways that nature connects with rural economies, society, cultures, politics and structures of governance. As a result, from an empirical point of view, there are currently few theoretical and conceptual guidelines as to how to conduct an effective and insightful investigation of the socio-cultural nature of particular spaces, with specific emphasis on the relationship between people and their surrounding natures (Marsden et al., 2003). This point is acknowledged by scholars working from a number of differing perspectives, who argue that there is a need to 'embed' nature more centrally in socio-political and spatial contexts. As Urry (2000: 202) attempts to summarise:

> ...different natures are indeed embedded within different patterns of social activity, of belonging and travelling. These practices are patterned over different stretches of time, from the instantaneous to the glacial, and across different spaces, from local community, to the nation-state and to the global. Social activities are organised in terms of how people dwell within different places, how they sense such places through sight, smell, hearing and touch, how they move across and beyond such places and how much power of agency they possess to transform their lives and their immediate environment. Thus different social practices produce different 'natures'. These include: nature as open countryside available for upper-class leisure; nature as visual spectacle sensed through sketches, landscape paintings, postcards, photographs and the camcorder; nature as sets of scientific laws established especially by environmental science; nature as wilderness away from industry and cities and enabling spiritual and physical refreshment; and nature as undergoing global environmental change' rather than isolated localised changes.

Of particular significance to this thesis, the value of developing such a localised understanding of socio-cultural context in regulationist approaches to nature is acknowledged by Goodwin (1995), who calls for a broader appreciation of the interconnected economic, political and socio-cultural components of nature regulation:

> ...the contracts and strategies of capital and the state, in altering institutional relations, networks and norms, the impact of the contestation of change in the socio-political spheres, and the changing place of cultural factors in promoting or resisting change, all need to be brought together in...analysis rather than held apart. (1995: 1258)

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Responding directly to this observation, this thesis suggests that this can be achieved through incorporating ideas of 'social nature' into the regulationist framework. The key principles underlying this literature, and its potential in furthering the application of regulationist approaches to nature will now be discussed in greater detail.

Over recent years, a great deal of progress has been made by sociologists and geographers to develop critical perspectives that focus attention on the complex relationship between society and nature. From forming what was previously considered a neglected area of social science enquiry (see Fitzsimmons, 1989), it appears that geographical work is now focusing greater attention on issues relating to the environment, particularly nature. This is evidenced by the sheer volume of theoretical and empirical work dedicated to the subject since the mid-1990s (Castree, 2002; Castree and Braun, 1998; Eden, 2001; Milbourne et al., 2008; Whatmore and Boucher, 1993). At the core of this increased sociological and geographical interest in nature has been an attempt to make sense of the complex interplay between society and nature. This has involved not only an increased volume and diversity of empirical work focused on nature but the development of new conceptualisations of nature (Milbourne, 2003).

A growing body of literature has subsequently emerged on what can be termed 'social nature' – a nature that is 'always and everywhere mediated by human social action and representation' (Whatmore and Boucher, 1993). This term is now widely quoted in debates on the role of nature in reconstructing human geography, which seeks to position nature within broader social, economic, political and cultural contexts, thus providing an account of how they are brought together through processes of production, regulation, representation and consumption within advanced capitalist societies (Milbourne, 2008). A key aim of this work has been to bring nature into the social realm and, in doing so, to develop social theories that are better able to deal with questions of nature. Different theoretical perspectives have been drawn upon and amended to make sense of social nature, including political economy, regulation theory and social constructivism.

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The latter, in particular, represents a growing body of social science writings that have abandoned realist approaches to nature and have, alternatively, tried to make sense of nature as a social and cultural construction – one that is made materially through language (see Castree, 1995; Cronon, 1995; Franklin, 2002; Macnaghten and Urry, 1998, Proctor, 1998). This growing group of social scientists and geographers argue that nature has essentially become domesticated, socialised and politicised, such that it can no longer exist as an independent, external variable, and a guaranteed resource in the lives of people (Franklin, 2002). In Soper's (1995: 2) words, it is now seen to contain an 'immensely complex and contradictory symbolic load' that is deeply modified and shaped by humanity, thus forming an important part of our culture, as demonstrated through such constructs as photography, industry, advertising and aesthetics, as well as by institutions like tourism and education (Demeritt, 2001; Wilson, 1991). Essentially, these specific social practices produce and transform different kinds of natures and values, and as Macnaghten and Urry (1998: 2) emphasise, it is through such practices that people respond 'cognitively, aesthetically and hermeneutically to what are constructed as the characteristics of nature'. Viewing nature through such lenses has, in turn, significantly altered the conventional understanding of what a 'politics of nature' is all about (Castree and Braun, 1998: xiii).

Within the literature, political economic and regulationist approaches are criticised for being 'coloured by a producionvist vision of human society' (Whatmore and Boucher, 1993: 168) and thus neglecting the variety of cultural processes through which different meanings of nature emerge. Echoing these concerns, Cloke et al. (1996), in their work on the English National Forest, emphasise that nature should not be seen as existing outside the social relations of production, but should be viewed as being produced and re-produced through these social relations. They argue that there are both ideological and political reasons why we should engage critically with the social nature that emerges. The main analytical issue which emerges from this encultured political economy perspective becomes the question of how nature is (re)produced and who controls this process of (re)production in particular times and places (Whatmore and Boucher, 1993).

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Nevertheless, as Kitchen et al. (2002) observe, these geographical discussions about social nature have become somewhat polarised, drawing on the two dominant approaches mentioned above - the first, in which nature is investigated through the lenses of political economy and regulation theory, and the second, which embraces ideas of socio-cultural nature constructions and the complex processes through which nature is represented, understood and consumed. In an effort to better understand the complex interactions between nature, society and culture, a great deal of work has recently been undertaken by geographers and social scientists to reconstruct the nature-society relationship in more appropriate terms. New theoretical approaches have subsequently emerged, linked to ideas of actor-networks (Murdoch, 2001), hybridity (Whatmore, 1999), co-construction (Irwin, 2001) and historical materialism (Benton, 2001). Notwithstanding the significant contributions made by each of these theories to our understanding of social nature, it can be argued that elements of the last two approaches are particularly relevant to this thesis, primarily due to their suitability to be incorporated into the regulationist framework.

The first literature argues that that there is a need to develop ways of seeing and assessing how nature and society are 'co-constructed' (see Demeritt, 1996; Irwin, 2001 and Murdoch, 2001). Macnaghten and Urry (1998: 2), for example, argue that nature is understood through a variety of social practices, as people 'respond...to what have been constructed as the signs and characteristics of nature' (see also Franklin, 2002). Similarly, Irwin (2001: 173) places attention upon how the natural and the social are 'varyingly constructed within environmentally related practices and particular contexts'. Within these contexts, environmental attitudes, feelings, actions, and perceptions are not distinct factors that need to examined in isolation; but should be viewed in context – that is, they are 'discursively formed within particular social settings and contexts' (2001: 176). This makes a marked contrast to earlier forms of constructivism by asserting the relevance of social context and practice.

The second literature insists on the historical, geographical and social relativity of nature-society interactions (Benton, 1989; 2001; Harvey, 1996; Castree, 1995). Benton (1989; 2001), for example, proposes a framework for a historicised analysis of modes of production and their characteristic structures of nature-society articulation.

Within this, he suggests that each historical phase or 'form of social and economic life' with its own characteristic mode of production and labour processes, will present a 'specific structure of nature-society articulation' (1989: 77). The dynamic of each historically articulated structure, in turn, provides correspondingly distinctive ecological problems and inter-relations, with their own specific contextual conditions and limits (Castree and Braun, 1998: 205). He goes on to argue that adopting such a critical realist approach:

> recognises that knowledge (including social scientific knowledge) is an always provisional outcome of a social practice, but at the same time insists that the knowledge so constructed as an object which exists independently of our thought about it. Against radical social constructivist approaches, this allows us to include within the analysis of socio-ecological processes the causal powers (and what some call the 'agency' Latour, 1987) of such materials, natural mechanisms, eco-systems and so forth. This in turn makes it possible to investigate the contribution of non-human-living and non-living beings and processes to the shaping of social life and to the genesis of what come to be recognised as ecological 'problems'. (p.85)

One example of this approach to social nature is provided by O'Connor (1998) in a case study of Fall Creek, a wooded space in California, in which he suggests that any meaningful understanding of this 'natural' space needs to consider how contemporary cultural meanings of the area connect with historical productions (or exploitations) of forest natures. What this approach has in common with the more social constructivist epistemological prescriptions is its recognition of social space and resistance as a more active agent in realising and shaping broader political and economic processes.

However, many authors have argued (see Bridge and McManus, 2000; Castree and Braun, 1998; Marsden et al., 2003) that this approach need to be taken further, with greater emphasis placed on work which builds upon both social constructionist approaches, and more realist notions of historically and spatially embedded contexts at multiple scales of regulation (see also Bridge and Jonas 2002; Marsden et al. 2002). This recognises the need for a different approach to social nature; one which brings together realist and social constructivist theoretical ingredients; and one which also acknowledges the reality of different 'social natures' operating in different places and over different times. It is such an approach that will be explored more fully in this thesis. This responds directly to calls within the geographical literature for more detailed case-studies of social nature, in particular sectoral, spatial and temporal

contexts. A focus on the development of the state-regulated forestry sector in the upland areas of mid-Wales will provide an interesting case-study of how social nature is configured in space and time, and will also highlight how nature becomes a part of not only productive space, but also local relations.

Taking forward these insights, it could argued that the concept of social nature and its associated emphasis on the 'cultures of nature' literature is of considerable relevance to the interpretation of the changing countryside, particularly within the context of the current re-structuring in the forestry sectors. The nature of the forestry industry and its characteristic productivist landscapes, have in the past been visibly dominated by the needs of capital, thus emphasising the interrelations between the environment and the social relations of production within particular areas. In particular, there is strong evidence to suggest that the change in values concerning the environment and the re-defining of nature-society relations is being absorbed into forestry practice and rhetoric, as reflected in the words of Binkley (1998: 133):

> 'Understanding...social constructions of nature is particularly critical for the practice of forestry because they powerfully inform the nature of our controversies' (Binkley, 1998: 133; Bishop et. al., 2002: 13)

Marsden et al. (2003) have demonstrated the value of developing more empirically-based understandings of how different compnents of the natural (such as forests) become important shaping factors in the continual process of community construction and overall governance. Their study on the construction and understanding of forest natures in the South Wales Valleys highlighted how socio-natural practices and understandings of local natures were deeply influenced by prevailing local political and economic conditions, characterised by industrial and community decline. They argue that a key concern for future research becomes the degree to which local communities living within forest spaces can assemble sufficient power to 'naturalise' their surroundings in their own ways (2003: 253). It therefore becomes clear that the key elements of the perspectives outlined above provide valuable conceptual tools that can be used to explore how the meanings and practices associated with industrial forests are understood and articulated by people living within and around such spaces. This would focus attention on how the particular characteristics of trees and forests play a crucial part in developing a 'sense of place', and subsequently influence inter-

relations within the local spaces. Thus, as well as focusing attention on the ability of local communities living within and around forest spaces to freely engage in individual and group activities, practices and interactions at the local level, it would also assist in understanding how forest landscapes shape and confound policy and how local socio-natural conditions influence the relative success of such policy.

1.3.5 Theories of Governmentality

This chapter has already highlighted how the shift towards governance has been widely interpreted as involving a transfer of power away from government and an increase in the exercise of authority by non-governmental institutions and actors. However, since the evidence suggests that very little power has in fact been devolved down from government, it can be argued that a more fruitful understanding of governance lies within an exploration of the changes that have taken place in the 'techniques' of governing (Herbert-Cheshire, 2000: 205). As Stoker (1998: 17) argues, what is distinct about governance is not so much that the end product is any different but, rather that its emergence involves the adoption of new techniques which seek to govern without recourse to the formal, coercive powers of the state'. The ability of governments to forge new roles through enhancing their capacity to manage and steer partnerships and networks is indicative of the wide variety of techniques through which state ambitions are now realised. In this context, the key question that arises is how is power exercised within these new processes of governance and more specifically *how* should government be conducted (Foucault, 1991).

This issue can be directly addressed through the concept of 'governmentality' (Foucault, 1991), defined as the specific mechanisms, techniques and procedures which political authorities deploy to realise and enact their programmes (Rose, 1996a). The origins of current debates on governmentality can be traced to the work of Michael Foucault in his studies of modern power and government in the late-1970s (Bevir, 1999). From this work a new approach emerged which sought to understand 'how the state becomes a centre or, more accurately an ensemble of centres, that can shape, guide, channel, direct and control events and persons distant from it in both time and space' (Murdoch, 1997: 308). It has also come to represent a new way in which the state thinks about and acts upon the objects (populations, territories,

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organisations) and subjects (individuals, communities) that are governed, thereby achieving territorial integration (Rose, 1996; Herbert-Cheshire, 2000). This neo-Foucauldian emphasis on governmentality contrasts with political theory's traditional emphasis on institutions and principles of rule-making, which assumes that the rationalities and techniques of government are 'self-evident' (Murdoch, 1997: 309; Mackinnon, 2000: 295).

Foucault is thus interested in government as an 'activity', which permits an understanding of 'what that activity consists of, how it should be carried on, and how those engaged in it believe it should be undertaken (Murdoch, 1997: 309). These areas of concern can be termed the 'rationality of government', a term which Foucault uses interchangeably with the 'art' of government to convey:

> ...a way or a system of thinking about the nature of the practice of government (who can govern; what governing is; what or who is governed) capable of making some form of the activity thinkable and practicable both to its practitioners and to those upon whom it was practiced.
>
> (Gordon, 1991: 3; quoted in Murdoch, 1997: 309)

Drawing upon this work, a number of theorists (Barry et al., 1996; Rose, 1996) have recently argued that the notion of governmentality is particularly appropriate to understanding the conduct of government within modern forms of government. Rose (1996), for example, proposes that western democracies have experienced a shift in the regime of governmentality from 'managed liberalism', in which limits are placed on the extent to which political authorities can legitimately exercise power over civil society, thereby creating a non-political sphere that is seen as relatively free from direct government control (Miller et al., 1991: 21), to a new rationality of 'advanced' liberalism, which seeks to govern without governing society (Rose, 1996: 41). As a broad philosophy, advance liberalism rejects the laissez-faire approach of classic liberalism, recognising a continued need for government intervention, albeit in an indirect form (Herbert-Cheshire, 2000). The exercise of government is therefore no longer a case of imposing direct state control, but involves a new way of 'thinking about and exercising power in certain societies' (Dean, 1999: 19). The state is still limited in its ability to directly intervene in civil society, but these limits are not necessarily seen to render these 'subjects' any less governable (Murdoch, 1997; Herbert-Cheshire, 2000).

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As the engagement between state and society has become ever more complex and increasingly blurred, so it has become increasingly apparent that for modern government to manage the various spheres of civil society it must have an understanding of those spheres (Murdoch, 1997). In seeking to define and problematise society and develop new techniques and mechanisms to respond to the resulting problematisations, governments are highly dependent upon the availability and use of knowledge (Ward and McNicholas, 1998; Herbert-Cheshire, 2000). As Rose and Miller (1992) state, the conduct of government is inherently linked to expertise as it allows:

> ...the calculated administration of diverse aspects of conduct through countless, often competing, local tactics of education, persuasion, inducement, management, incitement, motivation and encouragement. (1992: 175)

The knowledges of 'experts' is therefore seen to play an important role here in both constructing an understanding of the 'private worlds' of individuals, groups and communities within society, and ensuring that these realities are framed in such a way as to make them visible to policy makers (Murdoch, 1997: 310). Such a task can be typically expressed through the preparation of specific plans or strategies that specify anticipated or desired outcomes - outcomes which are generally seen to be 'consistent with the principles of underlying political rationalities' (Miller & Rose, 1990; quoted in Mackinnon, 2000: 296) The resulting *programmes of government* are subsequently implemented through a set of mechanisms, techniques and procedures, also known as *technologies of government.* These technologies work to create a 'stable' and 'mobile' reality, thus allowing government to 'act upon' the domains it seeks to govern (Rose and Miller, 1992: 185).

Through these new technologies of government, the state has in recent years turned to a new rationality of 'governing at a distance' (Rose and Miller, 1992), whereby individual actors and groups have increasingly played a more active role in their own government (Herbert-Cheshire, 2000: 204). In recent years, this has been achieved through the concept of 'community' – long held as a feature of political discourse, but now re-defined as a technique of governing (Rose, 1996: 39). This has given rise to a new rationality of 'governing through communities', which:

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> ...does not seek to govern through "society"; but through the regulated choices of individual citizens, now construed as subjects of choices and aspirations to self-actualisation and self-fulfilment.
>
> (Rose, 1996: 41)

In this sense communities (referring not only to territorial units of representation, but also to any allegiance of individuals bound together by common interests) have essentially become a *means* of government, giving rise to 'a new, non-political sphere of civil society that is supposedly *free* to govern itself', allowing individual actors to 'think beyond their individualistic desires and to take responsibility for their own futures (Herbert-Cheshire 2000: 206). Accordingly, efforts to 'govern through community' should be:

> ...promoted, celebrated, nurtured, shaped and instrumentalised so that individuals are made aware of their allegiance to a particular community and are prompted to participate in projects of mobilisation, reform or regulation on its behalf.
>
> (2000: 334)

Thus, new forms of governance which seek to develop partnerships between state agencies and a wide range of non-governmental actors; to empower user groups; or to promote self-help, may all be positioned as part of the new regime of governmentality (Woods and Goodwin, 2003).

Mackinnon (2002) focuses his attention on the emergence of new relationships between government agencies and rural communities in the Scottish Highlands. His analysis on the institutional changes currently underway is conducted through the lens of a governmentality perspective, which views the current emphasis on community involvement and empowerment as part of a broader neo-liberal strategy which links these new approaches 'to broader shifts in the nature of government' (Herbert-Cheshire, 2000; Murdoch, 1997; Ward and McNicholas, 1998). What he observes is that the routine and often mundane techniques used by state agencies to structure their day-to-day activities can be seen as 'technologies of government' which embody wider power relations and structures. From his analysis, he suggests that notions of governmentality offer some important critical insights to inform research on rural governance – in particular it provides a framework for connecting notions of community-led rural development to a broader shift in the dominant mode of state intervention, 'away from welfarism and social democracy towards a more selective and indirect emphasis on "governing through community"' (Murdoch, 1997).

1.4 Summary

This chapter has shown that the concept of 'governance' is now beginning to become the subject of growing academic interest within the rural and environmental policy fields. Within the emerging literature, it has been argued that the dramatic institutional changes, as well as the growing activity of non-state bodies in rural and environmental governance provides a tremendous opportunity to stimulate research interest. Despite this, this chapter has demonstrated that theoretical concepts such as regulation, governance, governmentality and social nature have tended to be applied within the geographical and social science literatures to investigate particular rural and environmental situations (such as, environmental problems), rather than developed in their appropriate rural or environmental contexts. Consequently, there is a marked shortage of theoretical writings in these fields which draw on rural and environmental research as empirical evidence for their discussion. This is particularly true in relation to forestry, where despite the relevance of these debates and the existence of a few survey articles, little empirical work has yet been done to evaluate the governance of forestry, particularly within the context of the new rural and environmental governance. Indeed, as Stanley et al. (2005) suggest, there is, in fact, much to be learned from understanding the various changes occurring in the forestry sector, and in particular, the developing ethos of the Forestry Commission as it seeks to adapt its structures, strategic policies, practices and culture to enable it to develop a broader and more inclusive system of forestry governance. In response to these marked weaknesses, this thesis brings together key ideas on social nature, governance and regulation to provide a critical investigation of the shifting governance of state forestry in Britain, with specific reference to how the transition from productivism to post-productivism has been experienced within two case-study forests in Wales. The next section discusses how this will be achieved.

1.5 Implications of the Regulation Approach

From reviewing the literature on rural and environmental governance it becomes clear that no one theory is able to provide an over-arching explanation for the recent changes in policy and governance. Accordingly, there exists significant capacity for two or more concepts to be employed alongside one another to interrogate different

parts of the governing and regulation process. This thesis therefore proposes that a regulationist approach to understanding how changes in governance and policy can help (or hinder) continued accumulation within the forestry sector, can be complemented by theoretical frameworks that are able to analyse both the strategies through which changes in governance and policy are framed (governmentality) and how these changes are subsequently received, interpreted and implemented at the local level (social nature). This holds the potential to provide more fruitful ground for research on the complexities and dynamics of new systems of forestry governance, thus moving from more traditional approaches which have tended to define a straightforward shift from industrial to post-industrial modes of forestry.

The suitability of this approach can be demonstrated in numerous ways. Firstly, it can be argued that the conceptual components comprising the regulation approach are all easily adapted into studies of forestry. In focusing attention on what has been termed the 'regime of accumulation' comprising the technological and organisational aspects of production, this thesis considers the recent shift from an industrial model of forestry, which remained dominant across Britain for most of the twentieth century, to a new system of 'post-industrial' forestry (Mather, 2001). In seeking to develop an understanding of the dynamics underpinning this shift, attention must therefore turn to the dominant accumulation system linking production with consumption. In the case of post-industrial forestry this would reflect the wider functions now attached to forest spaces, in particular their transformation into spaces of consumption. Of greatest significance to this work, however, would be an emphasis on the approaches now adopted by the Commission in the social regulation of the forest spaces, which would draw attention to the various structures and practices facilitating the reproduction of conditions for accumulation. The value of adopting the regulation approach in this manner to investigate 'questions of nature' has already been demonstrated recently through numerous studies that have been drawn upon in this chapter (Bakker, 1998; Bridge and McManus, 2000; Gandy, 1997; Drummond, 1996).

Bridge and McManus (2000) study on the industrial forestry sector in British Columbia is of particular interest here. It highlights the important role played by environmental and community involvement discourse in analyses of the mode of social regulation, and has particular relevance to a study of the forestry sector in

Britain. Taking forward such an approach would enable attention to be paid to the key features of the transition from productivism to post-productivism, and in particular to the way in which the Commission now frames its work and ethos around a new approach to forestry which emphasises principles such as consultation, involvement, partnership and sustainable forestry, responsible management and so on. As Stanley et al. (2005) have implied, the reading of such language in the context of the governmentality thesis displays quite clearly its relevance in interpreting the various institutions of forestry governance.

A further important question that emerges from this is the degree to which this discursive activity is shared across the Commission, both between and within each of the devolved administrations and at different governing scales, from high-level managers to field staff based at the local spatial level. Further to this, the take-up of post-productivist ideals may be differentiated not only across regulatory spaces, but also across 'communities of interest', defined in terms of the numerous agencies now working within the rural and environmental governance field, and also local communities on the ground. This points to the need to develop a deeper understanding of the institutional and spatial complexities of the emergent forestry governance. As Stanley et al. (2005) have emphasised, the key question that emerges from this is whether new systems of forestry governance are placed within regulationist accounts as horizontal or vertical. They suggest that horizontal governance is understood in the 'decentred, devolved and partnership-led sense' (2005: 689), in which power is exercised through consultation across space. On the other hand, the existence of a more complicated set of power relations between the Commission and other actors would suggest the continuation of a vertical configuration of governance, whereby the hierarchical position of forestry officials might remain dominant even in cases of wider participation.

The advantage of using the regulation approach to investigate these processes of change in the governance of forestry is therefore its ability to be applied at the regional and local scale – a crucial factor given that forestry involves processes operating at multiple scales. As well as allowing a focus on processes of institutional change operating at the national level, emphasising the growing activity of non-state

actors in the forestry governance arena, its application at the local and regional level scale also enables a consideration of the changes occurring in particular spaces, where the objects, institutions and social practices of regulation may be different from those of the national economy (McManus, 2002). This is considered crucial, particularly given that the implementation of post-industrial forestry in Britain is seen to be associated with 'a great deal of spatial complexity' (Milbourne et al., 2008: 612). Taking forward this work, this thesis will explore the role played by wider cultural factors in promoting or resisting the emergence of new systems of forestry governance at the local spatial level. This connects with broader questions of social nature, in particular how local communities and actors engage with their surrounding environments and respond to changes in both forestry governance processes and policies. The decision to focus on two particular forests in Wales will ensure that the research makes an original contribution to knowledge – that is, it is sufficiently distinct from previous work undertaken in the subject area, it aims to provide something of use to the collaborating body, and importantly it reflects my own personal interests. In devising appropriate research questions that will act as a structure for the research strategy and methodology, full consideration has been given to the need to provide a coherent and holistic focus on the multi-level nature of the forestry governance environment, whilst at the same connecting with the realities being observed on the ground.

1.6 Introducing the Research Questions

This thesis aims to provide a critical examination of the transition from productivism to post-productivism within the state forestry sector in Britain in relation to systems of forestry governance. In doing so, the research will focus on the governance of forestry at three spatial scales: Britain, recognising the historical 'national' focus of the Forestry Commission as an organisation; Wales, reflecting the devolution of forestry to the national level, and the adoption if a separate woodland strategy by the Welsh Assembly Government; and particular forests in Wales, allowing for the investigation of local systems of forestry governance. Each stage will now be discussed in turn and the research questions introduced.

1.6.1 Stage One

The first phase focuses on the shifting policy context of forestry at the national spatial scale. Given the Commission's historical status as a GB-wide organisation for most of the twentieth century, within much of the phase of this research emphasis will be placed on shifting British forest policies. However, attention will also be given to the more recent development of distinctive Welsh forestry policies, thus reflecting the Commission's current status as a cross-border public body. The two key questions that have been identified as central elements of this phase are:

> *What are the key features of the transition from productivist to post-productivist forms of state forestry in Britain?*
>
> *How has this shift towards post-productivism impacted on the governance of forestry?*

A key concern here is to develop an understanding of the changing nature of forestry policy, with particular emphasis on the growing emergence of principles associated with multi-purpose forestry, sustainable forestry, biodiversity, partnership and so on. Attention will also be given to the way in which the transition towards new systems of forestry have been interpreted by key actors and to what extent they have impacted on the governance of forestry at the national and local level.

1.6.2 Stage Two

The literature review that informed the first phase of the thesis highlighted the vast changes that have occurred within the state forestry sector and placed them firmly in a context of dynamic change within the rural policy environment. These changes were seen to be characterised by a rise in joint-working and partnership working between the state and a wider variety of institutions and actors. In seeking to provide a critical perspective on the formulation and delivery of contemporary state forestry policy from a Welsh perspective, it becomes clear that forestry cannot therefore be considered in isolation from the plethora of rural and environmental governance concerns and institutions. Accordingly, attention is turned in this phase of the research to the main characteristics of post-productivist systems of forestry governance, in terms of the number and type of agencies and actors involved in new governance networks, and more specifically, the Commission's interactions with these various interests. The key question identified as central to this phase is:

1.

What are the main characteristics of post-productivist systems of forestry governance, in terms of the number, types and relational interests of the agencies involved in governance networks?

A key concern here is to understand the relational interests of these various actors and to examine how these interests are employed within the governance process to pursue various agendas. Through investigating the relationships between the various actors engaged in the policy formulation and implementation process, it will be possible to determine the equity and effectiveness of the resulting partnership practices.

1.6.3 Stage Three

The fourth research question, and its emphasis on the local spatial level, provides the opportunity for an in-depth investigation of the governance of forestry in Wales. This is considered crucial, particularly given that an important component of the Commission's inclusionary approach to forest governance has been the involvement of local communities living within or around its forests in the development of local forest strategies. The local level research therefore seeks to investigate:

To what extent are local communities included in contemporary systems of forestry governance and, if only partially, how can these communities be more effectively involved?

In seeking to answer this question, the thesis therefore responds directly to weaknesses in recent literature on forestry in the UK, where, apart from a handful of locally-based studies (see, for example Cloke et al., 1996; Lowe et al., 1986; Milbourne et al., 2008) relatively little critical attention has been given to the interactions between national and local systems of forestry. This is particularly the case in relation to the upland areas, where a large proportion of the Commission's afforestation programme was based. The existence of significant tensions in the implementation of new systems of forestry governance in the industrial valleys of south Wales, as demonstrated by Milbourne et al. (2008), calls for further similar analyses in Wales, particularly in areas where aesthetic and cultural factors, such as the Welsh language, may play a more prominent role.

The key aim of the case studies is to provide an in-depth investigation of the shifting governance of forestry at the local level. Considerable emphasis will be placed on the context in which forestry governance and regulation occurred, both now and in the

past, and consideration of the ways in which particular conditions shaped the outcomes. In particular, the case study research will be concerned to elucidate the struggles experienced within the political economies of the two case studies as the forests were established and developed from the post-war period onwards, and to consider how, despite these struggles, the reproduction of key structures and processes enabled the regime of industrial forestry to continue for such an extended period. A further aim is to provide a detailed investigation of the various economic, social, environmental and cultural changes that have recently occurred within the case study areas, which have given rise to a series of crises within the local forestry sector. A detailed investigation of how these changing conditions were impacting on the recent attempted implementation of new systems of forestry governance was therefore considered crucial. More precisely, therefore, the objective of the case study research is to test and refine the theoretical framework at the heart of the thesis, through its application at the local spatial level.

Overall, therefore, the objective and research questions that have been used to structure the subsequent research aims to be relatively open about what will be revealed in the fieldwork, whilst reflecting the influence of the literature review and conceptualisation process.

2.
RESEARCH METHODOLOGY

2.1 Introduction

The way in which research is conducted may be conceived of in terms of the research philosophy subscribed to, the research strategy employed to pursue the research objective, and the quest for answers to a particular set of problems, namely the research questions. This chapter details the methodology used to respond to the research questions that were defined in Chapter One. In detailing this methodology, the chapter aims to demonstrate that it is both justifiable and appropriate to the subject under investigation, provides detailed answers to the research questions, whilst at the same time addresses various pragmatic and ethical considerations (Clough and Nutbrown, 2002). In order to demonstrate the way in which these factors were considered in the design and conduct of the research, the chapter comprises four sections, each describing the activities or key phases that were used to define the research process. The first section outlines the research philosophy adopted within the research. The second sets out the research strategy, detailing the research methodologies adopted. The third introduces the research instruments that were developed and utilised in pursuit of the research objectives, before moving on to the final section to discuss the methods of analysing the empirical materials that were generated.

2.2 The Research Philosophy

The research design process in qualitative research begins with philosophical assumptions that the inquirers make in deciding to undertake a qualitative study (Creswell, 2007: 15). These assumptions combine beliefs about the nature of the social world and what we know about it (ontology), the nature of knowledge and how it can be acquired (epistemology), and the methods of inquiry that will access the data a researcher is interested in (methodology) (Creswell, 2003; Creswell, 2007: 16; Hesse-Biber and Leavy, 2004: 7). It is important to emphasise that there are no definitive answers to these many philosophical questions. They simply relate to different ways of the social world and different beliefs about how, in practice, it can and should be studied (Snape and Spencer, 2003: 15).

The net that contains the researcher's epistemological, ontological and methodological premises is referred to as a 'paradigm' or a 'basic set of beliefs that guides action' (Guba, 1990: 17). At the most general level, it is possible to identify four paradigms that currently are competing, or have until recently competed, for acceptance as the paradigm of choice in informing and guiding inquiry, especially qualitative inquiry: positivism, postpositivism, critical theory and related ideological positions, and constructivism (Guba and Lincoln, 2004: 17). Lincoln and Guba (2003) assert that paradigms supersede methods in distinguishing qualitative inquiry from quantitative approaches because the paradigm from which research flows impacts theory and method selection. A paradigm might therefore determine whether a project will be qualitative by design. The importance of situating the approaches taken in the design and conduct of qualitative research for applied social policy purposes within these broader methodological debates cannot be emphasised more. The following section, therefore, indicates the main parameters within which this research was carried out, and the beliefs that underlie it.

In terms of ontological position, this thesis adheres most closely to what Hammersley (1992) describes as 'subtle realism'. It accepts that the social world does exist independently of individual subjective understanding, but recognises that this can only be accessed through respondents' interpretations, which may then be further interpreted by the researcher. Furthermore, respondents' own interpretations of the research issues are considered crucially important as these will give rise to different vantage points, and in turn, different types of understanding. Such diverse perspectives do not necessarily deny the existence of an external reality, but confirm that it is in fact diverse and multi-faceted (Snape and Spencer, 2003: 19). The diversity of perspectives generated from such an approach will thus add richness to our understanding of the various ways in which the reality of the forestry governance environment has been experienced. Thus the underlying aim of this thesis is to construct as full a picture as possible of the nature of that multi-faceted, forestry governance reality.

In epistemological terms, the thesis strives to be as objective and neutral as possible in the collection, interpretation and presentation of the qualitative data that is

gathered. However, recognising that neutrality and objectivity can never be fully attained it also acknowledges the importance of personal interpretations, both in terms of studying participants' perspectives of reality, and in terms of the researcher's understanding and portrayal of study participants' views. The thesis also ascribes to an interpretivist approach, in the sense that it places emphasis on the importance of understanding people's perspectives in the context of the conditions and circumstances of their lives. The aim, therefore, is to obtain thick descriptions and as much detailed information as possible about people's lives - from their own perspectives, and to a more limited extent, from more general observations either of the circumstances in which they work or live, or of their engagement with the research issues. The researcher's own interpretations are also considered important, provided that that they can be clearly delineated from those of the participants. It is also recognised that deeper insights can be obtained by synthesising, interlocking and comparing the accounts of a number of respondents (Lewis, 2003).

Acknowledgement is also given to the importance of accessibility of research findings to research funders, and to those whose policies and practices it is intended to form. This means that the task of interpretation will be grounded in the accounts of individual respondents, but will employ language, conceptualisations and categorisations that are not their own. Where the interpretations move beyond the explicit data provided by individual respondents, care will be taken to ensure that the building blocks used to arrive at specific interpretations are clearly visible to the reader. Finally, the thesis recognises the value of choosing the most appropriate research method(s) to address the specific research questions outlined in Chapter One. A key aim of the research is therefore to ensure a suitable 'fit' between the research methods used and the research questions posed, with less emphasis placed on ensuring any degree of philosophical coherence of the epistemological positions typically associated with different research methods. This acknowledges the value of combining both qualitative and quantitative methods in the same study, where this is viewed as necessary and helpful in answering the research questions posed (Snape and Spencer, 2003).

2.3 The Research Design Process

As Lewis (2003) observes, a good qualitative research design is one which has a clearly defined purpose, in which there is coherence between the research questions and the methods or approaches proposed, and which generates data that is valid and reliable. It is also one which is realistic, conceived with due regard both for practical constraints of time and money, and for the reality of the research context and setting. As Bechofer and Paterson (2000: 71) write: '(r)esearch design is always a matter of informed compromise'. This chapter outlines the three key stages that were undertaken in the design of the research study: the development of the research questions; decisions about research settings and subjects and how the study was built around them; and the choice of data collection methods. The key decisions that were made about the conduct of each stage of the study will be discussed in detail.

2.3.1 Defining the research questions

The methodologies adopted in this thesis were structured around and reflect the four key questions that were identified as particularly relevant to this study; firstly, the shifting policy context of forestry at a UK and all-Wales level; secondly, the emergence of new modes of governance within the state forestry sector; thirdly, the changing position of forestry within broader networks of rural governance; and fourthly, the role of local communities within these new modes of governance. The literature review that formed the first stage of the study identified these questions as key areas of concern and confirmed that they had thus far received little attention within existing academic and policy literatures on forestry. In particular, it was identified that relatively little attention had been paid to the growing tensions that were seen to exist within and between the various institutions and actors involved in the forestry governance process - a key concern within all three phases of the research. The predominantly 'national' focus of the first two phases was however supported and grounded by valuable insights from the local stage of the research, whereby institutional attitudes and tensions were expressed in terms of the inter-relations between communities and the Commission, together with representatives of a range of other rural, environmental and local government agencies involved in the governance of the case-study forests.

In devising a methodological approach to further investigate these four questions and their key components, care was taken to acknowledge and take account of their inter-woven character. In doing so a three-stage methodology was proposed, focusing on the governance of forestry at three spatial scales; working from an initial emphasis on the work of the Commission at a GB level, through to the more recent development of distinctive Welsh forestry policies under Devolution, before proceeding to the local spatial scale to enable a more detailed examination of the emerging themes at a community level. The structuring of the research in this way reflected the need for the questions to be explored through a robust and iterative approach. In this sense, the latter stages of the research would therefore benefit from a greater understanding and a wider appreciation of the key issues relating to the thesis. Thus, the approaches adopted during the local phase of the research to examine the role of communities within the emerging structures of governance would be informed by a growing understanding of and familiarity with the changing nature of forestry governance, as well as issues relating to wider rural governance processes. Accordingly, this required a level of flexibility to be built into the methodological strategy so as to take advantage of this developing awareness and understanding.

2.3.2 Selecting the research subjects

Given the predominant focus on changing structures of governance and the interest in multi-actor working relations within all three phases of the research, a key parameter of the research approach was that it should be inclusive of both internal and external perspectives. This ensured that a comprehensive picture of the governance environment was constructed. Accordingly, three sets of research participants were identified, who, by virtue of their relationship with the research questions, would provide the most relevant, comprehensive and rich information. On an internal level, these included not only FC policy actors actively involved in the transition towards new systems of forestry in Wales, where much of the research would be based, but also those based in the other devolved administrations and carrying out over-arching roles at a GB level. The importance of focusing on these different levels within the state forestry sector was justified by the Commission's continuing status as a cross-border public body. Allied to this, given that the devolved administrative arrangements for delivering sustainable forestry policies in England, Scotland and

Wales were still in their infancy at the time the research was conducted, an assumption was made that Commission personnel would continue to view themselves as part of a wider GB-level organisation, as well as representing the Commission at a country level. This was viewed as a natural tendency given the historical 'national' focus of the Commission.

In order to fully investigate the nature of multi-actor governance within the forestry sector in Wales, and in the wider rural arena, a second set of participants was drawn from the broad constituency of informed actors from external rural and environmental agencies now being drawn into new forestry policy networks. This range included large public sector agencies and organisations across the public, private and voluntary sectors, and thematically covering concerns from forestry, woodland and timber; agriculture and land; and conservation and the environment; to the rural economy and tourism. The main interest was in those organisations and groups that were members of the Commission's Woodland Strategy Advisory Panel (WSAP), which acts in an advisory role to both Assembly Ministers and the Forestry Commissioners on the implementation of the Welsh Assembly Government's Woodland Strategy: Woodlands for Wales (Welsh Assembly Government, 2002). The guidelines that were in place to guide the appointment of panel members ensured a balance between commercial, environmental and social interests, and a fair representation of interests from the private, public and voluntary sectors. In order to ensure as wide a representation as possible, additional participants were also sought from the Commission's four Policy Advice Groups (PAGs), which support WSAP and the Commission in carrying out the detailed thinking required in the early stages of forest policy formulation. To some extent, this selection process represented a form of sampling given that these organisations and groups were likely to be the most accessible and would be able to provide the information that was required.

The local phase of the research was based on in-depth case studies of the governance of two forests in Wales. Using information on the socio-economic profiles of the forest communities in Wales, together with data relating to the location and types of forests and the profiles of proximate communities in rural Wales, two forests were selected in the upland agricultural areas of Wales. The first, Dyfi Forest, is located within the Dyfi Valley to the east and south-east of Cadair Idris, a mountain which

lies at the southern end of the Snowdonia National Park in Gwynedd, north-west Wales. The second, Tywi Forest, lies within the landscapes of the south Cambrian Mountains, a remote and sparsely populated area comprising the mid-Wales uplands of Pumlumon, Elenydd and Mynydd Mallen. A map showing the location of the forests is provided at Appendix 1. Both forests were viewed as exemplars of industrial forest plantations developed by the Commission during the post-war period onwards; they are traditional Welsh-speaking, agricultural communities and so represent interesting case-studies of the shifting nature of forest governance.

In order to fulfil the local phase of the research, the third set of potential participants was composed of three main groups. The first group included internal actors drawn from within the Commission's Forest District structure – the level at which the day-to-day management of the Assembly's woodland estate is carried out. This included the Forest District Managers working within the two Districts in which the study forests were located; Llanymddyfri Forest District and Coed y Mynydd Forest District (for a map showing the locations of the districts see Appendix 2). These actors were identified as particularly important given their responsibility for taking the lead in external relationships and engagement with communities and other organisations at the district level, and also their role in maintaining a specific focus on the planning and co-ordination of FC operations for delivery at the local level. More importantly, however, were the Local Area Managers who played an important role as 'stewards' of each local forest area, and could therefore offer a valuable insight into the delivery of recreation, conservation and heritage benefits through local communities. In addition to drawing on the views of those actors directly involved in the governance of the two forests, the research was also concerned to obtain the views of retired forestry officers, drawing on their past experiences in the development and governance of the forest spaces.

The second group included representatives from a wide range of external rural, environmental and local government agencies included in the governance systems of the two forests. The aim here was to gain a view of the interactions between the Commission and these external actors; in particular to elicit their understanding of the work of the Commission within the area and also to determine the extent of their involvement in the governance of the two forest spaces. Once again, the range of

actors included representatives of large public sector agencies and organisations across the public, private and voluntary sectors. At the Local Authority level, this included officers working within the countryside, planning, community and highways divisions. Following this, a third group of participants was required to complete the community-based element of the research, which would focus on selected communities within the two forest areas, and the individuals living within and around the forest spaces. The rationale for selecting the communities and the local research participants is discussed in detail in section 2.4.3.

2.3.3 Choosing data collection methods

Given the level of detail that was demanded from the research questions and the need to obtain an in-depth and interpreted understanding of the social world of the research participants (taking into account their social and material circumstances, their experiences, perspectives and histories), a qualitative methodology, drawing on a wide range of techniques of data gathering, such as observational methods, in-depth interviewing, and the analysis of documentary evidence, was considered the most appropriate.

In supporting this multi-method approach, Denzin and Lincoln (1994) observe that no single research methodology is intrinsically better than any other methodology and call for a combination of research methods in order to improve the quality of research. Similarly, others have argued that given the richness and complexity of the real world, a methodology best suited to the *problem* under consideration, as well as the objectives of the researcher, should be chosen (Atkinson et al., 2003; Silverman, 2004). Accordingly, the research purposefully avoided a dependence on a single research method, on the basis that all methods (encompassing elements of positivist, interpretivist and realist approaches) are valuable if used appropriately. An over-riding concern of this study was that the research should be both relevant to the broad research questions set out in Chapter One, and rigorous in its implementation. A mixed-method approach was therefore considered suitable to understanding how various actors working in the forestry sector, and within the wider rural and environmental policy fields, have responded to recent changes in systems of forestry

governance, and in particular how these have been interpreted by local communities living within and around particular forest spaces.

There were a number of advantages to be realised from using a combination of different methodologies. Firstly, it could be argued that forestry research is based on both practical and theoretical knowledge, and with the application of findings in practice. Research that combines a number of different methodologies increases the potential of the investigation to address both of these ends (Bryman, 2008). For example, various approaches to qualitative research are often concerned with process as well as with outcomes; descriptive accounts thus provide practitioners with a means of drawing parallels and contrasts between the phenomena being investigated and their own practice. The use of various types of qualitative research methods thus offered the potential to enhance the value of the investigation as each can extend the usefulness of the eventual research output to both practitioners working in the field of forestry and in the delivery of wider rural and environmental policy, and to social science researchers. This leads on to a second advantage, whereby each method can build upon the strengths of the other, thus drawing on the advantages of what Yin (2003) terms the 'triangulation' of multiple sources of data. The qualitative research methods adopted in this study are now briefly outlined in the next section, before moving on to describe how they were utilised within the three stages of the research.

2.4 Proceeding with the Methodological Approach

2.4.1 Stage One: GB-level research

The first phase of the research was concerned with developing an understanding of the shifting policy context of forestry at the national spatial scale. To access the information that was most likely to shed light on this, it was decided that a two-tier approach would be adopted, drawing on two qualitative methods. It was decided that the use of documentary analysis methods alongside in-depth interviews provided the most effective means of displaying the organisational and policy contexts in which the research was located, and how the research participants related to these. The initial task of developing an in-depth understanding of the historical evolution of forestry policy, from the establishment of the Commission in 1919 to the present day, relied heavily on existing data contained in public documents. As a first step, a

detailed content analysis of policy documents relating to productivist and post-productivist forms of forestry was undertaken, making use of the archives in the Commission's GB headquarters in Edinburgh, and likewise in the FC Wales headquarters in Aberystwyth,. The importance of achieving a detailed and thorough understanding of the Commission's shifting policies required an extended fieldwork period at the Commission's Library at Edinburgh and Aberystwyth, where more detailed and wide-ranging archive collections were available. This was complemented by the use of additional archival data sources from the Welsh Assembly, the British Library and the Glamorgan Records Office.

The archival studies carried out at these locations generated a significant amount of valuable data that was subsequently used to inform the key stages of the research. In seeking to develop an understanding of the context for forestry in Britain, a detailed historical analysis of the Commission and its associated policies and structures was undertaken, drawing on a number of key texts (for example, Mather, 2001; Mackay, 1995; Ryle, 1969; Tsouvalis, 2000; Winter, 1996). This was complemented by an analysis of more specific secondary data sources covering the development of the forestry industry in Britain, and more specifically in Wales (Coppock, 1960; Holmes, 1975; Linnard, 2001; Mason, 2007; Oosthoek, 2000; Pringle, 1994, Richards, 2003; Ryle, 1958; Stewart, 1985; Zehetmayr, 1981). A range of primary sources, such as policy documents and legislation, was also used to provide background information on the forestry industry. Given the status of the Commission as a government department, most aspects of the Commission's development have been well documented through Annual Reports dating back to its establishment in 1919. A large collection of these reports was readily available at the Bute Library at Cardiff University and at the National Library for Wales, and since 2001 all Annual Reports (published on both a GB and individual country-level) have been fully accessible on the Commission's website.

Further to this, a large number of official reports commissioned at various stages in the Commission's history were also drawn upon in order to develop an understanding of the philosophy underpinning key policy changes since the establishment of the Commission (see Forestry Commissioners, 1943a; 1943b; Forestry Commission, 1991; HM Treasury, 1972; Zuckerman, 1957). Equivalent data on the regulation of

the forestry industry, particularly in the decades pre-Devolution, were not as easily accessible. However, with the increasing trend towards self-regulation within the forestry sector across Britain, together with global and European governmental agreements on environmental sustainability and community involvement, this situation was seen to have changed a great deal over the last decade. Accordingly, key published documents such as the UK Forestry Standard (Forestry Commission, 2004) and the UK Woodland Assurance Standard (UKWAS, 2006) proved invaluable in contextualising recent shifts in priorities and objectives. Finally, the availability of a wide range of published qualitative data and material from the Commission's research agency, Forest Research, was also of significant benefit during the course of the research, particularly given the recent increase in social science research relating to forestry.

From this wide-ranging literature, the original intention was to provide a detailed stand-alone chapter outlining the policy and institutional context for forestry, from its establishment in the early twentieth century to the present day. However, given word limitations and an acknowledgment that greater priority needed to be afforded to the presentation and discussion of the main empirical material generated from the interviews, it was decided that only key elements of historical and current importance would be drawn upon and weaved into the thesis. Attention was also turned in this phase of the research to the recent development of distinctive Welsh forestry policies. This necessitated an in-depth understanding of the Commission's approach to forestry governance in Wales, focusing specifically on the various procedures that were now in place to engage with a wider range of external rural and environmental stakeholders.

The large amount of data collected benefited greatly from the adoption of a discourse method of analysis, which allowed particular attention to be paid to institutional discourses both within and between institutions. In carrying out such an analysis particular attention was paid to shifting modes of language, which was interpreted as both an acknowledgment of shifting modes of governance. The theoretical framework adopted for this study demanded a particular attention to shifting modes of language within the state forestry sector, thus a discourse analysis of the archival data was seen to correspond with this requirement. A clear example of the value of adopting such an

approach was demonstrated through its ability to highlight a shift from productivist to post-productivist language. This allowed a detailed analysis of key shifts in the Commission's use of specific terms, such as the growing incidence of words such as 'social' within policy documents and its use by the Commission to reflect changing policy ambitions. This approach also proved effective in providing evidence of shifting modes of forestry practice, such as the recent requirement for greater public consultation, and the way in which such a requirement was interpreted by the Commission at various stages in its recent development. It also proved of wider value to the research, not only providing detail on the various changes emerging within the forestry sector, but also allowing an identification of the key actors and institutions that were now being drawn into new forestry policy networks. This task thus proved useful in informing the basis of the interviews that were conducted in the second stage of the research.

Despite the large amount of data that was collected through this detailed archival search, it was recognised that these alone would not provide a sufficiently full picture of the research topic. It also relied on a personal interpretation of what was read. Accordingly, the value of gaining an insight into research participants' own perspective on, and interpretation of the changing nature of forestry policy – and, most crucially, an understanding of the meaning they attached to its different elements, were recognised. This pointed to the use of in-depth interviews, which would provide the research subjects with an opportunity to convey their own meanings and interpretations through the explanations they provided.

The interviews that were conducted in the first stage of the research enabled further exploration of the key issues identified in the initial documentary analysis, but also allowed the identification of areas of wider interest to the latter phases of the research, as well as informing key decisions concerning the selection of the local case studies. The first task was to decide on an appropriate sample of FC personnel, which would avoid overlap and ensure a wide coverage of role and seniority. This was achieved by focusing on professional, as opposed to administrative staff, given that these individuals were more directly involved in policy formulation and delivery. Purposive sampling was carried out on the basis of a personal awareness of job titles and roles, supported with advice from the collaborating body supervisor.

As envisaged in the design of this method, most interviews took the form of a semi-structured discussion about their interpretation of the changing nature of forestry governance. There was a concern to consider the role of the Commission as a whole, and its constituent parts and to draw out the most significant policy influences and priorities within each of the devolved administrations, with a particular focus on Wales. The interview schedule is attached at Appendix 3. However, in carrying out the interviews, care was taken to ensure that they were not overly structured. Accordingly, a certain amount of flexibility was built into each interview, as appropriate, to enable the focus of the resulting discussions to range beyond the limitations of closed questions, commonly used in written questionnaires. This was seen to take into account the fact that some interviewees would wish to discuss subjects that were not envisaged prior to each interview. This flexible approach proved invaluable to the study as it thus provided the interviewees with the opportunity to perhaps raise themes that were not previously identified as significant to the research. One example of such a scenario related to the selection of the case study forests, whereby particular circumstances or issues raised by the interviewees proved crucial in influencing or discouraging the selection of particular forests as a case-study area. In total, nineteen FC personnel were interviewed; twelve from FC Wales, three from England, one from Scotland and two from the Commission's GB headquarters in Edinburgh.

The use of semi-structured interviews within the research required particular attention to be paid to the ethical concerns of the interviewee. Accordingly, those interviewed were provided with a pseudonym and were offered a full copy of the interview transcripts if they provided consent for the interview to be recorded. The recording of the interviews was made easier by the fact that a dedicated base was provided at each location for the interviews. This meant that it was quiet enough to record effectively, and it was also sufficiently detached to enable interviewees to feel free to discuss sensitive issues. However, assurances were given that any material would be fully anonymised, so as to gain as honest a picture as possible. Once again, time was built into the methodological design to allow for follow-up discussions to clarify or elaborate further on specific issues or new themes that were raised during the course of other interviews, or at later stages of the fieldwork phase.

2.4.2 Stage Two: National-level research

The literature review that informed the first phase of the thesis highlighted the vast changes that have occurred within the state forestry sector and placed them firmly in a context of dynamic change within the rural policy environment. These changes were seen to be characterised by a rise in joint-working and partnership working between the state and a wider variety of institutions and actors. In seeking to provide a critical perspective on the formulation and delivery of contemporary state forestry policy from a Welsh perspective, it became clear that forestry could not therefore be considered in isolation from the plethora of rural and environmental governance concerns and institutions. Accordingly, attention was turned in this phase of the research to the main characteristics of post-productivist systems of forestry governance, in terms of the number and type of agencies and actors involved in new governance networks, and more specifically, the Commission's interactions with these various interests.

The initial archival search and semi-structured interviews carried out with Commission personnel in the first phase of the research enabled the identification of key actors from external rural and environmental agencies, and also businesses and NGOs, which were now being drawn into new forestry policy networks. Where a number of actors were identified as representing a single organisation, advice was sought from the FC policy actors on who would be the most senior, or the most informed choice of respondent. At the same time, these actors were also able to provide background information on the likely perspectives of the individual respondents, whilst also flagging up any additional names that should be included.

In order to obtain the necessary level of information required from these actors and to gain an in-depth understanding of unique and common issues and concerns relating to their involvement in new forestry governance networks, it was decided that a semi-structured format of interviewing once again represented the most appropriate method. The key aim of the research was to interview individuals both within and outside the forestry sector itself, and to explore each interviewee's own and professional interpretations of events, relationships and conditions. The need to

extend the interview process beyond actors directly placed within the forestry sector was seen as important because of the potential significance of the broader context in which forestry sector now operates. Furthermore, it was recognised that the general antipathy towards commercial forestry which exists in Britain as a result of the Commission's activities during the course of the twentieth century may well have had an influence on present day relations between the Commission and what were now termed its 'stakeholders', and their wider perceptions of the forestry sector. Accordingly, the questioning initially focused on specific contact with the Commission. It then moved on to a consideration of their interpretation of the changing context of forestry, their expectations in relation to increased consultation and/or partnership working, and whether or not this was being met. Interviewees were also asked to be reflexive about any problems that had arisen in its working relationship with the Commission.

In order to ensure a good response from potential respondents, the interviews were kept to a duration of 45 minutes, with the option of meeting with the respondent or carrying out a telephone interview, whichever was more convenient. Whilst most of the interviews were conducted face-to-face, due to constraints presented by the time-tabling of interviews, a small proportion of the interviews were carried out over the telephone. This was mainly the case with respondents located the furthest distance from Cardiff. In negotiating access, it regularly proved an advantage to be able to cite the support of key policy actors from within the Commission. Prior to each interview, respondents were sent a summary of the focus and objectives of the research and a brief outline of the key themes and issues that would be discussed in the research (see Appendix 4 for a copy of the interview schedule). Included with this information was a request for details of any formal and informal responses to consultation documents published by the Commission, together with any other information which they considered relevant to the issues and themes to be discussed in the interview. In doing this, the aim was to access additional information and data which were not publicly available, thus ensuring a wider coverage of information. In total eighteen interviews were conducted with policy actors drawn from the spread of public, private and voluntary sectors in Wales. The agencies, organisations and bodies that were included in the research are listed in Table 2.1 below, and a brief outline of their roles and responsibilities is provided at Appendix 5.

Table 2.1 External Rural and Environmental Organisations

Organisation type	Name
FORESTRY, WOODLAND & TIMBER	Coed Cymru
	Tir Coed
	Coed Cadw (Woodland Trust)
	Forestry and Timber Association (FTA)
	UPM-Tilhil
AGRICULTURE & LAND	National Farmers Union (NFU)
	Farmers' Union of Wales (FUW)
	Country Land and Business Association (CLA)
CONSERVATION & ENVIRONMENT	Countryside Council for Wales (CCW)
	Environment Agency Wales
	Royal Society for the Protection of Birds (RSPB)
	National Trust
	CADW: Welsh Historic Monuments
RURAL ECONOMY	Welsh Development Agency (WDA)
TOURISM	Wales Tourist Board (WTB)
GOVERNMENT	Agriculture & Rural Affairs Department (ARAD)

In a small number of cases, the original actors identified were unable to participate due to work commitments, thus an interview was arranged with another nominated actor from the relevant organisation. The themes and issues raised in the interviews was accompanied by documentary analysis of the material collected both prior to and during the interview process, which soon flagged up the various power relations that were at work.

2.4.3 Stage Three: Local-level research

As a first step towards understanding the key issues relating to the establishment of the two forests and their associated systems of governance, a detailed content analysis of policy documents, historical records, forest acquisition files and archives (held in the Forestry Commission library in Aberystwyth) was undertaken. A detailed search of newspaper archives was also undertaken at the National Library in Aberystwyth, with the aim of obtaining articles documenting the establishment of the forests,

together with any issues relating to their subsequent management. Valuable archive material, of direct relevance to the selected forests, was also made available by the Commission. This material drew on a 'Forests in the Community' Oral History Project which was established by Forest Enteprise Wales in 2002 to document the vast changes that occurred in the rural landscapes of Wales during the twentieth century. The project was run by community co-ordinators in each of the Commission's Forest Districts and aimed to record the memories of local residents who had witnessed the changing landscapes, and link these to sites in the forest and create an archive to be stored at the National Library and at various local venues. The archive material consisted of over 150 oral history recordings, old photographs, written accounts and other materials relating to the establishment of the Commission's forests in Wales. It proved invaluable in providing an insight into the development of the two case-study forests as over eighty of the interviews had been conducted within the local communities of the Tywi and Dyfi Valley. A newsletter providing further information on the Project is attached at Appendix 6.

The use of content analysis as a method of interpreting this valuable data was considered suitable as it provided a means of systematising the wealth of historical information that was available, but had not yet been organised to suit the reserarch purpose. It also provided a means of describing changes in forestry policy over time, and an examination of professional and more general publications would offer an insight into different attitudes and values. The use of newspaper archives also enabled an investigation of differing attitudes towards both case study forests over time. This data was subsequently accompanied by in-depth interviews with key policy actors and forestry project personnel operating within the forest areas, to enable a more detailed investigation of the shifting nature of forest governance at the local spatial level. The first phase of interviews enabled the identification of agencies and organisations working alongside the Commission in the delivery of forestry policy at the forest level. This yielded a wide range of external organisations; a further eighteen interviews were undertaken as a result (see Table 2.2).

Table 2.2: External Rural and Environmental Organisations and Agencies

Organisation type	Name
FORESTRY, WOODLAND & TIMBER	Coed Cymru
	Tir Coed
	Coed Cadw (Woodland Trust)
	UPM-Tilhil
AGRICULTURE & LAND	National Farmers Union (NFU)
	Farming Union of Wales (FUW)
CONSERVATION & ENVIRONMENT	Countryside Council for Wales (CCW)
	Environment Agency Wales
	Royal Society for the Protection of Birds (RSPB)
	National Trust
	CADW: Welsh Historic Monuments
RURAL ECONOMY	Welsh Development Agency (WDA)
TOURISM	Wales Tourist Board (WTB)
LOCAL GOVERNMENT	Biodiversity Officer (Carmarthenshire County Council)
	Rights of Way Officer (Carmarthenshire County Council)
	Biodiversity Officer (Gwynedd County Council)
	Rights of Way Officer (Gwynedd County Council)
	Biodiversity Officer (Snowdonia National Park Authority)

In order to gain the level of detail required from the research objectives, these interviews were once again based around a semi-structured model. All interviews were once again recorded and fully transcribed, and full assurances were provided as regards anonymity.

The community-based research that followed was based in four communities within each forest. These communities were selected to reflect the following criteria: the potential for forest related issues, through their proximity to the forest spaces; location in a section of the forest with a strong historical attachment to forest-related activities; a high incidence of social disadvantage according to Census indicators; and a degree of geographical separation to ensure coverage of the forest area. In determining which communities would be used, advice was sought from local

forestry staff and detailed information, maps and documentation concerning each forest was requested. Working with this information, alongside Census data, it was possible to compile a short-list of potential study communities. Before making a final selection, it was necessary to undertake a preliminary field visit of the forest in order to gain a view of, and initial impressions of the individual communities, as well as allowing an opportunity to speak with residents or people working in the area. Following more detailed investigations, the communities were selected as follows:

Dyfi Forest - Corris Uchaf, Corris Isaf, Aberllefenni, Ceinws / Esgairgeiliog.
Tywi Forest – Tregaron, Llanddewi-Brefi, Rhandirmwyn and Pontrhydfendigaid.

A detailed description of each community is provided in Chapter Four. The maps provided at Appendix 7 and 8 place the communities in their appropriate spatial contexts. This community-based research comprised a series of in-depth interviews with individuals living within and around the forest spaces. In addition, the nature of the fieldwork required for the research provided opportunities for observing behaviour and interactions occurring in the natural setting of the local communities and its surrounding environment, details of which were subsequently recorded and analysed. The integration of forest-wide, community and observation research in this manner was designed to provide a solid evidence base for investigation.

To ensure continuity and familiarity with the community, the fieldwork was conducted on a forest-by-forest basis, with the aim of completing the research in one forest before moving on to the other. The sequence and timing of the fieldwork were as follows:

Dyfi Forest: April 2006 to June 2006
Tywi Forest: July 2006 to September 2006

A total of forty-five in-depth interviews were conducted with residents living in each of the case study communities (twenty-three in the Dyfi Forest and twenty-two in the Tywi Forest), of which over half were ex-forestry employees. The interviewees were selected from a list of residents who had participated in the Commission's Forests in the Community Project. The archive material consisted of digitised interviews, together with a list of participants and the key themes raised in each individual

interview. From this it was possible to identify key points of interest to the research, which pointed to a significant number of potential interviewees at the local level. Given that the purpose of the case-studies was to look in detail at the historical development of the forests, it was not deemed necessary to ensure a representative sample of interviewees from the residents. However, in an effort to ensure that they covered a range of different groups in the community, selections were made against the information provided in the archive material, based on age, gender, employment status and length of residence.

The names of the respondents who had participated in the project were made available in the archive, thus permission was sought from the Commission to contact the residents to request further information for the research and to request an interview. This was agreed on the promise of maintaining confidentiality. It was subsequently possible to obtain individual addresses from the Electoral Roll. Forty letters were sent to selected participants explaining their previous involvement in the oral history project and requesting information and participation in the research. The selected participants included a mix of female and male residents of wide age ranges, ex-forestry and quarry workers and local farmers. It was emphasised in the letter that the research was separate from the previous Oral History project, but would draw on a number of similar themes. Follow-up telephone calls were subsequently made to determine willingness to participate, and interviews were arranged accordingly, in all cases at the home of the interviewee. This generated a good response, with all but two of the residents agreeing to participate, thus necessitating further selection from a list of 'reserve' interviewees. An additional five interviewees were recruited through snowball sampling, on the recommendation of selected participants. The ability to converse with the potential interviewees through the Welsh language proved advantageous.

The interviews were primarily designed to enable the interviewee to express personal opinions and perceptions concerning their local environments, community and personal interactions with the forests and any recollections of the development of the forest, where applicable (see Appendix 9 for a copy of the interview schedule). All of the interviews were recorded and transcribed. The interviews were accompanied by a research diary, which enabled a detailed account of significant observations,

experiences and interactions within the case study areas and providing an opportunity to reflect on the research process.

2.5 Reflecting on the methodological approach

Given the level of detail that was required from the research, interviews represented the main method of data collection. This approach worked well in bringing together respondents' interpretations of the changing nature of forestry governance, which revealed that both internal and external respondents, at both a national and local level, were talking about the same issues. Whilst some respondents' tended to focus on particular aspects relating to their field of work, the majority viewed the Commission's work from a broad perspective, thus reflecting the Commission's wide-ranging role. There appeared to be some disagreement, however, about which elements of the Commission's work should be afforded the greatest priority, and thus the greatest financial support. It was also the case that some interviews proved better than others in terms of the detail obtained, and its relevance. As more experience was gained during the course of the research, it became easier to employ various techniques to encourage the sharing of information, and to ensure that more sensitive topics were brought out. However, in carrying out the internal and external interviews, it was also accepted that different people would have different levels of awareness of the issues under investigation, thus the interviews were adjusted accordingly.

In addition, the research questions reflected a commitment to obtaining a wide range of different views, and to presenting a fair and balanced view of the Commission's work. In response to this, the line of questioning in all of the interviews encouraged the participant to be reflexive and to consider both sides of the argument. In turn, it was identified that FC personnel working within each of the devolved administrations did not necessarily share the same views and priorities, and many showed an ability to view the Commission critically from other perspectives. This was also true for external respondents working on both a national and local level, which perhaps reflected the variations in contact with Commission actors which led to different experiences and views. Beyond these points, the main concern was to ensure that sufficient information was obtained to respond to the research questions.

2.6 An Integrated Approach to Data Analysis

By definition, the multi-nodal nature of the methodology led to the generation of a substantial amount of data. Furthermore, the type of data collected was also very dependent on the individual method employed. The intention was to use the documentary evidence and vast archival material gathered, together with the observations in the field diary primarily as support for analysing the data generated from the interviews. As was emphasised earlier in the chapter, the process of analysing these various types of data was undertaken alongside the data collection in order to maximise the effectiveness of both the national stage of the research and the case studies. In dealing with the vast amount of data generated through the research interviews, it was decided that each interview would be transcribed in full in order to ensure the quality of the analysis produced. This was essentially reliant on the depth secured through the practice of full transcription, not least due to the fact that the transcripts would be 'subjected to numerous readings until the themes emerged' (Devine, 1995: 144).

In honouring the agreement of anonymity, all empirical data derived from respondents is subsequently presented in a manner which describes as accurately as possible the nature of the organisation and each respondents' position, without revealing their individual identity. In dealing with the data gathered from policy actors working within the Forestry Commission, and in other cases involving a number of actors from the same organisation, the name (for example, Forestry Commission [FC]) is referenced and followed by a number. In discussing the data gathered as part of the case studies, it was necessary to identify the individual organisation (such as the Environment Agency, the Welsh Development Agency and so on) when discussing ongoing partnerships with the Commission, in order not to detract from the overall significance of the findings. In such instances, it was agreed that the identity of the respondent would be obscured by omitting their specific role and rank within the organisation itself.

In order to provide an accurate and transparent picture of the vast amount of qualitative data collected as part of the fieldwork, it was decided that it would be

necessary to make use of a computer-assisted method of data analysis, rather than relying on traditional manual techniques. This decision was initially made on the basis of the volume of data generated during the course of the research. Possible options were subsequently explored by attending a day course outlining the different software packages available, before it was decided to use NVivo. This decision was made based on colleagues' recommendations and from finding it appropriately user-friendly. The version available within the University (version 2.0) was also relatively new at the time and had therefore addressed some of the earlier problems of other packages, particularly the need in programs like NUD.IST to determine minimum text units in advance of the analysis (Welsh, 2002). Attendance at a two-day intensive training course confirmed that NVivo was a relatively simple package to use. It was possible to import documents directly from a word processing package and code the documents easily on screen. The method of analysis of the data was based on that described by Coffey and Atkinson (1996), which included the generation of codes derived from the data, frequent revisions of the coding, the grouping of codes into what was termed 'trees' to form categories, and finally the development of themes from the data. 'Coding stripes' could subsequently be made visible in the margins of each document, making it possible to see, at a glance, which codes had been used where. In addition, it was possible to write memos about particular documents and link these directly to other sources of data used within the research.

Much has been written about the use of computers in qualitative data analysis, with some expressing concern that the software may 'guide' researchers in a particular direction (Seidel, 1991). Others have commented that it could serve to distance the researcher from the data, encourage quantitative analysis of qualitative data, and create homogeneity in methods across the social sciences (Barry, 1998; Hinchcliffe et al., 1997). However, proponents of computer-assisted software packages argue that it can assist the researcher in looking at the data creatively from a range of perspectives that would otherwise have not been explored, whilst also providing a quick and simple way of counting 'who said what and when', which in turn provides a reliable and detailed picture of the data (Kelle, 1995; Richards and Richards, 1991; 1994). Furthermore, for studies such as this utilising mixed-methods research, which demands the effective management of large and diverse data sets, computer technology provides the potential to provide creative tools for adding depth and detail

(Kelle, 1995). Qualitative data analysis software is often thought to be based on grounded theory approaches to data analysis, whereby the theory will 'emerge' from the data (Welsh, 2002: 28). The 'memoing' tools provided in NVivo software were thus useful in facilitating the development of wider ideas from the data. In taking this approach, however, care was taken to avoid approaching the data too narrowly from the perspective of existing theoretical frameworks, rather allowing the data to 'speak for themselves'. Accordingly, it was often necessary to return to more manual methods in order to make sense of the various linkages between and within the data.

Using software in data analysis has been claimed by some commentators to add rigour to qualitative research (Richards and Richards, 1991). On way in which this was ensured in the analysis process was by using the search facility in NVivo, one of its main tools for facilitating interrogation of the data. This was certainly true when the research data was searched in terms of attributes (an attribute is a particular characteristic of the data, for example, age or political party of the interviewee. It is possible to create attributes for any documents in NVivo). As an example of its use, using the national-level data it was possible to determine frequent usage of particular 'post-productivist' phrases among both internal and external respondents, whilst in terms of the case study material it enabled the collation of responses that were particularly negative about various aspects of the Commission's approach to forest management and regulation at the local level. Since the data collected together following a search was automatically stored as another node, it was possible to further interrogate this material through the search facility. Clearly, carrying out such searches electronically yielded more reliable results than doing it manually, simply because human error was ruled out. This kind of interrogation of the data was an important step in gaining an overall impression of the data and drew attention to particular issues or themes which may not have been unduly emphasised by particularly memorable accounts. However, one of the problems of relying too heavily on this search facility was the temptation to re-code each additional data sub-set that was created, leading to a proliferation of research codes. Accordingly, the decision to stop coding and sit back and think about the possible thematic connections across the data was made at different points in the analysis process.

The main benefit gained from using NVivo within the data analysis stage of the research was its relative strength as an organising tool - a point emphasised by Smith and Hesse-Biber (1996). The software was therefore fully exploited on this basis in order to ease the administrative task of organising the data. However, the next step of gaining an understanding of the data by 'pulling different themes together' (Punch, 1998: 205) to form a whole, involved a more careful technique of coding. In order to become fully immersed in the data it was therefore decided to proceed with the analysis by more traditional manual methods. Accordingly, a final 'node coding report' comprising all pieces of text coded under each theme was produced using the NVivo software and printed out. These were then placed alongside relevant memos and notes, together with the policy documents and archival materials enabling clear linkages to be made between key issues and themes of relevance to the research questions. Maintaining this broad perspective also proved beneficial when contextualising the discussion of the findings. Further to this, the breadth of data analysis techniques applied enabled a high degree of validity attached to the individual conclusions reached. Whilst it should be acknowledged at this stage that weaknesses can be found in all forms of qualitative research, by adopting a multi-method approach to the research it was possible for these limitations to be reduced (Denzin and Lincoln, 1994).

2.7 Research Approach: Conclusion

This chapter has set out the design behind the research that underpins this thesis. It has shown that the research was designed in such a way as to provide answers to the questions being asked, that appropriate methods were adopted to answer each of the questions, and that the resulting data was analysed and interpreted in credible ways. The structure provides an intensive, multi-level case-study design complemented by the use of a wide-range of secondary data. The aim was to achieve a detailed and comprehensive picture of the changing governance of state forestry in Britain

The approaches chosen as most suitable for this research included a wide range of methodological components, drawn from a broad variety of social research methods. Although the adoption of such a pluralistic approach might be criticized as *bricolage* (Lévi-Strauss, 1966; Denzin and Lincoln, 2003: 5), other writers strongly support the

use of mixed methods (see Bryman, 2008; Creswell, 2003; Creswell and Clark, 2006), and argue that methodological pluralism is a preferable approach, due to its encouragement of multiple perspectives. Mindful of such a view, a methodological framework was devised that would address the central research issue as closely as possible. In order to obtain the level of detail that was required, a focus on qualitative interviewing as a method was judged to be an effective option. Through such interviewing, a wide range of internal and external perspectives were accessed, and the research questions were interrogated on a number of spatial levels. This method was supplemented by an in-depth analysis of a wide range of secondary data sources, which included policy documents, annual reports, forest acquisition files, newspaper archives and an oral history archive. The wealth of material gathered through these processes was coded to derive common themes around which to construct the pictured required. Different categories were designed to reflect the various ways of answering the research questions. The chapters that follow present the results of this process.

3.
NATIONAL GOVERNANCE AND REGULATION

A GB and Wales perspective on the transition towards new systems of forestry

3.1 Introduction

This chapter provides a detailed investigation of the governance and regulation of forestry at the national level. It begins with a brief discussion of the changing nature of forestry policy, emphasising the growing emergence of principles associated with multi-purpose forestry, sustainable forestry and biodiversity – all concepts which have become firmly entrenched in recent forestry policy documents, codes of practice and legislation. The following section builds on this discussion by focusing on how these new conceptualisations have been translated into perceptions and into principles of practice by policy actors working within the Commission. Material from a set of interviews with senior FC personnel across the three country administrations will be drawn upon in the first section to show how the changing nature and role of forestry have been interpreted within the Commission. The remainder of the chapter then shifts to the national level to examine how the perceived transition towards new models of forestry has been interpreted by forestry actors in Wales, and to investigate to what extent these have impacted on the governance of forestry at the national level. Further insights into the nature and effectiveness of forestry governance in Wales will then be provided from the perspective of informed actors from external rural and environmental agencies which have now been drawn into new policy networks.

3.2 Setting the Scene

As has already been indicated, the sheer scale of the Commission's activities and achievements during the course of the twentieth century, together with its standing as an impressive and articulate lobbying force for maintaining the status quo on state forestry policy secured its position as an effective and highly powerful voice in rural and land-use policy. Armed with wide-ranging powers to acquire large tracts of land for the purpose of afforestation, the Commission fulfilled its brief to develop and manage forests in keeping with the principles of maximum sustained yield and commercial exploitation, and was staffed by specially-trained officials versed in the

complexities of scientific forestry (Bryant, 1997; Wilson and Bryant, 1997). As the largest single landowner in the UK by the turn of the twentieth century (Cahill, 2001), the Commission gained immense political power, which was clearly reflected in its ability to influence and control people, land and socio-natural relations by delimiting and asserting control over vast rural and upland agricultural areas (Inglis and Guy, 1997).

The exercise of such wide-ranging powers was, however, accompanied by little accountability to the electorate or to elected representatives at local or national levels – an issue which caused considerable controversy at various intervals in the Commission's existence. Indeed, as far as political control was concerned, for a large part of the twentieth century, most of the Commission's central functions were co-ordinated from its regional office in Edinburgh, which enabled it to maintain a degree of separation from lobbying activity and what it considered as 'unnecessary' political interference from Government in London. The crucial decision to transfer all of the Commission's HQ functions to Edinburgh in the early 1970s was therefore highly indicative of the Commission's desire to remain distant from Government control, whilst bringing it closer to the more powerful landowning and commercial forestry interests in Scotland. The main objectives of this exercise were cited as a drive to improve operational efficiency, whilst also bringing the Commission's central functions more closely in touch with the parts of the Commission's estate in Scotland where future developments were envisaged to lie (Pringle, 1994).

The Commission was thus afforded significant autonomy to proceed with its timber-production role, with the exception of a handful of critical reviews and funding cut-backs during the latter half of the century. However, as awareness of environmental issues gained momentum, the Commission found itself increasingly subject to scrutiny from environmental groups who were highly critical of the environmental impact of coniferous afforestation (RSPB, 1986; Tompkins, 1989; Miller, 1999; Mather, 2001; Winter, 1996). With environmental issues thus occupying an elevated position on the political agenda, the Commission was forced to modify its working practices in order to comply with tougher environmental guidelines and regulations. In doing so it forged closer alliances with a range of environmental NGOs and placed an increased emphasis on the value of forestry in environmental and recreation terms.

The introduction of policy initiatives such as the 1985 Broadleaved Woodland Grant Scheme positioned timber production not as the primary objective in planting grants, but as one among many other objectives demonstrating environmental concerns (Kitchen et al., 2002; Mather, 2001). Furthermore, afforestation Tax Relief was abolished in 1988 with a consequent decline in planting rates.

The early to mid-1990s thus saw a marked change in Government forestry policy involving a clear shift away from the primacy of timber production, with greater attention focused on addressing nature conservation concerns and capturing the wider benefits associated with multi-purpose forestry. This occurred at a time when domestic forestry policy became increasingly subjected to supra-national influences. As a result, the number and kind of policies targeted at the forestry sector have increased significantly during the last two decades, driven by various reforms of the CAP since the early 1990s and following the United Nations' Conference on Environment and Development (the Earth Summit) in Rio de Janeiro in 1992, which formally accepted the concept of sustainable development put forward by the Brundtland Commission in the late 1980s. The degree of supra-national influence over domestic forestry policy was further enhanced following a series of pan-European ministerial conferences, notably at Helsinki in 1993 and Lisbon in 1998, as part of an ongoing political process to initiate proposals and actions for the protection and sustainable management of forests in Europe, which resulted in British commitments to several important pan-European agreements. As a direct result, the Commission announced the publication of Sustainable Forestry: the UK Programme (1994), which committed the Government to a policy of multiple-use forestry and emphasised the social and environmental aspects of forestry. As Mather (2001) notes, the language of this policy document ensured that the practice of multi-purpose forestry became synonymous with sustainable forestry and signalled a 'paradigm shift from a policy led by industrial imperatives to a policy led by social and biodiversity requirements' (Miller, 1999: 131).

During this time, the sector also began to take practical steps towards self-regulation – a trend which first became apparent during the mid-1980s, when attempts were made by the forestry industry to avert more stringent measures such as the application of planning controls. Drawing on the pioneering code of practice issued by the TGUK

in 1985 (TGUK, 1985), the Commission published a series of guidelines on issues ranging from conservation and biodiversity, community development to landscape to archaeology, which outlined the minimum standards required to maintain and protect the environment. The Commission argued that if these value were adhered to a new approach to forest management would overcome most of the environmental problems associated with past forestry practices (Tsouvalis, 2000). Unlike past approaches, the initiative for preparing and enforcing these guidelines came from within the Commission itself and demonstrates the increasingly proactive stance it began to take in the mid-1980s. This trend culminated in the publication of a number of forestry policy initiatives focused on social aspects, biodiversity, multiple-use forestry, sustainable forestry management and the principle of public participation in forestry matters (Forest Authority, 1998; FC, 2004; UK Government, 1994; UKWAS).

Recent decades have, therefore, witnessed a fundamental re-working of the policy framework for forestry, resulting from a shift in the value placed on forest and woodland resources and a greater realisation of their potential contribution to wider social, environmental and cultural objectives, as well as their traditional economic function. Allied to this, institutional arrangements within the forestry sector are in a state of change, influenced by changes brought about as a result of political and constitutional devolution in the UK over the last decade. This has significantly altered the approach now adopted by the Commission in the regulation and management of its vast forest and woodland estate, with a major re-shaping of its governance structures to a national and more localised level in order to reflect both the differing conditions and circumstances of each of the devolved administrations and the enhanced role now played by wider stakeholders in the future development of their local environments. The most important change in the domestic forestry policy environment following devolution has been the preparation of separate forestry strategies setting out each of the devolved administration's priorities and programmes for developing and implementing forestry policy within their region. The Woodlands for Wales strategy (National Assembly for Wales, 2001) sets out a vision that Wales will now be known for its high-quality woodlands, and in doing so uses the language of post-productivism, with key words that chime with sustainable development, social inclusion, consultation, amenity, partnership and community.

The resulting modes of governance that have been observed within the Commission in Wales as part of this study, appear to promote a new approach to participative democracy, ensuring that policy decisions and priorities are shaped by the views of those most likely to benefit from them, namely the people closely connected to Wales and the Welsh Assembly Government, together with the local communities living within and around the forest spaces. This change in philosophy is reflected in the Commission's vision of increased public participation as the ultimate goal of a fully devolved administration:

> ...people play a more central role in decisions about their local forests...state forest managers' expertise and remit have changed; they are expected to listen more and liaise with local people, to ensure that necessary trade-offs between different forest functions are understood and properly debated (Garforth and Dudley, 2003).

This vision is, however, not a new phenomenon within the FC. A review of the policy literature highlights that the goals of sustainable development and public engagement were already on the Commission's policy agenda prior to devolution and the adoption of separate country forest strategies (see Bills, 1996). It appears, however, that since the transfer of responsibility for forestry policy to the national level there has been a proliferation of policy, guidance and regulation mechanisms, both on a UK and national level, dealing with the issue of community involvement, thus placing partnership working and public engagement at the centre of forestry policy. This enhanced regulatory framework is continuously monitored and re-assessed in order to reflect changing policy priorities and public attitudes and now frames the governance of forestry in the four devolved administrations.

Taking Wales as an example, the policies and priorities of the Welsh Assembly Government as regards community involvement on its forest estate are largely underpinned by the UK Forestry Standard (FC, 2004), which represents the centrepiece of a system to guide and monitor the sustainable management and regulation of all forests and woodlands in the UK. The standard draws on a defined set of criteria and indicators, one of which requires the FC and private woodland owners to introduce procedures for engaging more effectively with local communities and wider stakeholders. It therefore represents the key driver for community involvement in forestry policy, ensuring that any decisions concerning the future

development of forests and woodlands, be they related to recreation, tourism, or educational purposes, are specifically tailored to locally expressed needs and priorities.

The publication also forms the basis from which the UK Woodland Assurance Standard (UKWAS) was developed, which provides a system for the certification of forest and woodland management in the UK. Although participation is entirely voluntary, forest managers and private owners seeking to gain certification under the standard are required to demonstrate greater input from stakeholders in the management of forests and woodlands, through ensuring that local people, relevant organisations and interest groups are made aware of any new management plans that are drawn up, and are notified when any high impact operations are planned or grants and certifications are applied for. Accordance with the standard is also dependent on the provision of 'reasonable responses' to any issues raised by local communities, including specific requests for ongoing dialogue and engagement. Drawing on many of the engagement principles promoted in these documents, the FC has also published a set of indicators of sustainable forestry, covering a wide range of aspects of sustainable forestry, the most relevant of which in this case are grouped under the theme of 'People and Forests'. These enable the Welsh Assembly Government, NGOs, the business community and wider society to track the contribution of forests and woodlands to the sustainability commitments made in the UK Government's Sustainable Development Strategy (2005) and in the Welsh Assembly's Sustainable Development Action Plan (2004).

The changing priorities highlighted above have been instrumental in shaping the Commission's existing governance structures at the local level, with widespread changes being made to arrangements for managing and regulating its forest estate. Within the context of devolution these changes have been seen as necessary amid growing concerns over the FC's capacity to respond to the new policy priorities brought about through its closer alignment with WAG. Allied to this, the growing disquiet amongst local communities over the perceived gulf that has now emerged between the FC and local areas in recent years appears to be mounting, with the noted absence of FC personnel on the ground, as compared to the early years of industrial forestry when the sector formed an instrumental part / component of the community

fabric. This has forced the FC over the last decade to re-focus its attention to the local spatial level and to the overall effectiveness of its local governance structures, with the aim of achieving greater efficiency in the use of its resources, along with an increase in the FC's representation in and engagement with local communities.

As a first step towards achieving these objectives the FC in Wales carried out a review of its Forest Enterprise executive agency (FE Wales, 2001), tasked in the early years of Devolution with responsibility for managing the Commission's forest estate and commercial activities, with the aim of re-organising its structure and to consider how its performance could be improved in light of the new administrative arrangements. One arrangement considered by the review group, and which was subsequently approved by the FC, involved the re-alignment of the existing management and commercial elements of the FE to incorporate a local and strategic area structure. This was seen to offer the necessary changes required to improve the delivery of the social outputs sought by WAG. This formation remains in existence to this day, albeit with some changes to certain aspects of its operation following the merger of FE Wales with FC Wales in April 2003, and as one FC employee observed has had a fairly radical effect on the way in which the FC operates at the local level.

The day-to-day management of Assembly woodland estate is based on a structure of four Forest Districts, each headed by a Forest District Manager. They are responsible for taking the lead in external relationships and engagement with communities and other organisations at the district level, and maintaining a specific focus on the planning and co-ordination of FC operations for delivery at the local level. This involves the implementation of agreed Forest Design Plans as efficiently and cost-effectively as possible and making the best use of the resources available to them in line with the FC's overall policy objectives. Specific tasks undertaken at this level include long-term forest planning; conservation; recreation and heritage planning; GIS, production forecasting and mapping.

Prior to the re-organisation of the forest management structure the forest districts were broadly based on the old county boundaries in Wales, with little consideration given to the differing management requirements of each individual forest. However, as part of the 2001 review the FC appeared to adopt a more holistic approach to the

delineation of its district boundaries, taking into account a broader set of issues, relating to social, cultural and historical contexts, environmental features and local economic and rural development issues. To this end, the key aim was to group areas with similar environmental and social drivers, thus taking a more strategic approach to the management of the forest estate. Accordingly, the five former districts of Wales were re-organised into four districts on 1 April 2002, namely Coed y Mynydd, Coed y Gororau, Llanymddyfri and Coed y Cymoedd. The resulting structure is seen to more accurately reflect the differing function and characteristics of the forests across Wales, thus allowing the FC to target its resources more effectively

3.3 Reflecting on the Changing Role and Function of State Forestry

The material generated from the GB-level interviews confirmed that the current climate of decentralisation, environmentalism and growing demand for environmental goods and services had led to a considerable shift in the relative emphasis placed on timber production as the sole function of the forestry sector. Policy actors frequently indicated that the Commission was now having to grapple with a number of different roles, thus leading to a rapidly diversifying interpretation of the key issues impacting on the implementation and delivery of forestry policy. The extent of its new remit was demonstrated through the numerous ways in which forestry was now seen to contribute to environmental, social, cultural as well as economic objectives. It is possible to divide the views of the respondents into four distinct categories: cross-sectoral policy planning (communication and co-operation); social; environmental and economic. These will now be discussed in turn.

3.3.1 Delivering multiple objectives

All of the interviewees agreed that the Commission's brief had diversified considerably in recent decades, with the term 'multi-purpose forestry' frequently cited by several of the respondents as a useful descriptor of its role in contributing to a wider range of priorities and objectives. The closer alignment of the Commission and the devolved administrations was alluded to as a significant factor in this process, bringing the Commission into contact with a wider range of influences through other government departments and their strategies. The forging of closer relationships with

these departments was recognised as a significant challenge for the Commission, but there appeared to be a clear recognition on the part of the respondents that it was no longer possible to view forestry as operating within 'its own discreet land-use bubble' (FC Interview, Wales [5]).

It was acknowledged that policies should be delivered through joined-up working and through an integrated approach to land and natural resource management, which recognised the full potential of the forestry sector in contributing to wider objectives. These included providing support for enhancing business skills for wood production and tourism-related businesses, promoting the role of woodlands in mitigating the effects of climate change through renewable energy and its contribution to quality of life issues. This was recognised as a significant step forward for the Commission, which had resulted in quite a profound cultural change within the Commission itself. It was now perceived to be moving from an insular, highly regimented approach to the formulation and delivery of forestry policies, to the deployment of a wider set of skills in the management of woodland and forestry for a range of objectives. This led one respondent from FC England to suggest that 'forestry policy no longer exists...it's trying to make sense of other Government policies and trying to apply them to land use for trees...forestry is now a very low level policy area'. This is, in itself, a major statement for an organisation which demonstrated a strong commitment to an intensive, industrially driven forestry sector for most of the twentieth century.

It was clear from the interviews that although the nature of the Commission's work had changed considerably in recent decades, from a narrow emphasis on industrial timber production to its role in contributing to integrated policy delivery, the relative status of the Commission as experts in the regulation and management of woodlands and forests remained an important factor. To this end, the important role played by the Commission in its advisory capacity, helping to inform Ministers by providing evidence of the potential relevance and role of woodlands and forestry in wider policy areas was emphasised by several of the respondents. However, despite this acknowledgement of the continuing capacity within the Commission to respond to these new policy priorities, it was also widely recognised that the new demands being placed on the Commission to deliver a wider range of priorities was now requiring an entirely different skills set and knowledge base, since the Commission's brief had

'diversified more quickly than its staff base' (FC Interview, FC GB [15]). Accordingly, the need to forge closer working partnerships with various stakeholders was identified as a key priority for the Commission in current work programmes, thus requiring a great deal of compromise in dealing with conflicting interests and views.

3.3.2 Social role

A key message from the interviews was that the previously dominant approach to forestry as the scientific management of trees, which viewed forests as merely an economic land resource to be exploited, was now moving towards what one respondent termed a more 'socially-relevant' form of forestry (FC Interview, Wales [9]), which had at its heart the management of forests for public benefit. There appeared to be widespread agreement amongst all the respondents that social elements now formed an integral part of the Commission's work programme, with a representative from Scotland stating that, during the last decade in particular, 'the thrust of new policies has been on the social side', and that social issues had 'come right up the agenda'. One respondent with a key part to play in promoting the Commission's social agenda in Wales went as far as observing that the Commission was now 'at the forefront of delivering social forestry programmes in Europe, and indeed in the international arena', and appeared to be moving a lot further, both in policy and practice, when compared to many of its Scandinavian counterparts. Although social objectives appeared to be a new consideration in the regulation and management of the forest estate given its fairly recent inclusion into forestry policy, the respondents appeared to have a fairly explicit and well-developed understanding of the Commission's role in contributing to the social agenda. This would, of course, have been expected of senior officials occupying key positions within the organisation who have the key task of communicating the Commission's role within the external policy environment.

When asked to characterise the Commission's key contributions to the social objectives there appeared to be considerable agreement amongst respondents of the positive role it now played in delivering the social agenda. Specifically, several of the interviewees highlighted the important role played by forests in bringing about environmental, economic and social forms of regeneration, both in rural and urban

areas. In illustrating this point, one respondent referred to the considerable work that was being done through the Newlands project, a £59 million scheme launched in 2003 to reclaim large areas of brownfield land across England's Northwest, which was aimed at responding to local and regional economic and social needs by transforming sites into thriving, durable, community woodlands[1]. It was observed that the Commission, in collaboration with the Northwest Regional Development Agency (NRDA) and various other partners such as the Environment Agency, Manchester City Council, Groundwork Trust and local communities, had succeeded in regenerating a large piece of land in a deprived area through investing in improving the quality of the local environment. As a result the whole regeneration of the area had 'flourished', with an increase in property values and the establishment of several new local businesses. The respondent went on to emphasise that this model was now being replicated in Wales, with the aim of enhancing the regeneration of local forest environments:

> We've built on Newlands model to a much lesser degree in south Wales where we've been to certain communities in the big community forests in the Valleys and done the same exercises, and we've found that the property values in some of those areas where we've been working with the Tourist Board to open up access have just shot through the roof. As the property values have gone up there seems to be a greater feeling in those communities of being proud of what they've got, because for the first time they know what they've got and they've been told explicitly that it's theirs. (FC Interview, Wales [6])

The importance of creating an attractive environment which local communities valued and engaged with in their day-to-day lives was clearly a significant factor in the Commission's approach, with another respondent further emphasising that it enabled local communities to develop a sense of pride in their local environments. A key objective for the Commission in this process was the forging of closer links with communities and disadvantaged groups who have been denied any opportunity to engage with their local environments in the past. Accordingly, a respondent from FC England stated that 'a key priority for us now is...to improve the quality of those communities where there is a shortage of green space and restricted access for disadvantaged groups'. This was highlighted as one means by which the Commission was contributing to the Government's social exclusion agenda, although there

[1] For further information on the Newlands project see their website at http://www.newlandsproject.co.uk/.

appeared to be some uncertainty among the respondents as to how best to relate this agenda to the work of the Commission. Whilst, here had been some significant achievements in this respect, as shown through the success of the Newlands project, several of the interviewees acknowledged that there was significant work yet to be done, particularly given its previous lack of experience in dealing with urban issues and thus its inexperience in engaging with predominantly urban communities.

Another respondent emphasised the key role played by forestry in broader processes of rural development, observing that a great deal of effort was currently being put into strengthening the capacity of rural areas by investing in improving business skills within the communities, thus enabling the establishment of wood-based and tourism-related industries. The contribution of forestry to local tourism was also raised as a key priority, with increased efforts to improve and increase the provision of recreational and leisure facilities on the forest estate. Another important element of the Commission's work which was highlighted by several of the respondents concerned the role played by forestry in contributing to the health agenda. Within this theme, strong emphasis was again placed on the goal of managing the forest estate for public benefit, with one interviewee in Wales stating '...we've got this huge resource and if people want to get healthy then people should be using it'. The provision of sufficient opportunities 'for fresh air, exercise and recreational activities' on the forest estate was also identified by another respondent in England as a key factor in improving the quality of life of local communities.

Above all, a key theme which appeared to run through all the interviews was that a key task for the Commission now was to develop a deeper and more informed understanding of what the public and local communities want from their forests in the future. There appeared to be a strong recognition that public opinion now played a crucial role in informing decisions concerning the regulation and management of their forests, which represented a major turning point for the Commission, as one interviewee from FC Wales noted:

> I think more and more we're looking to ensure that what we deliver is right for the majority of the public, and if you looked at the organisation twenty years ago that wasn't really part of our thinking. We were basically there to plant and fell trees, whereas these days I think our direction is much more to consultation and

> ensuring that what we do is right, not just for the wider public, but for local communities too. (FC Interview, Wales [1])

Such enthusiasm was however accompanied by a certain degree of caution, however, with one interviewee questioning the capacity of both local communities and the general public in making well-informed decisions about the future development of their local environments. The interviewee went on to explain that:

> There is a difference between understanding what local people want and how they want their forest to be managed, which is a relatively straightforward exercise...and trying to understand what the public want more generally in terms of the development of [forestry] policy...they probably don't have a well-developed view about that. (FC Interview, Wales [7])

A key challenge for the Commission was, therefore, the need to engage communities and the general public in a much more interactive, two-way communication process, which according to many of the respondents was not a strong point for the Commission.

3.3.3 Environmental steward

The significant efforts made by the Commission over the last three decades or so to re-conceptualise its role within the land-use sector and to distance itself from its past preoccupation with the production of raw materials are most apparent within the context of the environment. From the interviews it became clear that environmental principles have become firmly entrenched in present day forestry policy, both globally and locally, with concepts such as 'sustainable multi-purpose forestry', 'biodiversity', 'woodland conservation' and 'climate change' regularly mentioned by the interviewees in their assessment of the Commission's central priorities. Many were quick to emphasise, however, that this was not a new phenomenon within the forestry sector, with one interviewee emphasising that:

> ...the practical principles of sustainable multi-purpose forestry and its contribution to a range of environmental and public benefit outcomes has in fact been evolving progressively over the last twenty years. (FC Interview, GB [17])

Another interviewee pointed to the 'huge efforts' made by the Commission in the 1980s to improve its environmental track record, driven predominantly by increasing public concern about matters related to nature conservation and greater awareness of international issues such as deforestation and the loss of natural resources. The

amendment to the Wildlife and Countryside Act 1985 which empowered the Commission with its duty to balance commercial wood production with wider environmental concerns was identified as a key influencing factor for another respondent, who argued that since its introduction the Commission had succeeded in articulating its environmental role in more sophisticated ways, as evidenced through its compliance with the UK Forestry Standard and a range of other new and existing Directives and Regulations from Europe. Its status as 'the biggest manager of SSSIs in the country...[with a] huge resource of forests to manage' was also raised by another respondent to support its credibility within the environmental sphere. It was also argued that such work had brought the Commission into closer contact with a whole range of public bodies and non-governmental organisations within the environmental field - the Environment Agency, National Parks and RSPB to name a few. There appeared to be a clear recognition on the part of all the respondents of the need for compromise in order to maintain these rapidly evolving partnerships.

3.3.4 Economic / Income-generating role

Material from the set of forestry personnel interviews clearly indicated that commercial objectives remain central to the Commission's current and future programmes and priorities, with all of the respondents signalling an appreciation of the continuing importance attached to the commercial side of the organisation. The quotes below are representative of the relative priorities for forestry of a significant number of the forestry officials interviewed:

> We're still quite interested in the views of the commercial timber interests, because we're still a commercial organisation and we produce more timber than anyone else in Britain. We're a £200 million timber company - it's clearly still a big business for us, so we're obviously constantly engaging with them and we can't ignore their interests. (FC Interview, GB [17])

> We think it's our duty to promote commercial forestry and to ensure that continues to work, but at the same time we've got a continuing duty to maintain high environmental standards and to turn a reasonable number of plantations back into native, semi-natural woodlands, so it's a juggling act. (FC Interview, Scotland [13])

As the second quote demonstrates in contrast to the Commission's philosophy in earlier decades this appreciation was tempered by a greater understanding of the need to balance these objectives with wider concerns relating to the environment, ecology

and the social dimensions of forestry. It was argued by many respondents that it was indeed possible to deliver these latter objectives without the need to compromise the core values of timber production.

3.3.5 The Devolution effect

Many of the respondents argued that the introduction of the new devolved arrangements of policy and practice during the last decade had made these roles much more explicit. Whereas in the past the Commission had always struggled to define its 'raison d'être', as reflected earlier in the thesis through its continuing efforts during the course of the twentieth century to justify its existence, there now appeared to be a greater understanding and acceptance amongst the respondents of the Commission's specific role within the devolved machinery of government. Many emphasised that there was now a greater sense of purpose in the formulation and delivery of forestry policy in England, Wales and Scotland and a greater understanding of the Commission's role in delivering the specific agendas and priorities of the devolved administrations on behalf of its wider stakeholders. This was viewed in extremely positive terms by all respondents, with clear acknowledgment that it marked a significant departure from past approaches, which generally involved pursuing the Commission's own narrow interests in relative isolation from Government and outside interests. The words of these respondents neatly capture the views of the respondents:

> The big focus since devolution has been to make sure that the organisation remembers that it's here to deliver the programmes and policies of the three administrations – that's its job, its job isn't to look after its own interests. In years gone by there has always been a tendency for a big organisation like this one to become rather self-serving and to forget who it's actually doing work for. So, we now have a very clear focus on developing a culture where everyone understands that they're there to do work for the programmes of each of the devolved administrations. (FC Interview, GB [18])

> Now, we have to deliver what each of the administrations want. Even though we're still slightly at arm's length from Government our working practices have changed – there was a tendency in the past, certainly thirty to forty years ago, for the Commission to really do what it wanted to do – it didn't take much notice of Government at all. We can't do that anymore, and even though we're at arm's length there seems to be a lot more interest in what we're doing and a lot more accountability than there ever was. That is one of the positive outcomes of devolution. (FC Interview, GB [17])

> I would say that our positioning within Government has certainly changed – compared to before there's now three sets of forestry Ministers, there are a lot

> more MPs, whether they're MSPs or AMs, as well as the old MPs, so there's a lot more interest now from Parliamentarians than we've ever had before, and for us that's been good. There are far more people now taking an interest in what do – usually a critical interest, and they have a genuine interest in what we're doing and that's good for us because we like people taking an interest and finding out more about what we're doing. It does provide a challenge of course, because sometimes they don't like what we do ... but it's good for our people to have that level of political interest. (FC Interview, Wales [4])

As the quotes suggests, a key outcome of this closer alignment to Government is the increased interest now paid to the work of the Commission – a view supported by another respondent from FC England who observed that 'politicians are now keener than ever to develop a deeper understanding about the role of forestry in contributing to rural development and other policy areas'. These changes were perceived to be having a significant influence on the Commission's work programme, with politicians and forestry Ministers now acquiring a stronger influence on the overall direction of forestry policy within each of the devolved administrations. This was again identified as a key positive influence on the Commission, with the respondents welcoming the enquiring and challenging approach to the analysis and development of forestry policy. However, there appeared to be some unease that this was leading to an unreasonable shift in priorities to reflect political interests. This was identified as a particular problem in Wales, where one respondent felt that attention was being drawn from many of the Commission's achievements in relation to the environment and biodiversity to more 'high profile' priorities such as health and education, and more specifically the Commission's potential role in contributing to the renewable energy and affordable housing agendas. In supporting this claim, attention was drawn to the significant amount of work that had been carried out by the Commission to identify and respond to plans for the conservation and expansion of key species and habitats in order to enhance the biodiversity value of the state forests:

> The Commission has been extremely effective in contributing to the biodiversity agenda, and Clocaenog forest in North Wales is a classic example of this because they have to deal with three different types of protected species – the fritillary butterfly, which thrives on violets which grow on the banks of the small streams running through the forest; you've got the black grouse which only survives on the moorland within the forest; and lastly you've got the red squirrel, not to mention the fact that there are birds of prey, so you can't actually cut any trees within a certain radius. In my opinion the Commission doesn't really get proper credibility or acknowledgement for the incredible amount of effort that goes into ensuring that these species are conserved and protected, while at the same time

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> trying to make money out of harvesting trees, and that's a very tricky task. (FC Interview, Wales [8])

On a more positive note, for another respondent, devolution had afforded the Commission the benefit of moving from a 'high level of abstraction and generality in policy', through previous attempts to accommodate the needs of England, Wales and Scotland in one over-arching GB policy statement, to 'tailored, country-specific priorities'. The result was a much more focussed method of formulating and delivering forestry policy for the whole of Britain, which avoided the need to negotiate between conflicting priorities within each of the three countries. It was within this context that several of the interviewees observed there had been a marked shift from the traditional, command-and-control style method of working favoured by the Commission in past decades towards a more supportive, co-ordinating structure, whereby the three devolved administrations were enabled to tailor their policies according to the varying conditions and nuances prevalent within their forestry sectors. Another FC Wales interviewee echoed this sentiment, stating that the devolution of forestry policy to the country-level had led to a greater sense of empowerment within the Commission:

> It's much easier and much more empowering when you talk about what it means in Wales, in Scotland and in England, and when you've got the huge political driver of devolution and then a Minister on the scene who wants to know what the Commission is all about, then suddenly the world became a whole lot easier and simpler and much more as it should have been ... The fact that we're now able to describe forestry policies in much clearer ways has really been valuable for everybody – for the staff, but also for the publics we're serving (FC Interview, Wales [5]).

There was, however, an acknowledgement of the importance of maintaining over-arching co-ordination at the GB level, primarily in order to resolve any tensions arising from differing or conflicting approaches at the country level, and when it proved beneficial to work jointly on common policies and activities. The current status of the Commission as a cross-border public body was therefore viewed as justified within the current climate.

What became clear from the discussions, however, was that although it was now becoming much easier to articulate the contribution of forestry in relation to wider policy areas, there still remained a significant amount of tension, both within the

Commission itself and indeed within the external policy environment, concerning the delivery of its various functions. Several of the respondents acknowledged that the wide-ranging nature of its remit was inevitably leading to conflicting objectives and priorities, since the various roles which it was now seen to deliver did not always sit comfortably alongside one another. Supporting many of the claims made in the previous chapter, respondents emphasised that the Commission was continually facing a great deal of resistance over the direction of its work programmes. One respondent referred to the well-known concern expressed within the commercial timber sector that the forestry sector had become 'too socially and environmentally orientated' in recent decades, whilst others remarked on the opposing views of large sections of the wider population who argued that commercial timber interests were now taken far too seriously, with the Commission still directing undue amounts of money towards the commercial side of the business, rather than 'placing more emphasis on the sort of people side of things or the environmental side of things'.

Responding to these concerns, one respondent noted that whilst the Commission had been successful in recent decades in reaching out to a lot of new agendas in response to public calls for a wider range of public benefits from forestry, the real challenge had been to keep the commercial timber interests 'on-side' in this migration. For many of the respondents this was proving an almost impossible task, mainly due to the widely-held perception amongst many of the so-called 'traditional' stakeholders, from the large timber providers to the smaller timber processing plants, that they had indeed been progressively alienated by the Commission in recent decades. Several of the interviewees insisted that this was not the case at all and argued that the commercial timber sector as a whole was finding it increasingly difficult to accept the shifting priorities within the forestry sector, and in particular the changing nature of its relationship with the Commission itself:

> We were their guardians, their guarantors, but now that we've reached out to all these other areas they feel neglected - it's almost like a loss of trust, that we the Forestry Commission have abandoned them, abandoned our true purpose of producing timber for the nation. (FC Interview, England [10])

These perceptions were seen to be much more pronounced in England where there was a greater emphasis on social forestry and proportionally less significant traditional timber industries, as compared to Scotland. A representative from FC

(England) hinted at the increasing fraughtness of these relations, and of the pressures of having to deal with constant backlash from various parts of the industry that the Commission had 'completely lost the plot, gone mad because it [was] no longer leading on this thing called forestry policy'. It was therefore emphasised that there was a prevailing perception among timber interests that the Commission could not be trusted to look after forestry, 'because it's all about the birds and the bees and all that sort of stuff, which isn't proper forestry'.

Whilst it was clear that such views were taken with a wide berth by many of the respondents and were widely understood to stem from the industry's uneasiness with the Commission's policy direction, one interviewee in particular felt that this criticism was to some extent justified given the fact that ninety percent of the income generated by the Commission on a yearly basis was raised from the sale of timber. In proceeding with his argument, the respondent emphasised that it was therefore understandable that the industry objected to the substantial investments that were being channelled into the recreation sector, which generated little more than car park charges in income. All the respondents appeared to be in full agreement that the industry had a crucial role to play in the maintenance of sustainable woodlands and forests. In seeking to re-establish linkages with the industry, respondents argued that every effort was being made to take their all interests into account, but as one respondent noted, care would be taken to avoid reverting back to the agendas of earlier decades, whereby commercial interests dominated policy proceedings:

> We're trying to find new ways to articulate the rationale for forestry – wood production is not an end in itself any more in terms of government rationale, but it is a very important means by which we maintain sustainable woodlands and making the industry feel good about that. We've still got further to go on this and if they continue with the mentality that our only purpose is commercial timber production then we can't really help that group of people. We can't go back to a mid-1960s agenda which some would like us to go back to – the justification just isn't there any more. (FC Interview, England [10])

On an operational level, respondents acknowledged that the Commission as an organisation had taken the opportunities provided by the changing policy and administrative context to alter its styles of governance. This was seen to have gathered momentum during the last five years in particular, with an increased focus on good practice in corporate governance increasingly apparent during this time. The

steps taken as part of the Forest Devolution Review to improve the Commission's corporate governance structures were identified by one interviewee as a turning point in this respect and were seen to have enabled the Commission to develop a much more professional approach to the governance of its functions. The drawing up of clearer terms of reference for the key governance bodies of the Commission was identified by respondents as a key influencing factor, allowing for a clearer delegation of responsibilities among the different participants and stakeholders within the organisation. There appeared to be unanimous agreement among respondents that the new arrangements were proving highly effective, particularly given that previous overlaps in responsibilities, notably in setting the overall strategic direction of the Commission, had now been resolved.

Several of the respondents observed that the Board of Commissioners was now proving highly effective in dealing with cross-border issues and setting and communicating the direction for the FC, whilst the Executive Board was seen to function well in dealing with the Commission's day-to-day business. The revival of the national committees at each country level was also noted by several of the respondents as a positive outcome of this process, and had led to the introduction of governance structure which hadn't existed previously. Their membership was also seen to acknowledge the fact that the Commission was now subject to greater external scrutiny than ever before, with a wide range of stakeholders now demanding to be engaged. This was seen to stand in direct contrast to the Commission's approach in previous decades, where 'the tendency was for the higher management to run the organisation almost as a clique and not to make use of their executives –a case of "trust us and we'll get on with things", but we had to change quite considerably'. It was suggested that the Commission was responding to this through a change in culture towards more openness and collaboration, which above all was resulting in dramatically improved positive relationships with government officials from the three devolved administrations, policy stakeholders and local communities. The significant adjustments to the Commission's working practices were requiring a great deal of adjustment in working practices and cultures within the Commission:

> We now have country strategies which are mandated by the administrations and all our stakeholders – I think that's required us to change our skills, change our mind-set. We used to think we had a mandate from God to do whatever we were

> told to do and we just got on with it, but now we recognise that we do actually have a specific mandate which is expressed in each of the devolved strategies. We can't work on the same basis as we did in the past and just say: 'Oh, I've been given a mandate; I'll just go off and do it!' irrespective of what people think. (FC Interview, England [11])

> I think we're now more open to what's going on outside the organisation and that's something we have to get better at, because ten, fifteen years ago it was a very introspective organisation, whereas now we're much more considerate of the woodland resource as a whole. I think we're now looking right outside the organisation, more than we've ever done before, and probably since devolution we've had to in order to make sure that we're responsive really and that we fully understand what it is we should be responding to. So, I think it's been a cultural change for the organisation. (FC Interview, Wales [1])

Further to this, several of the respondents acknowledged that the economic role which had been uppermost in the Commission's priorities for most of the twentieth century, and was still viewed as a highly influential factor in the implementation and delivery of contemporary forestry policy, had played a fundamental part in guiding the evolution of the institutional framework for forestry. The continuing strength of this framework in recent decades was perceived to have created a number of problems for the Commission as it sought to embrace its new environmental and social responsibilities. Current efforts to combine and mediate these conflicting and often contradictory roles were therefore viewed by the respondents as increasingly problematic and in need of immediate attention.

Recognising the various changes that have occurred within the forestry sector following devolution, the next section builds on the literature discussed in Chapter One in order to examine the role and positioning of the Commission within the governance environment. The literature primarily discusses this role in relation to the growing use of partnerships and policy networks. However, given the changing nature of forestry policy and practice within the new devolved environment, the discussion has taken a wider view of the rural and environmental governance environment, in a bid to provide a broad investigation of the Commission's role within this arena. This is seen to acknowledge the numerous types of working relationships the Commission now has with a variety of other actors and organisations working in the rural and environmental policy field.

3.

3.4 Forestry Governance and Regulation: a Welsh Perspective

3.4.1 Positioning the Commission in the multi-level governance arena

Applying the concept of governance developed in Chapter One specifically within the context of forestry reveals a situation in which policy-making responsibility is now shared among a variety of actors at European, national and sub-national levels. These levels are distinguished by different responsibilities, interests and powers, and are also broad and varied. At the time the research was conducted, the top level was the European Union (EU) and Central Government in a funding and regulatory capacity to the devolved administrations, specifically the Welsh Assembly Government (WAG) which now acquires formal powers in relation to forestry in Wales. The designation of the Commission as a cross-border public body under the Forestry Devolution Review in 2002 allowed it to maintain a presence and some degree of influence on a GB-wide basis, however, this was mainly conveyed as a more 'co-operative' and 'supportive' role, providing guidance to the devolved administrations on a number of issues where it was agreed that a more collaborative approach was mutually beneficial.

The middle or 'horizontal' governance level comprised FC Wales, acting as the Assembly Government's Department of Forestry, other policy divisions of the Assembly and government-sponsored public bodies working with FC Wales, Local Authorities and other voluntary, public, private and private sector organisations. The lower tier represented the level at which the stewardship and maintenance of the woodland estate was delivered, and also where links with communities at the town or village level were initiated and maintained. This comprised representatives of a range of rural, environmental and local government agencies (defined in terms of their interests), together with established community groups and residents living within or close to the woodland estate, either in a direct delivery capacity or through representation and engagement exercises.

3.4.2 Reflecting on the first decade of devolved forestry policy in Wales

The devolution of responsibility for forestry to the national level was viewed in extremely positive terms by all of the forestry personnel interviewed as it brought about the opportunity for far greater influence over policy direction and priorities by

the Welsh Assembly Government, through the Commission's National Office in Aberystwyth. There was widespread recognition that the publication of the Wales Woodland Strategy, which now formed a distinctive backdrop against which tailored policies were delivered, represented a major step forward in the creation of a distinctly 'Welsh' forestry sector. The most significant changes were seen to have occurred during the last five years. The Forest Devolution Review was identified by all of the respondents as a crucial milestone on the road to the devolution of forestry policy to the national level, as it had strengthened and formalised the relationship between the National Office and the Assembly, making it clear that forestry was a national responsibility and would in future be formulated according to the needs and priorities of the people of Wales.

The shift from a command and control form of governance to the newly devolved and localised administration and management had led to significant changes to the Commission's positioning within the machinery of government and in its relationship with civil society, giving rise to a new set of power relationships. Although the Commission had maintained some degree of authority at the GB level in the wake of this newly devolved structure, the consequent new configurations appeared to have had a significant and pervasive impact upon chains of accountability and responsibility. A key issue arising from this was the growing necessity for forest managers to work with a wider range of partners from the public, private and voluntary sector to secure greater integration, higher efficiency and more joined-up policy delivery. The following section considers this issue in greater detail by providing a critical examination of the new governance structures that have emerged within the forestry sector in Wales. In doing so, it draws on the views of key Commission policy actors who have been actively involved in the transition towards new models of forestry, together with informed actors from external rural and environmental agencies which have been drawn into new forestry policy networks.

3.4.3 The contemporary forestry governance environment

A shift towards more participatory approaches was identified as a key feature of the Commission's working practices at the national level, with both internal and external respondents emphasising that greater effort was now being made to initiate wider

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engagement with key stakeholders. These changes were recognised as having occurred pre-Devolution, specifically in the early 1990s, when the implementation and delivery of forestry policy came under greater external scrutiny from environmental and conservation interests, thus forcing the Commission to acknowledge its role in contributing to a wider range of priorities and functions. The closer linkages that were forged between the Commission and environmental and rural organisations, such as the Environment Agency, the Countryside Council for Wales (CCW) and the National Park Authorities in Wales, through the design planning process was highlighted by several of the external respondents as indicative of this broadening in the Commission's spheres of responsibility and accountability. One internal respondent confirmed the value of these early attempts at cross-sectoral working, enabling forestry officials to respond more positively and effectively to the changes brought about by devolution, thus ensuring the appropriate regulation and governance of the forestry sector in Wales.

Internal respondents went on to emphasise that the closer alignment of the Commission to the Welsh Assembly Government under the new devolution arrangements had provided further impetus towards achieving a broader and more inclusive system of forest governance by bringing the Commission into closer contact with a wider range of interests and viewpoints. This was confirmed by an external respondent from the Environment Agency who remarked that there had been a significant shift in the way in which the Commission now approached its work, especially in the post-devolution environment. The result was a more tolerant and outward-looking culture, which was 'without a doubt more receptive to new ways of understanding the world'. Another external respondent referred to the 'new co-operative spirit' prevailing within the forestry sector, which was contrasted with the 'old colonial approach which basically manipulated and frightened staff internally to basically not stick their heads above the parapet' (Interview, Coed Cymru [41]). This view was widely supported within the Commission itself, with respondents quick to emphasise that this represented a major departure from traditional FC practice, in which there was a strong tendency for forestry officials to take a more introspective approach to their work, as these interviewees noted:

> If you'd have come to see the Forestry Commission ten, fifteen years ago, it was a very introspective organisation – it dealt with the management of its estate, the

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> private woodland was very small and separate, whereas now we are much more considerate of the woodland resource as a whole. I think we've looked right outside the organisation more than we've ever done before – since devolution we've had to, to make sure that we're responsive really and to understand what it is we should be responding to here in Wales. I think that's been a major cultural change for the organisation. (FC Interview, Wales [5])

> It's definitely changed into a more open culture; a more relaxed culture, whereas in the past we were much more regimented. I think that's the biggest culture change I've seen since I joined the organisation in 1970 – it's now much more of a team effort as people are consulted and asked about their opinion and about the decisions being made – there's much more openness. (FC Interview, Wales [1])

These observations and the wider research material suggested that during the last decade the Commission had taken the initiative to improve the functioning and effectiveness of the forestry policy environment. The new arrangements in place were subject to a certain amount of 'steering' on the part of the Commission, however, they could generally be interpreted as reflecting a more open, critical and participative approach to forestry governance, rather than a continuation of its traditional, inward-oriented culture. This positive approach was evident in a number of different ways, but was most apparent in the emphasis now placed on promoting cross-sector learning among policy makers, establishing formal working partnerships at the national and local level and providing informal support and networking opportunities. Each of these approaches will now be discussed in turn.

A new emphasis on partnership working

There was widespread agreement among respondents that the development of the Woodland Strategy had been a starting point for many parties to have a greater role in the formulation and delivery of forestry policy in Wales. For one external respondent from the environment sector, the preparation of the strategy had transformed the Commission from an organisation which was by definition 'cloaked in secrecy' and engaged in regular interaction with key sectoral interests (more often than not 'part of the establishment themselves'), to one in which the value of early external stakeholder input, particularly in relation to improving the quality of policy advice, was more readily acknowledged and appreciated (Interview, RSPB [25]). Whilst it was emphasised that public views and submissions on major policy questions were certainly canvassed from time to time in earlier decades, for example, in various

commissions of enquiry, these tended to be preliminaries to actual policy development, which generally continued to take place behind closed doors.

Internal respondents supported this view and claimed that the Woodland Strategy preparation process had been based on substantial inter-governmental and inter-sectoral co-operation and information exchange, and involved the full integration and coordination of individuals and groups from the public, private and voluntary sectors. In supporting this claim, several interviewees who had been actively involved in this process noted that prior to the preparation of the Strategy an inter-departmental working group convened by the Forestry Minister for Wales in 1997, and comprising representatives from the Commission, the Agriculture Department and Environment Division of the then Welsh Office, CCW, the Farming and Rural Conservation Agency, Environment Agency (Wales), the WDA and CADW, alongside the Welsh National Parks and the Welsh Local Government Association, sought guidance from key stakeholder groups on the main policy lines to be reflected in the Woodland Strategy. These included industry representatives, environmental bodies and academics with wide-ranging knowledge of contemporary land-use and environmental issues. It was claimed that this had informed the development of a public consultation document, which was subsequently circulated widely to seek the views of all interested parties on the future direction of forestry and woodland policy in Wales. A series of local workshops held at various locations across Wales ran alongside this to further inform the consultation process, thus ensuring a 'well-balanced and sustainable approach to the development of the strategy'.

As well as opening up the policy development process to input from a wider audience than was previously the case, respondents noted that the preparation of the strategy had also enabled the Commission to take a major step towards fully integrating the role of woodlands into a wider environmental and economic policy for Wales, and, as one internal interviewee noted, demonstrated a clear awareness on the part of the Commission that it was no longer acceptable to consider forestry policy in isolation, but as part of a 'holistic rural strategy' (FC Interview, Wales [5]). It was noted that significant progress was made by the Commission during these early stages of devolved forestry policy to engender an understanding among Commission personnel that they were assisting with the preparation and delivery of an Assembly-wide

strategy rather than one for the Commission alone, which therefore required clear integration with other government policy areas, especially agriculture, rural development, water, energy and transport.

The changing status of the Commission as a 'virtual division of WAG' under devolution was widely seen to have facilitated this process by encouraging greater co-ordination of policy development across Government at the national level. Respondents observed that Commission staff began to forge closer links with the various policy divisions and departments within the Assembly, as well as its main sponsor division, to raise awareness of the potential for forestry to contribute to meeting the objectives of other government strategies. The initial process for developing the strategy thus scoped and included much of the activity ongoing at the time that appeared to contribute to the overall vision and strategic objectives identified during the consultation process. It was envisaged at the time that this wide coverage of activities would enable the Commission to focus its future efforts on implementation and delivery, rather than needlessly repeating the process of strategy development. The success of this approach was widely noted, with several of the internal respondents stating that in the decade since the publication of the strategy whilst Commission staff were continually engaged in efforts to ensure the alignment of the strategy in relation to ongoing policy and strategy development, this was not viewed as a major initiative due to the processes that were used to develop the strategy in the first instance, whereby a scoping of all possible drivers and contexts were undertaken. Representatives from the Welsh Assembly Government also reflected on the positive influence of Devolution on the Commission's approach to forestry policy:

> I would say that they're now less defensive and cover a wider view of the world. Since Devolution there's been a complete change of culture and they tend to offer a much more holistic view of the overall impacts of their work, and also of the benefits that could be accrued (Interview, WAG [12]).

> They're now encouraged to believe that they're not unique, but part of a wider picture. I would say that there's definitely greater openness and also a greater confidence in doing things differently where it's sensible to do so in Wales. They do tend to consult more, they listen more and achieve a lot more outputs as a result (Interview, WAG [13]).

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There appeared to be strong agreement amongst respondents that the initial stakeholder engagement exercises detailed above had proved useful catalysts for stimulating debate and facilitating discussion among a wider network of stakeholders. Input was now received from representatives across Government Departments and public sector organisations, academia, voluntary bodies and down to the community level, of possible ways forward for woodlands in Wales and the type of strategy and policies that should be developed. Many saw it as as having strengthened and expanded the process of democracy, thereby ensuring that decisions on future policy directions and priority areas were both open and fair and responded well to the needs of all interested stakeholders. As one respondent noted, this differed significantly from the Commission's past approaches:

> There's been a profound shake-up within the organiation, and what they've done over the last decade, and quite rightly I think, is that they've gone out and asked questions again about where they should be going, and for the first time in many years they do seem to be listening (Interview, Coed Cymru [41]).

Other respondents supported this view, arguing that the move towards a more collaborative approach had exposed the Commission to a 'wider range of perspectives and ideas', which was argued to have resulted in better and possibly more informed and innovative decisions. Many more were highly supportive of the initial engagement efforts because they believed it had led to increased awareness, understanding and appreciation of the Commission's work, which subsequently stimulated a greater desire to participate in the delivery of the strategy.

The Woodland Strategy Advisory Panel (WSAP) was cited by both internal and external respondents as a central feature of this new emerging forest governance system, providing a structured opportunity to engage external stakeholders in the policy development process and in the implementation and monitoring of the Woodland Strategy. Its origin was therefore rooted in the drive to ensure more effective arrangements for advisory input and external engagement for forestry policy development and implementation in Wales. It was argued by an external respondent from the WDA that the new arrangements offered a much more 'dynamic' approach to policy development than previously. One internal respondent noted that although the panel was an entirely voluntary process, the application of formal and transparent procedures for appointing members ensured continuity in the policy process and had

been highly effective to date in drawing on a wide-range of commercial, environmental and social interests from the spread of public, private and voluntary organisations and bodies in Wales. In carrying out their duties, members were required to offer advice from an expert and objective position, either to the FC Wales Management Board if the matter related to specific FC Wales action or to the National Committee if the panel wished to raise a particular issue, or if the advice concerned the Woodland Strategy and its delivery by other partners. The residing WSAP chair was also appointed as a member of the National Committee, thus reinforcing this communication link. The independence and impartiality of the panel was ensured through the maintenance of a clear separation between the FC secretariat and the Advisory process, which ensured that the views of all stakeholders were fully taken into account.

The degree of external-actor influence in the Woodland Strategy process was further enhanced through the implementation of a policy advice process, which was seen to have resulted in 'more dynamic and less bureaucratic' policy development procedures (Interview, CCW [28]). Members of the Panel along with other experts were now engaged in 'task and finish' Policy Advisory Groups (PAGs) which supported FC Wales in carrying out the 'detailed thinking' that was required in the early stages of the forestry policy development process. This was highlighted as a significant development for the Commission, particularly as this task had previously been viewed as a predominantly internal responsibility. The Community Involvement PAG, which was composed of a cross-section of representatives from the community and forestry sectors in Wales, was praised by several respondents from the community and voluntary sector for its instrumental role in advising on the preparation of a policy of community involvement in forestry, which had recently led to the publication of up-to-date guidelines outlining the Commission's commitment to communities: Working with Communities (FC Wales, 2008).

A number of other specialist forums, steering groups and partnerships were also developed as a direct result of the Strategy, including the Wales Forest Business Partnership which, according to a respondent from the WDA, played a crucial role in promoting forestry as an important business sector in Wales, and the Learning Forum, which worked to maximise the use of woodlands for learning, each with a direct

reporting link into FC Wales and to Ministers. Several of the respondents noted that these procedures had thus far proved highly effective in raising several issues of particular importance for further consideration by the Panel, which were subsequently proposed as recommendations to the National Committee. Alongside these structures a more informal process of consultation and information dissemination was maintained in the form of a broad database of interested and informed stakeholders, which represented the primary audience for information and consultation from the Panel Secretariat on issues relating to the Strategy. Internal respondents emphasised that with eligibility for inclusion in the database based on interest alone it ensured the capture of a wider range of stakeholders and interests. Members had been given several opportunities in recent years to contribute directly to discussions on key elements of strategy delivery and monitoring. A major conference organised by FC Wales in January 2007 had proved a success in this respect.

Frequent reference was made in the interviews with Commission personnel of the importance of pro-actively developing and maintaining good working relations with a wider range of actors working in the governance environment. When questioned further about the nature of its existing working relations, the respondents were able to list numerous partners, with particular emphasis given to the Commission's statutory consultees, but also to other non-governmental organisations, specific interest groups and voluntary organisations. In the previous regime of forestry, these actors would have been denied access to the policy environment. One internal interviewee described this new interactive role as 'finding common ground' between different actors within the policy environment, through gaining an understanding of different perspectives and attempting to find a way forward that ensured that all interests and concerns were acknowledged and dealt with in an effective manner. An external interviewee representing timber interests acknowledged the added value of the partnership arrangements as enabling and maintaining dialogue between opposing interests, most specifically the timber side and landscape and conservation interests, who would otherwise have remained disparate from key policy discussions. Several interviewees also pointed to the continuity of personnel, both within the Commission and in wider rural networks in general, together with the general permanence of the Commission as a key player in Wales, which helped to foster and maintain working relationships. Frequent references were also made to the enthusiasm displayed by

Commission policy staff to the delivery of its priorities, which greatly assisted and facilitated the governing process.

It was not surprising, however, to find that there was concern among internal respondents about the time-consuming nature of organising partnership and forum meetings. This involved arranging meeting venues, inviting attendance, organising briefings for Ministers and WAG officials, preparing and sending out agendas and papers and writing up minutes. Allied to this, there were the added responsibilities of dealing with the administrative and logistical arrangements, with no guarantee that they would deliver success. Doubt was therefore expressed over the actual benefits gained from stakeholder input to consultation exercises. One internal respondent working on the social forestry side of the Commission argued that in reality the whole process of consultation and partnership-working offered little return on the time and energy invested, which led to a general perception among participants, both internal and external, that the Commission was 'simply going through the motions':

> You spend enormous amounts of time talking to each other and trying to align what you're doing, and when you've got ten different organisational partnerships it's just a logistical nightmare trying to sort out a meeting which each of the representatives can attend. It just doesn't work because you end up engaging in the lowest common denominator and agreeing on things that no organisation will object to. (FC Interview, Wales [8])

However, the importance of this activity was acknowledged externally by partnership and forum members. One external interviewee observed that it had given rise to much valuable information exchange and without it opportunities for informal networking would be lost. Another external interviewee from the NGO sector reported that requests were continually being provided to attend various partnerships, forums and meetings, and how valuable this was, although it was stated that this could be time-consuming at times. Supporting this sentiment, a common concern among stakeholders was that there were too many things to get involved with and not enough time to do so. This problem of 'consultation fatigue' was acknowledged by one internal respondent as particularly prevalent in Wales, where it was increasingly becoming the case that the same organisation and individuals were now being consulted, far more intensively, not just on forestry issues, but also on a wide range of public sector strategies. It was also further emphasised that attendance by the community and voluntary sectors was also severely constrained due to a lack of

funding, leading to a suggestion that in future the Commission should be mindful of the total demands placed on these key players.

A number of external interviewees from the community and voluntary sector also felt that there was still a great deal work to be done by the Commission on this front, with more potential for opening things up. However, such views were balanced by opposing views, with one respondent from the timber sector expressing resentment at what was perceived to be a loss of direction and emphasis for the Commission:

> The environment and conservation groups are very effective at lobbying and the Commission doesn't really seem to stand up for itself. It puts all this emphasis on being the 'face' of the timber industry, but it's just too eager to please these other agendas (Interview, UPM-Tilhil [42])

An external interviewee from an organisation representing timber interests stated that such negative perceptions were widely held by its members and was actively discouraging timber interests from attending the Commission's partnership meetings. It was stated that 'the Commission do work hard, but in all fairness people just don't turn up'.

A further benefit of the Commission's greater openness within the governance environment, particularly for those newer interests and organisations who were perhaps less prominent players in the governance environment, was that it was now much easier to know who to contact within the Commission to obtain information or advice. This was seen to be a major benefit for the community and voluntary sector in particular, with one external interviewee emphasising how, in the past, it was often unclear from the outside as to who within the Commission had the responsibility and know-how to help, and how being invited to attend partnership meetings and forums had opened a number of doors and brought them closer to Commission staff. The close knit nature of the Commission as an organisation and its relative size in Wales was also perceived to have facilitated this process. Overall, the evidence suggested a range of benefits emanating from the implementation of joined-up cross-cutting agendas through engagement with a wider range of organisations and actors.

Direct delivery capacity and local presence

The Commission could also offer significant opportunities to realise the various objectives of agencies and organisations in Wales – a capacity linked to its significance as one of the largest land managers in Wales. On a national level, the Commission had drawn up formal working agreements with several national-level public bodies and organisations such as the Welsh Development Agency, Environment Agency (Wales), the Countryside Council for Wales and the National Parks Authority in order to strengthen country-level collaboration. As the following quote from an internal respondent suggests, these organisations and agencies were now seen to play an important role within the forestry sector in Wales, not only through their valuable input into policy development, but also through direct involvement in the delivery of specific programmes:

> The philosophy throughout [the Woodland Strategy] is that it's a wider partnership – it's not just the Commission that needs to deliver it, it's a partnership of the private woodland owners, the remaining woodland sector, but also a partnership of all the other bodies who have a potential impact in terms of woodland and trees in Wales. So, clearly the WDA in terms of its economic development remit, CCW in terms of its conservation and access remit, the EA in terms of its environmental protection remit – they've all got a huge relevance to forests and to forestry and they're all directly involved in delivery of our programmes (FC Interview, Wales [5]).

The respondent went on to emphasise that the resulting partnerships demonstrated a favourable shift in attitude towards the Commission, from a previous preoccupation with minimising the detrimental effects of large-scale afforestation, to a more positive appreciation of new opportunities for forest-related environmental, conservation and biodiversity benefits – a case of 'what has forestry now got to offer?'. In illustrating this point, another respondent gave details of an ongoing partnership between the Commission and Environment Agency (Wales), established to deal with flooding issues in the Conwy Valley, which had highlighted the practical way in which flood plain woodlands could be used to alleviate flooding problems. It was emphasised that through joint-working to manage riparian woodlands in small streams and tributaries in this area, water could be held up, thus reducing the chance of flooding further downstream. This work had proved of significant benefit to the town of Llanrwst, which had suffered major flooding problems in recent times, and offered significant potential to make a real difference to future flood defence measures and costs.

There were also other examples of agencies which looked to the Commission to achieve their objectives on the basis that their objectives were mutually desirable. This was particularly the case with publicly-sponsored bodies with remits covering the economy, education and training, and countryside policy, but also certain departments of the Welsh Assembly itself. One external interviewee explained their motivation for working collaboratively with the Commission, stating that it was well-placed and acquired the necessary local knowledge and mechanisms to work and deliver on the ground. Local knowledge to help tailor programmes to local circumstances was thus a valued contribution by the Commission for many of the external respondents. Similarly, on an internal level connecting with the particular groups of people that were the targets of the Commission's objectives on the ground could be seen to significantly rely on consultation, engagement and intermediation by local forestry staff. Internal respondents acknowledged the role of local forestry staff in the policy delivery process, acting as points of contact within the community. Several interviewees described how the Commission's approach to community development had improved significantly in recent years, with one stating that 'we're in the community now listening to people' (Interview, FC Wales [5]).

Several of the external respondents noted that a positive aspect of the Commission's approach and work ethic in the last decade was through it now being prepared to work in partnership, which many stated differed significantly in the past when it tended to operate in isolation from other policy areas and interests. In relation to the specific improvements that had been made to the functioning of the governance environment, external respondents observed that there now appeared to be a greater openness on the part of the Commission and a greater willingness to make its resources available in pursuit of shared objectives:

> There's a bigger emphasis on partnerships in forestry now and they certainly do seem to be opening up their processes a lot more than in the past (Interview, CCW [40])
>
> They now recognise that they have to work with a wider stakeholder and that's crucial for something like forestry, where you need to bring different aspects (Interview, WDA [29])

This view was supported on an internal level too, where respondents perceived that more could be achieved in respect of complex and challenging issues, for example those relating to the achievement of social and environmental objectives, by a variety

of agencies and actors working together. External interviews also emphasised that without the Commission's participation in the new environmental agenda there would be a significant gap in capacity and influence, as they were seen to provide a unique level of expertise on forestry issues, as well as wider issues. Commission personnel themselves supported this view, frequently emphasising the continued value of its professional expertise, but also its wide awareness of the policy environment due to its long history of intervention in forestry policy. However, internal respondents emphasised that this long history was also requiring a great deal of adjustment in working practices and approaches for the Commission.

Echoing concerns expressed across Britain, several internal respondents noted that the transition from a relatively closed-policy community for most of the twentieth century, in which the Commission effectively functioned in relative isolation from other policy areas and benefited from a great deal of autonomy from government, to a 'virtual division' of the Welsh Assembly Government required a great deal of adjustment, most notably in the requirement to be more attuned to political realities and pressures. This was linked to concerns expressed by Commission staff that the increased emphasis on joint-working, alongside more open dialogue with Ministers and Assembly officials, often meant that the Commission was being dragged and pulled away from its main priorities to address political matters such as affordable housing and wind farms. This was seen to be affecting the Commission's ability to press ahead with its delivery functions, but most importantly several interviewees expressed concern that it would affect the Commission's distinctive flexibility and stifle the creativity of its personnel, which many stated had become an important feature of its work since its establishment However, in a more positive sense, another internal interviewee emphasised that a greater emphasis on partnership-working post-devolution had enabled the Commission to develop a greater awareness of the 'bigger picture', as compared with the more narrow, specialist focus of its work in the past.

Informal networking and support

Beyond the formal activities outlined above, emphasis was also placed on the Commission's efforts to create a more supportive and enabling environment, which was demonstrated through the substantial amount of time invested in establishing and

maintaining informal networks. Both internal and external respondents recognised the value of these informal networks in providing an opportunity for exchanging information and support, allowing key actors within the governance arena to share advice and pursue mutual objectives. One external respondent emphasised that their success could be attributed to the relatively open nature of the public policy environment in Wales, which made the task of building and maintaining relations much more straightforward:

> The staff culture is now much more open and completely different from what it was thirty years ago. They're now opening up to hearing about change (Interview, CPRW [23].

Another external interviewee echoed this point, emphasising the degree to which this activity differed from the Commission's past approaches, allowing horizontal collaboration across what were previously 'thick silo walls' (Interview, RSPB [25]). However, not all external respondents shared this sentiment, with one from the timber sector highlighting that such processes could 'work under the radar' and thus elude control.

The Commission was also involved in providing expert advice and practical support to community-based organisations, usually in response to direct enquiries or specific requests, concerning the use of forest resources for a particular purpose. Specific examples were provided where the Commission was working alongside a number of community groups in the direct management of dedicated areas of land on the Assembly woodland estate. Indeed, one community-based organisation described an ongoing working relationship with the Commission, stating that they had received wide-ranging help from forestry staff, working on both a national and local level. The Commission was also seen to be working towards helping communities to take on a more active role in the management and regulation of their local forest spaces, something which they acknowledged had been lacking in the past. This might involve trying to access local ideas and views through discussions of proposals contained in the Forest Design Plans. Others referred to the Commission's new emphasis on encouraging people to 'think for themselves' in order to provide an opportunity to consider what their own contributions to the future development of their local forest spaces. However, the fact that this was mainly raised by internal interviewees

suggests that it was not seen by all respondents as a feature of the Commission's new approach to governance. For many of the external respondents it seemed to sit instead with a continuation of the Commission's dominance and superiority.

There was, however, significant evidence to suggest that the Commission was now working to encourage greater community interaction with tress and woodlands, both on and off the Assembly woodland estate. The CydCoed programme, developed by the Commission through the Woodlands for Wales Strategy, with funding from the Objective One programme and the Assembly Government's Pathways to Prosperity Scheme, provided a good example of this. The programme was aimed at, but not exclusive to, two key areas in Wales; those communities classified by the Wales Index of Multiple Deprivation as being the most deprived; and communities where the population has no access to community green space for relaxation and exercise. The programme was implemented over two phases (between 2001-2004 and 2003-2008) and during this period over £16 million was distributed to over 163 community groups across the Objective One (West Wales and the Valleys) region. There appeared to be a wide-held view within the Commission, and also among external stakeholders, that CydCoed's contribution to community development across Wales had been extensive. Respondents noted that it had been successful in addressing local people, in building connections between individuals, communities and organisations, and in helping to focus on localised environmental issues. Reflecting on this, one internal respondent emphasised that it was the process of building link with local communities that was of most value:

> 'The aims of the project have been important, but it is the process that is significant, in terms of building confidence and capacity with local groups.'

The increase opportunities to work in partnership with actors at all levels was cited by another respondent as particularly important fro the groups involved. Difficulties were, however, cited where there had been a perceived loss of control for groups, where partner bodies failed to deliver or took control of projects. The overall value of CydCoed in acting as a partnership facilitator was, however, widely supported, with many emphasising that many of the partnership remained sustainable and had led on to higher levels if representation in local governance issues. From this example, it became clear that the Commission was therefore taking action to shape the

governance environment to represent that envisaged in its policy documents. However, this was not without its problems, with groups helped in this way described as being very vulnerable due to their lack of knowledge and experience in environmental management and funding, in turn pointing to the likelihood of failure or the need for continued support from the Commission.

3.4.5 Towards an interactive approach to forestry governance?

From analysing the role of the Commission in the multi-level governance arena in this manner, it becomes clear that the Commission was facilitating interaction and contributing to effective working relations between all the different levels of actors. Through its top-down relationship with higher tiers of government it was delivering and helping to maintain high level policies and agendas, taking into account international agreements and policies, as well as the specific priorities of the Welsh Assembly Government. The Commission was also levering in funding from higher level bodies such as the EU, through projects such as CydCoed. Within the horizontal governance arena, the Commission was helping to promote cross-sector learning among policy makers, partnership-working and networking, and was also facilitating further progress through direct support and through undertaking complementary activities. The Commission was also facilitating engagement with local communities. The notion of 'community empowerment' was highlighted as important to encourage community-based activity which was being actively encouraged by the Welsh Assembly Government. The presence of local forestry staff on the ground was highlighted as a key feature of this approach, allowing the direct delivery of priorities and objectives, while taking account of local interests and concerns.

The research material presented suggested that the Commission now played an important role in the governance environment, encompassing both traditional and newer functions. Although its wider role was now seen to be much more challenging in relation to effective policy delivery, for example, necessitating continual negotiations between competing interests (for example between commercial timber interests and environment interests), the Commission was able to draw on its unique position and status to ensure the effectiveness of the governance process. However, what became clear from the interviews with Commission personnel was that improving and maintaining working relations with other actors and agencies was by

no means an easy task, particularly given the Commission's long history as an extremely insular organisation. Further to this, given the relatively recent devolution of forestry policy to the national level, the national and local governance structures were still in the process of bedding down, which meant that staff were still adjusting to their wider roles and to the new working practices that these entailed. Further to this, various insights provided by external interviewees suggested that the actions and activities of the Commission could also be highly contested, as suggested by these quotes:

> There is a genuine desire to deliver the social aspects of forestry, but they're still caught up on delivering all these other objectives too, and the way they approach this is quite naïve (Interview, CCW [28]).

> They've changed their emphasis from producing timber to managing woodlands for wider health, recreation and biodiversity, but there's just too much emphasis being placed on recreation (Interview, RSPB [25]).

> The management of the forests still reflects two extremes – you have the environment and biodiversity interests on one side, timber people on the other side and then the generalists in the middle, and the timber interests usually prevail (Interview, Coed Cymru [41]).

However, despite this contestation it could be argued that the Commission remained in a strong position within the forestry governance environment, primarily through its unique capacities, responsibilities and interests, all of which contributed to its status as a highly distinctive organisation. The following section analyses the Commission's unique features in more detail, looking at the different ways in which it has succeeded in retaining its position as a powerful actor in the forestry governance environment.

3.4.6 The unique nature of the Forestry Commission

One of the main aspects of the Commission's distinctiveness, which became apparent during the interviews, was the nature of its traditional remit and responsibilities, which continued to be denoted by national legislation and tradition. Since its establishment in the early twentieth century, the Commission had acquired responsibility to enact certain higher-level policies and programmes, and more recently this role had been widened to encompass a wider range of priorities, such as securing community well-being and wider sustainability objectives (see Forestry Commission, 2004). Together, this had required the authority to acquire professional expertise, knowledge and information, whilst also maintaining certain structures and

procedures. For most of the twentieth century, its structure and organisation was based on the establishment of a corps of scientifically-trained foresters and the use of significant powers enabling the large-scale acquisition of land to create forest reserves. Its work was guided by a network of powerful Commissioners and based on strict systems of accounting. It also had to undertake certain activities, notably the production and implementation of detailed forest development and management plans and subsequently plans for the provision of housing and employment for local rural communities. Finally, relatively large sums of money were at the Commission's disposal to carry out the task of establishing the industrial forests. Together these elements provided the Commission with significant authority and autonomy.

More recently, although several aspects of the Commission's organisation and structure had changed, it was still seen to maintain a unique and distinctive positioning and significant power within the governance environment. As an example, the felling controls which formed a key element of the Commission's regulatory powers and which were initially introduced to secure a supply of timber and prevent over-felling were today used to preserve the amenity of the countryside and exercise some degree of control over the rate of landscape change. There was also now an increasing trend towards self-regulation within the forestry sector (see Forestry Commission, 2004; UKWAS, 2006). Internal interviewees emphasised that whilst the degree of legislative regulation of the forest sector had never been high, newer regulations now tended to come from implementing European legislation or responding to wider Government policies. Thus, as well as its formal regulatory powers, the Commission acted as 'guardians' of standards of forestry in the UK in line with international commitments. This provided an underpinning framework for the UK Woodland Assurance Standard and the Commission subsequently achieved regulation through linking incentives to meeting the UK Forestry Standard and supporting the forestry sector in self-regulation. The Commission's policy on regulation therefore now reflected the need to protect the environment for aesthetic and biodiversity objectives and to secure the well-being of the population. This illustrates how the Commission's attitude to environmental issues has evolved in recent decades.

The unique positioning of the Commission was also reflected in its status as an organisation with cross-cutting responsibility for the territorial governance of the Assembly woodland estate. This meant that it had to have good local knowledge, utilising its local staff base, whilst also being very aware of the activities of other agencies and actors working within these areas. It also had to have an idea of how to balance the interests of the diverse localities and populations living within these areas. Equally, given that the Commission now acquired responsibility for a number of different agendas rather than a singular emphasis on timber production, which therefore required 'joined-up' working, it could be seen to be an important central point for policy delivery on a territorial level. Together this meant that the Commission was well placed to take on a central role within the governance environment, providing strategic and specialist guidance, initiating and maintaining partnership-working and mediating conflicts and tensions.

However, in discussing the Commission's new role, many of the external respondents interviewed questioned whether the Commission was making any strides in the direction of more integrated policy delivery. Elaborating on this view, a respondent from the environment sector proceeded to state that the forestry sector as a whole, encompassing FC Wales, timber producers and organisations representing timber interests, was still perceived to have a distinct line drawn around it in land-use terms. For this reason, it would always be viewed as a 'separate club', marking a clear distinction from 'the morass of everything else going around it' (Interview, CCW [28]). It was further emphasised that this was not helped by Commission's unique status as a government department with major land-management powers, which set it apart from other similarly-funded organisations such as the Countryside Council for Wales. Several other external respondents supported this claim and argued that although the inclusive approach to policy-making discussed throughout this section was now widely accepted to be a major feature of post-devolution forestry governance in Wales, the Commission continued to retain a significant degree of autonomy and ownership over both policy design and delivery, or as one respondent noted, 'allows it to act pretty much as judge *and* jury' (Interview, Coed Cymru [41]). However, internal respondents were quick to defend this structure and argued that it enabled policy and delivery to be joined-up by the policy designs and implementation strategies drawn up by WAG. It was emphasised that the separation of the policy

advice function from the implementation or delivery function, similar to the arrangements adopted in England, was perceived to lead to a more complicated process which was subject to longer lead-times and created greater potential for delays.

On further discussing the degree to which forestry was now being integrated into a broader framework encompassing all natural resource sectors, one external respondent questioned whether it would be more beneficial for the Commission to build upon its traditional strengths as a land manager and regulator in order to develop a distinctive forestry policy, rather than 'looking to everyone else's agendas and desperately try to demonstrate how we're going to deliver those agendas, which I don't think they're very good at'. This line of thought was echoed by several internal respondents, who were concerned about the direction of the Commission's work priorities. The requirement to carry out a wide range of functions on a cross-Wales level had also forced the Commission to widen its expertise and capacities, which had led to the establishment of specific teams dealing with conservation, social forestry, education and so on. Commission staff were quick to emphasise, however, that although significant progress had already been made in these areas during the first decade of devolution, these teams were still fundamentally in the early stages of development, thus there was still a great deal of work to do in enhancing their capacity to deliver the new agendas that were required of the Commission. Echoing concerns expressed by interviewees across each of the country administrations, respondents argued that in seeking to accommodate a wider than 'traditional' range of objectives, the Commission was increasingly straying into unfamiliar territory, without first considering whether its personnel were adequately equipped with the necessary knowledge and resources to deal with new areas of work:

> I think we're getting too pre-occupied at the moment with trying to define what it is we're doing in social terms and for social benefit, but we forget that we're actually good at woodland management on the ground and having really tangible outcomes. We should really be focusing our efforts on these so that we can clearly show achievements and milestones along the way (FC Interview, Wales [5].

> We're expected to do more and more with fewer resources. We're trying to respond to a wide range of issues, such as wind-power and social inclusion and so on, but this requires a significant amount of time and resources just to develop knowledge and expertise in these areas. They [FC Wales Management] seem to be drawing in people who have experience in these areas, but I really do think

> that they're trying to do too much and they've ended up in a complete mess as a result (FC Interview, Wales [8].

This view was strongly supported by many of the external interviewees who expressed significant scepticism concerning the capacity of the Commission to deliver these agendas, whilst maintaining a clear balance between economic, environmental and social needs. The quotes below are representative of the view held by respondents:

> They've got people in jobs who have been put there and told to do a job, but they don't really have the skills to do it. More careful recruitment is needed and they need to go to the top and be committed to genuinely balancing objectives and delivering across the whole range of objectives (Interview, CCW [28]).

> They do struggle a bit with their new responsibilities and I feel that they've just been sent on a course, given a task to do and then sent out to do it. That's the way the Commission has always worked – they choose individuals and say they're going to do so and so now (Interview, WDA [29]).

> They're still very much physical-output driven - they've produced timber for quite a number of years, but they're now attempting to access a whole different field and they just don't have the skills base (Interview, Biodiveristy Officer - Carmarthenshire County Council [43]).

However, in responding to such concerns, the internal interviewees thus acknowledged the increased importance of drawing in outside expertise to supplement the weaknesses in the Commission's knowledge culture. A significant change in culture was therefore evident within the Commission in Wales, demonstrated by the fact that its staff were prepared to work in partnership with others and to share its expertise in the pursuit of public interest and community well-being. Thus, as well as drawing in outside expertise, it was also providing support to a wider range of organisations.

Finally, many Commission interviews reported that despite the introduction of more formalised and professional governance structures and its closer alignment to the various structures and departments of the Welsh Assembly Government, they still acquired a significant amount of freedom in how they interpreted and carried out their roles, thus enabling them to be both responsive and reactive to both needs and circumstances. This was emphasised time and time again by higher-level policy staff working at the national level, who emphasised that through their role as 'experts' on forestry they were able to wield significant influence, and in many cases, set the

3.

agenda for forestry policy in Wales. This issue was raised by several external respondents, who were highly critical of the continuing power exercised by the Commission within the governance environment. However, the extent of the Commission's power at the local level was much more supported. Internal interviewees stated that the introduction of the new local area structure had provided local forestry staff with significant freedom to manage and regulate forests according to local needs and priorities. The autonomy exercised by the Commission on both a national and local level was therefore seen to draw on the Commission's traditional strengths as a delivery organisation. Through its role as land manager, it was still very much viewed by both internal and external interviewees as a 'front-line service', committed to the delivery of specific projects and objectives on the ground.

In order to understand the Commission's ability to maintain significant power in the governance environment it is also necessary to consider the history of its intervention in forestry policy and its institutional context. It was interesting to note that many external interviewees described the authority as '*the professionals*'. Their general view of the Commission also appeared to refer to the significant experience embedded in the organisation, with a large majority of Commission staff referred to as having been working in the sector for a long time. As has already been alluded to, this was viewed in extremely positive terms, reflecting the valuable knowledge culture within the Commission which other organisations and actors could draw on. This view was mainly expressed by some of the 'newer' organisations now working in the forestry governance environment (in particular the voluntary and community sectors) who perhaps lacked this experience. This naturally led to a greater focus on the social aspects of forestry - a field where the Commission itself was perceived to be lacking in expertise, thus there appeared to be a mutual exchange of information and support in relation to these 'new' issues. As well as highlighting the Commission's ability to work alongside a wider range of actors, this focus on the social agenda was also seen to reflect the emergence of a wider definition of forestry governance, thus questioning the basis of widespread criticism of an overtly-industrial or economic emphasis. However, linking to such criticisms, the long-term commitment displayed by forestry personnel was also used by several interviewees as a means of critiquing the Commission's institutional culture, with several references made to the continuing 'traditional forester mentality' evident within the organisation.

Some interviewees suggested that the increased power retained by the Commission through its expertise had inevitably led to limited capacity at the grassroots level, with one stating that communities appeared determined to retain control over the management and regulation of local forest spaces. Another interviewee engaged in community development work observed that there remained a great deal of negativity associated with the Commission and with forestry in general. This situation would appear to reinforce the primacy of the Commission's capacity in relation to the governance of local forest spaces, reflecting a belief that there was a need for it to maintain control over local management and regulatory functions; otherwise these tasks would not be carried out in the most effective manner. The complexity of this situation was noted by several of the respondents in support of this point. In particular, local forestry staff and staff working on the social forestry side of the Commission emphasised that communities often displayed little interest in issues relating to forestry, and thus there was no desire or enthusiasm to play an active role in the management and regulation of their local forests. Reflecting on this indifference, another Commission respondent who had worked in the community forestry field questioned the ability of communities and even established community groups to take on such activities unaided. Other respondents also suggested that the complexity of the funding environment was further dis-empowering community groups from actively participating in governance at the local level. Such views thus call into question the Commission's ability to implement its new vision of forestry through the development of opportunities for more inclusive systems of forestry governance.

3.5 Conclusion

The review of national processes of forestry governance and regulation has demonstrated the vast changes that have occurred in the state forestry sector in Britain in recent decades. Attention has focused on the development, interpretation and application of a new forest vision, based around principles of 'multi-purpose forestry', sustainable forest management and stewardship, which has now become firmly entrenched in present-day forestry policy, globally and locally. These changing priorities, coupled with the restructuring of the Commission, which has replaced the

previously largely uniform and monolithic policy previously applied at the level of Great Britain by policies geared to the differing priorities and nuances present within each of the three constituent countries of the UK have further increased the complexity of the forestry policy environment. A wide range of informed actors from external rural and environmental agencies have been drawn into new forestry policy networks, facilitating a collaborative approach to policy formulation and delivery and the evidence suggests that the Commission have recently taken a much more pro-active approach to the governance and regulation of the forestry sector. Nevertheless, as the analysis suggests, its continuing status as a government department with major land management functions has enabled it to maintain a dominant position in relation to other actors within the governance environment. This chapter has provided a solid base on which to proceed to the local spatial level, to two particular forests in Wales, allowing for an investigation of local systems of forestry governance.

4.
CASE STUDIES IN CONTEXT

4.1 The Dyfi Forest in Context

4.1.1 The state forestry sector in the Dyfi Valley

Dyfi forest is located in the northern part of the Dyfi Valley, to the east and south-east of the Cader Idris mountain range in north-west Wales between the towns of Dolgellau and Machynlleth. The Forest is predominantly composed of non-native species, principally spruce and other conifers, with 25% of broadleaved woodlands, dominated by oak, alder, willow and birch. It covers and area of over 7,500 hectares (ha), of which some 6,450 ha are in public ownership, administered and managed by Forestry Commission Wales from the Coed y Mynydd Forest District office in Dolgellau. Private ownership accounts for the remaining 1,000 hectares. The significance of private forestry in the area must be emphasised; changing government policies introduced during the mid- to late-1960s, through to the 1980s resulted in some of the public forest estate being sold to private companies. As a result, a number of large forest blocks in the Dyfi Valley are now within the control of forest companies, including UPM-Tilhil, Economic Forestry Group and Fountain Forestry. More recently, the availability of grants has also encouraged the restoration and establishment of small areas of native woodland by private landowners, individuals, non-governmental organisations and Community Councils.

The first commercial forest plantings were carried out in the 1920s; however, most of the conifer plantations were planted post-1945, with the bulk of the planting taking place during the 1950s. The planting patterns adopted under the industrial model of forestry has meant that the Dyfi Valley is now dominated by large areas of conifers of the same age, planted in rigid patterns and forming large contiguous blocks, thus giving the local landscape a very low level of authenticity. The Commission's Strategic Plan for the Coed y Mynydd Forest District acknowledges this problem and notes the difficulty in breaking up these areas and achieving the UK Forestry Standard without 'severe loss in revenue' (FC Wales, 2006). They further state that the aim of achieving 'maximum diversity of age with minimum loss of revenue' will not be easy in the area.

4.1.2 The historical development of the Dyfi Valley

The upper part of the Dyfi Valley has a distinctive character and culture, derived from its geographic, linguistic, social and historic development. Local settlement and land-use patterns have been heavily influenced by the predominance of maritime, industrial and agricultural activities in the area since the Medieval period (Dyfi Biosphere Partnership, 2004). Access to Cardigan Bay and the tidal banks of the river Dyfi, with its fishing and navigation, together with the mineral riches of its hinterland led to significant and varied industrial development, which was further strengthened following the development of water control systems and the introduction of a railway line in the early nineteenth century. Small-scale extractive industries were also prominent in the area, with the mining and smelting of metal ores and the quarrying and shipping of slate emerging as important economic activities during the nineteenth and twentieth centuries and contributing to the development and growth of many rural settlements in the area (Richards, 2008).

The villages of Corris and Aberllefenni are well known for their unique industrial heritage, with remnants of the area's extensive slate quarries forming their most prominent historical features. Among the numerous quarries that once thrived around the communities are Abercwmeiddaw and Abercorris on the east bank of the river Dyfi, and Gaewern and Braichgoch on the western slopes of the valley. The largest was the Aberllefenni Slate Quarry – a collection of three slate quarries (Foel Grochan, Hen Chwarel and Ceunant Ddu), which formed the longest continually operated slate mine in the world, until its closure in 2003 (Richards, 2008). Several other cottage industries were also developed around this industrial activity to support these rural communities, leading to a plentiful supply of local trades including hat makers, blacksmiths, boot-makers, bakers, millers, masons, rope-makers, clog makers, charcoal burners, weavers, tailors and dress-makers.

The geographical position of the northern part of the Dyfi Valley, straddling the corners of two Unitary Authorities - Gwynedd and Powys, two of the most agricultural counties in Wales, has meant that the dominant historical land use has been, and remains, agriculture, with latterly an emphasis on the development of vast industrial forest plantations. Livestock rearing is the traditional primary agricultural

practice in the valley, and the area is a stronghold for the breeding of Welsh Black cattle. Considerable impact was made upon many of the moorland and marginal land areas during the 1970s and early 1980s as a result of grant-aided agri-environment schemes. These led to widespread stone clearance, upland pasture improvement and the construction of tracks which improved vehicle access to the hills. The period since the mid-1980s saw the introduction of various conservation initiatives which have had significant impact upon the landscape and fostered traditional farming methods and conservation of the natural and historic environment, including traditional farm buildings and boundary types (Parry and Sinclair, 1985).

The arrival of the state forestry in the Dyfi Valley in the late 1920s brought with it a change in the landscape and day-to-day lives of the communities throughout the area. It provided a steady source of employment and income; by 1975, the Dyfi Forest provided full-time employment for nearly 100 men, many of whom were formerly employed at the local slate quarries, and a further 20 men were employed by local timber merchants that were established as a direct result of the developing forest (FC Wales, 2006). It also provided local farmers with better access to their land and to places that had previously been inaccessible, except by foot and horseback. An old prisoner of war camp at Ceinws-Esgairgeiliog, a small village located at the heart of the forest, was used as the Commission's nerve centre. It consisted of the main forestry office and roads department, fourteen houses for the forestry workers and their families, a Church, village hall and a library. During this time, the area also proved popular with visitors, who were attracted by the natural assets of the area, and by the easy access to the coast provided by the railway from the industrial Midlands of England and the Valleys of south Wales. Over time, this created a lucrative tourism market that led to the opening of many bed and breakfast establishments and guesthouses, and to a proliferation of static caravan parks, especially during the 1950s and 1960s (Dyfi Biosphere Partnership, 2004).

4.1.3 The local economy and community

Dyfi Forest lies within the administrative boundaries of two Local Authorities – Gwynedd and Powys, and includes part of the Snowdonia National Park Authority. The surrounding communities are very diverse, varying between traditional

agricultural areas and those affected by tourism, which have seen rapid growth in the past half century. In common with much of rural Wales, the valley has a high rate of self-employment, reflecting the large agricultural and tourism industries, and there is a substantial reliance on employment within the public sector in the area. Tourism, education, health care, retailing and distribution are the largest employers in the dominant services sector, which collectively accounts for well over half the workforce.

As with many of Wales' upland areas, the farming economy is largely dependent on stock-rearing, principally sheep and cattle, although a few dairy farms still remain in the area. Large-scale industrial developments during the 20th century have, however, undermined much of the traditional agricultural role of the area leading to significant economic and social challenges. As a result, the area is currently facing significant economic challenge to support its agricultural sector; farm subsidies, incomes and employment are falling, exacerbating the problems faced by the rural economy and strengthening the need for new business and employment opportunities. The arrival of the railway in the 1800s brought tourism to the area and this has now developed as an important economic sector within the Valley. Mountain biking, mostly on forested land, has seen rapid growth over the last several years, and the area has a substantial rights of way network, which encourages walking tourism. The Centre for Alternative Technology (CAT) is also a major draw for visitors and for educations groups, attracting over 650,000 visitors per year.

Alongside the acknowledged economic benefits of tourism, the upper Dyfi Valley area is set within a broader region that is perceived to be one of the most marginal economic areas of western Europe (Dyfi Biosphere Partnership, 2008). The valley lies within an area which qualifies for EU Objective One and Convergence Funding, while part of the area is also recognised as a Communities First area under the Welsh Assembly Government's programme to reduce poverty and deprivation in Wales' most deprived communities. The Welsh Assembly Government thus sees the need for a long-term commitment to support work that addresses social exclusion and lack of access to services in this area (Dudley and Stolton, 2000; Midmore and Moore-Coyler, 2006).

However, an important feature which binds the communities in the area is that the Welsh language maintains a strong base; 60% of residents in the upper part of the Valley speak Welsh. However, a steady decline in the use of the Welsh language in recent decades has been linked with natural loss, outward migration and in-migration. A significant development has been the Dyfi valley's growing importance as a focus for environmental and green concerns, reflected in the establishment of CAT and a number of 'spin-out' initiatives. A prominent example of local involvement in sustainable development in the area was the establishment in January 1997 of the Dyfi Eco Valley Partnership (now known as Ecodyfi), with objectives that stress the sustainable use of natural resources and community-based economies. Ecodyfi brings together representatives from the community, business and public sectors and is now an independent entity. Recent activities include a community renewable energy scheme involving various projects that use small-scale hydro, solar and wind power.

4.1.4 The natural and cultural environment

The upper Dyfi Valley lies within the Snowdonia National Park, Wales' first and largest National Park and consists of considerable areas of unimproved dry acidic grassland, blanket bog, dwarf shrub heath or heather moorland. The blanket bogs are a prominent feature of the upland landscape, dominated by sphagnum mosses and a wide range of plant communities, including cotton grass, deer grass, purple moor-grass and bog-rosemary. The southern tip of the Berwyn Special Area of Conservation[1] lies within the study area and is recognised as an area of open moorland of national and international importance due its breeding birds and vegetation (Montgomery Wildlife Trust, 1999).

While the extension of conifer plantations has had a major impact on some forms of heath and moorland species, a limited number of larger species, particularly birds, have increased. For example, the hen harrier, red grouse and golden plover have

[1] Special Areas of Conservation (SACs) are designated under the Habitats Directive (Council Directive 92/43/EEC of 21 May 1992). In the UK, the Directive has been trasnposed into national laws in England, Wales and Scotland by means of the Conservation (Natural Habitats) Regulations 1994. These are known as 'the Habitats Regulations'. Most SACs on land or freshwater areas are underpinned by notification of Special Sites of Scientific Interest (SSSIs), which are selected and notified by the Countryside Council for Wales (CCW) under Section 28 of the Wildlife and Countryside Act 1981 (as amended). See Appendix 10 for a map showing the location of designated Special Areas of Conservation in Wales.

decreased while the goldcrest has increased as a direct result of the increase in conifers. Some species, for example the merlin, have adapted to conifers by changing their breeding habitat from moorland to plantation (World Wildlife Fund, 2002), however those traditionally associated with conifers, such as the black grouse, have suffered considerable decline (Dudley and Stolton, 2000: 27).

At a lower altitude, hill sheep farming has been particularly important historically, providing a landscape of improved pastureland, with ribbons of woodland and hedgerow field boundaries in the valleys, and extensive rough grazing land with dry stone walls on the higher slopes (Dudley and Stolton, 2000). Although coniferous plantations also dominate large areas of the landscape, several pockets of native broadleaf woodland survive in the valley and on the lower hillsides and remain an important feature of the area (NCC, 1991). The flora and fauna of the valley woodlands are particularly rich, with large numbers of species, of which several are rare in the UK. Rich invertebrate faunas occur in the broadleaved woodlands, including several species protected under the UK's Biodiversity Action Plan, such as the weevil. Breeding bird populations that are locally and regionally important include the red kite, raven, pied flycatcher, redstart and wood warbler. Notable mammals present include the lesser horseshoe bat, hazel dormouse and polecat (Montgomeryshire Wildlife Trust, 1999).

Many woodlands owe their survival to the fact that they lie on soils that are either too poor or too wet to cultivate, thus reflecting the tendency for many of the remaining ancient woodlands to lie on steep hillsides. Further to this, the area's surviving oak woodlands, remnants of formerly extensive natural forests which were destroyed in the early to mid-twentieth century to make way for afforestation, have in many cases, been protected from grazing pressures by the more recent introduction of non-native tree species. As a result, some of the area's better preserved oak woodlands are now found within mainly coniferous areas (NCC, 1991). In addition, regeneration of some upland native woodland has occurred in conifer plantations where conifers have not survived due to altitude (for example, in woodland blocks north of Corris), and there is also some regeneration occurring in areas where grazing has been abandoned. The Commission is now committed to identifying important locations for expanding native broadleaf woodlands and is currently carrying out a review of all plantations

on ancient woodlands. The clear desire for a more natural forest mosaic is reflected by several initiatives available locally, such as Tir Coed, and nationally a desire by stakeholders to see an improved balance between conifer and broadleaf woodlands. This is a recurring theme running through the Welsh Assembly's 'Woodlands for Wales' Strategy (WAG, 2001).

The landscape of the Dyfi Valley is also widely valued for its historical and cultural heritage. The river catchment contains many Bronze Age burial and ritual sites, Iron Age defensive works and Roman outposts, along with important medieval buildings. These include a Bronze Age stone pillar at Maenllwyd; two stone circles, Cerrig Caerau and Lledcroen-yr-Ych; a pre-historic burial site in the Ynyshir area; Sarn Helen, a Roman road, which passed through the catchment to the west; a Roman fortlet, Pen y Crogbarn near Dylife; and a Roman mine at Forge and Pennal. (Parry and Sinclair, 1985). Remains from the 16th to 18th centuries include several silver and lead mines and forges used for smelting. Several abandoned slate quarries of historical value are also found in woodland areas, particularly in conifer plantations, and many smaller adits and workings can be found in the wider catchment (Richards, 2008). The remains of the Corris Railway, established in 1859 to serve the slate quarries at Corris Uchaf and Aberleffenni, is of considerable local and national historical interest and a Preservation Society was formed in 1966.

4.1.5 Introducing the study communities

The small rural settlements and villages to the north of Machynlleth are the main focus of this research, predominantly due to their locations immediately adjacent to, as well as within, the Dyfi Forest boundary. The four communities that have been selected include: Corris Isaf; Corris Uchaf; Aberllefenni and Ceinws. These villages form part of the Corris / Mawddwy ward in the Dyfi Valley in Gwynedd and lie just outside the boundary of the Snowdonia National Park Authority. They are unique to the area, being traditional slate quarrying and mining areas that have retained the physical and community sense of industrial communities.

Corris lies on the banks of the river Dulas, 3 miles north of Machynlleth. The village was, at one time, known as Abercorris when the old turnpike road from Dolgellau to

Machynlleth intersected the village. The A487 trunk road, which was built by the quarry workers in the 1840s now by-passes the village and divides the village into two settlements, known locally as Corris Uchaf and Corris Isaf (translated as Upper and Lower Corris). A broad definition of these settlements is that Corris Uchaf is that part of the community clustered high on the main road, while Corris Isaf sits across the deep river Valley. To all intents and purposes they are one community. Seen from the main road, at a distance, the community of Corris appears to be nestling in a hollow surrounded by steep, forested and wooded mountains on either side. The village itself consist of little flat ground; the streets are hilly and many of the houses are on three floors, built into the side of the mountain. Most of the housing is terraced, with some cul-de-sacs off, ending at the forest edge. A small amount of new housing has been built at the lower end of the village.

The village is a popular tourist destination. The Corris Craft Centre, which occupies the site of the former Braich Goch Quarry, is situated on the A487 between the two main settlements and comprises ten craft workshops which showcase the work of local craftspeople. Part of the old quarry works can now be viewed as part of the King's Labyrinth tourist attraction. The village contains a number of notable and historic buildings, including the half-timbered Corris Institute, which has recently undergone a major refurbishment, completed in late 2006. It now acts as a busy community centre and venue and includes a café, post office, a snooker room and a large hall. A number local clubs and societies make use of the facilities for a wide range of activities, such as drama classes, yoga, local history, computer skills classes, dance classes and Welsh language lessons. The village also has a Primary school, two public houses, a church, a chapel, a children's playground, an independent hostel and a narrow gauged railway, which was re-opened in 2002 as a tourist attraction.

The small hamlet of Aberllefenni is located two miles north of Corris and is the location of the Aberllefenni Slate Quarry, which maintained an active presence in the area from medieval times until the beginning of the 21st century. The hamlet consists of a few farms and a row of terraced houses, built for the quarry workers in the early twentieth century. There are very little community services and facilities; residents travel to nearby Corris and Machynlleth. The village of Ceinws, also known locally as Esgairgeiliog, is a village just off the A487, 4 miles north of Machynlleth and 9

miles south of Dolgellau. As has already been stated, the village has its origins in the slate mining industry, which existed in the immediate area from 1818 though to 1934, when the last of the village's 3 slate quarries closed. The village was served by the Corris Railway, until its closure in the mid-twentieth century. The railway and old station building can still be seen in the centre of the village. The village has a number of community facilities, including a pub, village hall and a group of craft workshops on the site of the Commission's former forestry office: 'Ceinws Camp'. Plans are currently underway by FC Wales and the Welsh Assembly Government to redevelop this site for the benefit of the local county, through the provision of affordable housing, a children's play area, community facilities and office spaces. The Centre for Alternative Technology lies about a mile from the village.

4.2 The Tywi Forest in Context

4.2.1 The state forestry sector in the Tywi Valley

The Tywi Forest lies within the landscapes of the Cambrian Mountains, a remote and sparsely populated upland area which extends from the northern slopes of Pumlumon down to Mynydd Mallaen in the south, and from the Wye Valley in the east across to Tregaron and Devil's Bridge. Access to this area is mainly by a network of footpaths, bridleways, unclassified country roads and minor roads, and informal access on foot is available to most of the area under the provisions of the Countryside and Rights of Way Act 2000 (Open Access Land) (Exegesis SDM, 2008). Much of the area is common land, with commoners exercising their rights to graze stock on the unenclosed uplands. Much of the land is owned by the Crown Estate, Welsh Water, the National Trust and the Forestry Commission, but there are also many private landowners. The Commission occupies a large landholding within the area, encompassing in excess of 10,000 ha of a 20-25,000 ha private-public complex of commercial forestry, which straddles the corners of the counties of Carmarthenshire, Ceredigion and south Powys (FC Wales, 2007).

The forest lies within the boundary of the Llanymddyfri Forest District and is one of the later forests established by the Forestry Commission in Wales. Much of the forest was established in the 1960s as a commercial coniferous forest. Accordingly, it now largely comprises highly distinct and extensive blocks of predominantly upland

coniferous woodland, with some low-lying broadleaf woodland, which neighbour onto large-scale upland agricultural holdings and other commercial forest landowners. The location of the forest, on high elevation poor soils in the uplands, now limits tree species choice and management options as the soils and elevation are prone to a high-risk wind throw hazard. Despite these limiting factors, the forest remains a high production forest, and has been identified by the Commission as an area of particular economic importance, especially during the next decade (FC Wales, 2007). It is now seen to serve an important social and environmental agenda for the settlements and populations within its boundary, in particular within the context of rural employment provision and in its contribution to the enhancement of valuable environments protected by various designated Areas of Outstanding Natural Beauty (AONBs)[2] that exist within the area. Within the Commission's current and future work schedule, opportunities have been identified for the further development of the forests in recreation and tourism terms, with significant potential to deliver additional economic and employment benefits for the local areas.

4.2.2 The historical development of the Cambrian Mountains

The Cambrian Mountains provide a rare example of a surviving, largely intact prehistoric landscape. Broadleaved woodland dominated much of the landscape following the end of the last glaciation around 12,000 years ago. The predominantly grassy heathland that covers much of the area today was created by woodland clearance from the early pre-historic period onwards, combined with climatic change, which at high altitude gave rise to blanket peat formation. These land formations represent an important archive documenting human activity in the Cambrian Mountains areas (Parry and Sinclair, 1985). By the late 12th century, extensive pastures were grazed by herds of cattle and large flocks of sheep, which provided the Cistercian abbey at Strata Florida with its principal income. Much of the area continued to be sparsely populated throughout most of the year, being exploited

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[2] In 1945, in response to growing support for the creation of National Parks, the Dower Report was published. Together with the 1947 Hobhouse Report, it recommended that a number of the finest landscapes in England and Wales should be given special legal status to ensure their preservation 'for the nation's benefit'. Landscapes of equal value were designated as either AONBs or National Parks as a result of differences in size, scale and aims. Forty one are now "Areas of Outstanding Natural Beauty" (AONBs). Eleven have become National Parks (for more information about National Parks, visit the website of the Association of National Park Authorities www.anpa.gov.uk).

during the summer months by small dairy farms on the margins of the uplands in the later medieval period. Other dominant land uses included peat cutting for fuel, a handful of small lead and zinc mines, stone quarries and several drovers' roads taking cattle to markets in the English Midlands – all at their heyday in the 18th and 19th centuries (Ceredigion County Council, 2007).

The physical landscape of the Cambrian Mountains was, until the 1940s, almost exclusively dedicated to agriculture (notwithstanding the land covered by water). Agriculture was therefore the dominant land use that shaped the landscape, predominantly through activities such as the clearance of scrub, drainage and grazing. The considerable changes that have taken place since the War period have been largely associated with the decline of agricultural prosperity and employment. Changing farming systems, in particular the expansion in sheep farming and the contraction of other agricultural activities such as cattle and pony grazing, have had significant implications for the landscape and wildlife diversity (Linnard, 2000). One of the most obvious features of the declining physical landscape are the abandoned farmsteads which signify decline and abandonment, and the disappearance of communities. Further to this, during the post-war years, it was considered that the demand for, and financial viability of timber products far outweighed the requirement for food in marginal agricultural areas as the Cambrian Mountains.

The Cambrian Mountains provides an abundance of water resources that are considered extremely valuable, and their exploitation during the course of the 18th and 19th centuries to assist in lead-mining, and more recently to provide water and energy to remote towns and cities, has had major impact on the area's landscape. The combination of deep valleys, high rainfall and low population led to the establishment of Birmingham's Elan Valley reservoir scheme in 1890. The construction of the dams and associated waterworks had a major local impact, with the building of a new village for workers, new railways and roads, as well as the flooding of older settlements. Further changes followed during the construction of the Claerwen dam in the 1950s. Furthermore, the Llyn Brianne reservoir was completed on the headwaters of the river Tywi in 1972. Described as a regulatory reservoir, its purpose was to supplement flows in the Tywi during dry periods. These developments clearly show

that the needs of towns and cities far distant from the Cambrian Mountains area can have a major impact on its remote landscape (Ceredigion County Council, 2007).

4.2.3 The local economy and community

As a rural heartland, the Cambrian Mountains share characteristics with the other uplands of Wales. Firstly, it is an area of very low population density of 0.05 people per hectare, which compares with a Wales average of 1.4 people per hectare. Within the upland communities, there are fewer young adults (20-30 years) and a greater number of older people of working age (45-65 years) compared to the populations of Powys, Ceredigion and Carmarthenshire as a whole. Further to this, 19% of the resident working population of this area is employed in agriculture and forestry; a very high level compared to regional and national averages (Ceredigion County Council, 2007).

According to data collected by Exegesis SDM Ltd (2008), the area is overwhelmingly characterised by pastoral farming, with 1,572 farm holdings, and two-thirds of active farms supporting a full-time farmer, although now only 18% employ additional labour. These farms are dominated by sheep rearing, with 80% of farms keeping sheep. In 2005, the Cambrian Mountains supported 591,000 breeding ewes (14% of the nation's breeding ewe population), 21,500 beef cattle (9% of the breeding suckler herd) and 2,4000 dairy cattle. In employment terms, nearly half (49%) of the working population living in the Cambrian Mountains also work in the area, with much of this employment being very local. This represents a very high level of 'self-containment' and sustainability, with people living and working in the same locality. Compared to many other regions of Wales, tourism is not well developed and there is a limited supply of high quality, serviced accommodation within the surrounding towns. Based on an extrapolation of tourism data for the three counties, it is estimated that 870,000 visits are made to the Cambrian Mountains annually, or 4.5% of the combined tourism activity of Powys, Ceredigion and Carmarthenshire (Exegesis SDM Ltd., 2008).

In combination, these characteristics highlight that the Cambrian Mountains are typical of the most rural parts of Great Britain. They still have a relatively self-contained economy that is demonstrably different, and in part, separate from that of

the surrounding urban areas (Ceredigion County Council, 2008). The Cambrian Mountains have a significant percentage of the population employed in agriculture, thus this sector represents an important driver in the local economy. This strong focus on the land-based economy has shaped the character of the rural communities and the nature of the surrounding area. The central challenge for the indigenous farming community is that upland farming in Wales remains a financially marginal activity – a point highlighted by Midmore & Moore-Coyler (2006) in their study on the future of the uplands in Wales. The trend of young people moving away from the area is seen to further undermine the future of farming, leading to a drain of knowledge, skills and traditions from the uplands. In turn, the traditional Welsh cultural roots of the communities are being eroded and the once strong local economy is weakening. However, there are significant opportunities to re-align agricultural payments to reward the specific range of benefits and services that farming provides. Already, payments distributed under Tir Mynydd (payments allocated to Less Favoured Areas) and payments under Axis 2 of the Rural Development Plan for Wales (agri-environment scheme payments) make a significant contribution to the agricultural and wider rural economy of the Cambrian Mountains.

The tourism sector, whilst important, is not a significant part of the rural economy, as in many other parts of the rural Wales, with total agricultural income (excluding agri-environment scheme payments) equivalent to £47.5 million in 2006, as compared to an estimated tourism income of £32.6 million (Exegesis SDM Ltd., 2008). The three councils operating within the area have, however, identified significant opportunities to expand and diversify the local economy through sustainable tourism schemes based n the special qualities of the area, and linked to the provision of high quality accommodation within the towns and on farms.

4.2.4 The natural and cultural environment

The Cambrian Mountains are based on three upland blocks, with large areas over 300 metres above sea level. These are Pumlumon in the north, Elenydd in the centre, and Mynydd Mallaen in the south. The resulting mountainous landscape is not characterised by steep high peaks, as such, but by a smooth plateau offering sweeping landforms. Moorland dominates the plateau, with peaks rising to over 700 metres,

including the highest mountain in central Wales, Pumlumon at 752 metres (Cambrian Mountains Society, 2006). The remote landscape offers some of the longest views in Wales and many areas are only accessible on foot or on horseback. Narrow valleys carve the plateau and its fringes, and range from narrow ravines and gorges to U-shaped valleys. Valley sides are clothed in semi-natural woodland or conifer plantations, with pasture on shallower slopes and valley floors. A few broader valleys dissect the plateau, providing the main communication routes across the mountains. Enclosed farmland and settlements follow these broad river corridors (Ceredigion County Council, 2007).

The Cambrian Mountains are immensely important for wildlife, especially the remaining habitats and associated species of blanket bog, upland heath, native western woodland and the freshwater habitats of the numerous upland lakes. In total, 29.489 ha, or 15%, of the area is designated as internationally important for wildlife (either as Special Protection Areas (SPAs)[3] or Special Areas for Conservation). In addition, a further 4,971 ha, or 2%, are nationally important as SSSIs. The value for wildlife was recognised in agricultural policy in 1986, with the designation of the Cambrian Mountains ESA, which provided farmers with agri-environment scheme payments for managing land in ways that supported conservation objectives (Midmore and Moore-Coyler, 2006). The Cambrian Mountains equally provide a rare example of surviving, largely intact prehistoric landscapes, which have been preserved largely due to the area's remoteness. The cultural associations of the area reflect all periods, from pre-history to the present day. In recognition of this cultural heritage, there are no less than 259 Scheduled Monuments receiving national protection. In addition, Cadw has identified five Landscape of Outstanding or Special Historic Interest within the Cambrian Mountains that represent particularly important layerings of different phases of historical significance and contribution to wider Welsh culture. These are Upland Ceredigion, Dolaucothi, the Tywi Valley, the Eland Valley and the Clywedog Valley (Dudley and Stolton, 2000; FC Wales, 2007).

[3] Special Protection Areas (SPAs), established to protect wild birds, are designated under the Birds Directive (Council Directive 79/409/EEC of 2 April 1979), commonly known as the 'Birds Directive'. In England, Scotland and Wales, the provisions of the Birds Directive are implemented through the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats) Regulations 1994. The Habitats Regulations apply to the UK land area and its territorial sea, and are supported by government policy guidance. A map showing the location of designated SPAs in Wales is attached at Appendix 12.

However, the dominant land-uses within the area pose a number of challenges to the preservation and enhancement of these special features. Past production support regimes of the CAP led to a significant increase in sheep numbers, at the expense of cattle, which resulted in increased pressure on upland habitats. In particular, this has led to the drying out of blanket bogs, burning and over-grazing. The challenge now is to redress this balance, recognising that these regimes were in place for some 20 years and that it will take a similar length of time for upland habitats to recover to a favourable conservation condition under appropriate management (Ceredigion County Council, 2008). Such appropriate land management has the potential to deliver a wide range of benefits.

Firstly, the Cambrian Mountains have no less than 17% of the woodland cover of Wales, including 25% of the nation's conifer plantations. These offer significant resources of wood and timber, providing sustainable building materials and wood for fuel, both locally and nationally. Secondly, the area and its landscape features supports 15 habitats included in the UK Biodiversity Action Plan and on the List of Habitats of Principal Importance, including blanket bogs, upland and lowland heath, and ancient oak woodlands. In turn, these habitats support a great diversity of species, with 35 species on the UK and Wales Priority List, including otter, red squirrel, polecat, grouse, merlin and the golden plover. Most significantly, the area is the last stronghold of the red kite in the UK (Exegesis SDM Ltd., 2008). The area therefore has a fundamental role to play in meeting nationally identified outcomes for biodiversity. Finally, the area offers over 94,000 ha of free public access, supplemented by a good rights of way network and tracks that cross the open moorland following historic routes, with a range of national and regional walking and cycling trails. In all, these represent a vital recreational resource that is essential to health and well-being.

4.2.5 Introducing the study communities

The small rural villages and towns in the Cambrian Mountains area that have been chosen as the focus of this research are predominantly located immediately adjacent to the Tywi Forest boundary. The four communities that have been selected include:

Tregaron, Llanddewi Brefi, Pontrhydfendigaid and Rhandirmwyn, all of which played a central role as forest communities throughout the latter half of the twentieth century.

Tregaron is the smallest town in the county of Ceredigion. It has played an important role as a market town, ever since the drovers gathered in the town in the days of Elizabeth I to drive their cattle to the West Midlands. The arrival of a railway in the area in 1866 meant that the drovers lost their market to the cattle wagons. The railway station closed in the 1960s and the site is now home to a vast industrial estate. The local market continues to play an important part in local life, with a cattle auction every fortnight and a sheep market held weekly during the autumn. There are two schools in the town - the Primary School which has around 80 pupils and the Secondary School which is fed by the primary schools of the nearby rural villages. The Wesleyan Chapel closed in the 1960s and a garden of remembrance now marks the site. There are also over thirty organisations and voluntary societies in the town.

The Red Kite Centre is one of Tregaron's main attractions and forms part of Ceredigion Museum with displays the area's cultural and rural heritage. It is housed in an old Victorian school, which was re-developed as a community and visitor centre in 2003 using funding from the Countryside Council for Wales. Welsh has traditionally been the main language of the town; however, according to the 2001 Census the percentage of Welsh speakers has decreased in recent decades to just over 50%. Tregaron is also part of the Communities First initiative and is therefore facing significant challenges in terms of regeneration. A number of local schemes have recently been introduced by Ceredigion County Council to improve the provision, facilities and opportunities available for young people in the area, including the appointment of a dedicated youth outreach worker for the village.

Pontrhydfendigaid is a village, 6 miles north of Tregaron, which lies on the river Teifi. It is known for its location close to the site of the 12 century Cistercian Abbey, Strata Florida. The village is home to an annual Eisteddfod, which was established in the mid 1960's by Sir David James who was brought up on the Pantyfedwen farm in the village. He was a successful London businessman who owned a chain of cinemas but was determined to improve social opportunities in this home village and

contributed a large amount of finance towards developing a cricket ground, snooker hall, library and other resources in the community. A large concert hall was built in 1967 to house the Eisteddfod and other events. Over the years, the 'Pafiliwn', as it was known locally, developed into an extremely popular venue for holding cultural events of all kind, attracting thousands of people from all over Wales. Over the last few years, a group of volunteers have worked to gather funding for redeveloping the pavilion. With assistance from the Ceredigion Economic Regeneration Partnership they were successful in raising almost £2.4m to rebuild the pavilion and it was re-opened in May 2006. As well as the Pavilion, the village has numerous community facilities, including a hotel, pub and shop.

The picturesque village of Llanddewi Brefi is tucked away between the market town of Tregaron, three miles to the north, and the university town of Lampeter, eight miles to the south. It has a population of 500 people. It was originally called 'Brefi' after the river which runs through it, with 'Llanddewi' being added later. 'Brefi' may have come from the Roman 'bremia'. 'Llan' means church, parish or village, and 'ddewi' comes from the name Dewi. Dewi Sant (St. David), a sixth century preacher, who became the patron Saint of Wales, has strong links to the area; the village's historic church contains ancient inscribed stones and a statue of Dewi Sant. In the past, the village had a smithy, several shops and two pubs. There was also a milk factory in Pont Llanio, a small hamlet one mile north of the village, which provided valuable employment for local residents. The railway line which serviced the area has since closed, but the village is serviced by a good bus service. The village also has a number of community facilities, including a Primary school, a church and a chapel, a village shop, two pubs and a church hall. The village has a local football team, and there are many facilities available at the community centre, including snooker and pool tables.

Rhandirmwyn is a small scattered community situated in the upper Tywi valley, in Carmarthenshire. The village's name is derived from the joining of two words, namely, 'Rhandir,' which means an area of land and 'Mwyn,' which means mineral. Rhandirmwyn effectively extends along both sides of the Tywi river, some two miles north of Cilycwm village and extends up the Gwenffrwd valley towards Cwrt-y-Cadno as far as Bwlchyrhiw and then east across the mountains into Ceredigion and

Powys. The upper Tywi valley has wonderful scenery and is popular with walkers and outdoor enthusiasts. Tourism is now the main industry and many of the farm buildings have been altered into dwellings and holiday lets. Farming is also still important and contributes greatly to the economy of the area. Sheep rearing is still the main farming activity, but many farms are now diversifying into organic crop cultivation and holiday accommodation. The village school closed in 1969 and the children now attend the Primary school in the nearby village of Cilycwm, located 3 miles away.

The village has changed considerably in recent decades; there has been an increase in the number of houses and the surrounding mountains are now covered in coniferous trees. The village also has a shop and post office, two public houses, namely the Towy Bridge which is on the bank of the river about a mile above the village and Royal Oak which is in the centre of the village. The tearoom and restaurant at the old mill at Nantybai is also popular with visitors to the area. A camping and caravanning site is located on the edge of the village, just on the bank of the river Tywi, and commands wonderful views of the valley. Rhandirmwyn and the upper Tywi valley has an abundance of wildlife, including red squirrels, foxes, badgers and of course many wonderful birds. A bird reserve is located to the north of the village, and the Cwm Rhaeadr project in Cilycwm has been developed for us to enjoy and appreciate the outdoor life. A new cycleway has recently been constructed, as well as an all ability access trail for those with physical disabilities.

5.
HISTORICAL FORESTRY GOVERNANCE AND REGULATION
Establishing an industrial regime of forestry in mid-Wales

5.1 Introduction

The purpose of this chapter is to examine the development of industrial forestry in the upland areas of mid-Wales, focusing specifically on two large coniferous forests that were established by the Commission during the mid-twentieth century. Drawing on the views of operational forestry personnel, both current and retired, along with the perspectives of residents living within the local forested communities, a detailed account of the development, management and regulation of both forests is provided, offering a valuable insight into the implementation and expansion of the industrial regime of forestry which featured prominently in the rural landscapes of Britain during the twentieth century.

The chapter begins with a brief introduction to the upland landscapes of Wales, outlining the key characteristics which made it an attractive space for the Commission in its aim of establishing large-scale coniferous forests to supply timber for the national reserve. It then looks in detail at the strategies adopted by the Commission as it set about to acquire large tracts of agricultural land for afforestation, and the contestations that ensued as particular transformations of nature were imposed on the local agricultural landscapes. The following section looks in detail at the vast changes that occurred in the rural landscapes in subsequent decades as the Commission proceeded to control, manipulate and configure local physical and social conditions and the relations between them in order to pursue the principles of industrial forestry. The chapter ends by reflecting on the rationale underpinning industrial forestry in the uplands and looks in detail at why, despite initial widespread opposition to the afforestation plans, the Commission was enabled to proceed to maintain a clearly defined rationale for its continued presence within the upland areas.

5.2 Rural mid-Wales and the production of timber

The agricultural areas of mid-Wales have a long association with timber, stretching far beyond the introduction of industrial plantation forestry by the Commission in the early twentieth century. For centuries, many of the valleys, hillsides and mountainsides were cloaked in extensive natural woodland, the evidence for which is provided in various recorded local place names which suggest that woodlands, particularly the oak and birch variety, were one of the most characteristic forms of natural vegetation in these areas. Various traditional methods of woodland management were subsequently developed from the medieval times to make use of these valuable resources, providing large timber, fuel wood, bark for tanning, shelter for stock and areas for grazing (Dyfi Biosphere Partnership, 2008). These objectives gave rise to definable management systems, some of which survive to this day, including high forest to produce large timber, coppice to provide regular crops of small wood, and wood-pasture in which timber was yielded in the presence of grazing animals. The last of these were particularly evident in the Dyfi and Tywi Valleys, where farmers traditionally valued woodland for providing shelter and grazing, especially for sheep. Woodlands thus existed alongside a pastoral system for centuries, but the presence of prolonged and heavy grazing ultimately played a major factor in the gradual decline of the natural woodland cover in both areas.

Allied to this, the development of various timber-using industries in the mid-nineteenth century led to the further decline of valuable oaks and alders which occupied the 'ffridd' or the lower hill slopes. The higher quality stems were supplied to the shipyards at ports in Cardigan and Pwllheli for the construction of large wooden sailing vessels, whilst the smaller trees supplied charcoal to sustain the iron smelting trade in south Wales, and the lead and copper working of mid-Wales and the north (Linnard, 2000). When coal later replaced charcoal for this purpose, the surviving woods were felled to fulfil the demand for pit-props from the mines and to support the widespread growth in the construction of industrial buildings and domestic properties. Finally, the exceptional demands of the First World War led to the virtual decimation of much of mid-Wales' natural woodland resource (Dudley and Stoton, 2000).

It was within this context that the Commission set out to 'restore the forests of Wales to their former productivity' (FC, 1960: 3). Having made significant early progress with the establishment of five forests in its first half a decade in operation (Linnard, 2000), the Commission looked upon the upland areas of mid-Wales as a suitable location in its search for additional land on which to fulfil its duty of creating vast industrial plantations of coniferous trees. The physical characteristics of these areas were seen to offer suitable conditions for planting coniferous trees; being wet, exposed and with poor soil conditions, which meant that little else would grow on the valley sides and tops. Furthermore, much of this land was viewed as 'unproductive' in economic terms, with agriculture, mainly in the form of sheep farming struggling to make an economic return.

In fulfilling its duties to ensure the production of an adequate supply of timber, the Commission proceeded immediately to acquire land for afforestation in the Dyfi Valley, with planting commencing soon after in 1926. During this time the Commission exercised free autonomy in acquiring land – a task which it carried out with relative ease in this area due to the plentiful supply of agricultural land on the market. Many local farmers had begun to feel the effects of low productivity levels within a waning agricultural sector and were therefore only too happy to part with farms which would otherwise have proven difficult or impossible to sell. The decade that followed therefore showed a steady growth in acquisitions, providing the Commission with a more than adequate reserve of land. However, despite early progress with the establishment of several new plantations, the area only played a limited role in timber production when western Europe was once again plunged into War in 1939, thus the little woodland resource that existed in the area was either clear-felled or destroyed during the hostilities. However, the further experience of timber shortage during the War only served to reinforce the initial strategic reserve of timber argument which had underpinned the establishment of the state forestry sector. Further to this, emphasis was once again placed on the social and economic benefits of afforestation, in particular the provision of diversified employment for struggling upland farmers and new smallholders, together with the potential for increasing the productivity of otherwise 'useless' land (Mackay, 1995).

Thus, in line with the Government's post-war expansion programme efforts at restoring reserves of standing timber proceeded with increasing pace and efficiency from the late-1940s onwards. Increased Commission activity was seen, not only in the Dyfi Valley, but in other areas of the Welsh uplands leading to a major transformation of the rural landscape on a scale never witnessed before. This chapter therefore focuses on the vast changes that occurred within the upland areas of mid-Wales during the post-war period, with specific reference to the further expansion of the Dyfi Forest and the establishment of the Tywi Forest from the mid-1940s onwards. The manner in which industrial forestry was introduced and subsequently developed in both areas will now be explored in greater detail.

5.3 Socio-natural impositions and contestations in local space

The implementation of post-war forestry policy in the Dyfi Valley initially proved a difficult task as a result of the government maintaining pressure to boost domestic food production through the provision of financial incentives for hill farmers and opting for a 'controlled' clearance of potentially high-yielding forest land, even though it offered little potential for food production. This only served to weaken the Commission's position and limited its ability to draw on its extensive land reserves, which had grown in size over several decades. Agricultural priorities often prevailed to keep the higher quality arable and pasture land under the control of the Agriculture department. Accordingly, the post-war afforestation programme for the Dyfi Forest was predominantly concentrated in the poorer upland grazing areas (Ryle, 1969; Linnard, 2000). Pre-war improvements to the operation and performance of cultivation machinery, complemented by the development of new silvi-cultural techniques, now provided the means to establish industrial plantations on such sites, which had been considered an impossible task in earlier decades.

5.3.1 Introducing Industrial Forestry in the Welsh Uplands

Although the concept of industrial plantation forestry was not an entirely new phenomenon in the Dyfi Valley by the post-war period, the initial land acquisition process clearly provoked strong feelings and emotions within the local communities. For many, the impending changes in the use and character of their familiar local landscapes, as witnessed elsewhere, stood to threaten the old way of life on the Welsh

mountains. What angered many long-standing residents was the way in which the complex histories associated with these landscapes and the long interaction between people, sheep and their environments that had led to their creation, and indeed continuation, was completely ignored. Furthermore any concerns raised by tenant farmers or local residents concerning future development plans were rarely acknowledged, with the Commission making very little effort to stabilise and improve relations with the local communities. The interviews with residents indicated that communities were virtually excluded from any decision-making processes concerning land acquisitions, despite their relative proximity to the affected areas and hence the ensuing impact on their everyday lives:

> ...in those days the Commission would do what they wanted to do – it was the case of the 'Government concern' at that time, so no, I wouldn't say that communities were involved in any discussions. Of course, they didn't care about things like that back then – they just used to buy the land and develop it. (Interview, Dyfi ex-forestry worker)

It also appears that the FC pushed forward with the afforestation plans despite concerns raised by landowners and their tenants over the loss of productive land and agricultural livelihoods and the perceived environmental and cultural effects that would arise from the Commission's 'destructive' actions:

> ...the landowners were writing to the foresters and pleading with them to leave them some roots and the Forestry Commission were just basically ignoring them, unless it was in their interests and they wanted to leave some roots, because it would be beneficial for management or eventual extraction purposes. (Interview, Dyfi resident).

The lack of consideration given to local feelings and expressions of concern gave rise to a great deal of antipathy towards the Commission, in particular of the way in which vast industrial plantations geared to the production and extraction of timber were essentially imposed on the local landscapes and the lives of the local communities by the external, imperialist state. Many residents recalled memories of how the forest originated and the often forceful and dominant approaches taken by FC officials as they sought to assert their presence within the local areas:

> ...they just came in, decided what they wanted to do and steam rolled through any opposition – they didn't take any regard for local people's feelings at all and that's where the history of the Councillors being anti-Forestry Commission came in, you know, it was like a colonial Army coming in and imposing their will and resentment, which is still harboured by the older generation. (Interview, Dyfi resident)

> In the early days there was certainly an autocratic attitude from the forestry, you know, they were the civil service and the government state forest. (Interview, Dyfi resident)

This was largely seen to be influenced by the Commission's colonialist roots and connects with findings from previous studies of FC activity during this time in which the Commission's land acquisition processes were likened to 'a kind of English Stalinism' (Kitchen et al., 2002: 149; see also Winter, 1996; Morgan, 1982). Frequent references were made to the arrogant and condescending manner in which senior officials from the FC, who played an instrumental role in co-ordinating the development of the forest, dealt with local landowners and residents and proceeded to exploit their positions as Government officials to push forward the planting proposals. Many were left feeling inferior to the high-status, University-educated officials which only served to sour relations between the FC and local communities.

These examples clearly highlight the discord between the Commission and local residents during the establishment and subsequent development of the Dyfi forest and the events that ensued as the communities struggled to come to terms with the vast changes to their local environments. Yet, despite the indifference shown by forestry officials towards concerned tenant farmers and residents there was clear evidence to suggest that the Commission as a whole was not oblivious to such conflicts. In fact, as early as 1920 it was foreseen that 'the afforestation of land...is bound to cause inconvenience and even hardship to existing owners and occupiers: the cry of mutton versus trees will be raised' (Linnard, 2000). Further acknowledgement was also given a decade and a half later when it was stated that 'the desirability of introducing exotic trees to Britain...has given rise to controversy' (FC, 1934: 50). However, such statements appear to have had no bearing on the Commission's approach to afforestation in the upland areas of Wales. The historical research carried out indicates that hierarchical systems of governance, which effectively excluded local groups from decision-making processes were not only confined to the Dyfi Valley, but were also observed in other areas of the Welsh uplands. This was particularly the case in the Tywi Valley in mid-Wales, where depth of feeling against the Commission's vast afforestation effort, in particular its threat to the traditional Welsh rural way of life, eventually came to a head in the late-1940s when a scheme was announced to afforest

thousands of acres of agricultural land in the heart of the Cambrian Mountains. The site earmarked for afforestation encompassed a vast area in the heart of land in what was then the three counties of Cardiganshire, Carmarthenshire and Breconshire and formed what the Commission termed the 'mid-Wales desert' (FC, 1947). This occurred at a time when land acquisition by the Commission was reaching its peak, leading to significant transformations to the face of much of rural Wales. The proposals proved particularly controversial in this area as it was considered to pose an immediate threat to the organic rural communities that were seen to represent the heartland of Welsh rural culture. It eventually culminated in what came to be known as the 'Battle of the Tywi' (Linnard, 2001: 207).

Unbeknown to the local communities, the first interest shown by the Commission in this area came after the cold winter of 1947, described by many local residents as a period of despair for those working in the farming sector. It was during this difficult time that the Commission made its first official acquisition in the area, following a chance meeting between a Commission representative and a local landowner. Although little use could immediately be made of this parcel of land due to its inaccessibility and the proximity of adjoining agricultural land, it clearly signalled early efforts by the Commission to secure land in the area. The Commission recognised that a reliance on voluntary purchases alone from the many farmers who lived on the mountains would undoubtedly prove too precarious. Thus, in what one former land acquisition officer described in an interview as a 'conscious effort' to avoid opposition, it was proposed that steps would be taken to obtain more land in the area.

As a first step, the owners and tenants of the area's scattered farms were notified in a letter from the Director of the Forestry Commission in Wales that a public meeting would be held at Llandovery Town Hall on the 18th of November, 1949. During the meeting they received the news that forty-eight farms, covering a total area of 20,000 acres, would be taken over by the Forestry Commission over a period of 40 years to create the biggest forest in Wales. It was stated at the meeting that acquisition would initially be on a voluntary basis, however, if it proved difficult to acquire the necessary land by voluntary means, it was emphasised that the Commission would undoubtedly 'have to resort to compulsion' (Herald of Wales, 1949a) Such a drastic

course of action was justified on the basis that it would offer 'significant long-term improvements' to the economics of the area, and at the time it appears that little consideration was given to the livelihoods of the many farmers and the long family histories that would be lost through the sale of the land (Davies, 1994). Agriculturalists and representatives from the FC were both in agreement that the long-term economic outlook for the Tywi Valley appeared bleak as a result of the poor economic conditions that prevailed within the agricultural industry at that time The area and its abundance of agricultural land was therefore seen to offer tremendous scope for the development of a vast industrial forest that would 'fulfil a need for pit-props' (Interview, landowner, Tywi), providing that the land could be acquired on a phased programme.

The area of land earmarked for acquisition straddled the corners of three counties – Carmarthenshire, Breconshire and Cardiganshire. The plan for the first two decades had been drawn up in fair detail by the Ministry of Agriculture, with the main aim of giving farmers and landowners 'the utmost time to make their arrangements and to cause the least possible disturbance' (Carmarthen Journal, 1949a). This was outlined in full at the meeting. The plan fell into two parts, and the affected farms were grouped accordingly. The first group consisted of the farms which were earmarked for planting in the first twenty years. This group was split further and the probable dates of planting were given, ensuring a planting programme of around 400 acres per year (Carmarthen Journal, 1949a; Davies, 1994). The second group of farms were to be incorporated into the scheme after the first twenty years, but it was clearly emphasised that if the farmers wished to sell their land earlier the Commission would be willing to negotiate.

Hope was expressed by the officials that all those concerned would co-operate to ensure the establishment of a new industry in what was described by the Director of the Commission in Wales, as a 'thinly-populated area' (Carmarthen Journal, 1949a) and also to make the best use of the land, which remained under food production. It was emphasised that this long-term scheme provided farmers with plenty of prior-notice, whilst at the same time allowing the area to capitalise on the benefits of economic forestry. The main idea was to effect a gradual reduction of the farming interest in the locality and its steady replacement by the forestry interest. This was

seen as crucial to fulfil the urgent need for timber – a problem that was particularly acute in south Wales, where pit-wood was required for the collieries (Davies, 1994; CPRW, 2004). It was also emphasised that the scheme would be implemented with every intention of offering forestry jobs to farmers who would have to surrender their farms. This would have the effect of turning an area referred to by the officials as 'the mid-Wales desert', with its rapidly decreasing population and vast acres of agricultural land, on which there were only scattered houses, into a 'cluster of villages of over 1,000 inhabitants' (Carmarthen Journal, 1949a). Specific services, including additional housing, would, in turn, be provided to meet the perceived influx of forestry workers (Carmarthen Journal, 1949a).

Once the farmers and landowners had been informed of the proposals, the plan was formally announced by Mr A. Lloyd Owen, Chairman of the National Committee of the Forestry Commission in Wales, at a press conference in Cardiff later that day. He was accompanied by Mr. A.P. Long, Director of Forestry for Wales, and Mr. J. Morgan-Jones, Welsh Secretary of the Ministry of Agriculture. It was explained that, on the recommendation of the National Committee for Wales, the plan had been submitted and approved by the Minister of Agriculture and that the earlier meeting in Llandovery was subsequently convened to ensure that the owners and occupiers concerned fully understood the plan. These developments were well documented in an article published by the Herald of Wales on 26 November 1949, from which it became clear that very little consultation had, in fact, been undertaken by the Ministry of Agriculture and the Commission itself, prior to the official announcements. The words of Mr. A. Lloyd Owen, quoted in the article's coverage of the Llandovery meeting clearly indicate this:

> It was a shock to them [the farmers and landowners], although they had been prepared by Press publicity.

Despite the assurances provided by government officials at the meeting, the announcement of the scheme in this way caused a great deal of controversy with the Ministry and the Commission encountering widespread local resentment and political opposition to the plans. Residents present at the meeting recalled their disbelief at hearing of the Commission's intentions for the area and the manner in which the afforestation plans were being implemented, with very little consideration being given

to local views and interests. Many were not accustomed to conversing in English in their day-to-day lives and therefore felt unable to publicly oppose the plans, whilst those who felt confident enough to challenge the Commission's actions were angered further by the dismissive and despotic attitude expressed by the FC officials in attendance, as one local landowner observed:

> "My father got up and asked; 'What happens if we want to object?', and the secretary who was attending on behalf of the Government, Morgan Jones, said; 'If you want the gloves off you can have them'. So, it went on from there." (Interview, resident, Tywi)

Feelings ran high after the meeting and the local landowners, under the guidance of the secretary of the NFU in Carmarthenshire, assembled to discuss strategies to contest the Commission's deplorable actions, particularly as a statutory Government body which was expected to protect the interests of farmers and landowners (Davies, 1994). It was widely reported in the national Press that on the 3rd of December, the farmers affected by the proposals gathered at one of the remote farms to be taken over by the Commission and agreed to form a defence committee to oppose the acquisition plans (Carmarthen Journal, 1949c; Western Mail, 1949a). The resolution, which was unanimously passed by all those present at the meeting, was quoted in the Herald of Wales (1949b):

> This meeting, held in the heart of the threatened area of farmers involved in the Forestry Commission's demands in central Wales, expresses its bitter disappointment at the dictatorial attitude of the Commission and pledges itself to oppose the plan by all means in its power.

After the meeting, a spokesman stated that the farmers were angry at the way they had been treated by the Commission. It was claimed that they had been called from a wide area to the meeting at Llandovery, at short notice, and when they arrived the proposal had simply been 'sprung upon them'. As a result, it was felt that the area would no longer be a 'traditional Welsh pastoral community' (Carmarthen Journal, 1949c).

The actions of the farmers were supported by the local representatives of the National Farmers' Union, who requested that the President, Sir James Tanner, contact the Ministry of Agriculture to ask that no action be taken until the Union had been given the opportunity to look fully into the matter and provide any necessary representations (Western Mail, 1949b). In response to this, on the 16th of December 1949, a meeting,

convened by the NFU branches of the three counties affected, in consultation with the relevant Members of Parliament, was held to discuss the matter further. Over four-hundred farmers, landowners and residents in attendance passed a resolution to be sent to the Minister of Agriculture protesting against the Commission's acquisition plans, and demanding a public inquiry to decide whether the scheme should proceed, or not.

Supporting this motion, representatives from the Carmarthenshire branch of the NFU emphasised that their organisation was only notified of the scheme when it was presented at the Welsh Committee and did not gain approval. Furthermore, the county branch was informed of the scheme on the 15th of November, just three days before the Llandovery meeting, at which local farmers and landowners affected were notified. Accordingly, it was emphasised that the Welsh Committee were not at all satisfied with the manner in which the proceedings had taken place, and therefore supported a resolution which would be submitted to the appropriate authority (Carmarthen Journal, 1949b). In a similar vein, Tudor Watkins, MP for Breconshire noted that he believed that there was a case for afforestation, but that the procedures adopted by the Ministry of Agriculture was entirely mis-guided. The county agricultural committees had been presented with a report that had been prepared by the Ministry and the Commission with virtually no external input, and which they were then simply forced to accept. Echoing such concerns, it was claimed that Mr. Roderic Bowen, MP for Cardigan, requested further information relating to the proposed forestry scheme from the Minister of Agriculture, but that the only information given was by way of a 'press handout' dated the 18th of November 1949. From this, he emphasised that there was nothing in it to indicate that farming interests had been considered and that the proper representatives of the farming community had been consulted in order to ensure that the scheme was discussed and debated before it was brought into operation. Alternatively, an article published in the Carmarthen Journal on the 23rd December 1949 (1949b) documenting the proceedings of the meeting suggested that there was strong agreement that:

> ...the whole scheme should be looked into again, and looked into in consultation with the people vitally concerned. If public money is to be spent on the area, they should see to it that it is spent in a way which is in harmony with the wishes of the people concerned and which is likely to produce the best economic results.

At the meeting, the proposal put forward by local farmers and landowners for the establishment of a Defence Committee was formally agreed and its membership was formalised. As well as the Members of Parliament for the three counties, who had come to play a prominent role in the campaign, the committee was also made up of six farmers, whose land was to be absorbed into the forestry plan; three representatives from each county, rural and parish council in the areas concerned; three representatives from each of the three county branches of the NFU; and nominated representatives from the Central Landowners' Association (Carmarthen Journal, 1949b; Western Mail, 1949a).

As a first step in the campaign, a delegation from the Defence Committee met with the Minister of Agriculture at the House of Commons on the 10th of July 1950 to discuss the proposed afforestation scheme. Although the farmers and their representatives were given the opportunity to present their case, the meeting proved unsuccessful in delaying the scheme, with the Minister rejecting calls for the matter to be referred back to the Agricultural Works Committees in each of the affected counties, and for a full public inquiry to be held (Davies, 1994). In a public statement issued on the following day, and quoted in full in a Western Mail article on Friday, the 12th o December, the Minister of Agriculture placed emphasis on the suitability of the area for afforestation:

> Generally, I am satisfied, after careful consideration of the agricultural and silvicultural characteristics of the area that the balance of advantage in the national interest lies in devoting it primarily for afforestation. On the one hand, its productivity use for agriculture is low, the population is small and its roads and services are poor. On the other, we have a block of nearly 20,000 acres, of which approximately 80 per cent is suitable for planting, much of it for the production of pit-props, which are badly needed for the south Wales coalfields. A substantial additional area for planting is urgently needed in Wales if the programme approved by the Government is to be fulfilled and I consider it would be difficult to find many areas combining such excellent prospects for timber with such a modest loss of food production.

Further efforts were made to garner public support for the campaign through the extensive publication of letters and articles in local and national press, culminating in a public rally organised by the National Party of Wales (now known as Plaid Cymru) in September 1950, attended by prominent supporters, including Gwynfor Evans, Plaid Cymru's first MP and Rhys Hopkin Morris the Party MP for Carmarthenshire, a barrister by profession. The persistent challenging finally paid off, when the Minister

for Agriculture, Tom Williams, guided by the Forestry Act 1945 was forced to call a statutory public inquiry on the issue under the direction of Sir Wyn Wheldon, a lawyer and soldier who held the post of Permanent Secretary of the Welsh Department of the Board of Education until his retirement in 1943 (Davies, 1949; CPRW, 2004). Anticipating the costs that this would incur on the campaign, Rhys Hopkin Morris and Roderick Bowen, the Party MP for Ceredigion offered to represent the farmers and landowners at the inquiry free of charge, and responsibility for gathering evidence and preparing the case against the FC was placed upon Mr. J. B. Evans, a prominent figure within the agricultural industry in Wales, and who later went on to establish the Farmers' Union of Wales (FUW) in 1955.

The enquiry was eventually held in December 1950 and extended over eight sessions and several months, during which local farmers and residents presented their evidence and pleaded to save their local landscape - its scenic values, its wildlife and their livelihoods (Davies, 1994; CPRW, 2004). It appears that the inquiry was biased from the beginning with the Minister ruling against the attendance of Government officials to give evidence and the subsequent discussion of any official aspects of the case, despite protests from the farmers and the landowners of the injustice of having to argue their case without knowing the basis of their opponent's argument (Evans, 1991). It was not only the farmers that provided evidence in the inquiry; they were backed by a strong faction of individuals who took pride in their local area, its natural beauty, its valuable wildlife and its unique way of life. In August 1951, after all the evidence had been presented, Sir Wyn Wheldon, was given a guided tour of the area, along with government officials and representatives of the NF, during which they visited the farms and spoke with many of the tenants and landowners directly affected by the Commission's proposals (Davies, 1994).

Following the General Election in November 1951 and the subsequent change in Government, the final enquiry report was submitted to the new Agriculture Minister, Sir Thomas Dugdale, for consideration. After much deliberation, it was announced on 31 January 1952 that the Government would not be proceeding with the compulsory purchase plan. This signalled a victory for the campaign, although one which may not have been entirely due to the arguments presented at the enquiry. Nevertheless, when news of the withdrawal of the threat of compulsory purchase became known plans

were put in place for a celebration meeting to honour the Members of Parliament, whose Constituencies had included the land under threat and who had given unstinted support to their constituents during the campaign. However, residents recalled how half an hour before the meeting began an elderly lady who owned a large farm of 3,500 acres at the top of the Pysgotwr Valley, and who had been most outspoken during the campaign against the acquisition proposals, approached the FC with an offer to sell her land - actions which were to signal the commencement of industrial forestry in the Tywi Valley. Hard lessons were learnt by the FC following the opposition that was encountered and they quickly realised that adopting a hard-handed approach didn't work in their favour. Consequently, not a single compulsory purchase order was implemented by the FC in this manner after that time as a result of the 'bad press' that was received and any acquisition matters were subsequently claimed to be dealt with in more direct means through "careful negotiation" with all affected parties (Interview, ex-forest worker, Tywi).

Nevertheless, some degree of understanding was restored between the two sides over the next two decades, allowing the FC proceeded with their initial plans for the Tywi, gaining access to large upland farms and eventually acquiring more land voluntarily from the local farmers and landowners than they had originally planned through compulsory purchase. In fact, the total land sold voluntarily over this period amounted to more than double the area originally proposed under the scheme.

5.3.2 Proceeding in the face of conflict: negotiation and mediation strategies

Despite strong initial opposition and reservations by local communities in the Tywi Valley towards the afforestation plans, the purchase of land ultimately proved a relatively straightforward task for the Commission as it increasingly found itself in a very strong position, able to capitalise on the vulnerability of many of the landowners and farmers who had suffered severe losses during the harsh winter of 1947. This appeared to be the case in the Dyfi Valley also, as an increasing number of farmers and landowners became aware of the financial benefits to be gained from selling their land to the Commission. The prospect of receiving a substantial lump sum proved ever more appealing, at a time when upland farming offered a very poor and often difficult existence. This was confirmed by a resident and former Commission

employee from the Tywi Valley, whose father had observed the advent of industrial forestry to the area:

> My father was a big Socialist and I remember he often said in the early days of the forestry: "You wait 'til they get offered more money, they'll sell straight away", and that's what happened, of course. He had understood them you see, but to be honest you couldn't really blame the farmers for doing that because times were very hard for them and they saw an opportunity in the Commission's offers.

Money was therefore a key deciding factor for many farmers and landowners and thus proved a useful negotiating tool for the Commission during the course of the expansion programme in both areas. From the mid-1950s onwards the Commission stepped-up their efforts, directly approaching landowners with offers of financial returns and also relying heavily on snowball acquisitioning as a means of increasing their land reserves. In areas characterised by strong community ties, as one landowner was persuaded to sell, word of the sale spread quickly and one by one farmers came to realise the benefits of moving from the uplands and the hard mountain life to the lowlands, closer to the more populated areas.

However, the land acquisition process was not without its problems. The interviews revealed a number of situations where significant difficulties were encountered with lease tenants, who were often the last to learn of the intentions of the landowner to sell to the Commission. Several of the interviewees whose relatives had been placed in such a position recalled how the Commission's acquisition officers then proceeded to pay regular visits to the farms, offering promises of higher salaries and long-term employment opportunities in exchange for the support of the tenants and their families. These officers represented the official face of the Commission at the local level, liaising directly with the landowners, but their increased prominence, particularly during the initial decade, was no doubt an effort to appease concerned tenants and their families. In many cases the officers were Welsh-speaking and were therefore able to converse freely with the residents without danger of appearing condescending and forceful in their approaches. Whether this was a deliberate tactic employed by the Commission to win the tenants over can only be suggested, but discussions with what many now recalled as the 'true gentlemen' and 'noblemen' from the Commission had left an agreeable impression on many of the interviewees and would have undoubtedly led to the acquisition of more land than was originally

anticipated. Several noted how even the most cynical of tenants were eventually swayed by the attractiveness of the promises given by these officers as they and their families were caught up in the anticipation and excitement of the situation:

> The development of the forestry was thrilling at the time and you had all this excitement coming into the area – you had all these employment changes that would be brought into the area and that's what they told people you see. At that time, a shepherd's life was a very hard and poor life, so to hear all these promises of a higher salary with the FC, well you didn't look much further to be honest because you had already been sucked in and didn't think. (Interview, resident Dyfi)

> At the time, looking back we were quite excited...I mean, people may have been up in arms at the beginning, but I don't remember anyone putting across this argument in later years. They just saw the work that it brought into the area. (Interview, resident Dyfi)

> ...the masses didn't really care – they were given employment, they were given money and that was it, they were quite happy. (Interview, resident Dyfi)

> We used to have so much fun when we were children – the foresters used to come to the farm in the Land Rover and say to us: "Come for a trip girls", and we would then go out over the mountains: "Come with me to see some of the mountains!", but we now see that there were motives for doing this because they took us to Blaenglasrwd Farm, which they hoped to buy you see. There was a lot of cunning activity behind this façade, you see, but we didn't see through this at the time. Looking back, we do now see the motives, but at the time you were just attracted to it without even realising what was happening. (Interview, resident Tywi)

The use of financial incentives as a way of encouraging landowners to sell their land for afforestation increased significantly following the advent of private forestry prominent forestry companies came to play an important role in the development of forestry in both study area from the mid-1960s onwards. Several residents recalled that large areas of land in both areas were offered to the Commission, which it did not purchase, leaving large gaps in the emerging forest landscapes. In such cases, it was emphasised that private companies such as Economic Forestry Group and Fountain Forestry were in a strong position to outbid the Commission. The main reason for this was due to the economics of forestry, which clearly demonstrated that the system of taxation was such that the private forestry sector had an advantage of compound interest on all capital employed. This provided the private companies with considerable financial advantage, particularly when compared with the fact that the Commission had to pay the current rate of interest. It is hardly surprising, therefore,

that the Economic Forestry Group in the Tywi and Fountain Forestry in the Dyfi Valley, and other such organisations, were in a position to compete successfully with, and outbid the state forestry sector, as these residents observed:

> The private forestry paid more for the land. I know that Fountain Forestry planted the Braich Goch Farm behind the Corris Craft Centre in the 1970s, and by this time the acquisitions by the Commission had started to slow down (Interview, ex-forestry worker Dyfi)

> The private forestry came into the area and raised the price to £10 per acre. Well, one of my neighbours sold about 3,000 acres for about £30,000 and he told the private forestry men that it was a price never to be missed. Coming up past Dinas Farm now, the older brother at that farm sold his land to the EFG in 1969, for about 650 acres and they probably had about £20,000 for it at that time (Interview, Tywi farmer).

Many farmers and landowners, less motivated by the financial and employment inducements to sell their land, were left deeply saddened by the vast changes that were occurring in the upland communities and were often left with no alternative but to follow the majority. However, fearing that their actions would have a negative impact on the local communities it was observed that several made a final stand of defiance by stipulating that the land would only be sold to the Commission on the condition that it would be used to create employment for the local people.

Frequent reference was also made to the way in which representatives from the FC attempted to ameliorate and smooth relations with the communities by going out of their way to accommodate the needs of the farmers and landowners whose feathers may have been ruffled by the Commission's acquisition efforts. Observations were made by local residents that the FC had been quick enough to realise that some of the land targeted for acquisition still remained un-purchased, and therefore happily obliged to carry out certain jobs, such as fence building and boundary maintenance. Such work was often considered a nuisance by local farmers and many were only too happy to relinquish their fencing obligations in order to avoid the cost and the hassle of replacing hundreds of metres of fencing. Negotiations were even made to re-build and improve roads leading to the more remote farms in exchange for parcels of land, and farm boundaries were extended with the intention that should the farmers eventually decide to sell they would then look favourably on the FC as a potential buyer. Accordingly, for many farmers the FC officials were seen as 'big men' as a result of this, which proved a deciding factor in the sale of several farms and the basis

on which the FC subsequently became more respected within the communities. It was only in later years, after eventually selling their land, that the farmers realised the true motives behind the Commission's earlier actions.

On reflecting upon the Commission's approaches to land acquisition, a common thread running through the interviews in both study areas was the perception that many vulnerable landowners and tenant farmers had been exploited by the Commission as a result of the difficult conditions prevailing in the agriculture sector. As a result, many residents felt that they had subsequently been deprived of their inheritance purely in the Commission's pursuit of cheap land for afforestation. There appeared to be a great deal of bitterness towards the Commission as a result, with many believing that the farms would still be in existence today and would have prospered had the farmers been given the opportunity to remain on the land and take advantage of the subsidies and grants that were offered in later years. Many also felt that in proceeding with the acquisitions, the Commission had made a significant error in judgment, particularly given that local residents had been extremely accommodating towards the Commission, providing thousands of acres of agricultural land for re-development and offering a generous supply of local labour to assist with the forest development effort.

5.4 From 'wasteland' to 'productive land': transforming the uplands into forests

The relative ease with which land was eventually acquired for afforestation in both study areas enabled the Commission to proceed with the implementation of large planting programmes on the bare hill lands in mid-Wales. The physical condition of the land, being infertile and highly exposed, defined, to a large extent, the appearance of the forest and the Commission's overall approach to afforestation in the study areas. Non-native conifer species were selected for their rapid growth rates, and hence their economic returns, as well as their ability to withstand the upland soil, topographical and climatic conditions. Under such circumstances, traditional site preparation and planting methods, involving the drainage, cultivation and planting of large expanses of the uplands by hand remained dominant, despite the widespread availability of new silvicultural techniques. The Commission was therefore heavily

dependent on an abundant supply of low-skilled, low-wage and predominantly male manual labour from the local areas to carry out the forest operations.

In line with the principles of industrial forestry, the Commission proceeded to control, manipulate and configure local physical and social conditions and the relations between them in order to achieve maximum sustainable yield and profit. Many of the Commission's local forest workers were ex-farmers, soldiers and miners who were trained to operate in a military style to produce a strategic reserve of timber. They were organised into small self-contained units of eight to ten men, each headed by a leader 'ganger' and closely administered by a head forester. Day-to-day activities were organised into simple, clearly-defined tasks, linked together into precisely co-ordinated and closely supervised sequences. Several of the interviewees recalled working in the harsh conditions of the uplands during the winter planting season, carrying heavy bags filled with saplings which they were required to plant in the ground at carefully-spaced distances. One ex-forestry worker in the Dyfi commented on the methodical nature of the forestry work and likened the planting process to a conveyer belt system, with dedicated workers on hand to ensure that the men in each unit were kept supplied with plants at all times so that they could give their 'full and undivided attention' to the task in hand. Another reflected on the precise nature of the planting process and argued that the fastidiousness displayed by the forest gangers and the head foresters was often unwarranted as it placed unnecessary physical demands on the forest workers, as one Tywi resident, whose family had been directly involved in the development of the forest, noted:

> My father and brother went to work in the forestry, and when they started to plant the trees the officers who were in charge of the forestry workers were obsessed with planting as many trees in the ground, in the shortest time possible and they had to plant in the hardest way possible. So, the workers had a very tough time because they were worked very hard.

Many older respondents supported this view and reflected on the total control the Commission exerted over the foresters and forest workers within the communities and on the 'absolute' authority of the head forester. Many appeared to harbour deep resentment towards the Commission for the way in which their day-to-day activities were managed by highly authoritarian methods. There were some exceptions to this, with interviewees providing specific examples of head foresters forging good working

relations with the workers in their units, which went some way towards improving relations between the Commission and the local communities. However, it was widely acknowledged that such approaches were generally frowned upon by the higher echelons of management and were actively discouraged either through denials of promotion or the direct transfer of the foresters to other districts in Wales. Several instances of such oppressive behaviour were highlighted during the interviews and had clearly shaped residents' view of the Commission to this day. Nevertheless, the relative success with which the Commission succeeded in controlling the functioning and efficiency of its workers became evident through the rapid growth in annual planting rates in both forests. Official figures show that by 1958 the Dyfi Forest had expanded to over 16,500 acres, whilst the first decade of planting in the Tywi had already produced over 12,500 acres of coniferous forest. The manner in which the Commission set out to create these vast forest resources was, however, widely criticised in both study areas.

During this period, the main objective of the Commission's programme of afforestation was to create vast plantation forests that were capable of producing large quantities of high-yielding timber at a profit. Local landscapes were thus understood and viewed in mechanistic and reductionist terms as resources to be exploited, regardless of their perceived value to the local communities. As the planting programme progressed, residents recalled how their once-familiar surroundings were quickly transformed into large-scale 'timber factories' representing uniformity and mass production efficiency. Many residents recalled how non-native trees such as the Sitka spruce became a common sight, with several equating this to an invasion by 'alien' intruders. One resident in the Dyfi Valley used an analogy of the plantations as 'battalions of soldiers' marching over the land, which once again could be interpreted as a symbol of the Commission's totalitarian power during the industrial regime of forestry. The following quotes capture these sentiments:

> In the beginning they only planted evergreens and they looked really miserable, with the same colour and shape, like battalions of soldiers. (Interview, resident, Dyfi)

> There were just too many of them and these rows that were planted appeared so artificial – just imagine seeing fifty to a hundred acres planted with the same colour exactly. Well, it would have been nice to have something different, wouldn't it? There was just too much uniformity. (Interview, resident, Dyfi)

> ...thousands and thousands were planted together, acre after acre, line after line which didn't look attractive at all. (Interview, resident, Tywi)

> It was scenic before the FC came here, but it quickly developed into a mini-Scandinavia, or Cambrian Scandinavia I should say! The trees just stood there like green statues, choking everything. (Interview, resident, Tywi)

This highly industrial regime of forestry not only resulted in the forests being characterised by straight, artificial edges, but trees were planted in dense patterns as close as possible to farm boundaries and along roadsides. This resulted in dark, impenetrable blocks on the hillsides, which differed significantly from the 'naturalness' of the open land and native woodlands that the residents had grown accustomed to. With the advent of industrial forestry to the upland areas, residents were denied any form of engagement with their local surroundings. It was widely felt that these intensive planting methods, together with the heavy regulation of the plantations adopted by the Commission during this industrial period were specifically designed with the intention of keeping local communities away from the forests environments.

Many residents also felt that the Commission had paid little attention to the external appearance of the forests, for example, by ensuring that the plantations were designed in a manner which followed the natural contours of the local landscape. The issue of 'views' surfaced time and time again as residents recalled how the Commission simply planted across important viewpoints and on skylines, despite pleas to the contrary from the local communities. As an example, distinctive views of the Berwyn Lake and the surrounding landscape of the Tywi Valley from the local villages were completely blocked and many respondents resented how the forests had developed, blocking this favourite view. In the Dyfi Valley, residents felt that more attention should have been paid by the foresters to the preservation and creation of local views, as well as providing more open spaces around old farmhouses that were often left derelict in the heart of the plantations.

Beyond these concerns with the visual impact of the plantation forests, many residents viewed the large-scale introduction of non-native trees as a sign of social change and more specifically, of the cultural decline of the upland areas. Several noted with regret how valuable native woodlands had been savagely felled, to the extent that not a

single 'natural' tree could be seen, only the 'alien' conifers of the Commission. Many of the older generation of residents had witnessed this reckless devastation at first hand and recalled how the Commission simply 'bulldozed' through the area and single-mindedly strove to remove any obstacles that lay in the path of increased timber production. Its pre-occupation with the creation of vast coniferous forests often meant that any natural vegetation and ancient woodland areas consisting of valuable native trees such as oaks and elms were essentially treated as obstructions and 'weeds' and subsequently destroyed:

> Years ago, if they saw an oak tree then they would fell it straight away and burn them at that point. There certainly used to be an attitude of 'out with everything and in with the Sitka!' at that time (Interview, ex-forestry worker, Tywi).

Similarly, in the Dyfi Valley several respondents referred to the much used practice of ring-barking and recalled with a great deal of disgust and anger how the process was used extensively by the Commission to clear large broadleaf areas to make way for the higher-yielding benefits of the conifers:

> I remember helping to clear the land before it was planted and they felled these large oak trees – they just destroyed them, burnt them and then made poles for fences. If you had a tree that was too big to make the poles they would just ring-bark the tree – cut it right around the rings and then leave it to die. Oh yes, they would totally destroy them and that was absolutely heartbreaking – trees that had grown for hundreds of years, it was just a case of: 'Ring-bark, destroy!', and it took maybe about twenty years to die.
>
> (Interview, ex-forestry worker, Dyfi)

> There were a lot of ancient oak trees in the area and they ring-barked them to kill them. To me that seemed an awful waste of timber, but that's what they did back then I suppose, they just left them to die...that's what their policy was at the time and it was done quite a lot.
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> (Interview, former resident, Dyfi)

Hillsides were left strewn with fallen logs and branches of former oak trees, which stood like 'huge' skeletons' amidst the vast plantations.

Accusations of vandalism and the deliberate destruction of local features surfaced time and time again during the interviews, with residents and ex-forestry workers expressing disbelief that the vast afforestation efforts had been permitted to proceed without any pre-requisite to carry out detailed archaeological surveys of the land. On the contrary, it was noted that little respect was shown towards local heritage and

important historical features - actions which many argued had a detrimental effect on the character of the upland communities. The west side of the Cambrian Mountains, a large part of which was acquired by the Commission to develop the Tywi Forest, contained diverse evidence of land use from the pre-historic period to the more recent past and the surrounding landscapes were rich in historic literary and artistic associations. However, a number of important features on this land, such as ancient mining remains and settlements, drover's routes and parliamentary enclosures were essentially ignored by the Commission and the planting programme proceeded according to schedule, without any regard for local concerns relating to their historical value. Accordingly, as the forest developed a significant amount of the area's history were buried under the extensive tree cover and only when a local individual with a keen interest in local history and heritage was appointed as head forester for the area were any restorative measures taken to undo the damage caused by the planting. Steps were also taken to ensure that important sites were later afforded some degree of conservation. Nevertheless, such efforts were clearly the result of pressure from one particular individual and were not a reflection of the Commission's main priorities within the area, and indeed elsewhere.

Several residents also recounted the vast changes to the social and cultural character of the local landscapes. The acquisition of local farms by the Commission was seen to have had a significant effect, to the extent that by the 1960s the upland areas, previously characterised by sparse, yet close-knit communities, were virtually void of inhabitants. In the process, several prominent and important farm buildings were destroyed to make way for the planting, and those that remained intact were neglected to such a degree that they were left in ruin under a thick blanket of conifers. Three good examples of this were provided by a resident in the Dyfi Valley. The first referred to a seventeenth century Welsh longhouse which had remained largely intact until the early-1960s, but was partly demolished by the Commission due to concerns that it posed a safety risk to members of the public. The justification given for its destruction was that in carrying out its broad remit to produce timber, the Commission was not required to take on any additional statutory responsibilities, such as carrying out building protection and conservation work. Consequently, few questions were raised when the surrounding land was heavily planted and the roof of the house was removed, leaving the shell to deteriorate and crumble among the trees. The second

example related to the demolition of a group of houses in Bryneglwys, which were built in the late nineteenth century to provide accommodation for the local quarry managers. Their removal was once again justified on health and safety grounds, with the Commission stating that the risk of ensuing lawsuits was too high. The respondent argued that this was a very simple and economic solution, taken at the expense of a great deal of valuable industrial archaeology. Thirdly, details were provided of the part-demolition of a large mansion house in Aberllefenni, located in the heart of the Dyfi Valley in the late-1950s, which led to the loss of valuable stained-glass windows dating back to the sixteenth century. The Commission and local residents were at the time unaware of the important features that had been destroyed and when the damage was discovered restoration was virtually impossible.

Similar sentiments were also expressed in the Tywi Valley, with several residents recalling fond memories of visiting the affected farms as young children. Frequent criticisms concerning the Commission's highly impersonal approaches were raised during the course of the interviews, with several stating that little regard was shown towards local concerns. There were several instances where colourful language and putdowns were used and these were generally accompanied by visible emotions of anger that the houses had been left to deteriorate so badly. The degree to which such feelings were held in both study areas is reflected in the quotations below:

> The Fannog farm is now under the Brianne Damn. They say it was about 2,000 acres altogether and that it was kept as a palace, but it was sold to the forestry and by today it's under the water. I mean, it would be a good farm to live on today wouldn't it – those 2,000 acres would be a good earner for someone because it was good quality mountain land. (Interview, resident, Tywi)

> The house in Nantneuadd was used by the FC workers as a shelter for a while, but that didn't last very long because it was eventually demolished and by today it's a ruin...it wasn't sold on and turned into a summer house or anything. They've planted the trees right up to the house – you wouldn't believe it. We went to look for it a few years ago so we could take some pictures and when we eventually found it there was practically nothing left. It was just taken down and that was the end of it and that's such a shame. (Interview, ex-forestry worker, Dyfi)

> Blaenmeheryn was a perfect example of they type of farmhouse that you had on the mountain and that were around at that time, but it's a complete ruin by today and I think it's shameful that they've left it to go like this. The fields around it haven't been planted, but it's shameful that they've left the house to deteriorate. It's very sad because I remember going there as a child, and that's what's most

> sad about it. I would imagine that there are many down in the Tywi that have gone the same way. (Interview, resident, Tywi)

> The demolition work was done before anyone had a chance to think about it. Looking back, I'm sure that there would have been plenty of people willing to complain, but once they'd removed the roof and the stones then it had happened and it was out of your reach. You often didn't realise what had happened until the farms had already disappeared. (Interview, resident, Dyfi)

> It's awful going past derelict places in the middle of the forest. The worst thing is finding old farmhouses such as Y Berllan Fach and you can see where they had their bit of land around it, but it's just closed off in the forestry now. (Interview, resident, Dyfi)

The older generation of residents were also especially critical of these actions with many, when questioned about the establishment of the forests, immediately providing a detailed verbal account of the farms and smallholding that had been affected by the Commission. They appeared to take tremendous pride in recalling the history of the mountains, with many expressing deep sadness that traditional farm names and historic landscape reference points which held special significance in the local areas had since been lost by the younger generation. This was largely seen to be attributed to the lack of effort made by the Commission during the establishment of the forests to acknowledge and preserve these local characteristics. Many believed that this had resulted in a limited degree of local knowledge, and indeed interest, on the part of more recent local forestry staff, leading to further distance between the Commission and the older generation of residents.

On a related matter, a further criticism levelled at the Commission by these residents concerned the sub-letting and sale of farmhouses and smallholdings to incomers with no connection to the local areas. One ex-forestry employee in the Dyfi Valley had submitted an application for a smallholding tenancy in the late 1950s when a local farm owned by the Commission became vacant. Despite the fact that several neighbouring smallholdings had already been sub-letted by the Commission under its smallholdings policy, the application was immediately rejected on the basis that the smallholding programme had since been withdrawn to allow for planting to commence in the area. Unhappy with this rejection the interviewee then asked a relative from Birmingham to submit an identical request, in order to test the FC's

response. Much to his disgust the application was immediately accepted and the property on the farm was subsequently offered for sale as a summer house. Examples such as this highlight the lack of consideration and respect shown by the Commission towards local concerns, thus confirming that matters relating to profit and productivity remained foremost in the Commission's philosophy. Considerations such as allowing a local family to reside on their farm, thus maintaining a sense of community in the area were clearly assigned a much lower level of priority, as is evidenced by the remnants of several farm buildings that are now seen in the forests.

Frequent reference was also made to the way in which the industrial model of forestry adopted by the Commission substantially altered the landscape mosaic upon which many unique local wildlife and plant species had become dependant. It was observed that in some areas, the original moorland landscapes of the uplands had been effaced and replaced by walls of light green and dark green in vast blocks of larch and spruce, whose monstrous uniformity they saw as an insult to the eye. These sites were previously composed of a rich mix of heather, bilberry, cross-leaved heath, peat and cotton grass, which provided important habitats for a wide range of species populations, including the red and black grouse, kites and dippers. Several residents recalled how red and black grouse were frequently seen on the upland moors in the pre-forestry years, and remnants of special houses built to provide shelter for the huntsmen who keenly followed the birds can be seen in the Tywi Valley to this day. However, the advent of the commercial forestry plantations contributed to a severe decline in grouse populations, leading to their inclusion on the IUCN's[1] Red List of Threatened Species. For many of the more environmentally conscious residents the black grouse was a potent symbol of the way in which land-use changes in the uplands had significantly altered local biodiversity. Residents also lamented the loss of rural traditions such as peat burning at the expense of industrial expansion. What became clear from the interviews was that there remained a great deal of animosity and anger between the Commission and residents, not only over the visual impacts of the afforestation, but also concerning the sheer lack of ecological awareness displayed by the Commission throughout the development of both forests. Many expressed

[1] The International Union for the Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species (also known as the IUCN Red List or Red Data List), created in 1963, is the world's most comprehensive inventory of the global conservation status of plant and animal species.

dismay that they were permitted to continue in such a manner for so long, as this resident in the Dyfi Valley observed:

> I suppose there was very little ecological awareness of the mistakes that had been made. I think they just desecrated the landscape, and not just the visual landscape, but the living landscape too. It was just a terrible thing to do to the ecology and the landscape.

5.5 Reflecting on the rationale of industrial forestry in mid-Wales

Through tracing the history of both forests, it has been possible to develop a better understanding of the changes that occurred in the upland areas of mid-Wales as the Commission proceeded to transform vast areas of the uplands into plantation forests. However, despite evidence of widespread local and political opposition to the initial plans for afforestation, it appears that in subsequent decades the Commission succeeded in developing a clearly defined purpose and rationale for its work and played an important role in the local areas. As earlier sections have shown, initial concerns over the scale of the Commission's acquisitions and its impact on the environmental, social and cultural features of the local communities soon gave way to acquiescence, as residents increasingly recognised the value of the employment opportunities that were created. Thus, most of the residents that were interviewed, regardless of their general view of the forest, acknowledged that the Commission played a key role in shaping the character of the local areas, predominantly through its acting as a major provider of local rural employment.

Many commented on how fortunate both areas had been to have the forest industry provide a life-line for communities deeply affected by a waning agricultural sector, falling production levels within the slate mining quarries and the closure of the main-line railway network, all of which contributed to a significant shortage of local employment. A common perception amongst residents in both areas was that the forests had been instrumental in sustaining a core of workers within the local communities, who would otherwise have had to move away to find work:

> Effectively, I suppose the forestry bought time for the rural community , in that it provided an alternative supply of labour, or employment should I say, and it's only now that the real effects of the depression of the other industries, like mineral extraction and farming is really taking effect. The mineral extraction basically disappeared in the 1920s, but most of the people who were previously

> employed in that sort of industry went into forestry, so it kept a nucleus of people in that area longer than perhaps would have occurred if the forestry hadn't been there. (Interview, resident, Dyfi)

> The development of the forest was positive in the sense that it gave people work, because there was a company of them. There used to be a whole bus-load going up the mountains when the trees were being planted and it was work for the local people you see because the mining industries had already closed and there wasn't much work for the local people to be honest, particularly in farming. So yes, it did much good for the area. (Interview, resident, Tywi)

In the Dyfi Valley in particular, a large number of residents had been affected by the falling demand for farm workers as a result of the increasing mechanisation in the industry. Further to this, the harmful working conditions associated with slate mining offered little prospect of good health and longevity for the hundreds of quarry workers employed locally and several of those interviewed emphasised that they were determined to achieve a better life for themselves and for their children. Forestry was viewed as a route to achieving this, offering alternative sources of work and greater security of employment over a sustained period of time. The opportunity to work out in the open air rather than in the dark confines of the quarries also proved very appealing and ultimately contributed to significant improvements in the general health of the local people, as these ex-forestry employees emphasised:

> I think the forest has changed the area a great deal, in terms of improving it more than anything I would say, because back in the day there was plenty of work available and it was rarely the case that people couldn't find work in Corris. People didn't really want to work in the quarries at that time – they preferred to be out in the fresh air, so yes, I would say that the forest was the best thing that happened to Corris. (Interview, resident, Dyfi)

> When I was a child the quarry was the main industry in the village and it was only later that the forestry came. The enemy of the quarry was silicosis you see – the same as in the mines and people then went to work in the forestry because they didn't have to go work underground and they preferred being out in the open air. (Interview, resident, Dyfi)

In many ways, the Commission itself was also very fortunate of the local communities as they were able to take advantage of a ready supply of cheap manual labour, with large gangs of around sixty forestry workers based in each village during the hey-day of industrial forestry. A large majority of these men were ex-farm and quarry workers, who by their nature and experience were accustomed to tough, physical work and were therefore willing to carry out the intensive tasks that were required in the development of the forests. Further indirect employment was also provided as a result

of the growing need to improve the accessibility of the remote upland areas, with the task of building new roads seen as essential to both the development and administration of the growing forests, as well as to provide valuable employment within the local communities. In the Dyfi Valley many residents made redundant following the closure of several of the local quarries benefited enormously from this opportunity, and it also worked to the Commission's advantage as these men were well-equipped to deal with the tasks that were required, particularly given their vast experience in dealing with explosives.

Road building also became an important feature of the work provided for the large number of unemployed men housed at the Ministry of Labour residential camp in Ceinws, established in the post-war period as part of a job creation scheme to combat chronic unemployment in the coalfield areas. One resident who lived in the area at this time recalled how groups of unemployed men from the north-eats of England were brought to the camp for months at a time to assist with the Commission's road-building activities. The camp, one of several set up in the new forests of Wales at that time, were commonly known as 'reconditioning' camps and were initially used to prepare men for overseas settlement. However, this element of its operation soon gave way to the provision of more locally specific training programmes designed to prepare men for the strenuous work carried out in the Commission's roads department. Virtually all of the construction work was required to be carried out by hand, without the use of machinery such as tractors, trailers and stone-crushers, which would have certainly made for a much more straightforward and easy task. Nonetheless, the objective was to ensure the provision of maximum outdoor employment for the local area (Ryle, 1969: 229), which can safely be said was achieved more than successfully, along with an effective network of roads which provided much-needed access to the upland areas.

In addition to providing work for local farm workers and quarry men, the FC also employed younger lads as forest labourers during the summer holidays in order to assist with minor duties during the early development of the forests. Having enjoyed the experience of outdoor manual work many developed a keen interest in forestry and on reaching school-leaving age were given the opportunity to attempt the Commission's entrance exam in order to qualify for an intensive two year practical

and teaching course. Many went on to attend these courses at one of the Commission's four residential training establishments, known as Forester Training Schools. During the course of the training, students were instructed in all aspects of the theory and practice of forestry, providing them with the necessary qualifications to allow them to gain employment as full-time forest workers. On successful completion of the course, they were subsequently awarded a Forester's Certificate and posted to the Commission's developing forests as 'ex-school gangers', where they could gradually work their way up through the various levels of employment, with the possibility of becoming established Foresters within about four to five years.

During the early development of the forests in mid-Wales conditions of employment for these forest workers were always closely tied to the agricultural industry. Daily tasks such as fencing and planting required a similar level of tough physical exertion and in line with the Commission's early acquisition efforts and planting targets the men were required to work a forty-six hour week spread over five and a half day working days, from Monday to Saturday lunchtime inclusive. This was standard procedure, particularly during the winter months from November to late January as a result of the fewer daylight hours. This was also the period during which most of the planting work was undertaken. Each worker was required to plant at a rate of a thousand trees a day in order to make up their basic salary – a task which many recalled was often very difficult, particularly during periods of poor weather in the upland areas. Whilst earnings within the forestry sector at this time were not a great deal higher than in agriculture what appealed to many was the opportunity to carry out additional planting duties, classified by the Commission as 'piece-work', thus allowing the most committed / dedicated workers to add to their basic salaries. As a further sign of the Commission's firm commitment to productivity the rate paid for this additional work was significantly lower and outputs were closely scrutinised by the Foresters in order to ensure that the quality of the planting was not compromised by a handful of 'sloppy' workers trying to take advantage of the FC, as this ex-Forester recalled:

> I used to hate [piece-work] because you had to assess the men's work and then give them a price, and you had to give them a minimum because if you paid too much then you'd be in trouble. There were some that did the jobs and didn't do them very well, and there were others who used to drag their feet and that used to

> cost us a lot of money you see, so it was a vicious circle. (Interview, ex-forestry worker, Dyfi)

However, the capacity of the Forestry Commission trade unions to bring about nationwide improvements in working conditions led the Commission to become much more respected in terms of career prospects. Indeed, many conditions taken for granted today within the sector (such as holiday entitlements, health and safety and so on) were not enjoyed by forest workers until the outbreak of the Second World War, which indicates how tough workers had it in the early days. Basic wages gradually increased and moved slightly ahead of those in the agricultural industry. Perhaps the most significant and valuable concession of the forest development period during the 1950s and 1960s was the provision of wet-weather payments, which meant that if it rained during any one week workers would be paid up for lost time up to a set limit. The wet weather deal was matched with the introduction of a new standard of travel allowance which began the practice of delivering forest workers as close as possible to their areas of work and returning them to the villages in the evening. Many interviewees recalled the vibrancy of the local villages as forest and council workers gathered at the 'pick-up' points each morning – recollections which contributed to residents' happy memories of the developing forests:

> On the working day morning, from what I remember, there were pick-ups collecting people from the outlying villages and the local workers would all congregate outside the local stores, next door to the Slaters Arms and everybody would get out and buy cigarettes, matches, paper and anything really that they would need for the day. There would be a constant procession of this, with council lorries doing the same - so you had Malor stores, the Slaters Arms and a lot of other shops on the village street and there would be an absolute hive of activity until later on in the evening when the workers were dropped off. (Interview, resident, Dyfi)

> To me those were the happiest days of my life and I looked forward to going to work every morning. The lorry would pick up a group of us from the village early in the morning and it was an absolute pleasure to go to work and see nature at its best. (Interview, resident, Tywi)

This, according to Ryle (1969: 256), represented an important development in the operation of the forests and their workforce as the provision of transport was considered cheaper than paying unproductive wages. It was also seen to have partly contributed to a reduction in the number of hours spent by workers in the forests, thus leading to the much-welcomed introduction of the five-day week in 1952.

Interviewees recalled the vast improvements in general quality of life that were brought about as a result of these changes – all of which contributed to making forestry work a much more attractive and favourable alternative to traditional agricultural employment:

> When I started the hours were 7:30 to 5 and Saturday mornings, then the first move after that was to give Saturday morning off so that it was then a five day week. Then, it changed from 7:30 to 4, so it was much better than the hours on the farm, because when you finished on the Friday you had Saturday and Sunday free. Also, what was good about the job was that you were given transport, so you didn't have to find transport and that's what I ended up doing for thirty-three years - I drove the workers up on the mountains in the morning and back home in the evening. (Interview, ex-forestry worker, Tywi)

Unsurprisingly, this resulted in a small reduction in output, however, the increase in productivity observed in subsequent years proved instrumental in enabling the Commission to reach its planting targets in both forests as workers 'quickly learned to respect the work-study teams who taught them the right way to use and look after new and improved tools' (Interview, ex-Forester, Dyfi). Another significant win by forest workers during the 1950s included the recognition of a greater number of forest workers as permanent employees and their consequent inclusion in the Commission's pension scheme, although this was largely attributed to changes introduced by Government.

As the forests developed the FC also made a conscious effort to attract young people into a career as a forester, with opportunities to enter the Commission directly as trainee Foresters and a guarantee of an assured career following attendance at one of the FC training schools. They regularly visited local schools to give talks to pupils on career opportunities within the forestry industry in an effort to attract the younger sections of the local population. One resident in the Dyfi Valley recalled one of these visits and during the interview showed an original pamphlet that was given to her brother when he expressed an interest in the work. In it the FC emphasised the physical demands of forestry work, but highlighted the vast benefits that would be gained from choosing a career in forestry:

> Forestry is a "man's job". To those who are physically fit, like an open-air life and enjoy living in the country, it offers a healthy, interesting and creative occupation. It is rather like "grand scale" gardening or farming. In all these professions one has the satisfaction of seeing how things grow as the result of

> one's labours. But whereas in gardening or farming the crop is often sown and harvested in one year, in forestry one has the pleasure of watching one's plants grow up year by year and, by skilled and careful management through all stages of growth, producing a crop which is of economic importance and an enhancement of the beauty of the countryside. This calls for experience, among other jobs, in nursery work, planting, cleaning, pruning, thinning, felling, marketing and sawmill work. (FC, 1959)

Accordingly by the late 1950s, well into the development of the Dyfi Forest and in the early stages of developing the Tywi Forest the status of the Forester within the local communities and beyond was seen to be changing, leading Ryle (1969: 257) to observe, albeit from an FC perspective, that:

> ...[the] invidious assumption that a forester can be substandard to the country's usual gauge of a reasonably educated and intelligent lad will soon be changed, as specified 'O' level passes are as essential to a potential forester as they are to a potential bank clerk, apprentice engineer or policeman..

With the increased opportunities that were available to local residents to gain higher paid, secure employment within the vicinity of their local areas, the forestry sector became increasingly embedded in the everyday life of the forest communities. Whereas in the early years forestry work was predominantly undertaken by unemployed agricultural labourers and quarry workers who faced an extremely limited choice of work within their local labour markets, with time it became increasingly common for children, or relatives and friends of existing forest workers to enter into the forestry sector, purely out of choice. This has given rise to several generations of forest workers, with several families remaining in the communities to this day and many continuing to work for the Commission. What became clear from the interviews was that there was, and still remain, a tremendous amount of loyalty amongst generations of forest workers, with many leading long and successful careers with the FC – usually lasting for several decades. This led to the emergence of what Tsouvalis (2000) terms a 'forestry culture', which indicates how the institutional world of forestry became intertwined with community and family life.

Throughout the development of the forests, and despite the thousands of acres of agricultural land that was lost in the process, it appears that the FC played an instrumental role in sustaining the agricultural industry in both study areas and establishing some form of linkage between the agriculture and forest industries. A significant feature of the Commission's work involved maintaining a reserve of

potential forest land over a set period, which generally amounted to around ten times the forecasted rate of planting for the year. As has already been highlighted in local residents' accounts of the early development of both forests, despite initial hostile reaction to the loss of agricultural land, the Commission built up its land reserves with relative ease, relying on a policy of friendly negotiation with landowners and agricultural grazing tenants, which avoided the need to serve compulsory purchase notices on the land. This policy remained in place throughout the development of the forests, allowing the Commission to implement phased planting programmes, whereby a large majority the land that was acquired was left untouched for an extended period of time. This enabled the Commission to arrange its planting programmes well in advance, thus ensuring that the areas were sensitively developed and not completely taken over and transformed. Accordingly, on a yearly basis only around 500 acres of land, usually a combination of the higher mountain and open moor land, was taken from each farm that was purchased and the most productive and lower-level fields were kept in use for grazing and crops.

In the process of land acquisition many large estates comprising several smaller hill farms were purchased to make way for the forests, which meant that the FC gained ownership of a large number of old, neglected farmhouses, cottages and agricultural outbuildings. As these were often located on more fertile arable and pasture land, their demolition and the use of any adjoining land for afforestation purposes was inevitably restricted by conditions which ensured their continued use for agriculture. Given the poor conditions prevailing in the agricultural sector at the time, the Commission was faced with the problem of being landed with holdings that were likely to become completely unviable in the longer-term. Moreover, their sale on the open market was likely to yield little real benefit. Accordingly, recognising their suitability for conversion into smallholdings and the potential in incorporating these into the development of the main forest complex, with any adjoining remote mountain land subsequently set-aside for afforestation, the Commission introduced a policy for combining forestry with the creation of small part-time forest holdings. Work was subsequently carried out to adapt the existing farms to bring them up to the required standard. Thus, as well as making use of what would otherwise have become neglected and derelict buildings on the Commission's land, this also satisfied the growing demand for additional rural housing, which was crucial given the increased

employment that would be created by the developing forests. The desirability of creating a nucleus of forest workers in the heart of the growing forests and close to their sites of work was also a significant factor in this respect – a point that was clearly made in the Commission's Annual Report for the period 1929-1930 (FC, 1929; Tsouvalis, 2000: 55):

> ...to provide under sound living conditions, a body of skilled workers whose interests are closely identified with those of the forests.

The widespread use of the Commission's small holdings policy within the case study areas brought about significant benefits to the local communities were immediately observed. In the Dyfi Valley, many of the existing tenants who were in danger of losing employment and their homes as a result of the sale of local farms were given the opportunity to pay a rent to the Commission in order to remain on the land and assume responsibility for their own forest holdings. These tenants were also required to undertake 150 days of work in the forests each year and thus came to represent an important component of the forest labour workforce in the communities. This remained the Commission's policy throughout the development of the forest, and also in later years with the growth of industrial forestry in the Tywi Valley. Its application proved extremely successful in both areas as it provided local communities with a gradual transition from agriculture to forestry. This allowed many previously unviable smallholdings in the local areas to thrive and continue, which may not have been the case had the Commission not moved into the areas. In most cases the farmhouses and outbuildings on many of the farms acquired by the Commission had become badly dilapidated after years of neglect by the landowners. Therefore, as more and more farms were sold to the Commission the tenants grew increasingly aware that they would indeed benefit from any agreements that were made as the Commission seldom evicted the farm tenants, but undertook repairs in order to be able to retain the tenants as smallholders and forestry workers.

For the majority, the smallholding scheme also played a crucial part in transforming the lives of many of the tenants and their families who had previously struggled to sustain a living through farming duties alone and were now given the opportunity to become more self-sufficient through assuming agricultural responsibilities, whilst also benefiting from an increased salary through forest work. If there was a criticism to be

made however, and one which figured prominently in the interviews with local residents in both areas, it was that the tenants were often significantly restricted in their ability to create highly productive and economically viable smallholdings given the relative lack of resources provided to them by the Commission. This limited their ability to utilise the land to its full potential, and with the holdings limited to ten acres in size it was often only possible to keep a flock of sheep, a cow and maybe a horse, which although barely sufficient to support the family did not provide much in the way of an income. Many therefore struggled to establish a solid foundation on which to build. A further grievance raised by those residents who had remained in the forest holdings was that they now felt that the Commission had, in many ways, taken advantage of their desperate circumstances at the time by charging higher than average rents, as this resident emphasised:

> We were quite willing to rent from the FC at the time you see, because it enabled us to earn a living. Remember that we didn't really think much about it because many of us stayed on the farms for several years. But, thinking back on how much rent we paid in that time it would have taken a big slice off the original purchase price that was paid by the Forestry Commission, because they did say that a lot of these mountains were sold for about 50 pence per acre. Of course, that was big money in those days because there were so many acres, but the Forestry Commission ended up getting double the income in the end didn't they? By the time you counted the rental income and took a slice off what the landowners sold for, but they didn't consider this as the time, did they? (Interview, ex-forestry worker, Tywi)

> I had a smallholding for seven years under the FC and I can honestly say that I didn't really experience any problems with them – they were pretty good. Of course, the rents were quite high, but you did have quite a good salary and you also had the opportunity to do some peace work too. (Interview, ex-forestry worker, Dyfi)

Nevertheless, as the second quote suggests the conditions of work provided by the Commission were extremely fair, with opportunities for carrying out additional forestry work proving extremely valuable and contributing to a good working relationship between the Commission and the smallholders. Many were highly complementary of the fact that a number of local families had been supported by salaries earned from the forestry work, and this went a long way towards guaranteeing local children a more stable and secure life.

> We rented Cwm Berwyn from the FC – the plus side to this was that as a shepherd I'm not sure what my father would have done and what would have happened to us as a family had the FC not offered the farm. Maybe we would

> have stayed where we were, I'm not sure. By going to work for the FC my father managed to gain ownership of some land. (Interview, local resident, Tywi)

> The forest did support a number of families in the village and in the whole area. A lot of people look back and say that it's been a hindrance to the area, but I can't see that at all to be honest. At the time, it was a blessing for the area – the farms were starting to work without their farm workers, so what would have happened to them if the forest hadn't been planted, I don't know. I know of many farm workers who worked in the forestry, so it provided alternative work for them. (Interview, local resident, Dyfi)

In many cases, the families remained as tenants on the holdings for up to fifteen years until the last 500 acres were eventually taken and cleared to make way for the forestry. Further to this, families who had lived in many of the upland farms located in the remoter parts of the Dyfi and Tywi areas were given the option of renting farms lower down in the Valleys and closer to the more populated areas, which significantly improved their quality of life. Whereas previously many had lived in virtual seclusion on the mountains, a fair distance away from the local villages and even neighbouring farmers they now benefited considerably from being closer to the main communities and to the local shops, chapels and schools. One resident from the Tywi Valley observed that had they not been given the opportunity to move from their farm in the heart of the Cambrian Mountains closer to the local village they would have been deprived of a proper education due to the relative distance of the schools from the upland areas, and the accessibility problems that resulted. On the whole, it can therefore be said that the small holdings scheme proved a great success within both study areas, supporting Ryle's (1969: 188) claim that they 'fulfilled a genuine need in the countryside'.

Alongside this, the FC began to invest in developing the villages located in the heart of the growing forests. The sheer scale of the work involved in developing the forests often meant that the workers were required to put in additional hours during the weekdays and weekends and in later years, with constant threats of forest fires during the summer months the Commission realised the benefits of having the workers close at hand within the local villages. Considerable effort was therefore made by the Commission during the course of developing both forests to improve and increase the local housing stock and the provision of community facilities for the workers and their families, which played a key role in contributing to the sense of community within the

study areas. This partly reflected wider efforts made by the Commission in the post-war period to shape the identities of the forest areas through the introduction of a policy to create forest villages, which after much success elsewhere in Wales, including at Brechfa and Llandualis, was abandoned in favour of improving existing villages.

In the Dyfi Valley during the early 1950s the FC acquired the site of the old Ministry of Labour camp, which during the Second World War, and in the years immediately after had been used as a borstal school for youths from the Midlands, and as a holding camp for German and Italian prisoners of war waiting to be repatriated. The site and its various facilities were subsequently adapted and remodelled into a self-contained complex for the forestry workers and their families, complete with pre-fabricated zinc houses, office spaces for local businesses, a church, a children's playground complete with slides, swings and a seesaw and a sports field with football and cricket pitches. The old cookhouse was converted into a village hall, with a youth club and a fully equipped snooker and billiards room. Over the next three decades it became a village in itself, known locally as Ceinws-Esgairgeiliog, and acted as a hub to community life, providing work opportunities for many of the local residents and offering a base for hosting all the usual village functions, such as jumble sales, whist drives, Women's Institute meetings, the annual village carnival and Christmas parties. Residents emphasised that they had been very fortunate of being given the opportunity to live at the camp, with many observing that as families they would have led a much poorer life had it not been for the affordable housing and community facilities that were provided by the FC. The same was true elsewhere in the Tywi Valley, where the FC was responsible for building groups of houses for the forest workers as extensions to existing villages within the area, many of which remain in use by local residents to this day.

At this point, following the earlier difficulties encountered by the FC in the development of forestry in the Tywi Valley, the officials were clearly conscious of the need to keep the local farmers and their tenants 'on-side' and providing such opportunities enabled them to tap into the wealth of local, in-depth knowledge of the land that existed within the communities and draw on local people's general enthusiasm and love for their surrounding environments. With time, clear signs began

to emerge that the local communities were beginning to accept the value of the Commission's work to the local areas, with many residents observing that few farmers subsequently expressed any regret over the sale of the farmland to the FC. In fact, many commented on how fairly they had been treated by the FC officials, suggesting good co-operation between the FC and their tenants.

Interviewees in both study areas frequently observed that the advent of industrial forestry to these rural parts of mid Wales therefore brought about significant improvements to the local areas, not least through the vast employment opportunities that were created. Indeed, the simple fact that the local, Welsh-speaking residents and their families were enabled to remain within their local communities rather than having to move elsewhere in search of employment had a significant influence on the integrity of the study areas, allowing them to retain many of their unique cultural and social characteristics. This is reflected in the words of local residents in the Dyfi Valley and an ex-forestry worker in the Tywi:

> Keeping us here, yes keeping us here was a very important part of the forestry, because as I said earlier it is important how the Welsh language has been kept alive and strong in this area, and it's the same across Wales. The coal mines kept the men down in the Valley areas, the forestry men have stayed here and the mineral works down in Cardiganshire, well that wasn't as much but it did still keep them in the area. The Welsh have stayed in these areas because they had work on their doorsteps and that helped the language and the culture a lot, particularly after the War. (Interview, resident, Dyfi)

> "To be honest the forestry didn't bring any problems really, just improvements and they were big improvements too. Corris would have been much poorer without the forestry and I'm sure that the village wouldn't be in existence today had it not been for the forest. The main thing was that the forest employed local people, you see, and that kept people in the area. (Interview, resident, Dyfi)

> "The forestry brought benefits to the area by keeping people in the local area, keeping families together to keep the villages going – they were the biggest benefits I would say...the Welsh character of the villages continued with the forestry. I mean, quite a few English people moved into the area, but that didn't really affected it – some even learnt Welsh, so Welsh continued to be the main language in all the villages." (Interview, ex-forest worker, Tywi)

The retention of such a large population base also played a part in further strengthening community cohesiveness in areas that were traditionally characterised by tight-knit agricultural and slate quarrying villages, but were in danger of spiralling into decline as a result of their weakening local economies. As the forestry sector

became established in these areas the workforce grew in size and came to play an active and central role in villages such as Corris in the Dyfi Valley and Pontrhydfendigaid in the Tywi Valley, sustaining local businesses and services such as the village store, the post office and the local pubs and allowing the local schools and chapels to prosper. In recalling their memories of the forestry in its hey-day during this period many residents portrayed a picture of thriving local areas in which the communities were bound together by strong ties of kinship and solidarity. The main forestry villages were often hives of activity, with forest workers and quarry men going about their daily duties and even more workers being transported in from outlying areas to help out in the forestry nurseries and to prepare the land for planting.

Further to this, the communities also benefited considerably from further investments made by the FC within the local areas, most notably through the work that was done on creating the new road networks, which greatly improved accessibility within and around the local areas. In many of the most remote parts of the Dyfi and Tywi Valleys the main tracks used by the local farmers to travel between farms and down to the local villages were of a very poor quality. Specialist motor vehicles such as Jeeps and Land Rovers were rarely used by the local farmers who farmed in the uplands during the time the forests were developed and were often considered the preserve of the more wealthy landowners. The majority of the agricultural population would have relied on more conventional means of travel, on foot and horseback along these routes, which often proved problematic, particularly during periods of bad weather. Indeed, this together with the difficulties encountered in raising a family within such a remote area proved a significant factor for many farm owners in their decision to sell to the FC, as they increasingly came to realise the advantages of living closer to the more populated areas.

With the advent of industrial forestry within these areas in subsequent years the FC brought about significant improvements to the road networks, investing heavily in road building schemes which would enable the timber to be transported easily from the local areas. Within the Dyfi Valley a department forming a separate arm of the FC was established to deal exclusively with the road building schemes, and hundreds of ex-quarry workers made redundant as a result of the closure of many of the local quarries benefited from employment as a result of their expertise in the use of

explosives. These improvements also proved extremely beneficial to the wider population as they were enabled to travel freely around their local areas and to neighbouring villages without the accessibility problems they had previously encountered. This meant that carrying out everyday tasks in the local villages became considerably easier, and in the latter decades of forest development the increased salaries brought about through the availability of additional forestry work enabled many families to purchase cars, further enhancing their mobility. However, these advancements proved most advantageous to those local farmers who had refused to sell to the FC and had chosen to remain on their upland farms. Indeed, the forestry roads that were created increased accessibility in the upland areas, easing the task of moving sheep flocks back and forth across the mountains and making the journey between neighbouring farms much more straightforward. These road networks continue to be used by the farmers to this day.

Above all, what these examples suggest is that despite initial contestations relating to the establishment of both forests and the significant tensions that occurred as the Commission proceeded to exploit local landscapes in the pursuit of economic goals, the local communities had benefited considerably from the developing forests. Thus, the Commission had not only succeeded in carving meanings of industrial nature into the physical and economic landscapes of the upland areas, but had also become an important and highly influential part of the social landscape of both study areas.

5.6 Conclusion

The aim of this chapter has been to provide a detailed insight into the implementation and subsequent expansion of an industrial regime of forestry in the Welsh uplands during the latter half of the twentieth century. What emerges is a complex picture in which afforestation by the British state became constructed and then contested as a political issue; involving the destruction of valuable cultural landscapes. However, despite this initial opposition, the Commission was enabled to acquire land with relative ease in both areas and quickly proceeded to transform vast areas of the rural landscapes into productive forests. Local natural and social resources were actively exploited and manipulated in the pursuit of economic goals, and in the process local communities were denied any form of engagement with, or control over the future

development of their surroundings. Yet, despite these oppressive conditions, the Commission was enabled to urge the steady expansion of the industrial forests, drawing on its role in providing local employment and supporting the continued viability of the rural communities. Such factors appear to have played an instrumental role in ensuring the continuation of industrial forestry in the upland areas of mid-Wales for much of the latter half of the century, and prevailed over residents' initial concerns over the profit-oriented interests of the Commission and the impact of large-scale afforestation on the environmental and cultural features of the local communities.

Having thus far focused on historical processes of forestry governance and regulation in mid-Wales, the next chapter moves to the present day to show how previous industrial transformations of nature continue to influence both contemporary understandings of the forests by communities and local forestry staff and the nature of the existing governance and regulatory system. It is argued that this has had a significant influence on the success of new systems of post-industrial forestry.

6.
CONTEMPORARY FORESTRY GOVERNANCE AND REGULATION
Implementing a post-industrial regime of forestry in mid-Wales

6.1 Introduction

Recent changes within the state forestry sector in Wales have implied a broadening of the Commission's priorities to incorporate wider environmental and 'social' objectives, together with a commitment to the development of more inclusionary systems of forestry governance. The research material presented in Chapter Four provided overwhelming evidence that the forestry sector in Wales is now positioned within a broader network of environmental, economic and social agencies than was previously the case, emphasising its ability to work in partnership in the pursuit of mutual objectives. An important component of its more enhanced role was also seen to be the empowerment of communities and their participation in decision-making concerning their local environments; however, this was identified as much more problematic.

Taking forward many of the issues raised at the national level, this chapter explores recent attempts by the Commission to implement a new system of forestry governance in the uplands of Wales. Attention is first turned to the Commission's interactions with other rural, environmental and community organisations and groups working at the local level. The main aim of this section will therefore be to determine the extent to which the Commission is now working alongside these wider interests in the delivery of shared objectives. The chapter the moves on to explore how communities living within and around the two forests have experienced this so-called shift towards post-industrial systems of forestry and the wider ideals of environmental democracy.

6.2 Contemporary Approaches to Forestry in mid-Wales

The degree to which the forest landscapes of the Dyfi and the Tywi had been transformed in recent decades was widely noted across all the interviews conducted at the local level. It was emphasised that as the forests had matured, the impact of the Commission's past activities had become strikingly clear, leading to a wide-held

perception among local residents, and the wider public, that long-established policy of industrial afforestation and the techniques of forest establishment were no longer acceptable. Accordingly, whereas in previous decades forest management was essentially perceived and carried out as a purely technical exercise, geared to clear goals and based on economic values, Forest Managers in both areas emphasised the wider importance now attached to the forests for wildlife, recreation and other 'previously secondary' concerns. A forest worker, engaged in the preparation of Forest Design Plans for the Tywi emphasised that the predominantly industrial character of the forest plantations in the area had provided the Commission with an opportunity to reshape the woodlands to deliver wider benefits to society, leading to significant changes in woodland management approaches. The Forest Manager for the Tywi emphasised that the Commission had a key role to play in delivering 'multi-purpose' woodlands that were managed for recreation, landscape and wildlife, as well as for timber production.

The interviews with local forestry personnel generally supported this view, emphasising that the regime for managing and regulating the forests had changed considerably in recent decades to take account of a wider range of objectives, as reflected in the Wales Woodland Strategy. A striking feature of this new system was a substantial increase in the scale and extent of partnership working between agencies, both within and beyond the forestry sector at different spatial scales and levels of governance. In contrast to the 1990s, partnerships were now viewed by forestry personnel and wider stakeholders as a fundamental feature of contemporary 'forestry for people' activity in the case study areas, reflecting a new outward-looking and collaborative dynamic that was perceived to be having a positive effect on community development and the generation of public goods. It was emphasised that towards the end of the century, growing environmental awareness had brought changes in practice and a new emphasis on the use of woodlands for multiple benefits. New policies were adopted, restructuring the plantations through improved forest design to deliver multi-purpose benefits, a better landscape, greater biodiversity, more public access and recreation, and continued economic outputs from timber and other products. As with many of the Commission's plantations, this had led to significant changes to both the character and function of the industrial forest plantations of the Welsh uplands and in

the nature of forest values and perceptions held by local residents and the general public.

Whereas in the past, the main value of the upland forests was perceived to be economic, in the form of the production of a raw material for industry, the forests were now seen to support a wider range of functions. Material from the interviews with local forestry personnel and wider stakeholders indicated that these functions could be categorised under four broad categories - supporting the conservation and preservation of local environmental, ecological and cultural features through a new emphasis on woodland management; providing a landscape structure and setting for high-quality tourism enterprises and contributing to improvements in the mental and physical health of local populations, through the provision of public access and recreation; providing a social and cultural asset for local communities, through acting as a stimulus to rural development, forming an important part of educational and lifelong learning programmes and providing support for strengthening the skills, abilities and confidence of people and community groups to take effective action in the development of their communities; all this whilst providing continuing support for the Welsh timber industry and maximising its linkages to agriculture, tourism and the wider rural economy.

The following section considers these functions in greater detail, focusing specifically on the views of forestry personnel directly involved in implementing the new regime of forestry production and regulation. The experiences of key stakeholders which have been drawn into this new regime will also be considered in order to assess the extent to which the new functions are now being delivered at the local level in both study areas.

6.2.1 Towards a new emphasis on woodland management

The effective maintenance and development of the woodland resource to better meet new priorities and opportunities was now a crucial factor in ensuring the successful delivery of the Commission's objectives at the local level. There was evidence of a significant shift away from the Commission's traditional emphasis on single-aged plantations and the use of clear-felling systems to a more sensitive approach to

woodland management, with greater attention to species variety and ages and to increasing areas of open ground and native woodlands. It was explained by Forest managers that clear-felling, followed by replanting, was a silvicultural system used on much of the Assembly's estate, but the potential benefits of using alternative systems, which instead relied more on natural regeneration, were currently being pursued at specific locations within the two forests. The approach favoured by the Commission in these areas was now Continuous-Cover Forestry (CCF), a low-impact silvicultural system which involved selectively felling certain sections of the forest and allowing the land to regenerate. According to the Forest Manager for the Dyfi, this approach sought to 'retain a more natural appearance and create a more stable woodland environment'. Whilst the benefit of pursuing this approach was widely acknowledged by local forestry personnel, it became clear that its implementation at the local level was proving a significant challenge. Firstly, it was emphasised that this approach was often interpreted by local residents as a symbol of poor landscape management and recklenssness by the Commission, with Forest Managers frequently having to deal with complaints from residents of 'unsightly' hillsides. The Forest Manager for the Dyfi was highly critical of the priority now being given to continuous cover forestry within the local forest areas and viewed it as a 'knee-jerk' reaction by the Assembly and higher level policy staff, in order to be seen to responding to community concerns over continued felling practices. He went on to state that the Assembly were being too ambitious in its plans to promote a new form of woodland management, given that the woodland resource was not quick to respond, and within a culture that was still predominantly geared to timber production.

Reflecting this productivist concern, several local forest workers frequently emphasised that there existed important opportunities in both areas to provide further benefits through extending woodland cover. This was identified as a key objective, not only in helping the Commission to fulfil its new duty of providing conservation and landscape benefits, but also crucially to ensure an adequate supply of timber for both local and national markets. The aim was to use these woodlands to link and protect remnants of ancient semi-natural woodlands in both areas. In the Dyfi Valley, they were also making a valuable contribution to the restoration of landscapes left by past industrial activities within the slate-quarrying industries, and thus re-establishing links with the surrounding natural habitats. The Forest Manager emphasised that the

Commission was also actively encouraging landowners to take opportunities for appropriate woodland expansion, emphasising its value in providing shelter on farms and helping to diversify local agricultural businesses. A representative from Coed Cymru supported this claim, stating that the Commission was now undertaking a great deal of experimental work in the area, involving the management and integration of trees into farm landscapes, which was already providing numerous benefits in terms of soils, water quality and flooding. They appeared extremely encouraged by this work and emphasised that day-to-day interactions with Commission staff at the local level showed that 'things were on the move'.

There also appeared to be a greater recognition in both areas that woodlands and woodland habitats could no longer be considered in isolation from other land uses. Forest Managers in both areas emphasised that the introduction of the Forest Design Planning (FDP) system had been a key step in ensuring the better integration of the woodland resource with other methods of countryside management. The Biodiversity Officer representing Carmarthenshire County Council supported this claim, stating that FDPs were now recognised as a key mechanism through which biodiversity objectives and targets were being delivered at the local level. The need to maintain clear communication channels with the Commission was thus highlighted as a key priority for the Council to ensure cross-compliance between Local Biodiversity Action Plans[1] and other strategies at the local level. Likewise, the Biodiversity Officer representing Snowdonia National Park Authority noted the valuable input provided by the Commission in the development of LBAPs in the Dyfi Valley, and in particular emphasised its key role within the biodiversity process through its ability to deliver actions at the local level. Notable work in this respect included the restoration and expansion of native woodlands on its estate, commitments to increasing the biodiversity of its coniferous woodland through a shift to the use of continuous cover systems, developing multi-aged structures through natural regeneration and the incorporation of native species.

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[1] Local Biodiversity Action Plans (LBAPs) were proposed as a way of stimulating effective local action for national priorities identified in the UK Biodiversity Action Plan, which was launched by the UK Government following the Convention on Biological Diversity, held in Rio de Janeiro in June 1992 (the 'Earth summit'). For further information see: http://www.ukbap.org.uk.

However, not all external respondents were as complimentary of the wider benefits provided to stakeholders and the Commission through the FDP process. Several noted pointed to the inertia evident within the Commission, which was evidently displayed by continued efforts to control the process and maintain its exclusivity, which inevitable led to a strong focus on timber objectives:

> The Forest Design Plan system has become rather fragmented. It's driven by its own needs because not all of our suggestions are taken on board. (Interview, Cadw)

> ...there's still some inertia evident. The FDP consultation is very opaque – you only take part if invited to do so and the markers are firmly put down if you do get involved. The comments and views are only really taken on board if they add value in the Commission's terms. (Interview, Coed Cadw)

> It's been a highly manipulative process from the start, in that they've decided to a fairly high degree what they want out of it, and then it's just a case of 'these are the proposals, please comment on them'. (Interview, Coed Cymru)

> It still has a strong emphasis on the timber producing side, and the impression I get is that the FDPs are drawn up, taken out to consultation and then have the social and environmental aspects drawn in later, but it's heavily vetted by the harvesting and marketing group too. (Interview, CCW)

On a more positive note, it was emphasised that a significant amount of attention was also being directed towards understanding the effects of woodlands on the water environment. The Commission was currently working in close collaboration with the Environment Agency to ensure that the woodlands and forest spaces were now managed in a manner which contributed to reversing the acidification of rivers, enhanced stream biodiversity and influencing the flow of water. This was raised as a particular priority in the Dyfi Forest, where woodlands formed a significant area within the catchment of the river Dyfi. A representative from the Environment Agency confirmed this, noting that catchment management planning was currently being undertaken within the area through the Sustainable Fisheries Partnership to enhance the contribution of the forest in the management of the local water resources, with emphasis also being placed on reducing flood risks. The success with which this collaborative work was leading to significant improvements in biodiversity, in particular, through the opening up of stream margins was demonstrated by the fact that ongoing work in Corris was now being used as a national benchmark. The EA's

working relationship was thus perceived to have greatly improved as a result of this work and through frequent contact with local FC staff.

The Forest Manager for the Dyfi claimed, however, that this growing sensitivity to local conservation issues was not a new phenomenon within the Commission:

> We started to make dramatic changes many years ago, probably going back to the early- to mid-1990s when we started to become much more environmentally-aware. I certainly saw a change in the environmental practices that we were taking with our forest operations, such as with machinery and felling and we became much more sensitive to conservation and footpaths and things like that.

This view was supported by a former Manager of an Outdoor Recreation Centre in Corris, who recalled being given an opportunity by the Commission in the late 1970s to develop a small-scale conservation area in the forest to provide outdoor learning courses to schools, colleges and youth groups, for the purpose of creating a small conservation area within the forest. The land proved a valuable asset to the centre and in later years enabled the introduction of a successful bird-watching scheme, which involved close collaboration with an inner-city school in London. During the five years in which the scheme was active pupils were encouraged to place individual bird boxes, produced as part of their school curriculum, within the woodland in order to monitor the bird life in the area over a set period. It was claimed that during this time the centre offered a valuable educational resource, providing the school with regular updates on unusual wildlife sightings within the woodland and information on any birds nesting in the boxes, as well as allowing pupils to gain practical experience of nature and wildlife conservation through regular field study visits.

Furthermore, the scheme was also successful in fostering some very positive relationships, not least with the Commission who gained considerably from increased interaction with a group of individuals from outside its normal field of interests and developed a greater degree of knowledge and understanding of environmental and wildlife considerations. The surveys produced as part of the scheme were highlighted by the Forest Manager as being of particular interest to the Commission as they provided a detailed audit of the various wildlife species that were present in the forest and highlighted which areas required special attention through further conservation work. One notable outcome of the project was the discovery of a dormouse habitat on

the centre's site, prompting the Commission to carry out a more detailed search of its land which uncovered a further twenty-seven habitat sites within the forest. In response to this, the Commission had provided the centre with a further ten acres of forest land in order to provide a natural habitat for the dormouse species. This culminated in the introduction of a dedicated conservation project, coordinated by key individuals from the outdoor centre, and which recently celebrated its sixteenth year in operation. A decline in the population of dormice in the Dyfi Valley has received further attention in recent years leading to a new campaign to restore and improve dormouse habitat on Commission's land - the National Dormouse Monitoring Scheme. The scheme is currently active in monitoring around 200 specially designed boxes that have been placed at various locations within the Dyfi Forest, in both broadleaf woodlands and conifer plantations in order to gain a better understanding of their habitation, feeding and breeding patterns. The respondent credited the success of this project to the efforts of the Commission and to the significant shift in culture that had occurred over the last two decades:

> The Commission gave us about ten acres of land to do what the hell we wanted with it, so they were very generous with that - that's a reflection of our relationship with them, and from that we've done surveys for night jars and goshawks, whatever they want done really...Twenty years ago all they were interested in was planting trees, but then they started to lose that crop of foresters who were very autocratic and brought-up they old school way of doing this, they started to catch up, but they were about fifteen years behind the times I'd say.

Such a positive view was, however, not shared by all respondents. In responding to recent work carried out by the Commission in both forests under the Assembly's 'Aren't Welsh Birds Brilliant' project, a representative from the RSPB questioned the motivations of the Commission in carrying out such work. Whilst the importance of such work was acknowledged, it was perceived that the promotion of large birds of prey, such as kites, on Commission land was merely an attempt to gain popularity and appeal among local populations and visitors and provided a justification for continued funding. This possibly indicated a continuing underlying tension between the Commission and the RSPB.

The Forest Managers in both areas also emphasised the valuable role played by the Commission in the wider conservation and enhancement of the upland landscapes, particularly given that the forests had such a high visual impact in both areas. In

particular, efforts were now being made in the Tywi Valley to acknowledge the historical significance of key sites within the forest and their contribution to wider Welsh culture. The designation of a large part of the Cambrian Mountains as a landscape of outstanding and special historic interest thus required a sensitive approach by the Commission, which was achieved through the use of 'modern design principles when planning the future management and replacement of plantations following felling'. It also required close collaboration with CADW on the preparation of action plans to prioritise the conservation of important historic features within and around the forest. Reflecting on this working relationship, a representative from CADW emphasised that the management of the forest had 'improved in leaps and bounds' over the last decade, in particular, with much greater attention now paid to the protection of heritage assets. This view appeared to be supported by an interviewee representing the FUW when reflecting on the changing culture within the Commission since Devolution, emphasising that 'decisions seem to be taken more now on local issues and things which affect local cultures'.

6.2.2 Tourism, Recreation and Health

The increased use of the forests as a setting for tourism facilities was also emphasised by both internal and external respondents. In the Dyfi in particular, the Commission was working in partnership with the Wales Tourist Board and the Local Authority to promote the further use of woodlands to develop 'a high-quality visitor experience' (Interview, WTB). In particular, emphasis was being placed on the development of specialist recreation in the woodlands, including wildlife observation and artistic pursuits, as well as more physical sport such as mountain biking in appropriately zoned areas. The 'cli-machx' Mountain Biking Centre in Machynlleth was championed by several of the respondents, both internal and external to the Commission, as a significant success in attracting a large number of visitors to the area and thus establishing the Dyfi Valley as a major tourist location. Once again, the general openness and foresight displayed by local forestry personnel was highlighted as a key factor in ensuring the success of this project, with one representative from the mountain-biking centre recognising the significant pressures that were now being placed on these staff in their day-to-day roles:

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> The guys who have had practical experience are very open to what we want to do and think we're doing a good job of making use of the forest resource. I think it's a bit more difficult for them now because they have to be aware of health and safety and they have all these rules and regulations to conform to. We've had to question one or two attitudes there from time to time, but I think generally we have had a reasonably good relationship with them. It's just that we're doing something that is just so completely different to what they're used to, so it's bound to cause a bit of caution on their behalf. I mean, they're still managing this body of wood and so, you know, it's fair enough that they keep an eye on activities here. (Interview, cli-machx representative, Dyfi)

A similar level of tourism activity was also identified in the Tywi, with one Commission respondent stating that the forest had now developed into a 'mecca for motor-sport activities' which was seen to provide an invaluable source of income for the local area:

> We've got six major national and club events that use the Tywi Forest and the surrounding areas. In the dead of winter every small B&B, from Rhaeadr through to Llandeilo is booked up for many weekends a year with motor sport enthusiasts who are legitimately using the forests. It's a well-known part of Britain for course tourism and it forms part of a huge tourism product.

The Welsh Tourist Board also emphasised that the landscapes of the Cambrian Mountains offered significant potential for furthering its value as a tourism product in Wales, along the lines of the success achieved in the Dyfi in relation to mountain-biking. It was also emphasised that Commission staff working at the local level were also generally open to suggestions for further development, which was leading to a successful working partnership between the two organisations. In supporting this claim, the Forest Manager emphasised the significance of the Commission's new role in this respect and their willingness to facilitate further use of the forest resource:

> We're encouraging local people and visitors to make use of and visit the forest now, so if there are any tracks or parks that we can develop the we will do that quite happily. The Tywi is a big land area and now that people are aware of it it's used more and more as a big recreational facility. Back in the mid-1990s we started on the mapping process to open up the forest to horses, bikes and walkers and created lots of tracks and information sites.

However, not all external respondents were supportive of the new roles taken on by the Commission, with one respondent from the woodland sector providing a highly critical view of the Commission's recent efforts to widen its functions, stating that regardless of recent activity, the forests 'still reflect the production driver'. He

continued by stating that 'putting through cycle tracks doesn't constitute what they define as social forestry, it's just papering over the cracks'.

It became clear from the interviews that a great deal of emphasis was also being placed in both study areas on the role of the woodlands in supporting the physical and emotional well-being of local individuals and communities. External respondents were able to cite numerous recreational activities ongoing within both forests, including walking, bird-watching, picnicking, horse-riding, cycling and mountain-biking and vehicular uses. In discussing this issue, a Countryside Warden working within the Countryside Access team in Carmarthenshire County Council praised the Commission for dedicating most of its land in the Tywi to public access. The use of the woodlands for quiet enjoyment, as well as for sport and recreation, was also continually emphasised by Commission respondents as an effective way for local communities to 'keep fit and healthy'. In the Tywi in particular, a significant amount of work had been done to encourage local people to make use of the woodland resource for walking, especially as an effective way of regaining health after illness. The Towy Walking the Way to Health Scheme had been introduced to facilitate this process and was being delivered in partnership with local surgeries, health visitors, CCW and the British Heart Foundation to provide fortnightly led walks for local residents, and an opportunity to engage in 'green gym' activities in the outdoors. Promoting access to woodland as part of the policy of wider access to the countryside was also identified as a key role of the Commission in both areas. To this end, significant efforts had been made more recently, largely influenced by the introduction of the Countryside and Rights of Way Act 2000, to encourage the use of local public recreational facilities within the forests.

In the Dyfi Forest, the Commission had been instrumental in facilitating wider access on to forestry land under the Corris Footpaths Partnership launched in March 2006. Once again, this was seen to represent a significant cultural change within the Commission, from being an inward-looking and highly 'autocratic' organisation in past decades, to one in which there was a greater recognition that the woodland resource was being managed for the benefit of local residents and the wider public. These views are succinctly expressed in the following quotes:

> To be honest, the Commission were the people who made a difference [to the Corris Footpaths Partnership], because without them it probably wouldn't have happened...When I joined the Commission in 1971, they always used to be very difficult, their attitude was that they were a government department and no laws affected them – they were the law. If you told them they'd planted over a right of way, would have said 'tough!' – they just wouldn't have accepted it. (Interview, Gwynedd Rights of Way Officer, Dyfi).

> In the early days there was certainly an autocratic attitude from the forestry, you know – they were the civil service, the government state forest and the old head foresters in these areas weren't too keen on people wandering around and doing anything in the forest, but I think the climate has changed. Certainly in the last 20-25 years there has certainly been more openness from the forestry and I think it has improved our relationship. (Interview, former Outdoor Recreation Centre Manager, Dyfi

The main priority for Forest Managers in both areas in relation to the objective of open access was to ensure that walking paths within the forests were well-designed and maintained However, they recognised that further work needed to be done to emphasise that the forests were open to local communities to use, as it appeared that many were still under the impression that the forests spaces were 'out of bounds'. A significant challenge in their day-today task of managing the forests was therefore identified as a need to overcome the negative perceptions held by residents of the Commission. In the Dyfi Forest, such negativity was not only confined to local residents, but also to local landowners who appeared reluctant to comply with the Forest Manager's requests for wider voluntary public access 'in a co-ordinated way'. It appears that concerns over the detrimental effects of wider public access on agricultural land were widely held within the agricultural industry, with a representative from the NFU emphasising that this represented a common source of anxiety among its members. Along similar lines, representatives from CCW and the RSPB also expressed concern over the wider access now being provided within the forest spaces of the case study areas and emphasised the importance of balancing access with the conservation of local cultural and natural heritage, as well as the ecological features of the landscapes.

6.2.3 Woodlands and Communities

In line with the Commission's commitments to community development under the Woodland Strategy, a significant amount of work was now being done within the forests to provide environmental and social benefits to local communities. In the Dyfi,

in particular, the forest was being used as a catalyst for regenerating local communities, in particular through the use of Forestry Commission land and buildings to provide affordable rural housing. In the Tywi Valley, the Commission had provided support through CydCoed to support the development of a community-managed woodland. Observations within the area and an interview with a local member indicated how the project had improved access to and safety within the forest plantation, encouraging wider local use and attracting more visitors to the area. The respondent went on to emphasise that it had also 'provided greater enjoyment and improved knowledge of the woodlands and wildlife and their management' in what was now widely valued as a mixed coniferous woodland. Specific work carried out as part of the project involved creating a community woodland of mixed broadleaf with a wildlife pond, a new all-ability access trail, mountain-bike route and bridleway, the introduction of a wider variety of tree species and plants. The installation of interpretation boards within the forest had also facilitated the creation of an orienteering course, which was proving extremely popular with visitors to the area.

However, despite the noticeable success of this group in generating wider interest in forestry, the value of further increasing the number of community-managed woodlands within the area and in the Dyfi was questioned by the Forest Managers, raising concerns over the capacity and knowledge of local residents. Given the prevalence of such concerns within the Commission concerning the community capacities, some external respondents believed that the Commission deliberately prevented the development of capacity at this level because it saw it as a threat to its own existence, power and hence legitimacy, thereby prompting efforts to maintain its distinctiveness. However, from the Commission's perspective it was more a case of 'treading carefully', which would appear to suggest that their unwillingness to enter into formal contracts did not necessarily indicate a lack of interest in the communities, but alternatively ensured that they were not exposed to unnecessary risk. Another internal respondent stated that it did not wish to drag itself into complicated situations of accountability which might compromise other areas of its work. Such views indicate that while the Commission may indeed display some self-interest through its work at the local level, this may not necessarily be done in a selfish manner. A respondent from the community sector appeared to support this line of thought, emphasising that the Forest Managers working at the local level in both areas were

doing the best they could, given the significant pressures that were now being placed upon them. It was observed that there had, in fact, been significant improvements in the Commission's engagement with local communities in recent years, but the biggest hindrance was that they were now provided with little additional resources to follow these efforts through. Furthermore, the strict rules governing the transfer of forestry land to community groups was also perceived to be stifling progress towards greater community control over local forest resources.

Nevertheless, the same community sector representative was able to draw on several examples whereby the Commission was directly involved in bringing communities and marginalised groups together, working in partnership with Local Authority social inclusion and youth offending teams. The first involved an educational visit to a woodland bothy based within the Tywi Forest during the Easter school break in 2006. The project offered an opportunity for young people in the 'children in need' or 'at risk' bracket to develop their inter-personal and team-working skills. The project itself was run as a partnership between the Youth Offending Team at Ceredigion County Council and Dim Prob, representing Aberystwyth University Student Volunteers, and primarily catered for young people referred via social workers. The project itself was perceived to have been a great success, allowing the young people to build confidence and self-esteem through survival experience within a woodland setting, whilst also greatly improving their social development and interactive skills:

> The young people gained confidence, especially on the night course, which was pretty scary for some of them. There was plenty of positive input from staff and volunteers who were able to chat with the young people, which is sometimes difficult to do in the normal running of activities.

There was also strong evidence to suggest that the forests were being used to support learning at all levels and across a wide range of subjects, including biology, geography, mathematics, leisure and art. A respondent from the community and voluntary sector referred to an ongoing project ('Lessons from the Wood') set up by a local school in the Tywi Valley in early 2006, with part-funding from the Small Grants Scheme. Utilising the Commission's land, school children and other members of the local community, including older children, were helping to plan a hazel bandstand, incorporating musical instruments and a 'seasonal gallery', as well as a wooden table and benches. Through engaging with children in the woodlands and

allowing them to use wood as a material, it was possible to introduce the concept of sustainable development in a simple, yet effective way. The project was also perceived to be contributing to social inclusion, as the respondent goes on to state:

> The children with special needs benefits hugely from this project, because more often than not, schools find it difficult for them to be fully involved in things like this, but with this project they were 100% involved and benefited enormously.

The Forest Education Initiative was being widely implemented in the Dyfi Valley to encourage a greater understanding of trees and the woodland environment. It was being supported by a wide range of interest groups, from forestry and wood processing industries, with the object of bringing environmental education to schools within the local areas. Through this scheme, woodlands were also being used as an integral part of lifelong learning programmes, especially those linked to local heritage, sustainability and the environment. A further example of educational and social benefit deriving from the use of woodland was provided by an external respondent from the community and voluntary sector through the 'Coedlan Project', a woodland scheme run by the Cyfle Newydd ("New Opportunity") Day Centre in Machynlleth. This project was primarily aimed at adults with learning disabilities and was run from two location within the Dyfi area – a Commission woodland site at Forge and a workshop at Ceinws (see map at Appendix 1). Although the Commission was not directly involved in the delivery of the project, the provision of land and premises enabled trained support workers to provide courses in woodland management and 'greenwood' activities, in the safe use of hand tools and guidance on the production and development of a wide range of products and services. The skills learnt were subsequently being passed on to local service users through an on-going education and training programme, thus providing 'purposeful employment opportunities' for participants.

As a result of shifting priorities, the Commission was now under pressure to strengthen the legitimacy of its actions by pushing through much needed changes to its consultation and participation processes. As the scope for public use and engagement within the Dyfi and the Tywi Forest had widened, forest managers were now required to engage with a much wider range of interests beyond the forest industry. This section discusses the degree to which these trends were reflected in

forestry practice on the ground within the study areas, before considering to what extent they have given rise to the emergence of more inclusive systems of forest governance within the forest communities.

The interviews with local forestry staff offered a detailed account of existing arrangements for managing and regulating the forests within the two study areas, which appeared to reflect a trend towards a more engaged approach to decision-making concerning the forests. One way in which the Commission had recently gained experience of engaging with a wider constituency of users within the local areas has been through the Forest Design Planning (FDP) process, a large component of which was dedicated to consultation with individuals and groups with an interest in, or affected by, operations within the forests. It was emphasised that the underlying principles of the plans had evolved over the last decade and a half, from an emphasis on the visual side of the Commission's forests to a broader spectrum of priorities relating to conservation, ecology, heritage, leisure and community forestry, as is demonstrated by the following quote taken from a local forest worker in the Dyfi:

> The plans contain proposals for our felling and re-stocking priorities, which is intended to protect and manage sensitive features, stands and landscapes and to achieve objectives such as the lining and possible extension of open space, the protection and enhancement of semi-natural woodland and the management of areas for long-term retention. Consultation on the completed plan with statutory consultees is undertaken as well as presenting the plan to local communities to gain feedback on the proposals. (FC Interview, Dyfi).

One Commission employee who had worked as a district manager in the Dyfi and Tywi Valleys during the early 1980s stated that prior to the introduction of this process, public participation in forestry matters was virtually non-existent within the local communities. Indeed, public access to the forest estate was limited to a few paths and tracks and there was certainly no mechanism providing local communities with any sort of influence in how woodlands were managed and developed. Contact between the Commission and local communities and forest users was limited to the occasional survey of public opinion, which focused primarily on measuring public use and enjoyment of its forests. Whilst this was highlighted as an important consideration, the FDPs were now perceived to have given rise to a higher level of participation and engagement and in the words of one forestry employee 'marked a first step in us actually listening to the public and giving them a voice'.

Thus, with public consultation now a statutory requirement within the FDP approval process, consultation was carried out on each aspect of forest development, to varying degrees of intensity according to needs and priorities. In cases dealing with small areas of woodland in the remoter upland areas of the Tywi Forest, for example, where proposals were only likely to affect perhaps two neighbouring farms consultation was restricted to the Commission's main statutory consultees (the Countryside Council for Wales, the County Council and community councils). It was emphasised that at the other end of the scale, where design plans raised a whole raft of different issues and were therefore likely to have a wider environmental and social impact, it became necessary for the Commission to hold full-scale public consultations with statutory consultees, as well as presenting the plans to local communities living within and around each forest to gain feedback on any proposals. Following this process the plan was entered on the Commission's public register for four weeks allowing further opportunities for the public to comment. The final approval of the plan could only take place once the public register period had been satisfactorily completed and any comments considered, with amendments completed if necessary.

As a compromise between these two degrees of consultation, a further category was provided for consultation on plans that were likely to draw broad interest, but were not considered overly-contentious. In this case the Commission informed the statutory consultees, together with local residents and any conservation bodies with an expressed interest. Most recent consultations in the Tywi and Dyfi Forests had fallen under this category and local residents have been given the opportunity of attending informal 'drop-in' sessions at various locations to view the plans and to raise any queries or concerns with the local forestry staff in attendance. Members of the public could also arrange to view the plans at the district office within their area. Many residents had done this and several examples were provided whereby the Forest Manager for the Dyfi had visited residents who had raised concerns over the effects of the forestry operations on their properties and surrounding land.

A local forestry worker engaged in this process in the Tywi emphasised that these events, although significant, were just a first step in the process of consulting with the local communities, with the overall aim of building upon linkages made with local people over a sustained period of time. What became clear from the interviews was

that they have been relatively successful in generating interest in forestry issues within the study areas; and above all provided the Commission with an excuse to re-connect with the local communities. For example, in recent years, they have provided an ideal opportunity to raise the profile of key forestry staff such as the Forest Managers who acquired direct responsibility for the management and regulation of local woodlands. Efforts made by the Forest Managers in both study areas in recent years to 'meet and greet' local residents had ensured that those with an interest in the development of their local forests are given regular updates on ongoing work and future proposals and are encouraged to get in contact should they have any queries or wish to raise concerns. It appears that these efforts have been relatively successful to date in allowing the managers to maintain contact with local communities on the ground, with several residents stating that they were aware of the Forest Manager working within their area, either through previous contact or word of mouth. Many believed that the simple fact of knowing that there was one individual within the Commission who was available at any time to deal with queries, be they big or small, had restored some confidence in the Commission and their ability to listen and respond to the concerns of the local communities.

To some degree, this has enabled the Commission to re-assert some form of presence in the local areas thus responding to residents' concerns over the reduced visibility of Commission personnel within the forest communities in recent years. Indeed, the central role played by Forest Managers in the wider consultation process was emphasised time and time again in both study areas, highlighting the way in which they have now taken on a role as a first point of contact for communities on matters relating to their local forests. In carrying out their duties they now represent the public face of the FC at the local level, liaising directly with communities living within and around the forests through regular face-to-face contact and dealing with day-to-day queries by telephone, email and letter.

6.2.4 Forestry as an Economic Asset

The importance of maintaining the effectiveness of the timber industry was emphasised time and time again in the interviews, particularly given that the forestry sector, like other important industries such as agriculture, was currently facing

difficult conditions. The last two decades has witnessed considerable changes in both the use of timber and wood products and in the nature of harvesting and processing methods in the upland areas. The heavy industries which sustained the forestry sector in both areas for most of the twentieth century had all but disappeared and the anticipated markets for smaller-scale conifer timber, previously used for pit wood, had not materialised. As with farming and other rural industries, the increasing emphasis placed on technological advances and innovation to maintain international competitiveness and higher productivity had led to a significant reduction in employment levels. However, it was emphasised that despite low timber prices on world markets, the forestry sector remained a significant contributor to the local economy, and thus remained a key priority in both forests, as the Forest Manager for the Dyfi emphasised:

> Timber production will always be seen as something that's right up there on the top of the tree because that's what produces the most income, but then that income allows us to manage the estate and make it more attractive visually.

Given the age structure of both forests, having been planted from the post-war period until the 1970s, Forest Managers envisaged that total timber production from the forests would increase substantially by the end of the next decade as the forests reached maturity. In line with this, the aim was to maximise the value to the economy from these woodlands, thus efforts were being made to improve the quality of the timber grown through attention to species choice, thinning and other management operations.

The industry 'wood-chain' is now dominated by small and medium sized firms, many of which were sole traders or family-based partnerships. Recent years had, however, seen the closure of several small local sawmills who had been unable to compete on the market, but a number of specialised mills, well-adapted to producing value-added products or serving local markets, were competing effectively. The market for raw material from both forests was now largely found in pulp and panel-board mills and was also supplemented by the use of salvaged paper and wood, with the aim of increasing the sustainability of industry. There exist several craft and specialist firms utilising the hardwood resource, however this element of the industry has declined significantly in recent decades and the only bulk market for hardwoods is now the St.

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Regis paper mill at Sudbrook near Chepstow. A thriving firewood market existed in some parts of the study areas, however, it was emphasised by the Forest Manager in Dyfi that finding high-value uses for the hardwood resource remained a key challenge. A number of weaknesses were highlighted in the wood supply chain, which was perceived to be limiting development in this sector. The businesses which formed the first link in this chain were under severe financial pressures due to the fall in timber prices during the late 1990s. The Commission was therefore committed to working with industry representatives to support and develop businesses in the wood-supply chain, helping to provide information on the quantity and quality of the timber available. It was also claimed that a great deal of work was being done to foster the development of renewable energy based on the use of local wood. The development of wood fuel technologies was seen to make an important contribution to the production of renewable energy in Wales and significant opportunities within the wood energy market had the potential to boost substantially the market for small logs from thinnings, forest residues and co-products from existing wood processing businesses. However, this was not currently being pursued widely in the areas.

Projects such as Coed Cymru had enabled a number of small firms to process added-value products from small hardwood logs, however, it was emphasised time and time again in the interviews that further encouragement and investment was needed to enable these processors to develop into sustainable businesses. Representatives from the woodland sector praised the commitment of local forestry officers in this respect, but criticised the approach take by the Commission as a whole, claiming that it just wasn't interested in growing hard woods commercially. This view was supported by a representative from CCW, who drew attention to the important work that was currently being done by Coed Cymru in both study areas on the product development side, in particular demonstrating the use could be made of small-scale timber from the woodlands. However, the Commission appeared to be uninterested in pursuing such investment opportunities:

> The Commission see their role stop short at the forest gate and they don't want to invest in activity like that. That attitude needs to drastically change and they need to recognise the huge amount of effort that's being done by Coed Cymru, even if it's only small-scale.

A representative from the community and voluntary sector echoed this view and emphasised the wider value of reverting back to selling wood locally, which it was claimed 'would pay dividends as far as community is concerned'. Once again, attitudes of distrust and self-interest on the part of the Commission were cited as key factors inhibiting progress in this field, with the community respondent emphasising that participation was limited to whether they could effectively manage what was on offer.

The next section considers the changing function of the forests from the perspective of residents living within the case study communities.

6.2.5 Community Perceptions of the Changing Role of the Forests

Material from the case-study interviews indicated that most residents held some degree of understanding of the changing function and purpose of the forests and the recent approaches adopted by the FC in their management. The majority appeared to welcome the fact that the FC were now seen to be re-aligning their priorities towards providing the range of services that the general public had increasingly demanded in recent decades, namely nature conservation, environmental protection and facilities for recreation and leisure. As a reflection of this, there appeared to be a general acceptance and appreciation within the study areas of the new planting and management methods adopted by the FC in recent years. Further probing on the issue generated a very positive response from interviewees, with many agreeing that there were signs emerging of a transition towards a more 'natural' environment within the case study areas. Several indicators of progress were identified as crucial to this changing emphasis. Of most significance perhaps was the FC's recent commitment to increasing the species diversity of the conifer plantations that had dominated the area since the last century, through the use of a greater mixture of conifers and broadleaves on many sites in the upland areas. As one resident observed, the FC's logo, comprising a Sitka spruce tree and an oak by its side, was now seen as symbolic of this change in emphasis.

The benefits associated with the creation of more mixed forests, such as providing a higher environmental and aesthetic value to the local landscapes have certainly been

felt already at the local level, with local residents in both areas observing that the Commission had shifted from a dependence on fast-growing, fast-yielding Sitka spruce variety to the use of a greater mix of native broadleaves. Many residents agreed that this had already brought about some minor visual changes at the local level, with many stating that the simple mixtures of conifers and broadleaves added more interest and colour to the area and was seen to break up the monotony of the pure conifer plantations that characterised the more traditional forest landscapes.

Ex-forestry workers who held some degree of understanding of the Commission's current work in both areas were generally highly complementary of work currently underway within their local areas to transform sections of the forests to continuous cover systems, with many stating that the visible changes that resulted were a 'welcome improvement' to the bare, unsightly hillsides that had resulted from clear-felling activities. A respondent in the Dyfi emphasised that this activity was mainly being carried out on the most prominent valley sides - those with a high visual amenity value. However, despite these efforts, there remained a certain degree of scepticism among the wider populations towards the continuing work being carried out by the Commission to selectively fell certain sections within the forests in order to allow the land to regenerate. This was highlighted by the Forest Manager in the Tywi as a common approach taken by the Commission within the area in order to improve its overall value to the public and to the surrounding communities. It was also highlighted as enhancing the forest's overall capacity for 'sustainable management'. However, what became clear from the interviews was that this work was often misunderstood by residents living within and around the forests, particularly those who were openly critical of the forests, as a symbol of poor landscape management and abandonment by the Commission.

Nevertheless, several residents who had worked for the Commission during the period of industrial forestry expressed amazement at the vast changes that had already occurred in the forests, with pockets of hardwood trees where the conifers had once grown. This process of naturalisation, or 'letting nature run its course' as one Dyfi resident observed was a good example a section of clear-felled land in a prominent position within the forest which had in recent years been colonised by a mix of broadleaved species and had resulted in a dense thicket of birch on the land. Another

resident in the Tywi also pointed out that after nearly a decade of forestry activity during which leaf litter from the trees had formed thick compost on the land, there now appeared to be some environmental benefits emerging. It was emphasised that the highly enriched soils found on clear-felled land within the forests now provide a natural environment in which to carry out regeneration and biodiversity protection work. A reflection of the work that was being done in the local area led another resident to suggest that the FC was now viewed as more of a 'nature and wildlife steward', which she observed was surprising given its history as a commercial organisation.

A further probing of views on the Commission's success or failure in delivering wildlife and biodiversity improvements generated very positive responses on the whole. The increased visibility of bird species, particularly rare birds of prey such as the Red Kite within their local areas was one issue that was regularly raised in the interviews. Residents in the Tywi Valley, in particular, attributed this to efforts made by the FC more recently, in conjunction with organisations such as the RSPB and the Welsh Kite Trust, to protect the surviving numbers of Red Kites nesting in the hills of the Cambrian Mountains. They praised the recent implementation of programmes to monitor these populations, together with the creation of exclusion zones around occupied nests on the FC's land, which they believed had been a resounding success. One resident in the Tywi observed that recent estimates placed the number of breeding Red Kite pairs in mid-Wales at around 250, which was a significant achievement to local efforts, considering that they were, until recently, on the brink of extinction. This had recently led to the establishment of a Red Kite Centre and Museum at Tregaron, specifically aimed at showing the kites within their natural habitat and which was claimed to have developed into a major attraction for visitors to the area. As a result, kite tourism is now seen to make an important contribution to the local economy. It has also proved popular with local people, with many of the residents that were interviewed, particularly those with young children, stating that they regularly visited the centre as a family on the weekends and during holidays in order to make use of the facilities and to view the daily feeding sessions.

Several examples were also provided of recent efforts made by the Commission to prioritise the safeguarding of valuable native woodlands on its estate, through the

designation of special conservation areas. In Rhandirmwyn, a small hamlet which lies in the upper Tywi Valley, an area of ancient semi-natural Oak woodland, along with two fields of rough pasture were set-aside by the Commission during the late 1970s, at the request of the local residents, in order to develop a woodland nature reserve for use by the local community and the village school. The nature reserve remains in existence today and is now run by the Wildlife Trust for South and West Wales.

Residents acknowledged the value the forests had brought to the area, both in terms of the large number of visitors that are attracted to the area through the scenery and to make use of the facilities provided by the Commission for walking and other activities and also through its role as a resource for local communities. In terms of the latter, there was generally a high level of individual and collective use of the forests in both study areas, with most respondents regularly walking or cycling, either alone or with families or dogs. For the majority of these users, the forests were seen to offer peace and quiet and somewhere to escape from the stresses and strains of everyday life. Most residents appeared to be well aware of the Commission's policy of open access. To a lesser extent, group activities also occurred in the forests, mainly through the provision of mountain bike trails, children's play areas and in the form of organised natural history and nature walks arranged by local clubs and societies.

The growing attractiveness and popularity of the forest areas in recent years were largely attributed to recent efforts being made by the FC to move away from the blanket forestry effect created by the early planting programmes through the use of a greater variety of native hardwood species. This had involved the implementation of strategies to improve the balance of species within the forests in order to break up the monotony of the conifers and larches that have traditionally been used by the FC and which have long been a bane of local residents' lives within the study areas. It appears that these approaches have been relatively successful to date, with a large majority of the residents stating that the visual appeal of the forests have significantly improved as a result of the variation in colours and textures that are now seen on the local landscapes with the changing seasons.

6.2.6 Towards a New Approach to Forestry in the Uplands?

The empirical evidence presented thus far does indicate that the traditional formation of plantation forestry in the upland areas of Wales is now entering a phase of transition, as new forestry ideas and principles are gradually being implemented by the Commission. This has clearly had major implications for both the functions and governance of the forests as they become increasingly complex and multiple. This suggests that the forests are no longer being treated as mere timber factories and that the 'strategic reserve of timber' vision which dominated for most of the twentieth century is gradually being phased out. However, this is not to suggest that the transition has been straightforward. In fact, it can be argued that the attempted implementation of a new regime of post-industrial forestry by the Commission in these areas in recent decades has been complicated by a series of local socio-natural difficulties. This discussion is taken forward in the next section, suggesting that the previous regulatory regime for forestry continues to be deeply embedded in, and continues to shape the construction and fabric of the communities of the study areas.

6.3 Unravelling the Socio-Natural and Socio-Cultural Complexity of the Uplands

Despite the visible fact that the forests have provided a backdrop to local communities' lives through its notable physical presence and as a major employer in the past, it appears that the economic and social structure which supported and sustained the timber industry within these communities during the latter part of the twentieth century has weakened to such an extent that there no longer remains a clearly defined rationale for timber production, and more specifically for the forests within the study areas.

6.3.1 The changing socio-economic role of the forests

The image presented in the previous chapter of vibrant local communities sustained by strong local economies based around industrial forestry activities during the mid-twentieth century contrasts starkly with the current situation within the study areas. Many of the older generation of residents pointed to the changing role of the Commission, from a highly profitable industry in the past to a position in which it is now seen to fulfil little economic function or importance within the study areas. Many

cited the closure of the coal mines and the corresponding fall in the demand for pit-props as a major contributing factor in its decline, which in later years left the Commission dependant on smaller and less lucrative contracts to supply timber for paper production and for the construction of materials such as motorway boards and fencing. There was also consensus amongst local farmers and individuals with knowledge of the timber trade that although the FC had been successful in its aim of creating vast industrial forests, the unfavourable conditions that prevailed in the study areas at the time of their establishment had compromised the quality of the timber produced. This meant that a large majority of the timber harvested from the forests was considered of too poor quality to be used for anything other than fencing or firewood. Several farmers even questioned its suitability for such purposes, as many had been forced to replace metres and metres of fencing due to the poor quality of the fence poles.

Another factor which frustrated a large majority of the residents in both areas concerned the negligible employment opportunities now provided by the Commission at the local level. Many ex-forestry employees recalled their experiences of the vast changes that began to occur in the communities from the 1970s onwards, influenced by the availability of new industrial machinery, designed to simplify the task of carrying out traditional manual tasks such as land preparation, planting and harvesting. This signalled a reduced dependence on the skilled pool of labour on which the Commission had become so dependent during the post-war period. An interesting fact that came out of the interviews that were conducted was the degree to which the workforce had declined, from around 1,300 employees in each forest area during the FC's hey-day in the 1950s, to half that number by the 1970s. Many local residents who recalled this era, and who had played a part in the development of the forests, recalled their sadness at losing what was then considered to be an important element of their community. For many, the opportunities presented by the FC in the mid-twentieth century had played a crucial part in shaping the character and fortunes of the localities. Residents were quick to point out, however, that these changes came about despite early promises made by the Commission that the forests would provide a continuous supply of local employment, mainly through the initial planting programmes and the subsequent upkeep and maintenance work, not to mention the work that would be available in later years when the forests were ready to be felled.

However, these guarantees of long-term employment never materialised and as the forests matured, redundancies crept in leading to a significant fall in the numbers employed locally within the forestry sector.

A number of ex-forestry workers emphasised, however, that they were later given the opportunity to enter into private contracts with the FC, which required heavy investment in plant machinery. However, the increased expense incurred by this type of work, and with the increased regulatory controls that were being introduced by the Government it was clear that the nature of forestry work had altered considerably and many were forced to quit, as these ex-forestry workers in the Dyfi Forest recall:

> Mechanisation, that's why I left the forestry – in the early years we used horses, chainsaws and axes, and then the hi-tech stuff came in – the double drum winches and so on. A lot of the boys then worked in the forestry by buying these new machines, and in the end they couldn't afford to work there because they had to pay back what they owed for these big machines, but I saw the light before I got poorer, or I would have been close to starvation! (Interview, ex-forestry worker, Dyfi)

> The only way you would have found work was through the contractors and you had to have quite a lot of money to start yourself up, to get the right equipment and also to conform with all that health and safety stuff. I went back to the forestry for some two years in the 1970s and they made us wear these helmets, visors and ear muffs - well, I didn't have a clue what was happening around me and the sound was like a mother over a cradle, hmmmm, and I remember being half asleep for most of the time because there was nothing to keep me awake you see and I just saw it much more dangerous. (Interview, ex-forestry worker, Dyfi)

A large number of residents in both areas were highly critical that local workers, who acquired a great deal of background knowledge of the forest areas and their rich histories had now been replaced by contractors who had little awareness and understanding of the surrounding landscapes and features. It was pointed out by one resident in the Tywi that in a drive to enhance commercial profitability, the Commission had in recent decades become largely dependent on forestry contractors from outside the area as a constituent part of the forestry workforce. In one particular case contractors have recently been brought in from as far afield as Yorkshire. With increased pressure being placed on the Commission to squeeze operation costs even further this had now become common practice within the industry. However, residents viewed it simply as depriving local contractors of valuable employment opportunities within their own communities, providing further signs of the

Commission's detachment from the area. This point was emphasised by this local resident from the Tywi Valley:

> Back in the early years of the forestry there was much more awareness of what was going on, because you might have people in an office now and when you talk about Y Fannog or Nantneuadd, well they wouldn't have a clue what you were talking about and the type of work that went on there. Years ago you had people who knew exactly what they were doing, but there's nothing like that any more – they're incomers who have come into the jobs, but they don't know the land and they don't know anything about the area and its history. Years ago the workers were from the local communities and they knew the area much better. I mean, we still use the names of old farms today in our day-to-day work, but if you took a lot of the people who work for the Commission now I'm sure they wouldn't have any idea of where to find them. (Interview, resident, Tywi)

The implication of these changes was that the forestry sector had now become much less significant in employment terms and was now considered as 'something of the past' by a large majority of the local residents interviewed. Indeed, the effects of these further job losses had been acutely felt at the local level within the study areas, with frequent references made to the degree to which employment numbers had declined more recently, to the extent that there were now only two full-time forestry workers directly employed by the Commission on a full-time basis in the Tywi Forest. Several residents emphasised sarcastically that their work however involved supervising the contractors that were employed by the Commission to carry out general work in the forests, and many felt that this represented a major failure on the part of the FC to provide local rural employment:

> Do you know how many are now employed by the FC in this area? Only two, so in employment terms they have two people on their books – you know, they've got thousands of acres of land and they seem to have more bosses than workers, and that's a major failure in my opinion. (Interview, resident, Tywi)

These changes, together with the recent restructuring of forest operations at the local level, involving the centralisation of forestry activity and the closure of local forestry offices have significantly altered the structure and composition of the case study areas. Indeed, in the early days the forestry sector in both study areas was administered through a number of small local offices which were located in the main settlement areas and formed an important part of the local communities through the provision of work for the local people. They were composed of a chief forester, who held a degree of autonomy over the area. Residents observed that one noticeable effect of these changes has been the reduced visibility of Commission personnel

within the local communities, which together with the general feeling of neglect felt by many local residents, had only served to intensify the increasing social distance between the Commission and local communities. There appeared to be a wide-held perception among residents that the Commission now made little effort to connect with the local communities, which, according to one ex-forestry worker in the Tywi indicated that they had 'washed their hands of any responsibility' to the community now. Connected to these perceptions was a general feeling within the communities that the communities had essentially been neglected by the Commission. The marginal role it now played in shaping the character and composition of the communities was perceived to have led a great deal of resentment towards the Commission that it had not helped the communities in more recent years, both in economic and social terms.

A further perception of neglect related directly to forest management approaches adopted by the Commission. A significant number of residents in both areas observed that the falling demand for timber and the poor rate of return offered on forest outputs in recent years has led the Commission to favour a policy of 'hands-off' forest management, in which the forests were perceived to have been left largely to their own devices to mature and naturally regenerate. Many expressed concern that the forests and the forest had been widely neglected in recent years, with many presuming that this was due to the large expense involved in maintaining and clearing vast areas of timber for which there is no longer sufficient demand. On discussing this issue, the local communities (excluding many of the ex-forestry workers) appeared to display a great deal of disaffection towards the Commission's current management approaches. Many expressed considerable anger that the FC had in a sense provided a disservice to the communities in recent years by failing to implement an acceptable level of management and maintaining the standard of maintenance that was achieved during the initial decades of the forests' existence:

> To be honest they haven't done the maintenance that has been required of them over the years so as to keep the place looking tidy. It's clear that upkeep hasn't been on the agenda for them. (Interview, resident, Tywi).

Many ex-forestry workers drew attention to the vast changes that occurred in terms of the physical appearance of the forests following the gradual reduction of thinning activities on the ground. In the early years this was considered important in order to ensure that the conifers did not grow beyond the limited space available to them,

encouraging them to develop a strong structure that would subsequently improve timber quality and reduce the likelihood of damage during severe weather. However, in recent years, with the falling demand for timber and a corresponding fall in employment numbers at the local level, this was increasingly considered a time-intensive and costly activity, which has led the FC to scale-down its thinning activities, allowing it to concentrate its efforts and resources on other priorities.

Local residents had certainly felt the effects of this, with many observing that it had resulted in highly impenetrable forests that were impossible to use due to the tangled web created by the broken branches and fallen trees. One ex-forestry worker in the Tywi Valley observed that when the trees reached a certain age they were generally left without care by the Commission. He recalled this point from a recent conversation with a local forestry officer in which it was emphasised that a large majority of the timber stock was now being left unmanaged in the hope that one day the market for softwood timber would experience a sudden resurgence. Several interviewees complained that this has led to dense and unsightly blocks of conifers and larches on the mountain sides, which have been left standing like 'green statues' on the land and which contribute little towards enhancing the economic and social well-being of the local communities like in the early years of the FC's hey-day.

However, where attempts were being made by the FC to manage certain sections of the forest, primarily through the use of clear felling methods, frequent complaints were expressed about the resultant effects on the visual character of the local landscapes. Residents appeared less enthusiastic about this work to reduce the uniformity of the local landscapes through opening up large areas of land at various locations within the forest spaces. Many felt that these activities were unnecessary, signalling a general reluctance on the part of local residents towards further changes to their now 'familiar' surroundings. This issue was identified as a major source of contention between local residents in both study areas and the FC.

Consequently, where harvesting work was being carried out by the FC, residents complained that large sections of land on the forest estate were subsequently transformed into unsightly deserts of tree trunks and brushwood. Some of the older residents felt considerable contempt that what was once attractive mountain land had

been spoiled by the planting and even where large areas of conifers had been removed this had left 'ugly scars' on the local landscapes. They felt angry that initial promises made by the FC when the forests were developed that the land would be restored to its original condition in later years had never materialised, and as a result the clearing work had resulted in significant quantities of poor quality land that was unsuitable for any purpose other than for the production of more trees. Others conceded that even the dense blanket of green conifers that they had been forced to live with during recent years were more attractive than the exposed and ugly patches that appeared on the valley and mountain sides as a result of the FC's clear-felling activities. They called on the FC to pay greater attention to these areas, either through an emphasis on re-planting or land regeneration so that the appearance and experience of the forest was not destroyed by unnecessary eye sores.

6.3.2 The challenges of a maturing industrial forest landscape

The forests were viewed by a significant number of residents as highly 'unnatural' landscapes that were simply imposed on the 'natural' spaces of the local communities. Further, as the forests had matured, forming a large blanket over the land, they now appeared to dominate the local landscapes, to the extent that many felt suffocated and confined by the unfamiliar and 'alien' environment that had developed. This was noted by a resident in the Dyfi Valley:

> I do feel that the place has just closed in with tree and I really think that they shouldn't be allowed to plant any more within such and such a distance from the road, because you can't see anything through the trees, just trees, trees and more trees. You used to see much more – you used to be able to see for miles, but you won't even see for a few yards now. I would like to see more open spaces in this area, then you'd be able to see more.

Residents also pointed to the experience of living in close proximity to the forests and the problems which they endured on a daily basis as a result of the dense plantations which enveloped their communities. In the Dyfi Valley in particular, a large majority of residents lived with the forest on their doorstep as the trees were often planted right up to the boundaries of their back gardens. Frequent references were made that this gave rise to significant problems, including blocked drains and gutters, overshadowing and sunlight issues, poor television reception and constant danger of falling trees, particularly during times of poor weather. When local residents'

conceptualisations of trees were further probed, their attitudes to them transpired. The conifers of the forests were perceived as deprived of any individuality, monotonous and lacking in interest and which all looked the same to the naked eye. Many of the residents felt that the spruces represented an unnatural part of their surroundings and they clearly felt that other features such as the high open moorland and mountain landscapes which had previously dominated the study areas had offered a more pleasant and appealing environment to live in. This view of the forest environments as dark, 'uninviting' and sterile spaces, largely deprived of diverse wildlife species and significantly damaged in terms of real natural features' was cited by many as a reason for not venturing into the forest.

A common issue raised by those individuals who chose to exercise their right to roam the forest spaces was the poor standards of upkeep within the forests. Many observed that the sheer density of undergrowth and fallen branches along the public paths often prevented them from making full use of the forest resource and there was a sense that the forests were therefore 'no-go' areas for the local communities.

However, despite the long-standing histories of how both forests were first imposed on the study areas and the tensions that have subsequently arisen between the FC and local communities in recent decades, it appears that many residents have grown accustomed to living in close proximity to the dense conifer plantations and now accepted the forests as a natural and integral part of their local landscapes. This was surprising, particularly given the negative perceptions held by local residents concerning the visual and environmental impacts of the FC's activities, discussed earlier in this chapter. What became clear from the interviews, however, was that in recent decades, with both forests now approaching maturity, residents had become much more tolerant of their physical presence within the study areas, and now appeared to place a great deal of importance on their physical qualities and their role in contributing to distinctive local place identities. Even those most critical of the way in which the local landscapes had been developed over the last half century acknowledged the contribution made by the forests to the scenic value of the area. Some residents even went as far as saying that their area would not be the same without the trees and after half a century of growth they are now regarded as a defining feature of each locality, as this resident in the Dyfi noted:

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> I think the place would be very sad without the conifers. I mean, people in the past have said: 'Oh, those bloody conifers for miles and miles', but now I've heard people say: 'What have you chopped down all those trees for?'

Much of this growing affection was seen to stem from the fact that many of the residents were past employees of the Commission who had played a crucial part in the development of the forests and had therefore developed a strong emotional attachment to the surrounding landscapes. Many stated that it was extremely rewarding to see the way in which the forests had developed over the last half century, particularly given that many had not expected the trees to grow at all in the first place. When questioned further about their interactions with the forests, responses were often full of nostalgia and sentimentalism, with interviewees stating that the presence of the trees served as constant reminders of the many happy times that were spent working on the mountains.

What became clear from the interviews with local residents was that there remained a degree of ambivalence towards the forests among local residents. Some stated that they barely took notice of the forests, confirming its insignificance in their daily lives, whilst there were others who clearly remained undecided in their overall feelings towards the forest landscapes. This point was emphasised by a resident in the Tywi Valley who observed that there were several local residents who appeared determined to criticise the Commission regardless of its efforts to manage the forest:

> One particular section of the forest around here, Cwm Berwyn, does cause quite a bit of local conflict – if you would take those trees away then there are some people here who would probably say: 'Well, that looks ugly now', and then guaranteed, if the FC planted them back again then they would probably say: 'Well, that looks ugly now!'. So, it does make you think what they should do, doesn't it? In the end you can't please everyone.

Many of the long-standing residents in the Tywi, who had observed the growth of industrial forestry and its effect on these rural parts of Wales, observed that their 'tolerance' of the forest environments in recent decades had simply resulted from a natural process of adjustment and familiarisation with the local landscapes that were imposed upon them. There appeared to be a strong sense that they had no other choice but to accept them. For them, it was a case of 'learn to live with them', 'grow to live with them' and 'have to live with them'.

What was interesting to note, however, was that whilst opposition to the forests may have diminished in recent years, the activities of the last half century had resulted in a far greater awareness of environmental issues in general, and an interest in how certain activities affected the environment. This was particularly the case in the Dyfi Valley. The interviews revealed that whilst an increasing number of residents have become resigned to the enduring presence of the forests within the study areas, the area's strong tradition of local activism in land and natural resource issues, as manifest in the years leading up to and following the establishment of the forests still remains strong. Indeed, in the decades following the establishment of the forests environmental activism has re-emerged and strengthened in both study areas, with local communities becoming increasingly active in campaigning against various threats to their immediate environments. The most prominent of these threats has been the development of wind farms on rural agricultural land which is now seen as a key focus for the Commission in its contribution to renewable energy targets. From the interviews that were conducted it appears that recent developments in this field and the introduction of further proposals to construct wind farms on the FC's land have, once again, re-awakened feelings of resentment over the manipulation and destruction of local landscapes. Many residents in the Tywi Valley in particular felt that this represented a visual reminder of the politicised battle that was fought against the FC during the late 1950s.

On the whole, the discussions with local residents in both areas revealed that socio-natural relations and practices were profoundly influenced by deep-seated and long-standing memories of past activities relating to the development of the forests. The circumstances surrounding their development had clearly remained in the collective memory of many local residents. The interviews revealed a great deal of mistrust and scepticism towards the FC, not just from within the farming community, from farmers whose families had been affected by the Commission's earlier actions, but also amongst the older generation of residents who had grown up with the forests and seen at first hand the vast changes imposed on the local landscapes and the communities. The quotes below from a local farmer in the Tywi Valley and a local resident from the Dyfi Valley encapsulate this historical antipathy and highlight how so-called "foolish" actions taken by the FC during the course of the original planting process had remained in the consciousness of local people to this day:

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> A lot of local people from this area seem to think that this is how it's always been around here, but the older people like us remember what has gone on and we remember the land without a single tree. (Interview, Tywi farmer)

> I think if they hadn't been so high-handed in their dealings with local residents I think there would be less resentment by the older generation today. The current generation have lived here with the forestry as a fact of life, so I don't think it makes much of a difference, but certainly it would have eased things a lot with the older generation. (Interview, Dyfi resident)

It appears that this was particularly true in the Tywi Valley where historical tensions between local landowners and tenants and the FC were causing difficulties in the development of a cycle route along the old railway line from Aberystwyth to Lampeter. Many local farmers now appeared to be reluctant to sell parts of their land to the FC in order to allow the plans to be taken forward, possibly influenced by their memories of the compulsory purchase saga during the late 1950s, as one local farmer observed:

> After the whole business with the compulsory purchase we look at the FC through very suspicious eyes, which is very different to other people's perceptions of them...you know, we live with them, we work with them and we're neighbours to them, but in the end it's still in the back of your mind. I mean, they have changed by today and a lot of their work now is about public image, isn't it? (Interview, Tywi farmer)

Several residents were also quick to emphasise that they remained conscious of past activities relating to the establishment of the forests and their subsequent development, as is demonstrated by this quotation:

> I did feel years ago that it was terrible that they destroyed everything when they planted the forestry – I mean, deep down people do probably think so now, but they don't say because they think that no-one would listen to them. If someone asked me now I probably wouldn't say anything critical about it – you know, it's happened hasn't it and there's no point crying over spoilt milk. (Interview, Dyfi ex-forestry worker)

This suggests that following decades of forest activity in which the FC was seen to 'rule the roost' as a dominant player in the governance of the rural environment there remains a growing sense of frustration amongst certain sections of the local populations that their interests are not adequately represented. There is no doubt that this is a legacy of the industrial era during which local residents were effectively excluded from any decision-making processes concerning the development of the forests. From the interviews that were conducted it appears that the ability of local

communities to fully engage with and appreciate their surrounding landscapes continue to be constrained by strong feelings of apathy and indifference, despite clear efforts being made by the Commission more recently to engage with local communities through tailored consultation exercises and other engagement techniques. Many residents observed that the exclusionary nature of the FC's early approaches had led to a culture in which residents were often reluctant to challenge the FC on issues relating to the regulation and management of the forest environments. Specific instances were highlighted whereby local residents' concerns had been overlooked by the FC and this had resulted in a wide-held belief within the communities that such efforts were guaranteed to fall short of any outcome and therefore served little real purpose due to an inability on the part of the FC to take them into account. As the above quote implies the influences of these perceptions remain widespread within the local communities, the result of which has been a tendency for residents to shy away from any opportunities to express their views within the public arena.

The Commission's past activities, which contributed to the destruction of rural landscapes and local features, were also seen to contradict recent efforts made by the Commission to establish a role for itself as a conservation body, as was emphasised by these residents:

> They started on this conservation work and I remember going to the Royal Welsh Show one year and they had all these posters on their stand, and I thought to myself – these people are talking about conservation, it was these people that destroyed the conservation that existed in the area. You ask anyone who lived on the mountains and ask them about what was here before the FC came in and how things are now after fifty years they have destroyed it, and it's such a shame.

> They look on themselves as a conservation body, and very important in terms of conservation, but you think about the Hafod mansion in Pontrhydygroes. They blasted it to the ground at the beginning of the 1950s and now they're throwing money in that direction to try to restore the gardens and so on, and they were responsible for causing the mess in the first place. But, they don't say that in the pamphlets that they distribute, do they?

> Today, any ancient stone circles that are found are recorded and their locations are clearly shown on maps as areas of importance. I remember one day when the FC were ploughing on land up on the mountain they came across a stone circle which was in perfect condition. They destroyed it and what they couldn't demolish with a tractor, they just asked their men to bring along mallets to hammer the stones. By today they have a sign erected to mark the point where the stone circle was discovered - and they were responsible for demolishing it in the first place! It's just unbelievable.

Strong emphasis was placed on the fact that the FC had since learnt from these mistakes and were reverting to the use of more hardwoods and a greater variety of trees in order to fulfil a commitment to a more 'natural' and varied forest mosaic. However, whilst residents in both study areas acknowledged that there had been some recent improvements in this respect, through the use of a greater mix of native and non-native tree species, perceptions concerning the present state of the forests remained largely negative.

Numerous interviewees expressed concern that the creation of the forests had adversely affected local hydrologies, largely resulting from the extensive areas of peat bogs that were drained in order to provide land for planting. During the early years of forest development large furrows were opened to allow excess water to drain from the land into the rivers, and this had led to a significant increase in river flows. This was a particular problem following heavy rainfall when rain water drained away quickly from the higher ground causing the rivers to swell up considerably. In previous years the peat land would have stored a large amount of water allowing it to gradually run through the ground into the streams and rivers. At the other extreme, there were also complaints that the trees had caused a drop in the local water tables as they tended to absorb large amounts of water from the land. This had led to the loss of several ancient water springs that had been used regularly by residents in the Dyfi Valley before the establishment of the forests.

Farmers, ex-forestry workers and local residents also appeared to be well aware of the damage that had been caused to local aquatic life, with many raising the issue of declining fish stocks, widely believed to have occurred alongside the developing forests. This issue stirred up strong feelings amongst interviewees with several residents expressing disbelief that the FC had been permitted to plant so heavily in areas that had previously been well-known for their abundance of fish life, including large stocks of salmon, sewin and trout. The widespread attention given to this issue in both study areas was reflected in the detailed responses of many of the interviewees when questioned about their knowledge of the environmental impacts of the trees. Several residents talked at length about the damaging effects of wood turpentine on

water quality and fish life and the way in which resin from the pine trees was released through the roots, poisoning land and rivers in the process. One individual in particular recalled an interesting conversation with two representatives from the RSPB in which it was explained that the pine trees tended to absorb a large quantity of nitric acid from the air causing acid rain to fall and infiltrate the soil. However, it was pointed out that the acid rain itself was not to blame for the environmental damage, but the aluminium that was subsequently released into the streams and rivers and which poisoned the fish. This issue was clearly a source of contention in both areas, with other individuals observing that the FC persistently denied any involvement in the process of acid rain production.

Further to this, residents were well aware that intensive planting along the river banks was also a contributing factor in the loss of fish stocks and otter habitats as the lack of sunlight meant that the water was too cold for these species to survive. The majority were satisfied that the FC was currently making efforts to reduce this environmental damage, through the removal of conifers from the stream sides and river banks, allowing the water to regenerate and using large quantities of lime to treat the forest land in order to neutralise the acidity in the soil. However, there was a feeling that this action had been taken too late, as is emphasised by this resident from the Dyfi Valley:

> Environmentally it's had such a huge impact and they carried on planting even when the environmental impact became known...you know all that stuff with the acid rain and the acid in the water and they still carried on planting. That's something that really bothers me, because they carried on when it was obvious what was happening.

Above all, the interviews with local residents revealed that significant tensions continue to exist within the local communities, largely influenced by the Commission's destructive activities during the latter half of the twentieth century. The Commission's will need to invest a great deal of effort into overcoming these difficulties before it can even begin to consider the full and successful implementation of a post-industrial forestry system in the upland areas of Wales.

6.4 Questioning the transition towards post-industrial forestry in mid-Wales

A key concern of this chapter was to examine the extent to which recent shifts towards post-productivism in forestry have been reflected in forest practice within the

two case-study forests. This is now a key issue for Forest Managers working at the local spatial level as they seek to adapt their working practices and approaches to reflect the post-productivist vision that is now being widely promoted by the FC.

The evidence presented in this chapter has offered a unique insight into the vast changes that have occurred within the forest spaces of the Welsh uplands in recent decades. Significant enthusiasm was expressed by respondents for the wider value of the forests within the study areas, with Forest Managers, and stakeholders alike, viewing them as important assets in responding to the challenges of developing rural communities, and delivering a wider range of objectives. Such enthusiasm was clearly evident in the positive attitude displayed by Forest Managers and local forestry staff in relation to their new role in promoting the further development of forest uses, which delivered a wider range of local environmental, social, economic and cultural objectives. Respondents frequently emphasised how the scope of their work priorities had increased significantly during the last decade to encompass these changing priorities. Across both case studies there was also evidence of significant cross-sectoral working between the Commission and representatives from a wide range of rural and environmental organisations and groups, and the numerous examples cited clearly demonstrated the value of forging new partnerships and investing time and resources into the development and implementation of new projects. This was not only demonstrated in the wide range of economic, social, environmental and cultural benefits that were now being delivered within and around the local forest spaces, but also in terms of the improved relations between the Commission and other actors working within the rural and environmental governance. These positive perceptions of the changing priorities were not only confined to policy actors, but were widely-held among local residents too, with frequent references to recent efforts by the Commission to improve the visual and ecological character of the uplands. There also appeared to be growing use of the forests by local residents, mainly for informal activities such as walking, and certainly a growing awareness that the forest spaces were now open to local communities.

However, despite these positive aspects, there was evidence to suggest that the shift towards wider priorities had given rise to significant contradictions and tensions, both within the Commission as an institution and in the practice of post-industrial forestry

at the local level. Forestry personnel expressed concern over their ability to deliver certain elements of the new policy agenda, whilst at the same time having to deal with budget and resource pressures – a view supported by many external respondents. Furthermore, many interviewees did not perceive the delivery of new functions as the way forward for the Commission, but rather viewed it as an attempt to garner public support, thus justifying its continued existence in the area. Such points appeared all the more pertinent when placed alongside observations made by Forest Managers that timber production remained a central feature of forestry work in both areas and played a continuing crucial role, not only in supporting the continuation and success of the timber sector in Wales, but also in providing much-needed income to support the delivery of wider functions.

Evidence of tensions were also apparent at the local community level, particularly in relation to recent attempts by the Commission to engage with communities through wider democratic processes. The long shadow of industrial forestry has largely remained in the both areas, with memories of the destruction of rural and cultural landscapes and the previously dominant character of the local foresters leading to a great deal of social distance between communities and the Commission. As a result residents showed little desire for further involvement and the Forest Managers, likewise, appeared unsure how to respond to communities as a result. This suggests that past productions of nature have become deeply embedded in the socio-cultural landscapes of the communities, leading to the problematic nature of post-industrial forestry.

7.
CONCLUSION

7.1 Introduction

This thesis contributes to a growing body of geographical work on forestry which engages with theoretical debates about key concepts of political economy, regulation and social nature to investigate the shifting governance of state forestry in the UK. Critical attention has been given to claims of a transition from a previously dominant regime of intensive industrial forestry, to one based on post-industrial forestry, in which the traditional emphasis on timber production (albeit in a form better adjusted to environmentally sensitive issues) now sits alongside more recent trends towards the 'socialisation' of forestry. Whilst the basis and key features of this transition have been widely discussed within the policy and academic literature during the last two decades, these investigations have been largely restricted to analyses of national policy discourse, with relatively little attention given to the implementation of post-industrial forestry in regional and local spaces. This research has sought to address this neglect by providing a spatially-sensitive account of the transition to post-industrial forestry, which appears to confirm that the emergence of this new forestry regime has been associated with a great deal of spatial complexity.

The aim of this final chapter is to draw together the key themes emerging from the empirical chapters and connect these to the themes and key questions raised in the literature review. These key themes are discussed in turn; firstly drawing out what has been learnt about the changing nature of forestry in the UK (and more specifically within Wales); secondly, what has been learnt in respect of the positioning of the Commission in relation to existing concepts of governance and regulation, leading to their refinement; and thirdly consider to what extent the new vision for forestry presented by the Commission in Wales provides opportunities for the emergence of more inclusive systems of forestry governance at the local spatial level. This will bring together the main contributions and themes of the research, provide an opportunity for critical reflection and highlight potential avenues for future research.

7.2 Responding to key research themes and questions

7.2.1 Evidencing the transition to new forest management and regulation approaches in state forestry: towards 'post-industrial' forest landscapes?

The first research question yielded a great deal of contextual information, drawn from interviews, policy documents and archival materials, which provided an insight into the changing nature of Britain's upland forests. This was enabled through a detailed focus on the issues bound up with the production, regulation, representation and consumption of two forests located in the upland areas of mid-Wales – both viewed as exemplars of British plantation forests, with their emphasis on the mass production of timber on large agricultural estates. The research outputs have pointed to the complex, multi-faceted and highly uneven nature of the transition towards post-industrial forestry, which has, and continues to be driven by numerous factors, and leads to outcomes which are increasingly shaped by different sets of local economic, socio-cultural, political and environmental systems.

Viewed through a regulationist lens, the creation of the Forestry Commission under the provisions of the Forestry Act of 1919 aimed to establish a regime of accumulation that would ensure an adequate supply of timber in case of future War. Institutional and governance arrangements were designed along the lines of the well proven concepts of state forestry developed in India and continental Europe to enable the rapid growth and continuation of a strong and self-sufficient British forestry sector. This required a long-term commitment to afforestation based on a guarantee of financial stability from government, the extensive availability of land for purchase to enable the creation of land reserves, the establishment of a corps of scientifically trained foresters, and the drawing up of long-term planting and management programmes based on planting targets and comprehensive working plans. Key decisions relating to its self-governing status, allowing it to function independently from existing government departments and thus avoid unnecessary intervention from outside authority, together with the positioning of the sector outside the scope of planning control, proved crucial in determining the relative stability of this regime of industrial forestry for most of the twentieth century.

The implementation and subsequent expansion of this regime has been examined through tracing the development of two case-study forests in mid-Wales, both viewed as exemplars of industrial forests that emerged across Britain in the early to mid-twentieth century. A complicated picture emerges in which the British state, in the guise of the Forestry Commission, imposed particular transformations of nature in these rural agricultural areas through the implementation of an extremely efficient and well-ordered system of accumulation. Within this system, trees were valued in monetary terms as 'capitalist' nature and the predominant focus was upon maximum wood production at least cost. To this end, local natural and social resources were actively exploited and manipulated in order to attain a set of national economic goals. Fast-growing conifer species providing high volume production such as the Sitka Spruce were preferred wherever possible so that the resulting forests had little species diversity. Planting methods and procedures carried out by local forest gangs were precisely co-ordinated and closely supervised so as to ensure economy in the planting programme. Increasing awareness of the risk of wind damage to plantations on shallow soils in the most exposed and remote locations of the upland areas led to the progressive adoption of 'no-thinning' systems and a tradition of quantitative forestry management based on discounted cash flow techniques and stand yield tables was developed to determine felling ages. When the plantations had reached economic maturity, the prevailing silvicultural system was one of 'patch clear felling', followed by extensive replanting.

Within this system, although local people were valued as a source of readily available and cheap labour, they were rarely consulted about the development of the forests. Forest spaces were heavily regulated and residents were actively excluded from any engagement with their surroundings, through the erection of physical barriers, such as fences, locked gates, blocked-off roads and by the active policing of forest spaces by Commission staff. However, despite this lack of physical engagement, the provision of rural employment and the creation of new rural communities were used as key arguments to justify the transformation of the rural landscapes and to urge the steady expansion of the plantation forests in both areas. The highly paternalistic manner in which the Commission operated, providing local employment and promoting the creation of new smallholdings as the cornerstone of its policy to 'repopulate the land'

appears to have prevailed over residents' initial concerns relating to the state's predominant 'productivist' interests and their perceived impact on the environmental and cultural features of the local communities. This may therefore explain how the industrial regime of forestry was enabled to continue within these areas for such a prolonged period of time. Viewed through a regulationist lens, state-based productivist forestry in these areas was therefore built upon a mode of social regulation which kept labour costs low and, at the same time, denied (or at least restricted) the value of the local environment for residents.

During the latter decades of the twentieth century this industrial regime of production and regulation encountered periodic crises to its system of accumulation, which fundamentally challenged its existence and continued presence within the local areas. Among the factors that were held to have been influential were the collapse of the coal mining sector in south Wales, together with the decline of local industries such as slate mining in the Dyfi Valley; the centralisation of FC operations and the closure of local offices leading to the loss of local employment opportunities and the reduced visibility of Commission staff in the local communities. Allied to this, an over-production of timber within the global market, coupled with the generally poor quality of the timber produced in the harsh conditions of the uplands, led to a substantial decline in the economic return from these forests. Collectively, these factors have recently worked to remove the economic rationale for timber production, which had enabled the dominant regime of production to be sustained within these areas for most of the twentieth century. Furthermore, numerous challenges to the Commission's work on environmental, ecological and cultural grounds, alongside growing opposition to forestry investment as a form of tax avoidance, together with the combined effects of the proliferation of national, European and global legislation and agreements on sustainability and community involvement, are also seen to have placed further obstacles on the continuation of intensive industrial forestry practices in the Dyfi and Tywi Forests. There is evidence to suggest that the forestry sector within these areas has also been deeply influenced by wider changes identified as having taken place in the countryside, including a growing awareness of, and interest in environmental issues, together with an associated increase in demand for recreation services, particularly in the Dyfi Valley.

7.

The Commission's response to such challenges has been mediated through continual modifications to the Commission's management and policy approaches, which appears to confirm that its very survival in areas such as rural mid-Wales has depended on finding new roles and justifications for forestry. This has fundamentally led to what Tsouvalis (2000) terms a radical 're-invention' of British forestry and to the assertion that the forestry sector is currently in the midst of a shift from a productivist to a post-productivist regime (Mather, 2001). The evidence on which such an assertion is based comes from various implied 'adjustments' within the state forestry sector in recent decades, which have been discussed in detail in Chapter One. In short, this has seen some changes to the 'traditional' system of accumulation typically observed in areas such as the Dyfi and Tywi Forests. While there remains a concern to make economic profit from felled timber, forests are now viewed by the Commission as providing a wider range of functions linked to nature-based tourism, sustainability and so on. This has led to an increased recognition of the benefits provided by the appropriate management of native woodland species and of the desirability of increasing the proportion of broadleaved planting, as well as the wider value of reverting to more environmentally sensitive systems of continuous cover forestry as a means of avoiding the negative impacts of clear felling.

The mode of social regulation has, however, experienced the greatest change. In recent decades, the FC has attempted to take the initiative on environmental issues and countered opposition to its activities by adopting a distinctive environmental narrative. The concepts of sustainability and environmental protection which initially placed significant pressures on the industry and threatened its continuation has gradually been appropriated, re-defined and incorporated into a mode of social regulation capable of coupling with a slightly modified accumulation system. It has become an advocate for the environment and has embraced concepts of sustainable forestry and stewardship. As part of this engagement with the environment, the Commission has developed environmental policy statements explicitly outlining its environmental commitments and credentials. The language used within these documents has effectively re-scripted the role of forestry in relation to the environment and nature. This has led to a re-framing of its traditional role as timber producer, responsible for cloaking thousands of acres of agricultural land with non-

native conifer, into a socially beneficial programme of activity which manages valuable landscapes and resources for the benefit of the wider public.

However, it appears that many of the claims made about the wider socio-economic and environmental benefits of forestry have come from within the forestry sector itself, and have been largely based on specific representations of forest natures, which have themselves been directly shaped by key representatives from within the Commission. During the last decade in particular, the Commission in Wales has been active in promoting a new 'vision' of post-industrial forests and forestry through national policy documents, annual reports, guidance notes, commissioned research and with the support of various media outlets and organisations such as the Wales Tourist Board. Such actions have been instrumental in transforming the traditional image of it's forests as 'tree factories' into 'multi-purpose entities', which as well as being providers of timber are 'sustainable, biodiverse, fit-for-recreation and aesthetically pleasing…' (Tsouvalis 2000: 182). While there is sufficient evidence to suggest that FC Wales is now moving towards its new 'vision' for post-industrial foresty, for example, through contribution to a wider set of objectives, including health, recreation, social inclusion and so on, the case-study and empirical material presented in this thesis imply that the claimed transition towards post-productivist ideals is far from uniform, and certainly not as straightforward as is perhaps suggested in recent forestry policy outputs, such as Woodlands for Wales.

In fact, it can be argued that there are several factors impeding this transition. Among these, particular concerns have been raised over the extent to which post-productivist ideals are now reflected in FC culture and forest practice. While the broadening of policy priorities, identified as a central feature of the transition towards post-productivism in forestry was indeed widely acknowledged among all of the forestry personnel interviewed, as evidenced by the recognition that the Commission was now having to 'grapple' with a number of different roles, the research material indicated that progress towards embracing this wider remit is inhibited by institutional inertia within the Commission. Significant traces of a productivist or 'professional forester' mentality appear to remain at all levels within the organisation – the result of a culture nurtured in a system where, for a significant period of time, priority was afforded to commodity and commercial value rather than environmental values, and where non-

timber objectives such as recreation and conservation have been regarded as peripheral or 'weak' concerns. This is particularly apparent among higher-level management personnel located at the heart of the institution, but also among local forestry staff who are actively engaged in forestry management and practice.

For many, the broadening of the Commission's remit in recent decades has constituted a diffusion of focus and a clear loss of direction, which is compounded by the fact that staff are continually required to demonstrate how the Commission's work programme is contributing to wider policy areas and objectives, both within government and in the wider policy environment. This has led many to question why the institution is now pursuing these post-productivist priorities, with many viewing it as a desperate attempt to justify and legitimate its activities and continued existence in a difficult and challenging era of falling timber prices, uncertainty and environmental contestation. Allied to this, there appears to be a great deal of nervousness within the institution, largely stemming from uncertainty over the Commission's capacity to meet the demands of post-productivism. The requirement to deliver wider objectives has placed undue strain on the Commission's financial and human resources, and is seen to present significant challenges for a highly specialist professional organisation, traditionally geared to timber production. The underlying feeling is that timber production is still an important income generator and must therefore remain the core business of forestry. Similar views expressed by other members of the 'traditional' forest-policy community, for example, industry representatives and various interest groups representing private woodland owners, in which there is strong preference and support for commercial and economic-based objectives such as wood production, over more 'social' objectives, appear to intensify this feeling. The continued power and influence of these stakeholders is therefore increasingly evident. It therefore becomes clear that the respect for nature conveyed by forestry policy discourse, through concepts such as stewardship and sustainability, have re-worked rather than replaced the managerialism and commodification of nature which has become inherent in the FC's work.

This insistence that timber production remains the primary objective of the Commission is seen to connect directly with perceptions held by residents within the case study areas that the Commission is still fundamentally concerned with economic

objectives. The regime of accumulation fails to demonstrate changes that many local people and wider stakeholders, including environmental organisations and local community and interest groups consider necessary for ecological and social sustainability. The local research pointed to the continuing prevalence of industrial forestry practices in the form of intense harvesting and timber haulage operations, which had left visible scars on the local landscapes of the case study communities and led to the devastation of local road networks. The dark green blocks of the forest plantations were also increasingly viewed as unwelcoming and dominant of the surrounding areas. These factors have meant that the forests have remained largely industrial in character and composition to this day, even if some 'peripheral' efforts have been made more recently to address aesthetic concerns by making some minor cosmetic adjustments to the forest plantations. Efforts by the Commission to take account of wider range of objectives through the development of visitor centres and recreational facilities, such as mountain-bike trails and walking paths for use by local residents and visitors to the local area were also largely viewed by local communities as secondary to the Commission's main priority, which remains firmly rooted in the principles and practices of industrialism.

The continued dominance of the industrial plantations within the case-study areas have created highly problematic socio-natural spaces. As a result, efforts to re-construct forestry in these areas and develop new social meanings for the forests have encountered significant obstacles, as particular sets of historical and locally-based nature-society relations have led to a significant amount of tension between the forests and local communities. The degree to which the Commission's forests are now entering an identifiable post-industrial phase is therefore highly questionable. Through the use of the regulation approach it is possible to conclude that the accumulation system for forestry has not changed at a corresponding rate to changes in the mode of social regulation, thereby enabling the regime of accumulation to survive. The new mode of social regulation for forestry does not articulate seamlessly with the accumulation system, as may be the norm in many of the new and re-planted community forests located in the peri-urban lowland areas, where priority is afforded to recreation and amenity objectives. However, in the case of existing upland industrial forests such as the Dyfi and the Towy the situation is much more complicated and messy. This has been demonstrated through the difficulties

experienced by the Commission in implementing new systems of forestry and the extensive hostility that remains in both areas towards the Commission.

7.2.2 The new vision of state forestry and reconfigurations in forest networks and relations of power

This thesis has deployed key themes from the literature on governance as an organising framework around which to explore how the shift towards new systems of state forestry has impacted on the governance of forestry. In doing so, it has sought to identify and explore the key features of post-productivist forms of forestry governance, in terms of the number, types and relational interests of the agencies involved in emerging governance networks. The discussion presented in Chapter Two highlighted the key challenges facing the state forestry sector in recent decades and placed them firmly in a context of significant change within the rural policy environment. In seeking to provide a critical perspective on the formulation and delivery of contemporary state forestry policy from a Welsh perspective, it therefore becomes clear that forestry cannot be considered in isolation from the plethora of rural and environmental governance concerns and institutions that have emerged in recent decades.

The analysis presented in Chapter Three reveals a situation in which responsibility for the implementation and delivery of forestry policy in Wales is now shared among a variety of actors organised across a wide range of policy and interest areas and at different spatial scales, from European to the national and sub-national levels. The changing nature of the state forestry sector, coupled with the introduction of new devolved arrangements in Wales, which formally transferred responsibility for forestry to the Welsh Assembly Government, have further increased the complexity of the forestry policy environment, enabling more opportunities for individuals and collectivities to gain some degree of influence and input on major policy decisions affecting the state forestry sector in Wales. There is no doubt that this has been a major step forward for the forestry sector in Wales, emerging from its previous position within a closed and highly insular policy community dominated by productivist and industrial interests, to one in which it is now seen to play an

important role in contributing to the wider objectives of the Welsh Assembly Government and its various agencies.

However, what has become clear from analysing the multi-level rural governance arena in Wales and the Commission's positioning within it, is that it continues to play an important role in guiding and shaping the forestry agenda in Wales. The status of the Commission as a powerful government department with a major land management function, together with a substantial body of expertise has enabled it to maintain a central and highly distinctive position within the governance arena. Its focal position within this multi-level environment therefore means that its work intersects both the horizontal and vertical dimensions. On the one hand it is part of a continuing important hierarchical administrative structure; on a GB level, through its relationship with the Commission headquarters in Edinburgh and the other devolved administrations, but also as a virtual division of the Welsh Assembly Government. This contrasts to the less structured definition of multi-level governance offered by Sibeon (2000) and Peters & Pierre (2004).

However, as the central point within the multi-level policy environment, it also holds a position that requires responses not only to top-down agendas, but also to other interests also, both within the horizontal governance arena and below this, at the local community level. Thus, rather than being in a position in which it is just required to comply with and implement top-down commands, the Commission must continually consider and mediate between inevitable conflicts of interest, varying interpretations of priorities and ideas and so on. This is clearly a challenging position, as the promotion and maintenance of new working relationships between different actors from the public, private and voluntary sectors is seen to involve a great deal of instability and uncertainty. Nonetheless, the Commission can be seen to help enable, support and encourage the articulation of the different visions held by different interests on both a national and local level, rather than these being suppressed by the 'shadow of hierarchy' (Jessop, 2001).

As such, the analysis has developed an understanding of multi-level governance in the context of forestry in Wales as partly hierarchical and traditional, and partly hetearchical, with the Commission, in its capacity as the WAG's Department of

Forestry, shown to be an important part of the governance environment. However, the consequence of the Commission's distinctive role within the governance environment, in which it was now seen to contribute to a wider range of priorities and objectives, was that its actions were contested. In seeking to resolve tensions arising between the interests of traditional stakeholders and those of 'newer' actors in the governance environment and to avoid continual contestation, the analysis demonstrated that the Commission was able to employ its influence and power to negotiate and mediate between competing interests. The situation outlined here resonates strongly with that portrayed by Jessop's definition of meta-governance, as referring to 'governance in the shadow of hierarchy' and the 'governance of governance'.

The analysis revealed that the Commission was now engaged in activity that was designed to ensure the effective functioning of the multi-level governance environment. These activities, however, differed significantly from the traditional 'top-down' approaches adopted by the Commission throughout the industrial regime of forestry and could be interpreted as being more responsive to tensions and contradictions arising within the governance environment. However, the discussion of these activities takes us beyond common problems within governance structures of a congestion of actors or communities of interest (as suggested by Rhodes, 1997), which in the case of forestry would include commercial timber interests, aesthetic landscape interests, tourist recreational interests and nature conservation interests. This suggests that problems may in fact also arise due to differences in capabilities, capacities, responsibilities and powers. For this reason, the Commission had taken the initiative to improve the functioning and effectiveness of the forestry governance environment through a commitment to 'joined-up' policy delivery. The new devolved governance arrangements, and its associated structures, were now ensuring grater transparency of policy formulation, allowing a wider range of stakeholders to become involved in the process itself and gain an insight into the Commission's priorities and objectives. As the largest land manager in Wales, the Commission was also working in a direct delivery capacity, taking the lead on various programmes and working alongside numerous partners, both across Wales and on a site-specific level. Beyond these formal activities, emphasis was also placed on the Commission's efforts to create a more supportive and enabling environment which was demonstrated through the substantial amount of time invested in establishing

and maintaining informal networking systems, drawing in various rural and environmental agencies. These informal networks were based on the objective of achieving a reciprocal exchange of information and support, allowing key actors to share advice freely, expand the network at will, provide inspiration and enable the pursuit of mutual objectives.

The analysis in Chapter Three indicated that there were a number of factors influencing the Commission's ability to attain and maintain a dominant position within the governance environment. Firstly, it continued to retain a specific remit denoted by legislation and tradition and was able to adapt its knowledge and expertise, together with its various structures and procedures accordingly in line with changing priorities and policy objectives. Thus, as demonstrated above, this not only involved changes to governance and regulation procedures, but also a broadening of the Commission's knowledge culture. Secondly, the Commission's history of intervention and dominance in forestry governance and regulation, together with its institutional context indicated that it was still looked upon by external stakeholders, WAG officials and Ministers as the 'experts' and 'professionals', reflecting the perceived value of its traditional and expanding knowledge culture.

What can be argued is that the Commission must therefore be considered as an important part of the multi-level governance environment, rather than viewed as just another actor or agency contributing to the rural and forestry policy environment in Wales. However, in making this argument it would be incorrect to interpret such a positioning as merely representing the continuing relevance of the 'state' or 'government', thus reflecting a shift back to the traditional inward-looking approach adopted by the Commission. This has been acknowledged by reference to the various changes made to the national governance structures for forestry in the last decade in particular, which have undoubtedly led to greater transparency and accountability in the policy-making process. Equally however, the insights offered in Chapter Three also take us some way beyond the more limited and basic conceptions of the contemporary role of the Forestry Commission as encompassing more 'enabling', 'facilitation' and 'moderation' roles (Mather, 2001), which can be argued fail to engage with the complexity of the forestry policy and multi-organisational

environment. The analysis presented in this thesis is therefore seen to provide a more rounded picture of the forestry governance environment in Wales.

7.2.3 The new vision of forestry and opportunities for more inclusive systems of governance: translating policy into practice?

This thesis has shown that post-productivism in forestry is constituted by a number of elements, one of which is the consultation of the public and their involvement in the management and regulation of their local forests. This is clearly consistent with the predominant focus of the Commission's recent policy outputs in Wales which contain an expressed commitment to wider community involvement in forestry management. In addition, forestry policy rhetoric calls for local communities to enter into partnerships with forestry management in order to secure wider interaction and economic, recreational and scenic benefits. Forestry policy appears to display characteristics of more inclusive systems of forestry as it seeks to integrate the democratically expressed needs of society with the necessary conditions for sustaining forest environments. This points to a plausible connection between the shift towards post-productivism and the emergence of more inclusive systems of forestry governance at a theoretical level.

However, the empirical and case-study material presented in this thesis shows the actual situation on the ground to be much more complicated and messy, influenced by skewed power relations, the continuation of historical antipathy towards the Commission and the state and the emergence of what many local residents consider to be difficult social conditions. This research has sought to provide a more accurate picture of the actual conditions experienced by local communities living within and around forest spaces in upland areas of mid-Wales, their daily interactions with their surrounding environments and their interactions with the institution that manages and controls these local environments.

Above all, the case study material revealed that recent efforts to promote the wider social and environmental benefits of forestry in these areas, thus attempting to bring them more closely in line with the Commission's vision for post-industrial forestry, were a major issue of contestation among residents. Many expressed concern that the

environmental and community engagement agendas were effectively being employed by the Commission to lend legitimacy to its activities and thus represented a desperate attempt to re-establish some sense of purpose in these rural areas. It became clear that contemporary understandings of the two forests could not be detached from the historical experiences of the powerful and often forceful influence of the Commission in shaping both the visual and social character of the local communities. As a consequence, local reactions to the Commission's core activities were embedded in a deep mistrust of the state. This became evident in numerous ways.

Firstly, despite the high degree of local usage of the forests for recreational purposes and a wide acknowledgement of the efforts that were being made by the Commission, alongside other partners, to improve the aesthetic and ecological features of the forests, many residents viewed such activities with much distrust and scepticism. They frequently emphasised the irony of recent attempts by the Commission to establish itself as an 'advocate' of the environment and local culture. In particular, they expressed disbelief that the Commission was now restoring broadleaved woodlands and valuable landscape features, as well as acknowledging the importance of conserving historical archaeological features, when it had been directly responsible for their destruction in the first place. Furthermore, respondents in both areas believed that such activities remained secondary to the Commission main concerns, which continued to reflect the traditional philosophy of industrial forestry. The widespread continuation of harvesting operations, together with the ongoing movement of large timber haulage lorries within the local villages were clear indicators of this. More recent discussions relating to the potential siting of wind farms on the forestry land were also seen to contribute further to residents' concerns over the Commission's continuing power and ability to impose further changes on the local landscapes.

Secondly, the legacy of the Commission's previous hierarchical systems of forestry governance, which effectively excluded local communities from decision-making processes concerning the development and on-going management of the forests remains to this day and has greatly influenced forest-community relations in both areas. Despite the relative success of the new local area structures and their dedicated teams of foresters in re-establishing a certain degree of linkage with the local communities, it appears that the main participatory elements of their work

programme, which have been specifically designed to break down barriers to community involvement in forestry, have been met with a less than enthusiastic response. 'Drop-in sessions' organised as part of the Commission's Forest Design Planning process and selected as the most appropriate means of engaging with local communities on the basis that informal events were perceived to be less confrontational and tended to lead to more constructive debate, were generally poorly attended. Only those with particular interests were usually motivated to attend, thus there was little opportunity to listen to the views and needs of local forest users, non-forest users and crucially tourists, who represented an important group within both areas. This raised important questions concerning representation and further reinforced residents' belief that economic objectives continued to be given priority over social, environmental and cultural benefits.

Many who had attended the sessions in the past were critical of the technical and often complex nature of the information that was presented, together with their preoccupation with high level strategic issues based on national and international policy discourses of managing and conserving nature, such as plans for the restoration of upland heaths, which were often quite remote from the concerns of local residents with no specialist knowledge of nature conservation. This only served to further alienate local communities. The Commission's failure to ensure that the views of local stakeholders were properly taken into account, either as a result of poor attendance or due to the highly restrictive nature of the approaches used during the course of the sessions (such as the use of closed questions) had resulted in residents becoming disaffected and unwilling to attend future meetings. Even local forestry personnel were sceptical of the wider value of these consultation exercises, arguing that residents were often only concerned with 'simple' site-specific concerns such as blocked paths, dog-walking, anti-social behaviour and recreational facilities with little evidence of any appetite among local communities for more detailed information concerning the management of the forests. This was particularly true in relation to the Tywi Forest where fewer people were directly affected by the forest due to its relatively remote location. As a result, the local forestry staff tended to adopt a highly instrumental view of the forest design planning process, looking upon them as a means of getting the plans approved and legitimising the Commission's actions.

In discussing their work within the forests, the local forestry staff did, however, acknowledge the importance of maintaining an active presence on the ground through local staff who acquired detailed knowledge of the forests and their surrounding areas and could communicate in the right language with local communities. To this end, the local area managers were working on a more informal basis within the local communities, responding to residents concerns on an ad-hoc basis. This was however dependent on local residents being aware of who to contact with any queries relating to the forest, which was generally well known within both study areas. In the Dyfi Valley residents generally appeared to be more open to further information, perhaps influenced by the growth in environmental activism within the area, with several of the interviewees calling on the Commission to be more pro-active in approaching local communities. In contrast, the Tywi residents appeared to be less concerned with achieving any higher level of engagement with the Commission and were generally happy to continue as usual and leave it to 'the professionals' to carry on with the management of the forests. The lack of interest shown by residents within this areas to a genuine opportunity from the commission to manage an area of land in the forest certainly reflected this apathy and suggested that the forest now plays a much smaller and perhaps insignificant role in the local communities of the Tywi Valley.

These issues highlighted the sheer complexity of the situation within the case study areas. Indeed, there was overwhelming evidence to suggest that the communities, on the whole, had no interest or desire to play a wider role in the management and regulation of their local forests. This situation may be viewed as a legacy of the traditional hierarchical approach to forestry governance, which was now being further compounded by the Commission's view of the communities as lacking the necessary skills, capacity and indeed knowledge to contribute fully and effectively to the management of their local environments. As a result, local forestry managers appeared unsure how to approach the issues of community empowerment, as they feared that the use of ambitious consultation exercises might raise the expectations of the community to an unreasonably high level. Several instances were highlighted whereby these approaches had encouraged communities to ask for things that did not accord with Commission policy. These situations made local staff extremely nervous, with several stating that they were now conscious of appearing too dismissive of resident's views, particularly given the historical tensions between the Communities

and the communities. This may therefore explain the Commission's highly informal and cautious approach to governance in the case study areas.

7.3 Implications of the research

7.3.1 Progressing rural research on forestry

In working from a grounded perspective, sensitive to the realities of the multi-level forestry governance environment and to local environmental, socio-cultural and economic contexts this thesis has provided an unique perspective on the implications for governance of a shift towards post-industrial forms of forestry. This study has succeeded in filling significant gaps in our knowledge of social nature, governance and regulation within the context of forestry by providing a more critical examination of the transition towards new systems of forestry, as well as elaborating on various underdeveloped themes, ideas and concepts within the existing academic literature. It has taken forward recent debates which have sought to develop more sophisticated theoretical accounts of recent changes in the state forestry sector in Britain, (Tsouvalis, 2000; Mather 2001; Milbourne et al., 2008), but scales these discussions down to two local case-study forests. In doing so, the thesis has adopted a multi-scalar approach, taking in various perspectives on the changing nature of forestry governance, from national policy actors and their direct involvement in the formulation and delivery of national policies, but at its heart were the views of those individuals and groups living and working within these forests whose views have otherwise been neglected in past research. Through focusing on these different spatial scales, the thesis has developed an understanding of the weaknesses and needs of the different actors now engaged (or otherwise marginalised) within the forestry governance environment, in the context of the continuing power and influence of the Commission. It also demonstrates the relevance of a concept of governance that not only incorporates and acknowledges multiple levels, but also a central point that continues to be occupied by the Commission.

The study has also demonstrated the usefulness of studying local socio-natural contexts and using this as a window through which to explore how various processes, conditions and structures intersect either to support or hinder the implementation of

new systems of forestry. This is not to suggest that a focus on the local spatial scale has been completely absent from recent work on forestry (see Cloke et al., 1996; Winter, 1996; Tsouvalis, 2000), but these have tended to focus on mixed species forests in lowland areas where recent efforts have been made by the Commission to develop recreational facilities, whilst also taking into account the social, environmental and cultural character of the surrounding area. Such areas are perceived to be more closely related to post-industrial ideals.

Responding to this identified weakness in the forestry literature, a more recent study by Milbourne et al. (2008) suggests that the shift towards a new regime of forestry has been much more problematic in the large industrial coniferous plantations of the South Wales Valleys. Many of the concerns and issues raised in the above study suggest problems similar to those that have been discussed in this thesis, however, these were explored within the context of more rural forest spaces in areas where the Welsh language was a more significant factor and, unlike the South Wales Valleys, where large-scale afforestation was contested by different groups on aesthetic and cultural grounds. The rationale for selecting two forests that were very similar in character can therefore be put down to these particular sets of reasons, allowing detailed examination of whether the early structures established by the Commission in Wales were similar or differed in any particular way from region to region. As a result it has been possible to provide a detailed examination how both areas have responded to wider changes that have occurred in the forestry sector.

7.3.2 Policy implications

In taking forward its approach to the development of more inclusive systems of forestry governance, the Commission will therefore need to take into account many of the issues raised in this thesis, particularly those relating to governance and the precise nature of what it considers to be emerging post-industrial forest spaces in the rural areas of Wales. Above all, it needs to acknowledge that there has been no real change in the modes of forestry that have been adopted in such areas.

It became clear that the participatory approaches adopted by the Commission in both study areas, primarily through the Forest Design Planning process, had been

successful to date in bringing together a wide range of representatives from statutory bodies, influential local people and individuals with appropriate expertise, all working together to ensure the effective governance and regulation of the forests. There was no doubt about the value of this wider dialogue in allowing the Commission to address strategic issues such as plans for thinning and felling, habitat restoration and proposed changes to the forest structure without the need for resolving unproductive conflicts between differing interests. However, as has been demonstrated, the second stage of the process involving direct community engagement to obtain local consent for the plans, which were supposedly aimed at providing a new arena for debate and compromise between local needs and the ideas represented in the plans. The research material indicated that this stage of the design process was much more problematic. The process in itself was manipulative, focussing almost exclusively on the Commission's agenda, with little attention given to the interests and views of local participants and their incorporation into the plans.

From the information presented in this thesis it becomes clear that in order for forests such as the Dyfi and the Tywi to realise their full potential for the provision of public benefits, the Commission's objectives for community engagement need to be drastically reviewed and overhauled. This would involve adopting a more inclusive approach to engaging with local stakeholder views prior to the preparation and revision of forest design plans, allowing them to discuss their views in relation to simplified information about the main features of the forests under discussion, which could then be integrated into the design plans and subsequently fed back for further discussion at various stages of the process. The success and overall effectiveness of such an approach would however depend on the use of formal procedures for identifying relevant and representative stakeholders, supported by the use of appropriate engagement methods, which have been specifically designed to access each stakeholder group. Informal events such as forest walks or visits or coffee mornings could be used to engage with local residents, while questionnaires and follow-up telephone interviews would perhaps be more appropriate for visitors to the area. Discussion should focus on simple, local concerns and the process should be open and transparent at all times.

7.3.3 Avenues for further research

The multi-method approach adopted as part of this research represents one of the key strengths of this thesis, with the combination of qualitative methods providing data and findings that were much richer than those derived from one of these methods alone. However, it could be argued that further research in the local areas in particular would benefit from the use of a wider range of methodological approaches. As an example, the use of focussed group discussions with community or interest groups based in villages within or close to each case-study forest would potentially tap into a wider range of local views, thus providing an even more accurate and representative picture of the two forests and their associated systems of governance.

Although this thesis has provided a detailed investigation of recent efforts by the Commission in Wales to develop more participatory local governance systems, there remains a great deal of work to be done by rural researchers in order to develop an appreciation of the wider position of forestry in relation to rural economic, socio-cultural and governance structures. The themes discussed in this chapter therefore need to be developed in a more critical, comprehensive and in-depth manner. In order to bring this thesis to a close, I therefore propose three key areas of research which, if developed, should ensure a more detailed understanding of the nature of the transition towards new regimes of forestry in Britain. Firstly, it is clear that the emerging issues need to be explored within the context of a broader range of case studies, focusing on different spatial and governance contexts. This would potentially provide a more rounded picture and a more critical examination than that which has been provided in the forestry literature so far. Within such work, further attention should be paid to the varied processes of production, regulation and consumption bound up with upland forests, but also to the emergence of new systems of forestry within the forest spaces of the lowland areas. Despite their closer alignment to the ideals of post-industrialism promoted by the Commission, past research suggests that even these forest spaces are problematic, with questions still being asked about their relative success in translating to a more post-industrial phase of forestry.

Secondly, consideration should also be given to the varying approaches adopted in the three devolved administrations, for example, the wider emphasis placed on the social

forestry agenda in England and the continuing influence and strength of commercial forestry sector in Scotland. Further to this would be the influence of different governance structures in influencing the shift towards post-industrial forestry. Such comparative case studies would help cement the robustness of any conclusions. Thirdly, more research is also needed on forest cultures and, in particular, the processes through which meanings of the forests are developed at national, regional and local scales. This will involve an increased emphasis being placed on making sense of community and individual perceptions and experiences of forests, thus improving our understanding of the complexities associated with the governance and regulation of forestry at the local spatial level.

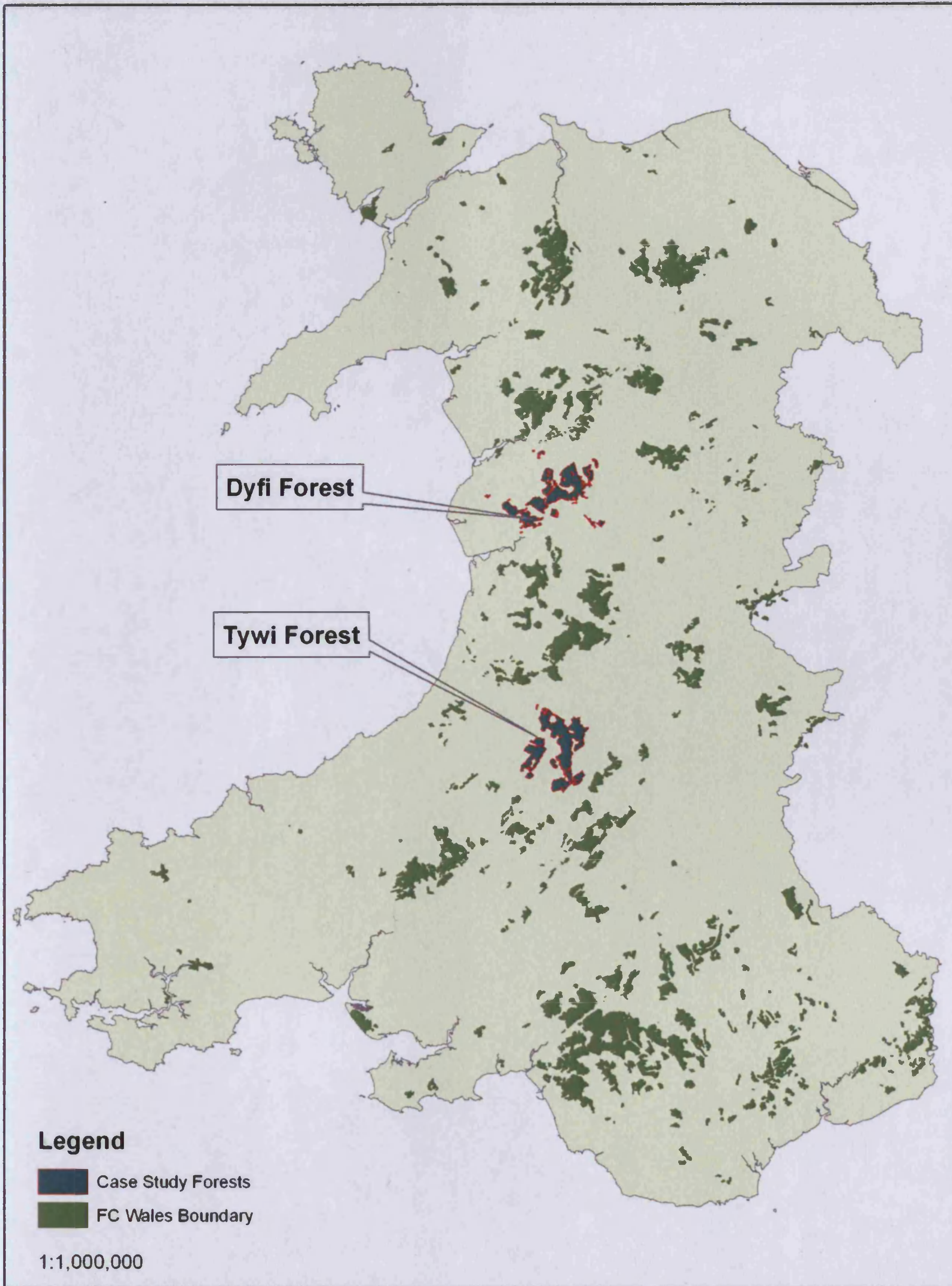
APPENDICES

and

BIBLIOGRAPHY

Appendix 1

Map showing Forestry Commision Wales Plantations



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© Hawlfraint y Goron. Cedwir pob hawl. Cyngor Cefn Gwlad Cymru, 100018813 (2009); Comisiwn Coedwigaeth, 100025498 (2004).

Rhanbarthau Coedwigo CCC
FCW Forest Districts

Coed y Gororau
0845 604 0845

Coed y Mynydd
0845 604 0845

Llanymddyfri
0845 604 0845

Coed y Cymoedd
0845 604 0845

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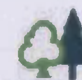
sty Commission, OS Licence Number 100025498.

Comisiwn Coedwigaeth Cymru
Forestry Commission Wales

Hydref 2007
October 2007

1:950,000

Appendix 3 - FC Interview Schedule



1. To begin, could you tell me a little about your own background and your current position within FC GB / Wales / England / Scotland (*prompt for length of time in post*)?

DELIVERING FORESTRY POLICY

2. In recent years the FC in Wales / England / Scotland has been undergoing a period of rapid change due to political and administrative devolution and changing demands being placed on the forestry sector. How has this changing context affected the way in which forestry policy is now formulated and the forestry sector is managed and practiced? (*any changes in chains of accountability and responsibility?*)
3. Political devolution has brought with it inevitable policy changes with four devolved strategies for England, Scotland, Wales and Northern Ireland. What is the specific role of FC Wales / England / Scotland within this devolved structure and what is the nature of your relationship with the other three devolved strategies?
4. What is the relationship between decisions made at different scales of governance within the forestry sector? For example, how is the tension between moves towards decentralisation and more devolved governance and subscription to international agreements on sustainable development managed, negotiated and resolved? In other words, how does FC (Wales) negotiate between acknowledging diverse local experiences and interests and complying with national / international policy?
5. How would you describe the institutional culture within FC (Wales)? How has it evolved since devolution and following the introduction of these more participatory approaches to forestry governance?
6. What are the key strategies driving forestry policy in Wales?
7. Who sets the agenda for forestry policy in Wales?
8. What is that agenda?

WIDER ENGAGEMENT WITH EXTERNAL RURAL AND ENVIRONMENTAL AGENCIES

9. As the goal of timber production has become less important in recent years, the forestry sector is being drawn into various initiatives to provide for a wider range of leisure activities, thus forestry managers are seen to be engaging with a much wider range of interests beyond the forestry industry. What is currently being done to achieve greater integration of forestry with wider rural policy work in Wales? (*i.e. greater inter-agency partnership working, the need to address a whole new range of stakeholders, new forms of public participation...*)
10. What organisations / groups are you currently working with in Wales and what is the nature of your relationship with them?
11. Are these organisations / groups actively involved in the implementation and delivery of forestry policy in Wales?
12. Are specific communities of interest (such as commercial timber interests, the aesthetic landscape interests of the national park authorities, the tourist recreational interests and nature conservation interests) effectively taken into account in these new participatory approaches?

13. How have these organisations / groups learned about the requirements and objectives of multi-purpose forestry? *(i.e. courses led by FC, conferences, research publications…)*

14. Would you say that FC (Wales) is now more open to wider influences, perhaps through the use of new forms of professional, academic and lay expertise? Can you provide details of recent collaborations that reflect this?

APPROACHES TO COMMUNITY / PUBLIC ENGAGEMENT

15. What is your assessment of the main components / features of the new participatory approaches to forestry governance that have begun to emerge in your work in recent years?

16. How is FC (Wales) currently embracing or encouraging changes in thinking about and understanding these new governance processes and the new styles of management they entail?

17. A key factor accompanying the current changes is the requirement for foresters at every level of forest practice (from forest worker to manager and policy maker down to front-line staff) to have an understanding of the requirements of multi-purpose forestry. How is this achieved within FC (Wales)? (*For example, is there any overall strategy being implemented / guidelines being followed within the FC for developing a shared vision of participatory approaches to forestry governance and management - any training in participatory processes / tools?*)

18. How would you characterise the level of public participation in forestry in Wales?

19. What specific role do local communities play in the new forest governance arrangements? Is there sufficient 'genuine' involvement? (*For example, are representatives from community groups seen as equal partners with the more powerful and well-resourced agencies and business interests?*)

20. At which stage of the policy process does public participation usually take place – is the public only brought into the policy process towards the tail-end or are they given sufficient opportunities to influence the content / scope / overall orientation of forest policy?

21. What mechanisms of public involvement are currently being employed within FC (Wales)?

22. How successful do you feel these approaches have been in achieving greater public participation in forest governance and allowing moves away from the FC's previous styles of governance? *(i.e. any underlying tensions / indications as to what works & what doesn't…)*

23. How do you measure progress towards achieving greater participation in forest governance?

24. How do you measure progress towards achieving the wider objectives of multi-purpose forestry? For example, it is clear that moves towards public benefit forestry has introduced new pressure on the FC to devise indicators to account for these outcomes in an objective way. However, much of what people value cannot be reduced to numbers, so there is increasing doubts as to whether public benefit can be objectively mapped. How is this tension overcome and do you think there is a way of devising indicators for sustainable outcomes?

FURTHER INFORMATION

25. Are there any reports or policy documents produced by FC (Wales) that you feel I should consult? How do I get hold of this material?

26. Finally, are there any other issues concerning participatory approaches to forest governance in Wales that we have not covered that you would like to raise?

Appendix 4 - Stakeholder Interview Schedule

1. To begin, could you tell me a little about the nature of your organisation/ agency / department in terms of its main objectives and areas of work and also your own position within it? (*prompt for length of time in post*).

PERCEPTIONS OF CHANGE WITHIN FC WALES

2. Based on your knowledge of the work of FC Wales, what are the key strategies driving forestry policy in Wales?

3. Who sets the agenda for forestry policy in Wales?

4. What is that agenda?

5. What is your assessment of the main components / features of the new participatory approaches to forestry governance that have begun to emerge in forestry policy in recent years?

6. In your opinion, how successfully is FC Wales currently embracing or encouraging changes in thinking about and understanding these new governance processes and the new styles of management they entail?

7. What is currently being done to achieve greater integration of forestry with wider rural policy work in Wales? (*i.e. greater inter-agency partnership working, the need to address a whole new range of stakeholders, new forms of public participation...*)

8. A key factor accompanying the current changes is the requirement for key partners at every level of forest practice to have an understanding of the requirements of multi-purpose forestry. How did you come to learn about the requirements and objectives of multi-purpose forestry? (*i.e. through courses led by FC, attendance at conferences, circulation of research publications, dissemination of information…*)

DELIVERING FORESTRY POLICY IN WALES

9. What is the nature of your working relationship with FC (Wales)?

10. What is the extent of your involvement in the delivery of forestry policy in Wales? Can you provide details of any previous / ongoing projects and their objectives?

11. In recent years the FC in Wales has been undergoing a period of rapid change due to political and administrative devolution and changing demands being placed on the forestry sector. How has this changing context affected the extent of your involvement in the forestry sector and also on the way in which forestry policy is now formulated, and the forestry sector is managed and practiced? (*i.e. degree of cross-Agency working both pre- & post-Devolution...*)

12. How would you describe the institutional culture within FC (Wales) based on your contact with its personnel?

13. In your opinion, how has the institutional culture evolved since devolution and following the introduction of more participatory approaches to forestry governance?

14. As the goal of timber production has become less important in recent years, the forestry sector is being drawn into various initiatives to provide for a wider range of leisure activities, thus forestry

managers are seen to be engaging with a much wider range of interests beyond the forestry industry. Apart from yourselves, what other key partners are involved in the implementation and delivery of forestry policy in Wales?

15. What is the nature of your relationship with these institutions?

16. Who are the lead partners in these working relationships?

17. Are specific communities of interest (such as commercial timber interests, the aesthetic landscape interests of the national park authorities, tourist recreational interests and nature conservation interests) sufficiently taken into account in these new participatory approaches?

18. Would you say that FC (Wales) is now more open to wider influences, perhaps through the use of new forms of professional, academic and lay expertise? Can you provide details of any recent collaborations that reflect this?

19. How successful do you feel these working partnerships have been in achieving greater integration of forestry with wider rural policy work? *(i.e. any significant problems arising from pursuing such an approach, indications as to what works and what doesn't...)*

APPROACHES TO PUBLIC PARTICIPATION AND ENGAGEMENT

20. How would you characterise the level of public participation in forestry in Wales?

21. What specific role do local communities play in the new forest governance arrangements? Is there sufficient 'genuine' involvement? *(for example, are representatives from community groups seen as equal partners with the more powerful and well-resourced agencies and business interests?)*

22. Thinking about your work with FC (Wales), at which stage of the policy process does public participation usually take place – is the public only brought into the policy process towards the tail-end or are they given sufficient opportunities to influence the content / scope / overall orientation of forest policy?

23. What mechanisms of public involvement are currently employed by FC (Wales) and its key partners?

24. How successful do you feel these approaches have been in achieving more participatory forest governance and allowing moves away from the FC's previous styles of governance? *(for example, are there any significant instances where and when these mechanisms have failed / indications as to what works & what doesn't...)*

MEASURING PROGRESS TOWARDS ACHIEVING PARTICIPATORY FOREST GOVERNANCE

25. How would you measure progress towards achieving greater participation in forest governance, both in terms of achieving greater community involvement and greater input from external rural and environmental agencies?

26. How would you measure progress towards achieving the wider objectives of multi-purpose forestry? For example, it is clear that moves towards public benefit forestry has introduced new pressure on the FC to devise indicators to account for these outcomes in an objective way. However, much of what people value cannot be reduced to numbers, so there is increasing doubts as to whether public benefit can be objectively mapped. How is this tension overcome and do you think there is a way of devising indicators for sustainable outcomes?

FURTHER INFORMATION

27. Are there any reports or documents on forestry policy produced by your organisation / department / authority that you feel I should consult? How do I get hold of this material?

28. Finally, are there any other issues concerning participatory approaches to forestry governance in Wales that we have not covered that you would like to raise?

Thank you.

Appendix 5: Key public, private and voluntary partner organisations and their work

Environment Agency Wales (EAW)

The Environment Agency was established under the 1995 Environment Act and became fully operational on 1 April 1996. The Agency is a Non-Departmental Public Body of the Department for Environment, Food and Rural Affairs (DEFRA) and an Assembly Government Sponsored Body (AGSB) monitored by the Welsh Assembly Government. The Agency's remit covers the whole of England and Wales; this includes around 15 million hectares of land, 36,000 kilometres of river and 5,000 kilometres of coastline, including 2 million hectares of coastal waters. The Agency's principal aim is to protect and enhance the environment and, in doing so, to make a contribution towards the objective of achieving sustainable development. In support of this aim, the Agency delivers a broad range of statutory functions which include: integrated pollution control; waste management, water and land quality; flood risk management, conservation, recreation and fisheries. Through these activites, the Agency has a key role to play in the delivery of the Welsh Assembly Government's strategic agenda, which for the period 2007-2011, is embodied in the One Wales (2007) document and the Environment Strategy for Wales (2006).

Further information on its particular functions in Wales can be found on the Environment Agency website (www.environment-agency.gov.uk), or on the relevant policy sections of the Welsh Assembly Government website (www.wales.gov.uk).

Coed Cymru (CC)

Coed Cymru is an all-Wales initiative aimed at promoting the management of broadleaf woodlands and the use of locally grown hardwood timber in Wales. It was established in 1985 in response to concern over the decline of native broadleaved woodlands in Wales, and the growing dependence on cheap imported hardwoods. In response to this crisis, representatives from Government agencies, Local Authorities, industry and the voluntary sector came together in 1985, under the name Coed Cymru, to promote a campaign of public awareness spearheaded by locally based project officers who provided free help and advice to woodland owners, community groups and hardwood users. Their purpose was to re-establish the traditions of woodland husbandry and local timber use in Wales. The initiative was launched with grant aid

from the Countryside Commission and is now funded by the Countryside Council for Wales, Forestry Commission Wales, the County Councils and National Parks in Wales and the Welsh Assembly Government. The Management Committee is made up of representatives from these organisations and bodies. The charitable functions of research and education are managed by the board of Coed Cymru Cyf., a "not for profit" charity established by the partners in 1989. Since 1986 some 17,000 hectares of woodland management and tree planting projects have been instigated. These include many community based projects as well as large projects on public land. It also acts as a 'one-stop' shop for technical advice and grant aid, focussing the expertise of all the participating organisations.

Forestry and Timber Association (FTA)

The Forestry and Timber Association is the leading representative body for all those involved in the growing and management of trees, throughout the UK. It engages with both government and non-government organisations to represent members' interests through political lobbying and technical representation. Members include: woodland owners, forest management companies, forest managers and contractors, suppliers of goods and equipment, students and associates. Membership is open to anyone engaged or interested in forestry, woodlands or trees, whether for commercial, amenity or other reasons.

Royal Society for the Protection of Birds (RSPB)

The Royal Society for the Protection of Birds (RSPB) is a British charitable organisation, which works to promote the conservation and protection of birds and the wider environment through public awareness campaigns, petitions and through the operation of nature reserves throughout the United Kingdom. It consists of more than a million members, over 12,500 volunteers and employs 1,500 staff, who work to maintain 203 designated nature reserves across the UK. These cover a wide range of habitats, from estuaries and mudflats to urban habitats, making the RSPB the largest wildlife conservation charity in Europe. The charity was founded in Didsbury in 1889, as a protest group campaigning against the use of great crested grebe skins and feathers in fur clothing. The society received a Royal Charter in 1903, and was instrumental in petitioning the Parliament of the United Kingdom to introduce acts

banning the use of plumage in clothing. Today, the RSPB works with both the civil service and the Government to advise Government policies on conservation and environmentalism. Its work is guided by four key objectives: to conserve wild birds and the wider environment on which wild birds depend, maintaining bird numbers, diversity and natural geographic distribution; to conserve natural and semi-natural habitats and to re-create habitats; to encourage others to practise the conservation of wild birds and habitats; and to promote knowledge of conservation through education and research.

Farming Union of Wales (FUW)

The Farming Union of Wales is an independent Union which represents and speaks on behalf of Welsh farmers at the national and European level, through independent access to decision-makers in the Welsh Assembly Government, Westminster and in Brussels. Through its network of County and local offices throughout Wales, it provides expert local advice on all issues of importance to Welsh farmers. This is supported by permanent and regular Committees covering all issues of importance to Welsh farmers.

National Farmers Union (NFU)

The National Farmers Union (NFU), founded in 1908, is the largest farming organisation in the UK, providing professional representation and services to all its farmer and grower members throughout England and Wales, through network of over 300 local branch offices and special advisers. It is not affiliated to any political party and has a completely democratic structure, providing a strong and respected voice for the industry and employing a team of 500 staff to support the needs of its members on a local, national and international level. The Welsh branch of the organisation, NFU Cymru, represents the majority of farmers in Wales and consists of nearly 15,000 members; membership is entirely voluntary and the Union is self funded. Its structure is based around 11 counties and 47 local groups representing between four to eight parishes. They provide a variety of services to members, including advice on running their businesses successfully, as well as providing guidance on legal, planning and taxation matters. It also offers expert advice on marketing produce and promoting high quality local food.

The governing body, the NFU Cymru Welsh Council, have sole and total independent responsibility for the development of agricultural and rural policy in Wales. This also includes independence for all matters relating to the Welsh Assembly Government. The Union works closely alongside, and in partnership with various groups and organisations in Wales to advance rural interests, and one of its main objectives is to work with politicians and officials at the Welsh Assembly Government, at Westminster and at the European level to ensure that its members' interests are advanced on a whole range of rural issues.

Tir Coed (TC)

Tir Coed is a registered charity that was established in 1999 as an alliance of countryside agencies. Since its establishment, the organisation has evolved in tune with the Welsh Assembly Government's priorities on health, social inclusion and education. Through facilitation and partnership working, Tir Coed develops woodland initiatives for disadvantaged communities in rural Wales, particularly those affected by mental or physical disability, financial hardship or difficult social circumstances. The Assembly's woodland estate is used as the main focus of its work, allowing individuals to come together to learn new skills, whilst enjoying both the therapeutic and direct health benefits of woodland activities. Accordingly, it is committed to the advancement of education in woodland-related skills, and to the development, promotion and encouragement of woodland-related facilities and education and recreation, in the interests of health and social welfare. It aims to achieve this by:

- promoting local community involvement in woodland initiatives that deliver social and health benefits
- seeking opportunities to develop skills, networks and knowledge in rural communities that will enable woodlands to be used as catalysts for local sustainable economic development
- responding to needs expressed by stakeholders and supported by professional advice
- seeking partners with whom to deliver woodland initiatives, and fostering the development of links and partnerships with other social, health, rural regeneration or continuing education projects throughout rural Wales
- addressing all initiatives via a customised, non-prescriptive, approach which best meets the needs of the client.

The Woodland Trust (Coed Cadw - CC)

The Woodland Trust is the UK's leading woodland conservation charity dedicated solely to the protection of native woodland heritage. In carrying out its main functions, it is dedicated to working in partnership with a range of other organisations and individuals to ensure the protection of ancient woodland and the restoration and improvement of the variety of woodland wildlife, whilst encouraging an increase in the area of new native woodland and an improvement in people's awareness and enjoyment of woodland. Since its establishment in 1972, the charity has grown to care and protect over 1,100 sites, covering 19,000 hectares. This includes nationally and internationally important sites, as well as small urban and village woods. Nearly 350 of these sites contain ancient woodland, amounting to over 6,000 hectares, of which 70 per cent is Ancient semi-natural woodland. It also protects over 110 woodland Sites of Special Scientific Interest (SSSI), the UK's finest examples of wildlife habitats. Further to this, the Woodland Trust is the first major landowner in the UK to achieve certification under the Forest Stewardship Council's UK Standard of Sustainable Forestry, across all its woodland estate. As a charity, the Trust relies heavily on voluntary support. It receives over 65 per cent of its income from supporters and the general public through membership subscriptions, appeals and legacies. Commercial sponsorship and grants from charitable trusts and bodies such as the Heritage Lottery Fund and the Forestry Commission account for almost 25 per cent of its funding.

The National Trust (NT)

The National Trust was founded in 1895 by three Victorian philanthropists, Miss Octavia Hill, Sir Robert Hunter and Canon Hardwicke Rawnsley, over concerns about the impact of uncontrolled development and industrialisation. It was thus established with the sole aim of acting as a guardian for the nation in the acquisition and protection of threatened coastline, countryside and buildings. More than a century later, it now cares for over 248,000 hectares of countryside in England, Wales and Northern Ireland, as well as more than 700 miles of coastline and around 200 buildings and gardens of outstanding interest and importance. Most of these properties are held in perpetuity and so their future protection is secure. The Trust is a registered charity which functions independently from Government. It therefore relies heavily on

the generosity of its subscribing members and supporters, which now total over 3.5 million.

A small Board of Trustees maintains responsibility for the day-to-day operation of the charity and for ensuring sure that the organisation works as well as possible to deliver its core functions. The majority of the Board of Trustees are Council members, which is made up of 52 members: 26 elected by the members of the National Trust and 26 appointed by organisations whose interests coincide in some way with those of the National Trust. It is this mix of elected and appointed members that ensures that the Trust takes full account of the wider interests of the nation, for whose benefit it exists. The breadth of experience and perspective which this brings also enables the Council to fulfil its role of holding the Board of Trustees to account and to act as the Trust's conscience in delivering its statutory purposes. The combination of a representative body and a trustee body working together provides both the strength and necessary challenge to ensure that the Trust delivers its core purpose and works efficiently and effectively as a charity and a large and complex business.

The Welsh Development Agency (WDA)

The Welsh Development Agency was an Assembly Sponsored Public body (ASPB) established in 1976 to encourage business development and investment in Wales. It was abolished in April 2006 and its functions were absorbed into the Welsh Assembly Government's Department of Economy and Transport. At the time of carrying out the fieldwork, the work of the WDA was based around four key objectives: furthering the economic development of Wales, promoting industrial efficiency and international competitiveness, developing employment and improving the environment. The organisation worked to secure entrepreneurial growth in Wales by increasing the number of startup businesses and by persuading multi-national companies to relocate or open subsidiary facilities in Wales. Finance Wales is a public limited company set up by the WDA and continues to provide funding solutions to Welsh businesses. The Agency was structured on a Divisional basis with local operational responsibility resting with Divisional managing directors. The Divisional structure included offices in north, west, and south Wales, and an International Division, which was tasked with promoting Wales in the key global markets to targeted industrial sectors. This structure was designed to ensure that services offered to businesses, investors and others engaged in the economic development of Wales were most appropriate to the

needs of those customers. The Agency was also committed to working in close liaison and partnership with other public bodies to assist in the delivery of local policy objectives, and through co-ordinated action to improve the outputs of public resources and actions.

UPM Tilhill (UPMT)

UPM Tilhill is the UK's leading forestry and timber harvesting company, offering a full range of consultancy and contracting services to woodland owners and forestry investors. Its harvesting and marketing activities generate over 1.7 million tonnes of timber each year, more than any other British company. Through its parent company, the Finnish group UPM, it has gained access to one of the best small roundwood markets in the UK, and represents the largest timber exporter in Britain, currently exporting around 400,000 tonnes per annum to Europe. It operates from a network of offices throughout Great Britain, and has a turnover in excess of £100 million. UPM Tilhill is also the UK market leader in forest and woodland management, providing a number of different services, including site assessment (encompassing environmental and ecological considerations); digital mapping; preparation of plans and production forecasts; grant aid applications; planting and maintenance operations; valuations; timber sales; and woodland insurance. Through such work it is regularly contracted to work on behalf of a range of interests, such as woodland and forest owners; farmers; Government agencies; Local Authorities; estate owners; mineral companies; utility companies; community forests; conservation bodies; woodland trusts and charities; and landscape architects.

Wales Tourist Board (WTB)

The Wales Tourist Board was established in 1969 under the Development of Tourism Act 1969 to promote... Following the passing of 'Abolition Order' by the Welsh Assembly Government in November 2005 the functions undertaken by the Board were fully transferred to the Welsh Assembly Government in April 2006. Visit Wales now acts as the Welsh Assembly Government's tourism team, within the Department for Heritage and assumes responsible for the promotion and development of tourism in Wales. The role of Visit Wales is to deliver the Welsh Assembly Government's Tourism strategy, 'Achieving Our Potential'. This provides the appropriate strategic

framework, within which public and private enterprise can achieve sustainable growth and success, thus improving the social and economic well being of Wales. Visit Wales' principal role is to provide leadership and strategic direction to the tourism industry in Wales. The medium-term national tourism strategies define a vision for tourism, establish priorities for partnership action and set targets for growth. Its strategic approach therefore seeks to:

- improve the competitiveness of Welsh tourism
- raise the profile and status of the industry and increase recognition of its economic performance
- adopt a customer-focused approach which understands and responds to market needs
- improve understanding of the roles and responsibilities of the different organisations involved in tourism and identify opportunities for effective partnership working
- promote growth in tourism through sustainable means.

It also has a statutory duty to provide policy advice to government and to the tourism industry on matters affecting tourism in the UK and in the EU. In providing such advice it seeks to reflect the cross-cutting themes of government while balancing the needs of the industry with those of the consumer. Wherever possible, its policies and policy advice are based on relevant research and past experience, so that they are in the best interests of the wider tourism community.

The Countryside Council for Wales (CCW)

The Countryside Council for Wales is the Government's statutory advisor on sustaining natural beauty, wildlife and the opportunity for outdoor enjoyment in Wales and its inshore waters. It champions the environment and landscapes of Wales and its coastal waters as sources of natural and cultural riches, as a foundation for economic and social activity, and as a place for leisure and learning opportunities. It also aim to make the environment a valued part of everyone's life in Wales. Members are accountable to the National Assembly for Wales, users of services, individual citizens and staff for the activities of Council, its stewardship of public funds and the extent to which key performance targets and objectives have been met.

The Country Landowners and Business Association (CLA)

Non-party political, the CLA lobbies to influence decision makers and uses its experience and expertise to ensure the positive development of the rural economy. Founded in 1907 to promote and protect the interests of owners of agricultural and rural land in England and Wales, today it encompasses the full diversity of rural business.

Members receive access to a network of the like-minded people throughout the rural economy. Services include unlimited professional advice of matters of law, taxation, environment, planning and rural economy, direct support through regional and business networks and lobbying at all levels of government.

The organisation retains its own in-house professional advisory team which includes barristers, tax specialists, planning experts and surveyors. They are able to provide independent and impartial information on a wide range of issues.

CADW

Cadw is the Welsh Assembly Government's historic environment service. Its objectives are to protect, conserve and sustain the historic environment of Wales. This includes the scheduling of ancient monuments and listing of historic buildings. The Countryside Council for Wales is the statutory adviser to government on sustaining natural beauty, wildlife and the opportunity for outdoor enjoyment throughout Wales and its inshore waters. It works closely with the Countryside Council for Wales in maintaining the Register of Landscapes of Historic Interest in Wales, and in partnership with the Welsh local authorities has developed *LANDMAP*, a landscape assessment methodology for Wales aimed at collecting, collating and evaluating information on landscape resources in Wales. Within this system, data is collected on an area's geology, visual quality and wildlife as well as its cultural and historic interest. It provides valuable information for decision-makers, including those involved in planning, agri-environment, forestry and countryside management. In carrying out its various functions, CADW also supports the work of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), the national body of survey and record, allowing it to compile, and make available, a comprehensive archive of ancient monuments and historic buildings – the National Monuments Record (NMR) for Wales.

STORIES FROM THE FOREST

1st Edition - August 2002

Newsletter of the Forests in the Rural Community Project

ORESTS IN THE RURAL COMMUNITY

ring the mid 20th century great changes occurred :he rural landscape of Wales. Some of these were d to economic and social change which led to sure of quarries or a drift from farming. In some as land was used for wartime installations. After Second World War the Forestry Commission juired much of this land and began the planting of new forests of Wales.

e Forests in the Community Project was ablished by Forest Enterprise (Wales) in 2002 to ord **The Story of the Forest.** We wish to ture the memories of local people and retired estry staff and to store these for future generations keeping copies in both the National Library of iles and at local venues. Forest Enterprise is also king to encourage the participation of the local nmunity in future use of the forest

ou have stories to tell please contact your local nmunity co-ordinator whose name and telephone nber is given after each article. The project is rently working in Corris and Pennal (Dyfi Forest) wsfynydd (Coed y Brenin) and Ystrad Fflur/Tregaron wi Forest). If you would like more information out the project then please contact the project nager, Caroline Earwood, on 01691 671808.

ou have questions about the forest today then ir first point of contact is your local area manager. ve Farmery (Pennal and Corris) and Aled Thomas awsfynydd) are based in Dolgellau (01341 422289). ce Blud (Ystrad Fflur/Tregaron) is based in ndovery (01550 720394).

FE ON THE MOUNTAIN

ore Tywi forest was planted this was a vast, open untainous area dotted with farms as far as three or r miles from each other, so neighbours were remote eed. Their nearest village was either Pontrhydfendigaid Tregaron. Their only means of transport was by foot, seback or horse driven cart, and it meant a 20-25 mile nd trip to get provisions. There was a track to garon and the Roman Road led to Strata Florida.

Despite this remoteness there was a very strong and close community with the social interest revolving around horses and farm animal duties such as shearing and rounding up sheep on horseback. Hunting was also very much a social day. People visited each other's farms of an evening to play

cards, draughts and darts. This lack of amenities brought people together to form a loyal and trustworthy community. The creation of the forest, according to Peggy Jones, formerly of Maesglas Farm, brought good and bad. The good was the creation of the forestry roads enabling them to abandon to a large degree the use of the horse, and being able to access remote areas by Land Rover or Jeep. The bad was the splitting up of the community which was inevitable once people were able to go afar so much quicker and conveniently to other attractions.

Peggy tells the story of the opening of the Claerwen Dam in October 1952 when about 30 of the mountain people decided to go by horseback over the mountain to witness the ceremony. After the opening ceremony the Queen heard of the mountain people coming on horseback. She came to speak to them saying how she wished she had brought an old mackintosh with her so that she could ride with us on horseback over the mountains.

The story of life on the mountain gains a little more with each interview not to mention looking at some of the old photographs. If you have stories of the old days in Tywi please contact **Tom Jones on 01970 880361**.

DID THEY GET DANGER MONEY?

Training camps and Trawsfynydd seem to go hand in hand since Roman times. The Romans had their training grounds at Tomen y Mur 'Heriri Mons' from the first century AD onwards. Here they practised with the ballista, an ancient military engine used in throwing large stones at the enemy. Then in 1903 the army came to Bryn Golau, and Cwm

gain was used as a live ammunition artillery range. 'e was a great upheaval at this time for the local ers. Every morning, from about seven, until eight at : they had to move while the bombardment was in ress. This went on for about two years. Then the army ed to Rhiw Goch and all the farmers involved were ı notice to leave their farms permanently.

ı about the early 1960's the Forestry Commission took rol of the land, with the intention of planting, but for drawback. The whole area was riddled with live ance of every shape and size! The land was wet so it :o be ploughed before planting. The solution was simple ›ur-plated cabs on the bulldozer to tow the plough.

now in the process of finding out who were these in armour? Are they are still about? I would like to rd their time during this exercise, which must have to say the least not very pleasant!

ı have stories about the armoured ploughs or these ; in Trawsfynydd then please ring **Jones on 01766 831509**.

MES OF CHANGE IN CORRIS

:n you think of Aberllefenni you only think of the ries and the forests. At one time there were fifteen holdings and one farm in the Aberllefenni Estate. e were Bluemaris, Blue Cottage, Fferm, Islwyn, Show n, Glanrafon, two in Caecenau, Fronwen, Tanycoed, ıine, two at Garneddwen, Pandy and Bengrych. These holdings were only allowed to be farmed by the ıts during the summer months. The life was hard as e men had only the summer months to grow and er their hay. If the weather was bad then it could be ›ber by the time they finished gathering the hay, etimes even collecting it by candlelight. The whole e would assist with the hay. The men would cut it in norning before going to work and their families would ‹ it during the day. The men would come home from ‹ and continue to cut the grass with a scythe. This tion went back so far, it would take an Act of Parliament ıange it. The tenants had to wait until the Forestry ht the Estate and the tenant at the farm moved.

ıen worked in the forests during the war years. There the Land's Army but there were also girls who were oyed in the forestry. These women had to do the work as the men. They planted trees, cleared rides ire breaks and also had to cut down trees. Many of .and Army Girls were lodging in the area. One woman given a telling off when she was caught knitting in the weather shed during bad weather! It was these girls, edly, that started the fire at Penlan. This fire started on riday night in 1942 and spread over the mountain from n to Fronfelen. Fire engines from Birkenhead and ingham attended this fire and the Army was also :ed. The men in the forest were called to help, some ıg up to Penlan on their bicycles from Corris and told elp put the fire out. They were cutting down trees to e breaks and beating at it the fire with their coats.

Finally, after a very long week the fire was beaten. Then came the task of replanting.

The Camp at Ceinws was the main centre for the forestry. There were fourteen houses there, the main office and the roads department. There was a Church and a Village Hall where you could go to play billiards or whist, There was also a Library. The Garage was also based here, with three mechanics and an assistant. There was a playground for the children. This was the nerve centre of the Dyfi Forest. Every morning and every evening it would be so busy. One resident of Haulfryn remembers a Boys School from Birmingham being evacuated to here. This was a very happy community. Sadly today all the facilities have gone and only two families remain - one family having been there for over fifty years.

There are so many more fascinating stories. If you have memories or photographs which you would like to be displayed and kept for prosperity in the Institute at Corris, please ring me, **Meinir Coleman, on 01654 761624**, and I will be very pleased to call.

FOREST HOLDINGS IN PENNAL

Many interesting stories of life in and around Pennal before, during, and after the establishment of Dyfi Forest during the 1940s and 50s, are being recorded. Some of these may be unknown to the wider Pennal community and will be important in helping future generations understand how their community once was and how it came to be as it is now, both socially and geographically.

For instance Mr Morgan of Tywyll Nodwydd, the first farm to be bought by the Forestry Commission in the Pennal area, remembers moving there as a boy while much of the preparation and planting work was still taking place. He remembers the first trees being planted by the Land Army Girls - trees that are still standing to this day, although there are plans to fell them later on this year.

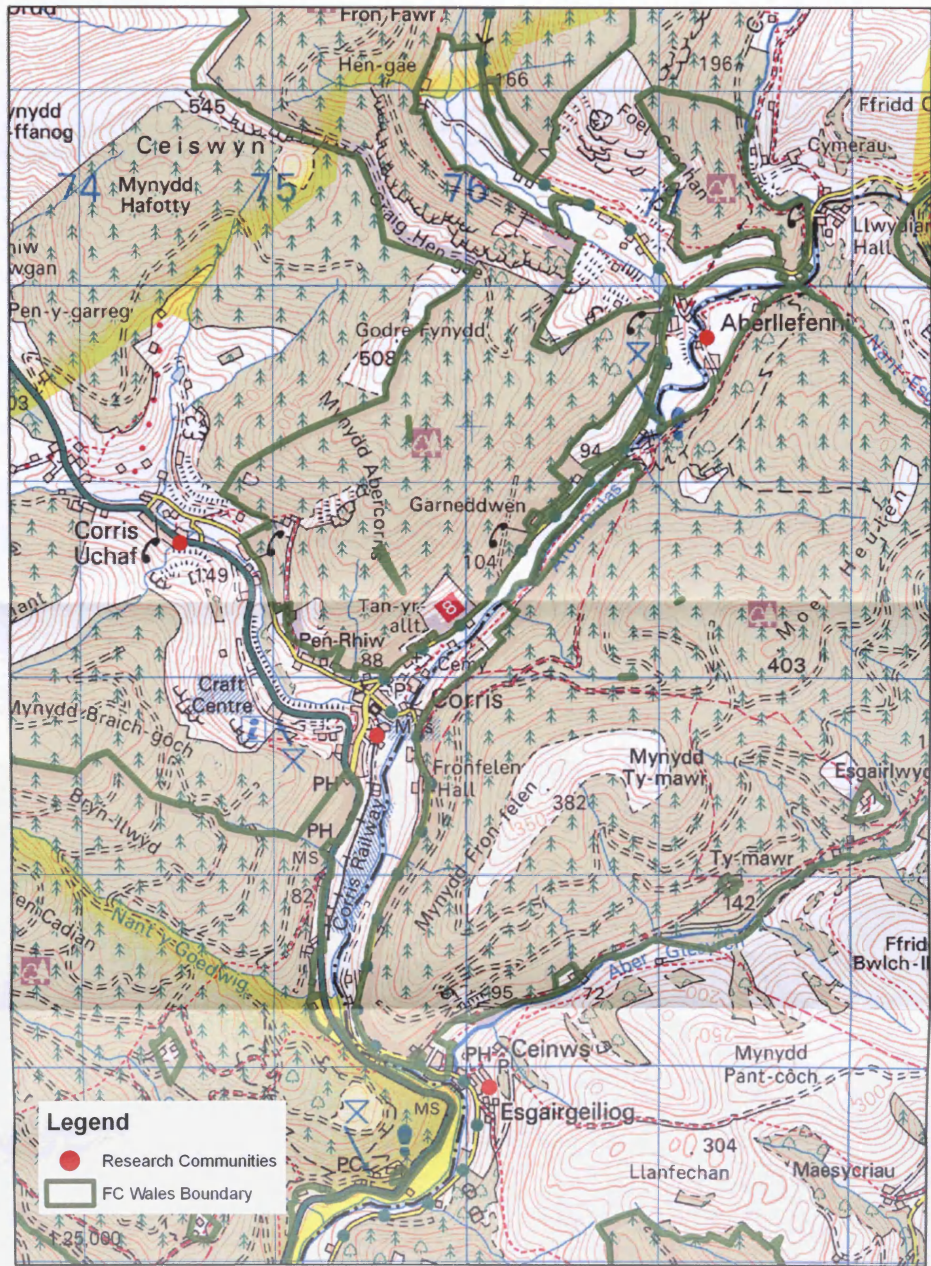
On Forestry holdings such as Tywyll Nodwydd men were expected to work for the Forestry Commission full time, with their rent for the holdings being deducted from their wages. The women were therefore responsible for the everyday running of the farms, except at busy times of the year such as the harvest, when the men were given special leave.

This system allowed many families, who might never otherwise have had the chance, to go into farming, and many tenants ended up buying their farms from the Commission. If you have stories of the old days in the Pennal area of Dyfi forest please contact
Nick Fenwick on 01654 702832.

Community Co-ordinator
Contract in Newborough
Unfortunately Mair Davies, our community co-ordinator in Newborough, is no longer able to continue with the contract owing to personal reasons. We are therefore seeking someone to take over this role. If you are interested please telephone the project manager, **Caroline Earwood, on 01691 671808**.

shed by: Forest Enterprise, Bwlch Nant yr Arian, Ponterwyd, Aberystwyth. SY23 3AD Tel: 01970 890500

Map showing Selected Research Communities in Dyfi Forest



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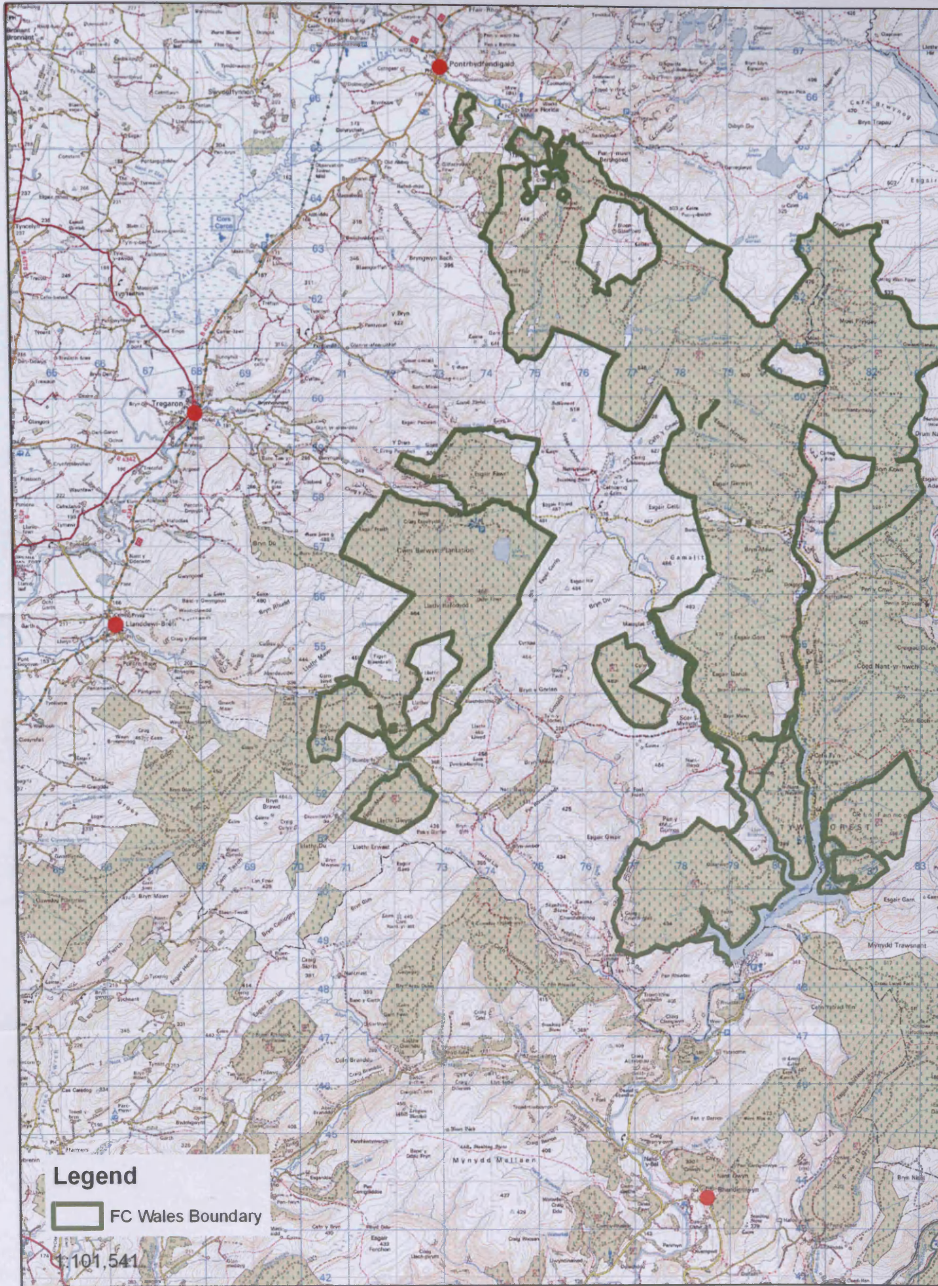
Map showing Selected Research Communities in Tywi Forest



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Appendix 9 - Case Study Interview Schedule

1. To begin, could you tell me a little about your own background?
2. Do you have any direct connection with the forest?
3. Could you tell me a little about the area you live in?
4. What do you like about living in area?
5. Is there anything you don't like about living in the area?
6. Do you think that the forest has played a key role in defining the character of the area?
7. What is your recollection of the early development of the forest during the late 1950s?
8. How did the Forestry Commission go about acquiring the land during the late 1950s?
9. Were the local communities involved in any discussions concerning the establishment of the forest?
10. Did the early establishment of the forest cause any problems within the area?
11. Can you tell me a little about the character of the area and the condition of the land before the forest was planted?
12. Were there any instances of local farms, physical buildings, settlements or natural features being purchased / cleared by the Forestry Commission to make way for the planting?
13. If there was, what was the biggest influence on local landowners and tenant farmers' decisions to sell their farms to the Forestry Commission?
14. How did the forest and the Forestry Commission itself play a part in community life?
15. Did it bring any tensions / problems into the area?
16. What was the background of the people who were employed by the Forestry Commission to work in the forest?
17. What was the main language of the forestry workforce?
18. What was the nature of your working relationship with major landowners in the area?
19. What was the nature of your working relationship with the FC and can you describe what it was like to work for / work with the FC / work as a FC tenant?
20. What benefits, if any, did the forestry bring to the area?
21. Would you say that the initial development of the forestry and its associated activities had any negative effect on the character of the surrounding communities?
22. What would you have changed about the forest in the early days of its development?

23. Moving from the early development of the forest to the present day, can you pick up on any changes in terms of the physical character of the forest itself, the way it was and is currently managed and regulated and the way it has been developed in recent years?

24. Who do you think owns the forest?

25. What use do you make of the forest now, if anything?

26. Do you think that the forest has any scenic value?

27. The Forestry Commission has claimed that it has changed the main focus of its work from an emphasis on timber production towards greater social and environmental objectives in recent years. Have you noticed anything like that?

28. Would you say that the area's relationship with the forest has changed as a result of this? How does it differ from the previous relationship between the community and the forest in the first half of the twentieth century?

29. How do you feel the forest is currently being managed and developed?

30. Do you ever see anyone from the FC working in the area?

31. In what way does the forest currently play a part in community life?

32. What benefits does the forest bring to the local community?

33. Are there any organised community activities that focus on the forest?

34. Are there any problems within the area that are seen to be associated with the forest?

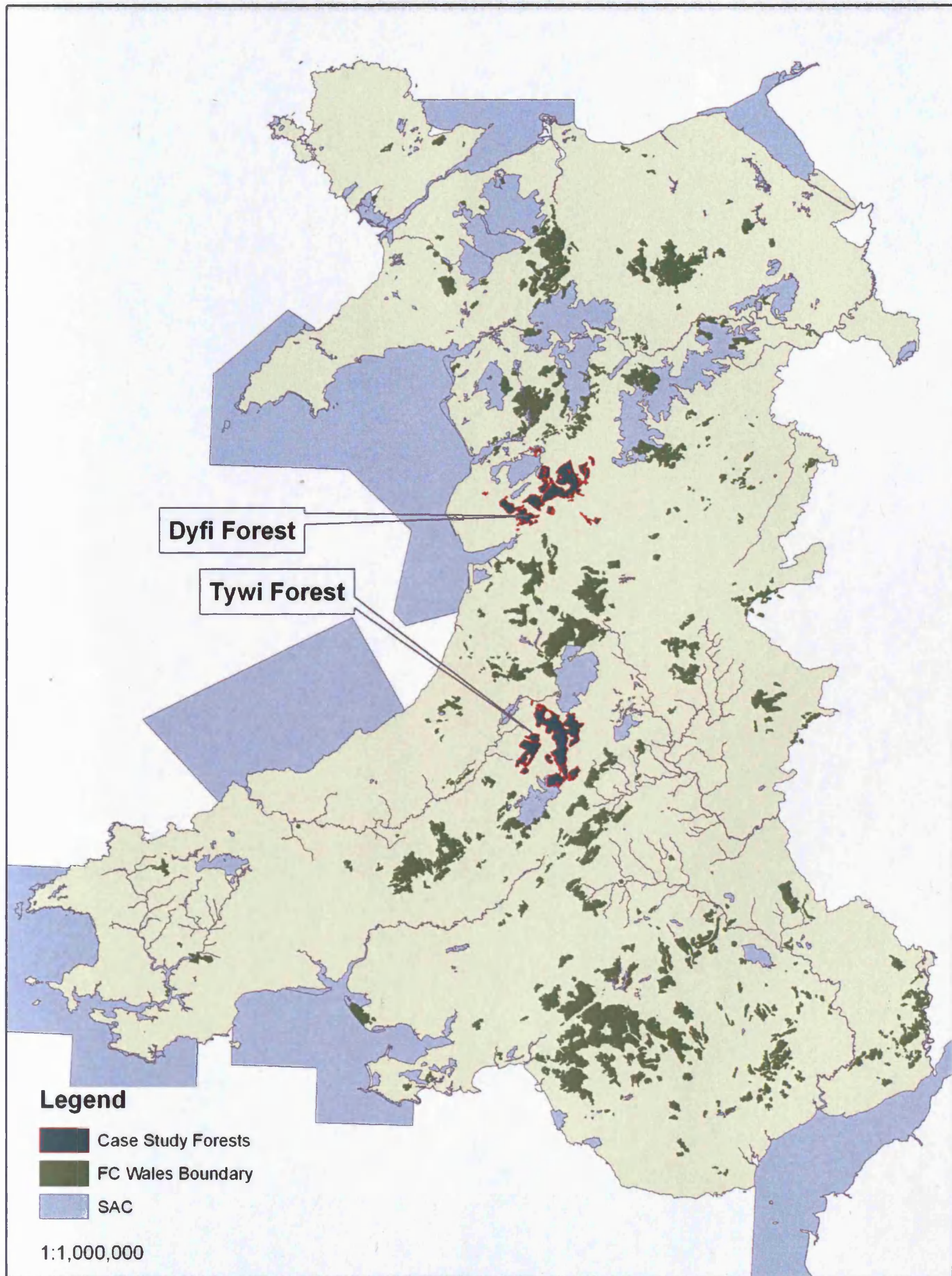
35. What specific role, if any, does the local community play in issues concerning the management and regulation of the forest?

36. Do you think that the community should be more involved in issues concerning the management and regulation of the forest?

37. Do you have any further observations on the present and future development of the forest?

Appendix 10

Map showing Forestry Commision Wales Plantations and designated Special Areas of Conservation (SAC)



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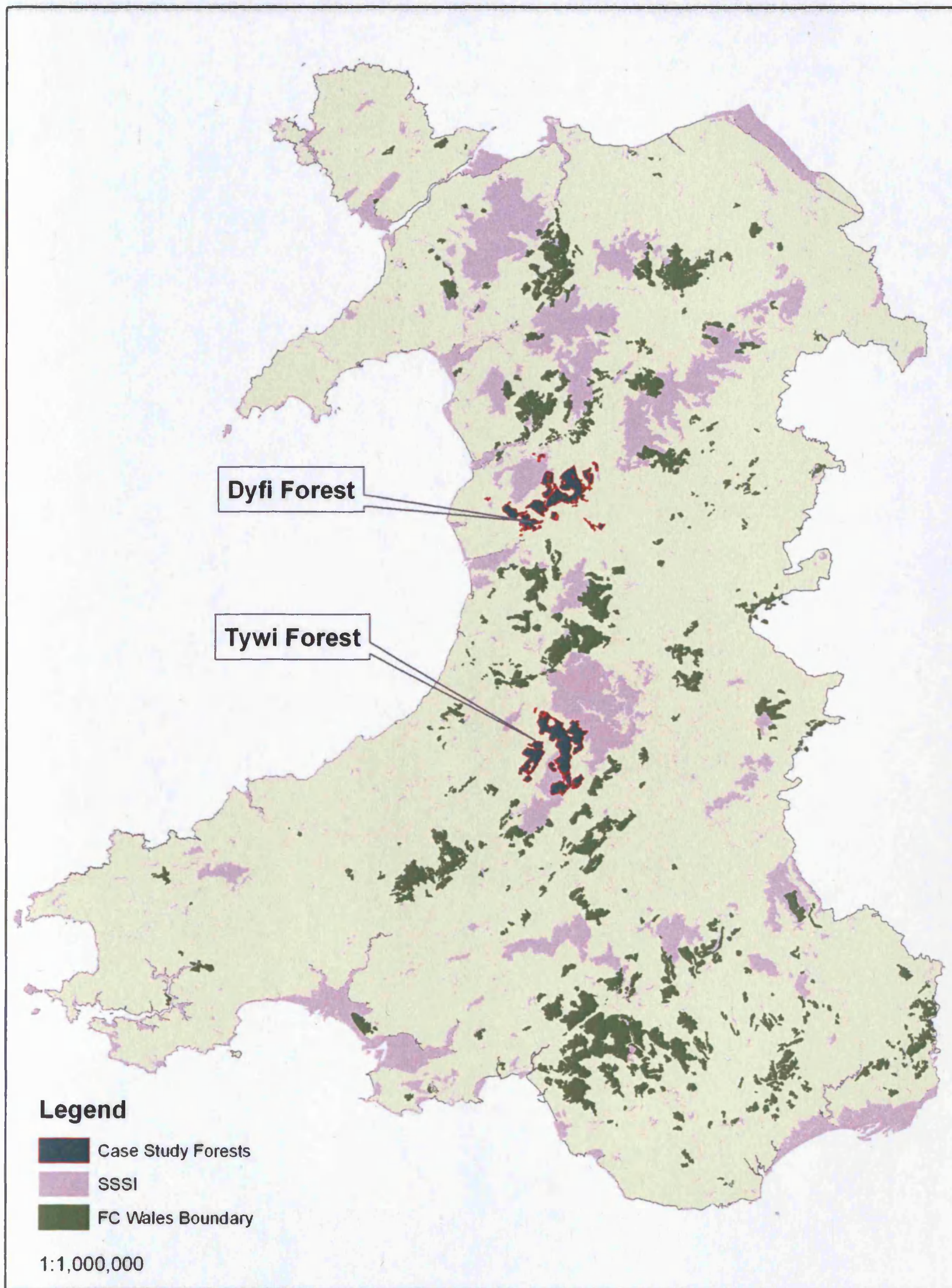
Appendix 11

Map showing Forestry Commision Wales Plantations and designated Sites of Special Scientific Interest (SSSI)



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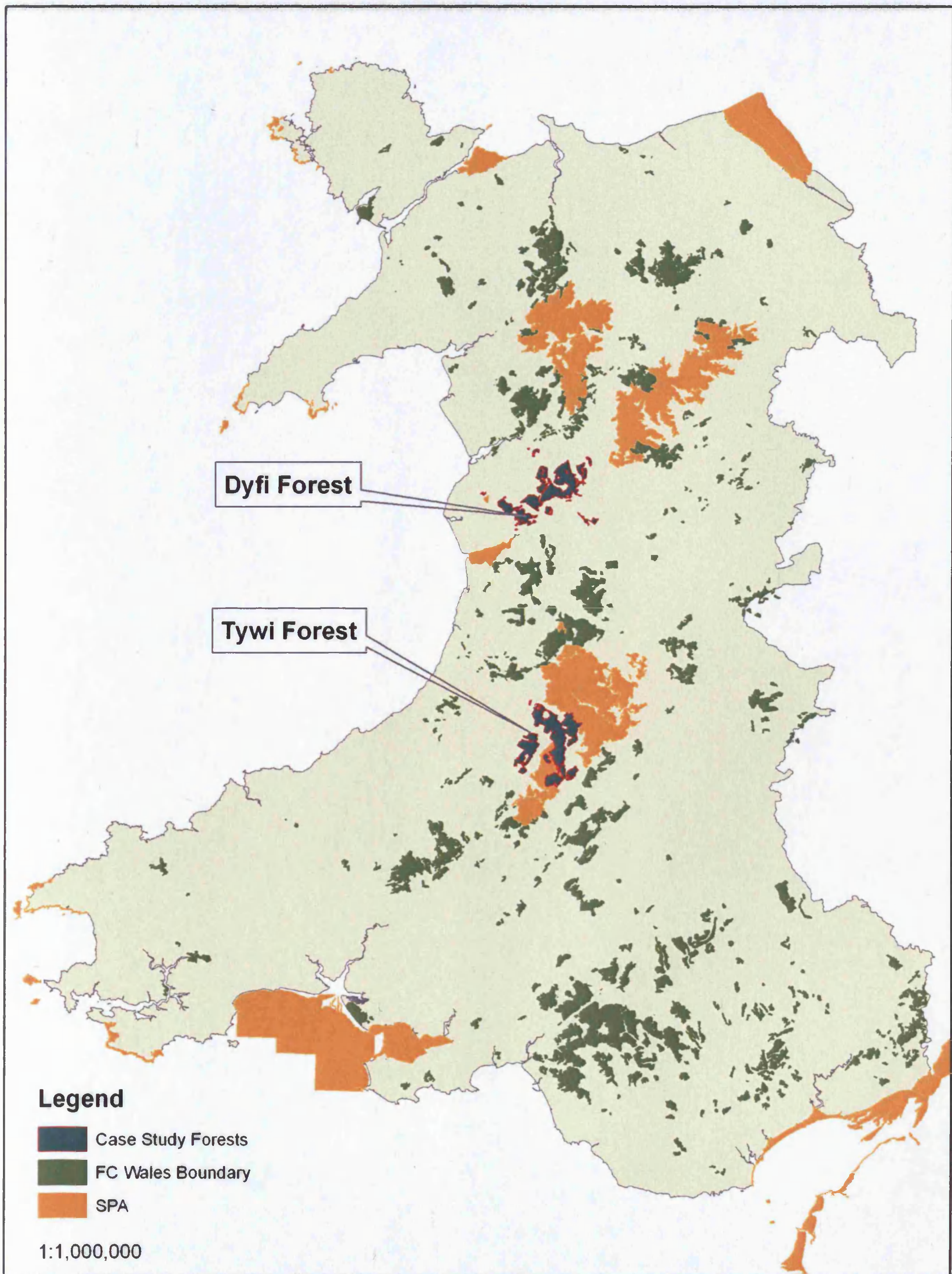
Appendix 12

Map showing Forestry Commision Wales Plantations and designated Special Protection Areas (SPA)



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