

Forestry in a Changing Landscape

Building Professionalism in the British Forestry Sector

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Document 5

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Abstract

The institutions of Forestry in Great Britain are in flux. The Forestry Commission, the state forest service that has been the dominant presence in British forestry for almost a century, no longer operates in Wales and its future in England and Scotland is uncertain.

The paper explores the internal and external socio-political environment of the forestry profession in Britain. It asks how contemporary society understands forestry, how this influences the profession and how, in turn, this understanding changes as forestry practice develops. From the perspective of the professional body for forestry, the Institute of Chartered Foresters, the paper also explores how the profession might maintain and enhance the voice of its members as decisions are made that will set the course of forestry for many years.

The forestry sector traditionally has relied on the Forestry Commission to represent it and seems poorly placed to speak for itself. The Institute has neither the resources nor a mandate from its members to occupy the territory left vacant as the Forestry Commission diminishes. Also, the profession has an adaptive culture, better fitted to dealing with incremental change than to radical upheaval. Nevertheless foresters are trusted by the public. Their professional status combined with this strong reputation gives the profession a legitimating role in decision-making and standard-setting in forestry and a mandate to participate more actively in the development of the political and institutional frameworks for the sector.

Whilst 70% of professional foresters and arboriculturalists work in the private sector the Government will continue to be the most influential stakeholder in forestry. This is largely because of its regulatory power and its grant-aid schemes. However, ministers and officials see forestry as an environmental activity and give precedence to the views of environmental NGOs over those of the forestry profession. This does not necessarily reflect the way that society thinks about forests. Cultural associations, enjoyment of amenities such as recreation and landscape together with tacit concerns over the stewardship of nature contribute to a complex perspective on forests, trees and woodlands among the wider public.

Within the profession there is a diversity of opinion over the role of foresters and different understandings of professional identity and norms. An argument is made that the professional identity of foresters is in part formed through the routines and the agency they derive from their work, and varies according to location and the nature of their tasks. Since the balance of these tasks is strongly influenced by geography there is likely to be a steady divergence in the construction of professional identity in the four countries of the UK. This presents a challenge for the profession in its role as the only remaining UK-wide forestry institution other than Forest Research, a Government research agency.

The paper suggests that external change will be accompanied by increasing internal complexity within the professional association. The challenge for the professional body, therefore, is to remain engaged with this increasingly diverse membership whilst continuing to project a professional voice as the sector reshapes itself.

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Chapter 1: Introduction

1.1 Background to the Study

The study takes place at a time when the institutional landscape for forestry in the UK is in flux. As a consequence of devolution in the UK the Forestry Commission (referred to from here-on as 'The Commission'), which has played a dominant role in the sector for almost 100 years, has gradually lost its position as a Government department acting across Great Britain. In 2012 its Welsh operations were merged into a Welsh Assembly Government agency and in England its status and structure are under review with likelihood of significant change following intense political interest during 2011. Participants in the study forecast similar changes in Scotland.

The two core questions addressed in this paper ask (a) how do contemporary understandings of forestry in society impact on the forestry profession, and in turn how do professional perspectives influence such understandings and (b) how can the forestry profession maintain or enhance its position at a time of upheaval? Strategic questions are to do with the future role of the foresters' professional body and the internal and external constraints on the profession that influence its capacity to adapt to change.

The professional body for forestry and arboriculture, the Institute of Chartered Foresters (ICF), has the task of promoting professionalism in the sector. However the research indicated a diverse understanding among its members of the roles of the professional forester and arboriculturalist. This divergence appears to be increasing as institutional change progresses. The study also considers, therefore, how the Institute can maintain its mandate as the profession diversifies and suggests that legitimacy will stem from continuing development of the profession's systems of governance.

The idea for this study arose following public and official responses in 2011 to Government proposals to dispose of some of the Commission's forests in England. Following adverse public reaction that included an online petition of over 600,000 signatures¹ the Government established a panel to advise it on the future of the public forests. The panel initially had not a single professionally trained forester among a membership that consisted mostly of individuals from environmental organisations and was chaired by an Anglican bishop. An interviewee for this research² reported that it was only after intense lobbying that the membership was extended to include a forester. Another interviewee reported that the Forestry Commission, the Government's

¹ Reported in the Tree Council newsletter, autumn 2012. The campaign was led by an online campaigning organisation called 38 Degrees.

² Whilst none of the interviewees asked to remain anonymous three of the four did ask for discretion in how they were associated with direct quotations.

statutory advisor on forestry, was excluded within Government from the initial discussions about the disposal and then subsequently from membership of the Panel.

The research indicated that the Government will continue to have a dominating influence on the economic and political environment for the sector. The profession needs, therefore, to understand why the Government overlooked the profession and turned to environmentalists for advice on how and for what purposes the public forests should be managed. What do the public and the Government think about forests? Does what they want from forests differ to what the profession is delivering and what are the implications for foresters and arboriculturalists?

One of the interviewees, the executive director of ICF, argued that a small institute that is dependent on members' subscriptions for its income cannot aspire to fill the vacuum left by a large Government body. However, the Forestry Commission that has traditionally been the *de-facto* voice of the sector is unlikely to persist in its current form. As one interviewee said: '*nanny is leaving and the kids are going to have to look after themselves.*'

1.2 The layout of this report

The introduction here briefly lays out some of the technical details relating to the writing and to the conduct of the research. These are developed in more detail later in the report.

Chapters 2 and 3 are scene-setting. Because this research concerns the relatively esoteric topic of forestry that will be unfamiliar to most potential readers of this text chapter 2 is an introduction to forestry itself and is in places descriptive. This chapter covers the forestry institutions that are the topic of the research. It looks at historic and contemporary processes that have shaped the forestry sector in the UK, explains the structure of the sector and introduces some key attributes of forestry as a business. The aim is not to give a complete picture of forestry but rather to give the reader some context for the narrative and theoretical writing in the following chapters.

Land use in the UK is highly regulated to the extent that one interviewee argued that many of the benefits from land, including forest land, have been appropriated by society without compensation to landowners. The practical outcome is a constraint on the ability of forest owners to generate income from services such as recreational access, water, carbon sequestration and landscape. In current parlance these are categorised as 'ecosystem services'. If forests and the outputs of forests are seen by society as public goods this directly impacts on their governance. These ideas are explored in chapter 3.

Following these introductory chapters, chapter 4 explains the research questions and the development of the conceptual model. This became almost a continual work in progress throughout

the period of the study with both the research questions and the conceptual model changing as the research progressed. The research questions initially were framed around governance so the conceptual model had a particular focus on stakeholders and legitimacy. As the study progressed issues relating to agency came more to the fore so that the final version of the conceptual model, which did not emerge until the research was well underway, was concerned in addition with the way that professional identity is developed and how this identity influences the way that professionals recognise and understand the concerns of non-professionals.

Chapter 5 covers the research method, setting out the data sources and how they were managed. It also covers how the different types of information were compiled. It gives illustrations of the coding of texts and discusses why the particular method of analysis was chosen.

Chapter 6, titled as the literature review, builds on extensive reviews undertaken for documents 2, 3 and 4 in the DBA. The review was actually maintained throughout the writing of the report to explore ideas as they arose during the research. Because of this it does not, other than through the underlying research questions, have a single unifying theme and the reader might feel that it flows a little erratically. It begins by addressing issues that arose in the first interviews but then, following ideas from the subsequent research, it develops into a review on professional culture and identity and the epistemologies that derive from processes of identity formation. It concludes with a further refinement to the conceptual model.

Chapter 7 is an account of what the research revealed in respect of the questions identified in chapter 5 and a discussion of the implications for the Institute. The research yielded a very large amount of information. Much of this is of interest to the Institute but is not directly relevant to the questions in Chapter 5. A summary of the research findings is given at Appendix 6.

1.3 Writing Style

I have followed Fisher's (2010: 316 – 327) guidance on style though I differ slightly in the way that quotes are managed; short quotes are included in the main text – Fisher suggests that this should apply when they are less than a line in length – longer quotes are indented and italicised. My approach has been to include quotes when indentation would break up the flow of the main text.

The text follows normal academic practice in business studies and is written largely in the third person. However, there are some minor deviations to this practice - particularly where I draw on my own experience as an actor in some of changes in question and use the first person.

1.4 The Research

This is a stand-alone study. It is the culmination of a series of four projects, undertaken for the degree of DBA at Nottingham Business School, that have looked at how contemporary society relates to the natural world and at the governance of environmental policy.

This research draws upon six resources:

- A series of four interviews with key figures chosen for their insight into the processes of change currently operating in GB;
- Qualitative data, not previously analysed, from 125 participants in a survey undertaken for Document 4 in the DBA. The questionnaire was designed with Document 5 in mind to yield qualitative information in addition to the quantitative data reported on previously;
- The outcomes from a national conference organised as part of this project. The conference explored the current drivers of change in forestry and how different players in the forestry and its related sectors of arboriculture, wood processing and wood retailing understood and were reacting to them. Speakers were leading figures from the UK, Europe and Canada.
- A workshop organised by the Committee for which I have responsibility in the Institute of Chartered Foresters. It was attended by the UK universities teaching forestry to degree level. University College Dublin also attended.
- Discussions with individuals about institutional change in the sector and,
- The personal experience of the researcher who for many years was a policy official in the Forestry Commission.

The research questions are set out in more detail in Ch. 4 and the research method in Ch. 5.

1.5 Ethics

Whilst the ethical rules that applied at Nottingham Business School have evolved since the research began it is the University's practice to apply to research the ethical rules that are in force when it begins. This research is also covered by additional ethical constraints. During most of the period of study for the DBA I was the departmental head of profession for social science in the Forestry Commission. The research complies with the Commission's ethical statement for social research³ and with the Government Social Research (GSR) service's ethical protocols. These were judged at the time by staff in the School to be equivalent to or to exceed the requirements of NTU for such research. The project was assessed using the GSR ethical checklist, described at [Appendix 2](#). Three issues were flagged as 'amber':

³ The FC standards are derived from those of the British Market Research Association (BMRA), now integrated into MRS.

1. A commitment was made to provide participants with a summary of the research and findings and;
2. A number of interviewees were public servants. As Ministers are currently taking advice on forestry arrangements in England it was judged to be important, therefore, that interviewees should not be inappropriately linked to opinions and commentary quoted in the report.
3. Where interviews were recorded verbatim transcriptions were made. One participant was reluctant to be recorded or to be quoted by name.

The first concern will be addressed after submission of this dissertation (a) by direct correspondence with all participants giving them a summary of the research and (b) by the submission of papers to the technical press covering the sector.

To meet the second and third concerns I have attempted to avoid direct attribution of opinions and comments that would be inappropriate to serving civil servants. Participants were given the opportunity to read and comment on the text before it was finalised for coding.

1.6 Epistemology

The research here was undertaken and data was analysed essentially from a weak constructionist⁴ perspective; in particular in the reviewed literature 'weak' constructionist authors were predominant in sociology, social geography, political science and business studies. In land-use studies such as agriculture and forestry authors appear to be less concerned about epistemological issues. In rural studies, in particular, many authors base their analysis on concepts from economics, albeit often with a Marxian slant. Although essentially realist, there is an active debate in this research community on the fit between current rural policy and the needs of society today.

A more detailed commentary on the epistemological position adopted during the study is given in appendix 5.

1.7 Research Method

The research follows Glaser & Strauss's (1967) classic grounded-theory approach where the starting point is to understand that there is, or might be, a researchable problem and the theoretical standpoint and understanding of the problem is developed as the research proceeds. This approach is reflected in the way that literature was accessed, where a series of literature reviews was undertaken to explore key concepts as they emerged. The research method is discussed in detail in

⁴ From Piaget where the *'cognitive structures that shape our world evolve through the interaction of environment and subject'* (Oxford Dictionary of Sociology, 1998)

chapter 5. The method has implications for the structure of the study and report because research findings are used to refine and adapt the research questions as the study proceeds.

Discussion of the research findings occurs throughout the text and is not confined to chapter 7. This is because grounded theory involves a process of coding, memo writing and theoretical writing as the research progresses. The theoretical writing in this document takes place in the body of this text and is not confined to the research method and analysis sections. The method involves interplay between the reading of the literature and the emergence of concepts and ideas as the research proceeds. As an example, figure 18 is an attempt to bring ideas from the interviews and survey on the professional culture in forestry together with concepts from the literature on identity formation. The research method is covered in detail in Chapter 5.

1.8 Glossary

The literature review for this study drew on a number of academic disciplines. The terminology, therefore, comes from different traditions and is open to different interpretations. A short glossary covering how key concepts were defined for this study is given at Appendix 1 below. Technical terms are explained in footnotes as they arise. For the most part I have relied on the *Oxford Dictionary of Sociology* (ODS) for social-science terminology. (ed. Marshall, 1998)

Chapter 2: An Introduction to UK Forestry and Arboriculture

The aim of this chapter is to put the research into context, to illustrate the nature and scope of contemporary forestry and arboriculture in the UK and explain how it is changing. Later in this document an argument is made that professional identity is formed in part from the agency that individuals have in the workplace – from their daily routines and the scope of their decision-making and actions. In forestry these are often influenced by or are specific to location, leading potentially to geographical differences in the way that individuals see their profession and build their professional identity.

The nature of the forest resource differs between the three countries in GB, giving rise to different mixes of objectives and management activities. If professional identity is influenced in part from actions undertaken in a professional role then perhaps, as the UK-wide perspective diminishes and the three countries start to develop their own policies and trajectories, this will be accompanied by changes in the way that the forestry profession is construed in each country both by its practitioners and by wider stakeholders. This introduction illustrates the range of activities undertaken by managers and professionals in the forestry sector. It concludes with an explanation of the institutions that represent the sector and the forestry profession and how these are currently in flux.

In any discussion of forestry in the UK it is difficult to distinguish between national policy and the Forestry Commission's corporate policies and strategies. This is partly because the scale of the Commission's operations, which cover 5% of the land area of Great Britain, and the resources it has available relative to other forestry interests mean that it is the main source of innovation in forestry practice. Also, because the Commission is part of Government it adapts its practice to comply with the regulatory constraints upon the sector, so its corporate strategies can be expected to reflect Government policy.

In fact the two are separate. The divergence between UK forestry policy and FC corporate policy (or that of its successors) is likely to become more evident as the three countries in GB develop their own approaches to forestry, which became a devolved subject in the 1997 act. Whilst the purpose of the state forest service (or services) is to deliver forestry policy the way that it does so is determined largely by organisational strategies which are likely to diverge as a consequence of devolution

2.1 The Development of Contemporary Forestry Objectives

Forestry is the practice of forest management; traditionally its focus has been to manage extensive areas of woodland for timber production. There is a well-developed international forest policy

process in which the UK is active and most countries have forestry policies though these, as in the UK, can often be implicit rather than set out in formal text.

Arboriculture is concerned with the management of individual and small groups of trees and with trees in urban and amenity areas such as streets, parks and gardens. There are no national or international policy processes specific to arboriculture though most local authorities have policies and statements concerning woodlands and trees in their statutory plans and also have tree and woodland strategies. However, many of the services to which arboriculture contributes, for example landscape quality or urban greening, are covered by national and international policy processes.

Table 1: International Comparisons of Forest Cover

	Forest area: ha m	Total land area: ha m	Forest as % of land area
United Kingdom	3	24	12
Finland	22	30	73
France	16	55	29
Germany	11	35	32
Italy	9	29	31
Spain	18	50	36
Sweden	28	41	69
Other EU	49	154	32
Total EU-27	157	419	37
Russian Federation	809	1,638	49
Total Europe	1,005	2,215	45

Source: Forest Statistics (2012)

The UK is one of the least wooded countries in Europe and has been so for many centuries. Table 1 illustrates how the UK compares with European countries. The figures are relevant here because throughout this research participants commented on the lack of a ‘woodland culture’ in Britain, many of them attributing this to the historically small forest area in the UK. This issue is revisited later in this paper. The historic difference to European norms means that one cannot assume that society in Europe and society in Britain relates similarly to woodland, or that British forestry policy automatically aligns with that of the EU countries. However, Sangster (2006) noted that a number of surveys in different countries indicated that cultural differences in perceptions of forests were surprisingly slight, and that people in the UK do seem to hold very similar views to those of people in Europe. Supporting this finding Rametsteiner (1999), from a review of opinion surveys on forestry undertaken at different times in a number of European counties, suggested that urban consumerism significantly influences society’s perspective on forests, and that this is a pan-European culture.

In respect of forestry as a body of practice it is possible to make a case that there is to some extent a global world-view of forestry. Sangster (2006a) (2006b) drew on a number of authorities to suggest

that as a consequence of empire contemporary forestry practice in much of the world is based on German 18th C concepts of forestry as science. This theme of a professional forestry paradigm is developed further in this paper in the literature review.

Whilst pollen analysis shows that the landscape of post-glacial Britain was substantially wooded⁵ the Domesday Book inventory indicates that by the end of 11th C. woodland was about 15% of the land-area of post Anglo-Saxon or early Norman England (Smith 2003). By the start of the 20th C. woodland cover in the UK had fallen to about 5% (Smith). This was attributed by one interviewee for this research to competition for land from agriculture, competition that he considered still to be a determining factor in forestry policy-making.

The post-war expansion of forestry

The forest area was expanded to the current figure of 12% mostly in the second half of the 20th Century (Pringle 1994, Foot 2010) following the introduction of the 1947 forestry policy that called for expansion of forestry in the uplands. The 20th Century expansion of forestry arguably has been the second most significant planned change of land-use in England after the Parliamentary Enclosures of the 18th and early 19th centuries⁶. Figure 1 shows how the forest area in GB increased, note that in Wales and Scotland the expansion was greater in area and in speed than in England⁷. The new forests were established in the uplands where land was cheap and the large areas necessary for industrial-scale production were available. Specialist acquisition officers were employed to amalgamate and consolidate landholdings. For illustration, Kielder Forest in Northumbria is one of the largest of these forests. Planted on grouse moorlands between the 1930s and 1970s, today it extends to over 650 sq. km. Planting on this scale required the development of new techniques and the deployment of a large workforce. The largest forests such as Kielder had their own forest villages and technical training schools.

⁵ The longevity of pollen varies by species so the pollen records tend to over-represent species with long-lasting pollen and also include mostly wind-pollinated, rather than insect-pollinated, species whose pollen is widely dispersed. It is difficult to estimate the extent of post-glacial woodland but most authorities suggest a figure of around 70% of woodland cover except on bogs and exposed hilltops.

⁶ Turner (1986) estimates the Tudor and Parliamentary enclosures at 2.8m ha whilst new forestry is of the order of 0.7m ha in England or 1.8m ha across the UK.

⁷ At the same time that forestry was being expanded the Departments of Agriculture in the four countries were subsidising the removal of woodlands and hedges on farms as part of a programme to improve agricultural efficiency. The head of statistics in FC (pers. comm. estimated that without this the area of woodland today would be 30% to 50% greater.)

Figure 1: Land Area under Forestry, 1924 to 1999. Source: Forestry Commission Statistics



The change was contested, initially on aesthetic grounds⁸ and subsequently by nature conservation interests⁹. Figure 2 illustrates how new planting could change the upland landscape. However, surveys¹⁰ today indicate that today the forests are valued by visitors and by local people; Bell (2002) is one of a number of writers who argue that the contest was about change to familiar landscapes rather than the intrinsic aesthetics of the new landscapes. Bell suggests that the forests today, many now established for over 70 years, are the ‘new familiar’ and that the public reaction against forest sales was a replay of the earlier controversy (pers. comm.) but with no distinction made between the new and old forests. The forestry sector adapted to the controversy by introducing changes to forestry practice. In both public and private forestry professional landscape designers were employed. Figure 3 illustrates a forest in Argyll where felling has been designed to fit into the landscape and felling ages staggered. The intention is that the forest should look more natural than when it was first planted as a single-species, single-aged band of trees across the hillside.

⁸ Public opposition to the Commission’s planting in Grasmere, close to where Wordsworth had lived, in the Lake District in the 1930s brought planting to a halt and was an important factor in the development of British environmentalism. In 1982 as a young forester I was given the unenviable task of completing the planting, which again led to intense controversy.

⁹ However, by the early 1930s the great botanist Arthur Tansley was already complaining of the damage to the habitats and landscape of the Lake District by early Forestry Commission planting.

¹⁰ The Commission runs a regular survey on the public’s opinion of forestry, mostly through inserting questions into commercial omnibus household surveys.



Figure 2: Upland planting in SE Wales dating from the 1960s. The impact of the new planting on familiar landscapes led to contest between foresters and local people. Picture the scene without the covering of trees.

The late 20th C controversy over afforestation¹¹ led to radical changes to the fiscal support allowed for the industry¹² and this in turn led to change in the structure of forestry. The cost of direct labour could no longer, as previously, be offset against profits elsewhere so that forestry today is largely undertaken by contractors rather than, as previously, by directly employed labour whose wages were offset against sporting and farming income. New planting decreased significantly. In 1988 there were twelve forestry specialists employed by environmental NGOs opposed to extensive upland planting in the UK (Turner, private communication); this had fallen to just one by 1995 – because they thought the problem was solved (Turner). Indeed, that remaining NGO specialist was employed not to oppose new planting but rather to promote environmental objectives in the management of the new forests. The Director General of the Forestry Commission, contributing to this research, was quite clear that the forestry sector had fought and lost a battle with the environmental NGOs and that this had led to a long period of re-assessment from which contemporary forestry policy emerged. Again, these points are relevant because the role of E-NGOs in forestry policy was a recurring theme in the research, with many participants seeing them as the dominant voice.

¹¹New planting on ground not previously covered by trees.

¹² The 1988 budget ended important tax breaks and brought to an end the practice of offsetting forestry expenses against profits from enterprises in the same ownership.



Figure 3: A mature 20th C forest in Argyll. Originally a continuous belt of even-aged Sitka spruce that followed the upper contour the forest was landscaped once the trees were large enough to fell for timber. The lighter areas are replanted forest; the dark areas are from the initial planting.

The emergence of multiple objectives for forestry and the increasing emphasis on services

Early 20th century forestry had a strongly production-orientated perspective. This was evident in the 1919 Forestry Act that established the Forestry Commission, effectively the Department for Forestry in GB and since its inception the largest occupier of forests¹³ in the UK. The Commission was established¹⁴ to build up a strategic reserve of timber (Cabinet Office 1918, Pringle 1994) for use in times of war¹⁵ and to promote rural development. In the late 1960s, however, in response to environmental concerns mentioned above and also increasing demands for leisure facilities, this emphasis on timber production began to change so that the 1967 Forestry Act and the 1968 Countryside Act required the public forests to be managed for multiple objectives including wildlife, landscape and recreation. Miller¹⁶ (1997) shows that the private sector followed suit, incentivised by a new grant scheme. Foot (2010) recounts how the legislation was followed by rapid development of informal recreation so that the Commission quickly became the largest provider of outdoor recreation in the UK. However, there was continuing ambiguity in what the Government expected from its forests. The 1973 Public Expenditure White Paper (H.M. Treasury, 1973) illustrates this in its account, set out below, of the five-year forecast of expenditure on forestry where the first sentence is entirely about timber production that seems somehow to be justified by the second, which is about recreation. The year previously the Treasury (H. M. Treasury, 1972) had undertaken a cost-benefit analysis of forestry reporting that simply to secure the production of timber was insufficient reason for a public forest estate.

¹³ The Crown forests, notably the New Forest and Forest of Dean, were placed under FC management.

¹⁴ The proposal for the establishment of the Commission came from a parliamentary committee established to advise on reconstruction after the Great War. Foot (2010) suggests that the committee (Cab. Off. 1918) also intended forestry to contribute to rebuilding the rural economy.

¹⁵ The submarine blockade led to a shortage of imported pit props during the 1st WW, threatening the supply of coal to fuel the navy's warships and taking up shipping capacity to import a bulky commodity. Almost a century earlier a remarkably similar concern led to extensive oak planting in royal forests during the Napoleonic wars in order to secure a supply of timber for shipbuilding. In both cases the need for the timber had passed by the time the trees came into production.

¹⁶ Miller gives an account of how the grant schemes changed over time to give increasing emphasis to 'non-timber benefits'.

'This item (a five-year expenditure plan for forestry) covers the activities of the Forestry Commission in promoting in Great Britain the interests of forestry, the establishment and maintenance of adequate reserves of growing trees and the production and supply of timber. Recreational facilities will be improved by the construction of 4 major and 25 minor information centres, the development of 40 sites for tents, caravans and holiday cabins and the provision of 200 picnic places with associated car parking facilities and forest trails and walks.' (Excerpt from the 1973 forecast of public expenditure, par 15: 29)

By 2000 a leading group of environmental economists (Willis *et. al.*, 2000) reporting to the Forestry Commission was in no doubt that: ... *'Non-market benefits are the most important output of much of the forested estate'* (p. vi par. 18). This view was echoed by CJC Consulting (2003) who, in a report to the Treasury, wrote: *'the main case for Government intervention in forestry is to deliver public goods in the form of urban and peri-urban amenity, recreation and biodiversity'* (p. vi). Note that these statements not only recognise the importance of service-based outcomes from forestry but also introduce a theme of spatial differentiation where non-market benefits are important over much, but not all, of the forest estate. The Commission's first attempt to put ideas of spatial differentiation into practice was in the introduction in 1992 of a 'community woodlands supplement'. This paid additional grant to landowners close to urban areas who were willing to allow public access. An economic evaluation of the supplement was made by Crabtree *et. al.* (2001) who reported that it had been effective, that it was good value in terms of the benefits delivered and was popular with the communities who benefited from it. Following this the Commission, which previously had applied a universal system of grant-aid, moved rapidly towards targeted grants to deliver an extended range of benefits. These included species and habitat management and most recently renewable energy and productive management of farm woodlands. The use of targeted grants is now a routine element in forestry policy as a means of incentivising particular outcomes.

Today forest production and forest services such as recreation take place side by side with few problems. To illustrate this I offer my own experience. In the 1980s I took over the management of the Forestry Commission's estates extending to about 5,000 ha of mostly mature forests in the West Midlands - one of the most densely populated areas of Europe with perhaps 4 million people living within a half-hour's drive. Although the forests were heavily used for recreation, mostly by local people, they also generated a considerable income from timber sales. Rather than complaining about productive forestry and timber harvesting it was welcomed by the local populace, who often commented that they liked to see the forests actively managed and employing local people. The single issue that generated the greatest public concern and took up the greatest amount of management time was managing the herd of 1,200 fallow deer that lived wild in the forests.

Forestry is an extensive activity and, like all extensive landowners, forest owners face problems with antisocial and criminal activities. In some areas, notably in the Welsh Valleys but also in NE England and elsewhere, abuse of the forest has become institutionalised within communities. Kitchen (2005) gives an account from the Welsh Valleys of a breakdown in relationships between the local community and forest staff. The underlying cause was a tradition, implicitly condoned by the wider community, of arson by boys. Several hundred fires can be recorded in a forest each year in SE Wales. Older boys used the forests for dumping and setting fire to stolen cars, with scenes such as that in Figure 4 occurring almost daily. Kitchen suggested that there is an historical undercurrent in the Valleys where the Commission is seen as an institutional successor to detested absentee landlords and mine-owners.



Figure 4: A stolen car dumped and set alight in the Welsh Valleys



Figure 5: Urban forestry - an urban green area in NW England overlying a waste tip, probably contaminated.

2.2 Forestry and Social Policy

Until the emergence of urban and urban-fringe forestry initiatives in the early 1990s the social value of forests was attributed almost completely to their importance for outdoor recreation and to some extent to their landscape value. The countryside visitor survey that was run collaboratively by outdoor agencies across the UK¹⁷ indicated that woodlands at that time were receiving upwards of 10 million day visits each year (Gillam¹⁸, private comm.) However, Scott *et. al.* (1997) in a study of forest recreation in both public and private forests in Great Britain noted that although the Forestry Commission managed the largest outdoor recreation business in the UK, indeed one of the largest in Europe if measured by numbers of visitors, it did not employ a single manager with a qualification in recreation management. Scott saw this as a cultural failing where the foresters were unwilling to cede control to other professions. This has changed and today specialists in recreation, in consultation and community development can be found working regionally, in policy teams in the

¹⁷ This long-running longitudinal dataset was discontinued shortly after devolution.

¹⁸ Head of Statistics, Forestry Commission.

national offices and in the larger private forestry companies and landed estates. Stanley (2006) saw such structural changes as a pragmatic adaptation to new funding opportunities. As direct grant-aid and subsidies diminished the sector's dependency on competitively-awarded external funding increased, for example LIFE¹⁹ programmes and in urban areas regeneration funding, it was necessary to demonstrate new skills. Weldon and Tabbush (2004) saw the 1997 Labour Government's requirement for Departments to follow policies of social inclusion as another factor that led the sector to develop social programmes in partnership with third-sector organisations, local authorities and Government Departments.

Sangster (1994b) gave an account of how initiatives in urban and community forestry led to the adoption of social objectives in broader forest management. Most recently the increasing interest in ecosystem services has required the forestry sector to understand how its activities impact on society; again this might be seen largely as a pragmatic response incentivised by the possibility of new funding. In response to these new demands the Forestry Commission's Forest Research Agency between 1997 and 2010 developed a capacity for social research and advice with a research team of 13 postdoctoral social scientists²⁰.

2.3 The Emergence of Urban Forestry

Forestry has been used since the 1950s as a means of regenerating land damaged by industry. The Welsh Valleys, Potteries and Midlands Coalfields were major regeneration projects. This led in the 1980s to the emergence of urban forestry as a sub-discipline within forestry, sitting between arboriculture and traditional forestry. The 1967 Forestry Act makes no distinction between forestry in a rural or urban setting and the Forestry Commission's capabilities in applied research and tree establishment in difficult conditions made it an attractive partner for regional development bodies, the Department of Transport and the Department of Environment in their regeneration programmes. Perry and Handley (2000) in research for the Forestry Commission suggested that over 20,000ha of derelict land in England would be suitable for planting. Even apparently green sites in urban areas can be problematic for built development. Figure 5 illustrates a site where grass has been planted over a disused tip. Expensive to develop for commercial or residential use, such a site can be converted to woodland at relatively little expense.

Figure 6 illustrates a rather extreme site prior to regeneration – in this case a gravel quarry dating from before the 1947 planning act²¹. Compared to hard development Forestry is a relatively

¹⁹ The EU's financial instrument supporting environmental and nature conservation projects. <http://ec.europa.eu/environment/life/>

²⁰ One of the largest social research teams in any single forestry institute in the EU.

²¹ Prior to 1947 there was no requirement for developers to restore redundant mines and quarries.

inexpensive²² means of bringing completed landfill sites and areas of contaminated land into productive use. A further factor in the emergence of urban forestry was that in the 1980s the degradation of landscapes on the periphery of urban conurbations had become a concern to the Department of the Environment and to the Countryside Commission. A particular issue was that planning authorities were facing difficulty in defending the status of greenbelts²³. Sangster (1994a) gave an account of how this led to the development of a number of forestry initiatives where the aim was to improve urban-fringe landscapes and engage local people in the planning of the new forest areas. Sangster (1992) had previously explained how such developments took forestry for the first time into the domains of urban planning and industrial policy and subsequently (Sangster 1994b) into community development.



Figure 6: Urban Forestry – A gravel quarry in the English Midlands prior to restoration to woodland. Note that natural regeneration to woodland is underway but if left to its own devices the site would be unsafe. Picture courtesy of Forest Research.

2.4 Forestry as an Industry²⁴

Although the Commission is the biggest single player, occupying about 28% of the total woodland area, the sector is in fact dominated by many thousand woodland owners with landholdings ranging from 0.25²⁵ ha to several thousand hectares. There is no register of woodland ownership so statistics

²² There is a considerable literature on reclaiming damaged land to forestry. One of the seminal texts is Moffat & Mcneill (1994).

²³ In 1987 the chief planning officer for Staffordshire told me that the main reason why the county was supporting a recent forestry initiative, the Forest of Mercia, was because they thought it might help prevent the coalescence of the West Midlands conurbation with Cannock and other towns in the South of the County.

²⁴ I was the national Land-Use Planning Officer in the Forestry Commission for a number of years and draw on my own experience. Figures have been verified on the Commission's [forest statistics website](#).

²⁵ 0.25ha (or 1/2 acre when empirical measure was used) has historically been the minimum area recorded in forest and woodland inventories.

on woodland ownership are difficult to gather. Glynn *et. al.* (2012) undertook in England a survey of woodland owners for the Independent Panel on Forestry. They reported that other than the Forestry Commission there are between 50,000 and 80,000 individual woodland owners who between them own 1,083,000 hectares, or 83.5% of England’s woodland area. With the other three countries an educated estimate might be that there are around 100,000 forest²⁶ owners in the UK.

A handful of large forest management companies provide services to landowners at a national level and these compete with a few hundred smaller regional and local companies and consultants. Significant areas of woodland are owned and managed by environmental and conservation bodies such as Wildlife Trusts, RSPB, John Muir Trust and the National Trust; each of whom manages their woods for their own particular objectives. The single largest woodland charity is the Woodland Trust, which is a membership organisation with a focus on native woodland. A large proportion of woodland is on farms where FC England (2006) reports that farm woodland is unlikely to receive professional management.

Woodland occupies about 13%²⁷ of the land area of the UK²⁸. Just under half²⁹ is broadleaved³⁰ and the remainder³¹ is coniferous forest planted largely for timber. Although conifers and broadleaves occupy similar areas broadleaved woodland produces only 0.5m tonnes of the 10m tonnes UK annual timber harvest³². The productive resource, therefore, is the conifer forest – most of which was planted in 20th c.

Table 2: Central Government and Private Ownership of Woodland in the UK, thousand hectares

	<i>FC/FS</i>	<i>Other</i> ³³	<i>% FC-FS / Other</i>
England	214	1,081	17 / 83
Wales	117	187	38 / 62
Scotland	481	912	35 / 65
Northern Ireland	62	44	59 / 41
UK	874	2,223	28 / 72

Source: Forestry Statistics (2012) FC = Forestry Commission, FS = Forest Service NI

²⁶ The UK uses the FAO definition of forest as ‘Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use.’

²⁷ 3.08m ha, The European average is about 35% so relative to Europe the UK is poorly wooded.

²⁸ Just under 22m ha

²⁹ 1.471m ha

³⁰ The type of tree that loses its leaves in autumn and makes up most hedgerows and farm woodlands in the lowlands.

³¹ 1.61 m ha

³² Timber delivered to a processor. A large, unrecorded volume of timber is also produced from informal felling on farms, utilities, urban areas etc.

³³ Other includes public-sector woodland not managed by the two forest services, for example MoD and local authorities.

The ownership structure varies between the four countries. Table 2 shows the areas managed by the two forestry services – the Forestry Commission and Forest Service NI – compared with ‘other’ ownership.

The proportion of woodland owned by central Government in England is around half that in Scotland and Wales and a third of that in NI. A behavioural difference between the two categories of ownership, public and private, is that the forest services are committed to maintain supplies to industry and do not cut back on output when market prices fall, partly because their use of long-term contracts means they are not fully exposed to price fluctuations. Private landowners, however, are price-sensitive and do reduce felling when timber prices fall with implications for processors who rely on constant supply to maintain the utilisation of capital-intensive plant.

In addition to ownership structure there are also significant differences in the make-up and extent of the forest resource in the four countries of the UK. Table 3 from Forest Statistics (2012) shows that broadleaves predominate in England whilst in Scotland and Northern Ireland conifers are the main component. Scotland has almost two-thirds of the UK conifer resource. Note also that in Scotland and Wales forestry occupies a significantly larger proportion of the land area than in England or NI.

Table 3: Woodland Area in the Four Countries of the UK, thousand hectares

	<i>Conifers</i>	<i>Broadleaves</i>	<i>Total Woodland</i>	<i>% Land Area</i>
<i>England</i>	334	961	1,295	9.9
<i>Wales</i>	151	153	304	14.6
<i>Scotland</i>	1,058	335	1,392	17.6
<i>Northern Ireland</i>	66	39	105	7.4
UK	1,610	1,487	3,097	12.7

Sources: Forestry Commission Statistics / Official Statistics

Domestic (UK) self-sufficiency in wood products varies across the product range, with perhaps over 75% self-sufficiency in sawn timber but less than 30% in paper and board products. For all products, even un-processed round logs, substitution with imported materials is possible at almost all stages in the supply chain so that domestic producers and processors are in direct competition with suppliers in a global market and have little pricing power (Sangster 2002a)

This exposure to global markets also means that growers face currency risk since timber is traded traditionally in US Dollars globally. This contrasts with agriculture where the currency risk faced by European farmers, and by British farmers when Euro/GBP rates are stable, is offset to some extent by the fact that single-farm payments are denominated in Euros (DEFRA, 2010a: p. iii). For wood

processors currency risk can be allayed to some extent through derivatives, for example through futures and for some commodities options. The CME³⁴ quotes options for lumber, paper pulp, wood chips and sawdust and also some semi-manufactured products such as plywood and OSB³⁵.

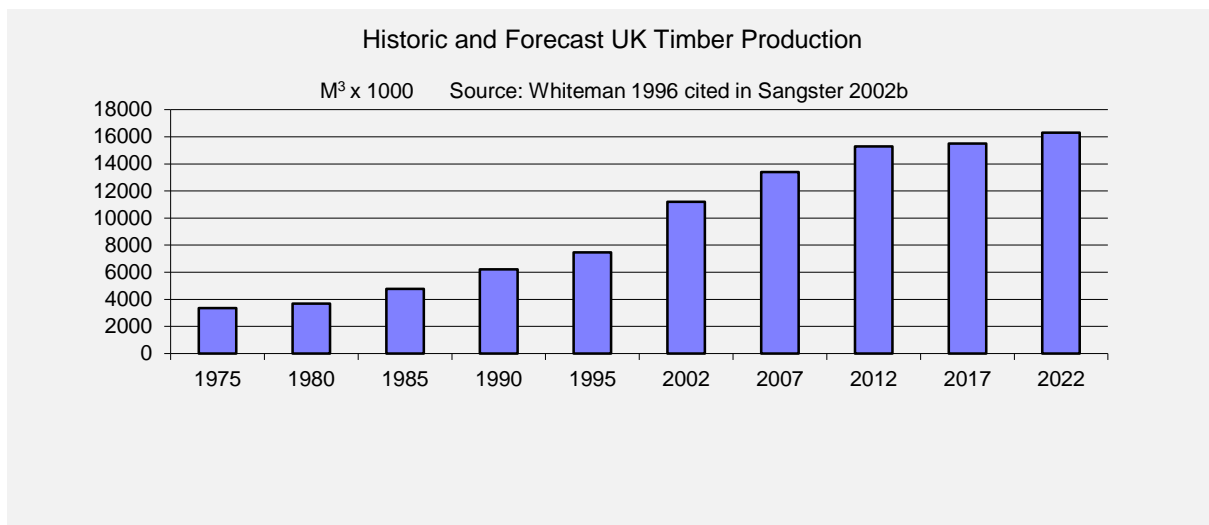


Figure 7: Historic and Forecast Timber Production

Margins are low and prices fluctuate³⁶. Domestic wood production from the post-war plantings is now levelling off after a period of rapid increase (Forestry Commission, 2012a) and the industry is close to maturity. Figure 11 shows historic and forecast timber production³⁷ that follows the growth and maturity phases of a classic s-shaped curve. Figure 12 shows³⁸ how unit prices for timber have fallen over time, where the red line is a trend line derived from a linear regression. The trend has been explained by the Forestry Commission economist as a reflection of the low pricing power of suppliers, where productivity gains in timber production are being appropriated by the purchasers (pers. com.).

This is not unique to forestry; London Economics (2004) reported that the producer price index in real terms for all agricultural products fell in the EU-15 area by 27% over the period 1990-2002 and by 33% in the United Kingdom. At the same time aggregate consumer prices and consumer retail food prices actually increased. Despite steadily rising productivity the contribution of agriculture to the overall economy in England has been on a long-term downward trend from 3% in 1973 to less than 1% in 1998 (Cabinet Office Strategy Unit, 1999: p. 38). A particular trend, relevant to discussion later in this paper about changing priorities in rural policy, has been a steady increase in service

³⁴ Chicago Mercantile Exchange (CME) <http://www.cmegroup.com/trading/agricultural/>

³⁵ Orientated Strand Board (OSB)

³⁶ DEFRA (2010) reported that farmers to date have fared relatively well during the current recession because the UK's currency fell against the Dollar and Euro. A number of forest managers and wood processors at the conference reported a similar effect in forestry and timber.

³⁷ Forecasts tend to exceed actual out-turns. Annual production over the past five years has varied around the 10m m³ mark.

³⁸ More recent figures (FC 2012) show a similar downward trend over a shorter 20 year period to the present. However, over the past ten years timber price indices have risen from an historical low by 37.6% possibly because a new market, renewable energy, has emerged and led to competition for supplies. Another factor is the effective devaluation of Sterling against the US dollar and the Euro in late 2008.

industries in rural areas where employment rose from 60% to 71% over the same period whilst at the same time employment in non-agricultural primary industries³⁹ fell from 2.5% to 1%. Sangster (2002b) analysing forestry data over a period of 20 years showed that trends in the price of forest products and in forestry employment closely mirror those in agriculture.

Timber supply is diffuse with many suppliers and no likelihood of consolidation⁴⁰. In wood processing the leading companies are following traditional strategies of consolidation and low unit costs based on scale. Processing is highly capital-intensive and is increasingly concentrated in large factories serving the industrial market, with very small sawmills serving local niche markets. Medium-sized processors face difficulty if they compete directly with the larger companies and are reducing in number.

The key message is that money is hard to make in forestry and that timber producers are supplying a basic, substitutable commodity into a mature market. Sangster (2002b) interviewed senior figures in the industry and reported that they saw monetisation of non-timber outputs as their only potential source of diversification⁴¹.

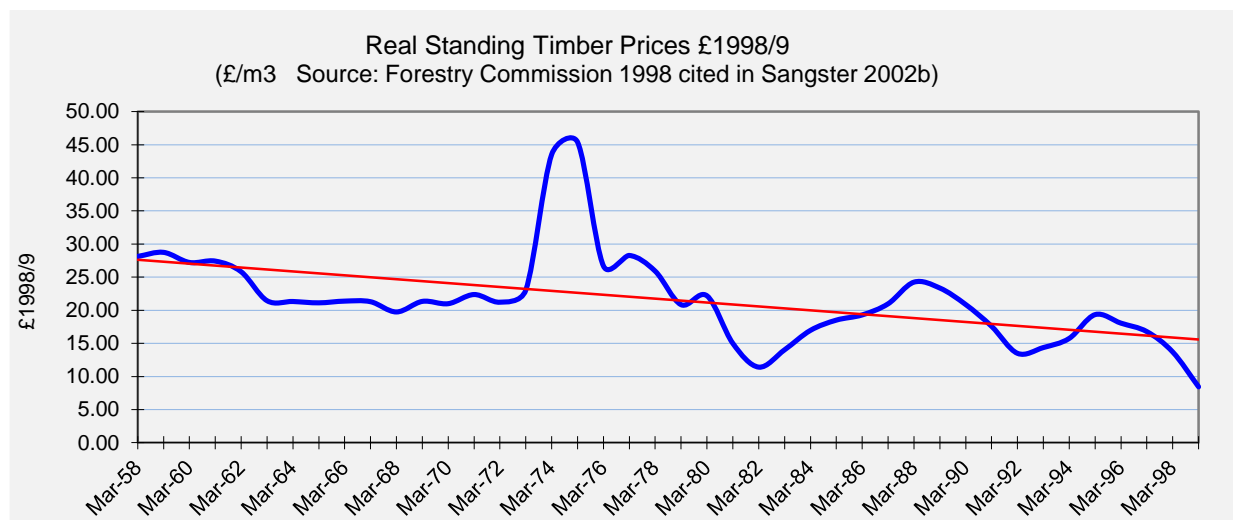


Figure 8: Real Standing Timber Prices £1998/9

Recently new markets have appeared in renewable energy, now recorded in the Forestry Commission’s annual statistics report (Forestry Commission, 2012b), where business models are based substantially around government subsidies delivered through differential pricing for energy from renewable sources. One interviewee reported that this was leading to greater competition for

³⁹ Primary industries are agriculture, fisheries, forestry, mining and quarrying, energy and water. Some authorities also include construction.

⁴⁰ The only credible consolidator would be the Commission, which is constrained by Government policy from lateral expansion (buying up privately owned forests) and by statute from vertical integration (processing and marketing its own timber).

⁴¹ They would probably add renewable energy and ecosystem services to the list if asked today.

raw materials and lifting producer prices. However, Lord Ridley (2012) recently argued that the UK target for energy production from wood will require 60 million tonnes of wood-fuel. This is almost five times more than the entire UK annual timber harvest, most of which is already contracted to other markets. So nearly all the wood fuel will be imported and prices in this market are likely, as with other wood products, to be set by global demand.

The Office of National Statistics (2007)⁴² from its annual business survey identifies 283 wood and timber businesses. Nationally, domestic forestry has little economic importance. An analysis of business returns by the Forestry Commission (2011) using SIC-(92)⁴³ categories indicates that forestry, excluding wood processing and paper⁴⁴, contributes just 0.04% of UK GDP. Average employment in 2010 was estimated by ONS⁴⁵ as 14,000 in forestry and 29,000 in primary⁴⁶ wood processing. Gross value added for the whole sector is estimated by FC Statistics (2012) at £1.7bn, with just 20% generated by forestry and the remaining 80% by primary wood processing. The value of imports of these products is three times greater than domestic production, with a value of just under £4.7bn.

This is not to say, however, that the value the public puts on forests or their political importance is proportional to their gross value added in the national accounts. Also the trade in wood products, including secondary manufacture, is very considerable. FC Statistics (2012) reported that the UK was the third largest net importer (imports less exports) of forest products in 2010, behind China and Japan.

The mental picture to carry forward when reading subsequent chapters in this paper is that, as the extensive conifer forests mature and new planting tails off, upland forestry under current business models is becoming almost like a utility. It is selling low-margin product into an industrial market. What differentiates even these 'industrial' forests from, say, mining, is (1) that they provide wide range of ecosystem services (for which they receive little cash income) (2) they have a peculiar symbolic and cultural significance and (3) timber production is a sustainable, carbon neutral activity and timber is itself a renewable product – the trees grow again⁴⁷.

In the lowlands the picture is different as in highly populated areas there are more opportunities to make money from services. Taking the New Forest in Southern England as an example; the forest is a

⁴² subsequently verified by additional surveys by the Commission

⁴³ Standard Industrial Classification (SIC), mainly category 02.02 in the 1992 series.

⁴⁴ These include processing of imported material so cannot easily be related to domestic wood supply.

⁴⁵ Office for National Statistics

⁴⁶ Converting round timber into wood products such as lumber and boards that are used to make other products. Secondary processing is production of manufactured products such as windows and furniture.

⁴⁷ According to one interviewee the renewability of timber is over-shadowed in the public's mind by the imagery of forest exploitation in the tropics – '*... children are taught more about the forests in the Amazon than those outside their back door!*)

major visitor destination in the UK, a Special Area of Conservation (SAC) and a nominated World Heritage Site so has much stronger public recognition than most lowland forests. However, even in the New Forest where income from commercial recreation exceeds that from timber production the income generated by the forest is only 2/3rd of expenditure, which is driven by intangibles and services, and the forest requires public subsidy. In effect the public subsidy is paying for ecosystem services in a public forest but such subsidy is not available for private forests. Note the low return on timber sales where the cost of restocking and managing the felled areas exceeds the surplus from harvesting.

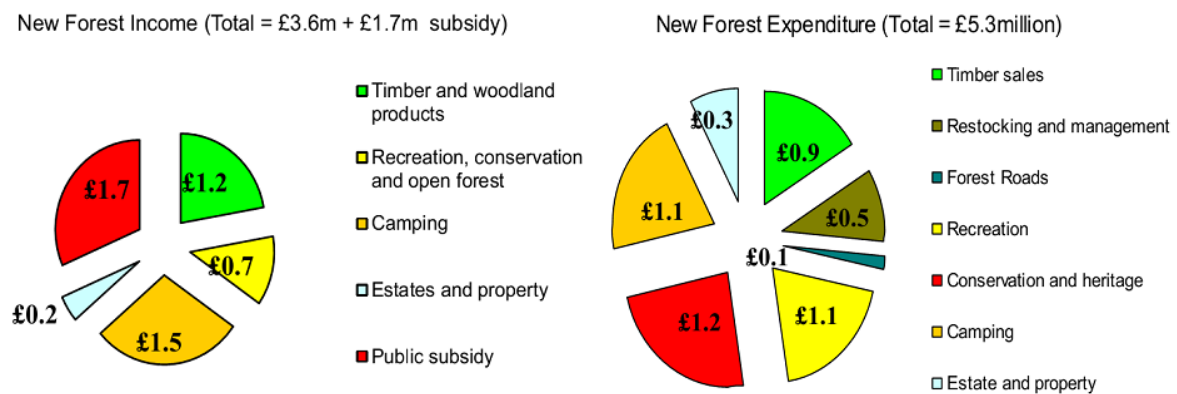


Figure 9: Income and expenditure in the New Forest (£m), Source New Forest Deputy Surveyor 2000⁴⁸

2.5 Arboriculture

If forestry, which is concerned with managing trees in groups, is a £300m industry research by Last, Professor of Forestry at Edinburgh University, in the late 1980s⁴⁹ indicated that arboriculture, which is about the management of individual trees such as in streets or parks, is probably ten or more times the size of forestry in terms of cash-flow. Much of this is spent by local authorities to manage urban trees and by utility companies and highways authorities.

The profession of Arboriculture differs to forestry in that training is largely through further education colleges awarding certificates and diplomas rather than universities awarding degrees. The majority of Arboricultural practitioners work as contractors undertaking on-site activities such as tree climbing and stump removal. Although highly skilled such work does not provide the experience necessary for an individual to match the range of competencies required to achieve chartered status.

⁴⁸ From an internal presentation to senior FC officials by the Land Use Planning Officer. Available from the author of this paper.

⁴⁹ I have been unable to find this reference, though I knew Professor Last well and was very familiar with his report, which was commissioned by the Department for the Environment. It seems not to have been converted to a digital document.

The policy interest in services from forests means that forestry in urban areas – ‘Urban Forestry’ – has an increasing profile. Many of the recent innovations in the forestry and arboriculture profession, such as advanced techniques for community participation, have come from arboriculture and urban forestry. A number of recent reports⁵⁰ to ICF’s Professional and Educational Standards committee indicate considerable scope to expand professional status in arboriculture.

2.6 Social Characteristics of the Forestry Sector Workforce

Later in this text there is a discussion on the governance of the profession and its access to a sufficiently wide range of experience and skills. The demographics of personnel in the forestry sector are noticeably skewed relative to wider UK society and it has been argued, without the support of research, on a number of occasions that this lack of diversity might impact on the culture of the profession (anon⁵¹, pers. comm.). Ambrose-Oji (2010) reported that in 2009 ‘... *the Commission employed only 21 staff of BAME⁵² origin, out of a total of 3,377. This represents a total of 0.6 of the workforce ... compared to 8% in the civil service nationally⁵³*’ (p. 4). However, she attributed part of this disparity to the fact that Commission offices are located in areas where the proportion of BAME people is low. An industry-wide survey by Tomlin (2001) reported that women comprised just 16% of professional foresters in Britain. She did not, however, identify examples of discrimination against women. Instead, making comparison with the construction and engineering sectors, she suggested that the industry’s unattractive image among young women led to low levels of recruitment. Similar analysis is not available for arboriculture but surveys of local authority tree officers, reported by Cowan (2009), indicate that women make up just 7% to 10% of the group. The number of disabled people working in the sector is not reported, or was not found, but anecdotal evidence indicates that it is very small. Similarly the proportion of people in forestry who might wish to be classified according to their sexuality or sexual orientation seems to be less than the wider population.

Recent research by ICF among young people who were in the process of deciding their university subject (Bogdanou and Starr, in press) indicated that young women did not think that forestry was an appealing subject, largely because of its perceived masculine culture. This reflected Tomlin’s findings. Tomlin also reported that women in forestry tend to gravitate towards areas related to social forestry, environment or planning rather than site management or harvesting.

In this study a number of respondents to the questionnaires highlighted this lack of diversity as a barrier to participation in forestry policy-making, with an underlying theme of exclusion of female

⁵⁰ I chair the committee. The reports arose through the work of a Knowledge Transfer Partnership with Cumbria University. At the time of writing a paper on this topic by Starr, C. and Bogdanou, T. had been accepted by the OU journal *Forestry* for publication in 2012 or 2013.

⁵¹ Diversity and Equality manager in the Forestry Commission.

⁵² Black, Asian and Minority Ethnic.

⁵³ Ambrose-Oji reported that BAME people constitute 7.9% of the UK population.

and minority voices. In respect of disability there is some evidence that the forestry sector has an over-simplified view of the needs of disabled people. Burns *et. al.* (2008) reported a tendency for forest managers to see 'disabled' as an homogenous categorisation that could be provided for just with wheelchair access. Very little effort was being made to encourage participation in decision-making by disabled people, even on issues such as the provision of facilities for disabled visitors.

2.7 Collective and Representative Bodies in the Forestry and Wood Sector

Three of the interviewees and a number of survey respondents considered the forestry sector to be without an effective or collective voice. They suggested that this is because it is diverse with many thousands of woodland owners managing their woods for their own particular objectives. The wood processing sector is also diverse, ranging from small proprietor-owned businesses to very large paper, board and sawmill plants often owned by multinational corporations. There are numerous local and regional organisations established to encourage some aspect of forest management – for example [Silvanus Trust](#) that aims to bring unmanaged woods into production in South-West England. There are also a number of trade associations. A previous Director of a now-defunct representative body for forest owners, interviewed informally for this study, described the sector as 'disputatious'. There are two long-established learned societies⁵⁴.

The main representative body for the sector is [CONFOR](#)⁵⁵, which includes landowners, processors and consultant organisations. It lists 22 partners on its website. One interviewee discussed in detail the existence of a lasting tension between forest owners, who want to sell wood at a high price, and processors who want cheap supplies. Yet both groups are represented by CONFOR. At the time of the study two major wood processors were in the process of withdrawing support from CONFOR. The interviewee also highlighted tensions even among processors where the pulp and paper, board⁵⁶ and sawmilling industries compete with each other for a finite wood supply⁵⁷ and all three industries lobby against the renewable energy sector, where energy from burning wood is [subsidised](#) (Department for Energy and Climate Change (DECC), 2012) by the Government.

Within Parliament there is an All-Party Parliamentary Group on Forestry whose purpose is: '*To address all aspects of forestry, from forest production to end use, pulp and paper making, wood and timber product and wood for energy generation.*' (The House, 2011: p. 24) The Group has a close relationship with CONFOR.

⁵⁴ The Royal Forestry Society of England and Wales and the Royal Scottish Forestry Society.

⁵⁵ Confederation of Forest Industries

⁵⁶ Chipboard, MDF, Orientated Strand Board (OSB)

⁵⁷ [Wood production forecasts](#) show that volume from public and private forests is levelling off and is set to fall slightly in coming years. One senior official responsible for forestry in Scotland told me in 2010: 'the cupboard is bare, everything we have is committed'.

Interviewees reported that the sector is not strongly represented and suggested that this is in part because of a proliferation of government-supported initiatives that do not join the representative bodies. Two interviewees reported that CONFOR is losing members who are withdrawing to save the cost of membership subscriptions.

2.8 The Forestry Profession in the United Kingdom

Unlike many professions, for example law or accountancy, the practice of forestry in the UK is unregulated and does not require the practitioner to have formal professional status, or indeed even to have a forestry qualification. There is, therefore, no over-riding commercial force that bestows competitive advantage on those with professional status. This contrasts with France and Germany and even Commonwealth countries. For example in British Columbia anyone who wants to practise professional forestry must be a member of the Association of BC Forest Professionals (ABCFP). (Association of BC Forest Professionals, 2012)

The professional body in the UK is the [Institute of Chartered Foresters](#). The Institute was established in 1926 as an Association and was awarded a Royal Charter in 1982. The Charter was recently extended to encompass arboriculture, bringing into scope a much larger group of practitioners, most of whom are not professionally qualified. Current membership is about 1300. However, membership of the Institute has been calculated to extend to only 30% or so of those who might qualify for chartered status⁵⁸.

If the profession cannot demonstrate leadership even among participants in its own sector then one might question its aspiration to be seen as the leading forestry voice by Government and external interests. In its own words the Institute ... *'regulates the standards of entry to forestry and arboriculture and offers professional qualifications to promote expertise in the tree and woodland management professions. ... (Its members) practice forestry, arboriculture and related disciplines in the private sector, central and local government, research councils and universities and colleges throughout England, Northern Ireland, Scotland and Wales.* (web page⁵⁹)

The Institute relies almost entirely on subscriptions to fund its activities; the Institute's Council, committees, examinations and regional activities are sustained by voluntary input from members. It has a staff of 6 in two locations. In 2005 falling membership coupled to rising overheads led the officers of ICF to recommend a merger of the Institute with the Royal Institute of Chartered Surveyors (RICS). The proposal was opposed and was defeated by a narrow margin in a poll of the members. Since then the finances of the Institute have recovered and membership has regained a

⁵⁸ Personal communication, ICF Professional Development Officer 2012.

⁵⁹ <http://www.charteredforesters.org/>

rising trend, but it remains one of the smallest professional institutes and vulnerable to predation – either through consolidation or by RICS picking off individual members⁶⁰.

The Foresters' Royal Charter

The granting of the charter allowed foresters to claim the status of a profession and to differentiate themselves from forest workers and technicians.

The objectives of the Institute of Chartered Foresters as set out in their charter are to:

- maintain and improve the standards of practice of forestry,
- advance, spread and promote all aspects of forestry and,
- encourage the study of forestry.

The expression “forestry” in the charter includes *‘all aspects of the science, economics, conservation, amenity and art of establishing, cultivating, protecting, managing, harvesting and marketing forests, woodlands, trees, timber and wood.’* This makes the Institute the chartered body for arboriculture⁶¹ and arguably for wood processing, an area where it is not currently active.

The charter then mandates the Institute to encourage education, hold examinations, award diplomas and behave generally in the manner one would expect from a learned and professional society.

2.9 Institutional Change in Forestry

The Forestry Commission has been the subject of a number of major reviews during its almost 100 year history. However, the driver for current changes was identified by interviewees as the 1997 devolution acts in which forestry became the responsibility of the four home legislatures, with Westminster retaining responsibility for English forestry, international policy and some cross-cutting issues such as plant health: ... *‘once devolution was passed the Commission’s days as a unified GB organisation were numbered’ (Interviewee).*

Figure 10, derived from briefing for the Independent Panel on Forestry (2011) illustrates the current roles and structure of the Forestry Commission in England. The public forests are managed by Forest Enterprise whilst the Forest Service is the regulator for the sector. A range of common services is provided by FC GB, which also has some cross-border functions. Forest Research provides research and advice for public and private forestry in the whole of the UK, including NI. Scotland currently has a similar structure.

⁶⁰ RICS in early 2013 offered Chartered Surveyor status to ICF members who transferred to them.

⁶¹ The practice of managing individual trees.

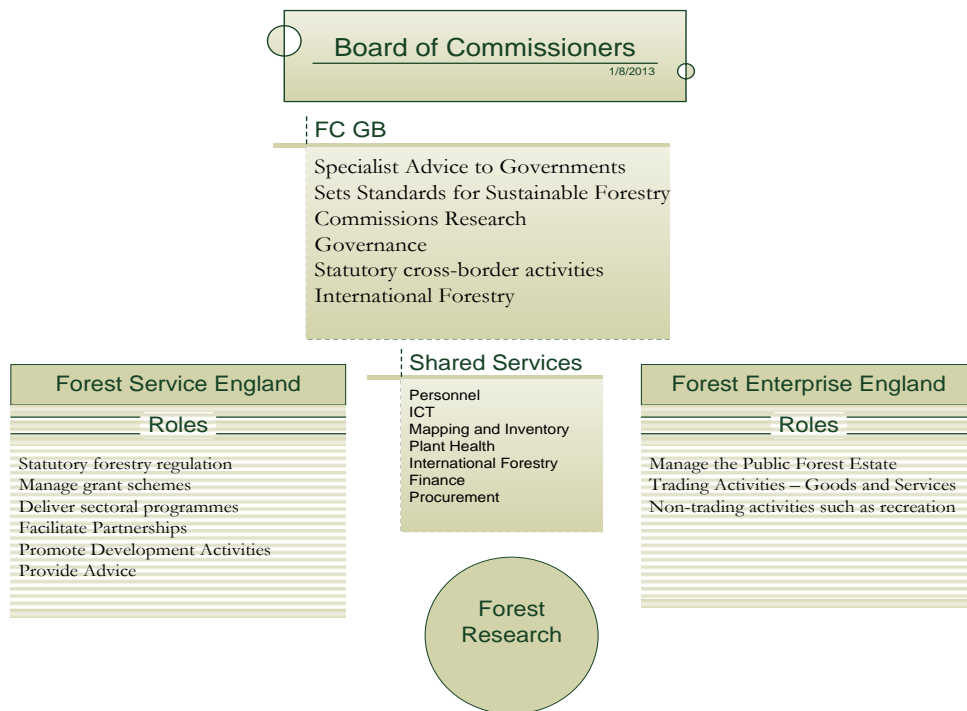


Figure 10: The Roles and Structure of the Forestry Commission in England 2011

From the interviews we can sketch a slightly different picture of the role of the Forestry commission in delivering forestry policy. All the interviewees and many of the respondents to the survey commented on the FC's increasing focus on its own affairs and its own estate to the neglect of the wider forestry sector that it is intended to represent.

As mentioned above, in 2011 the Welsh Government put forward a proposal to merge the Forestry Commission in Wales with the Countryside Council for Wales (CCW) and the Welsh operations of the Environment Agency (EA) into a Single Environmental Body. The proposal was passed into legislation in the summer of 2012 and signalled the end of the Commission as a GB body. The view of the Commission's DG (pers. comm.) was that the continuation of the Commission as a unified body operating now only in Scotland and England was unsustainable and it is simply a matter of time before it is broken up. Ironically the aim of the Welsh Government, as reported by one contributor to the study who is currently a Forestry Commissioner and was previously the Environment Minister in Wales, was to take greater control of the EA functions in Wales rather than change the arrangements for forestry:

'... the Commission is simply collateral damage; no-one is out to get us, in fact the Welsh Government has been pleased with the Commission. What they want to do is take control of EA⁶² in Wales away from England and a merged single body gives them the rationale to do

⁶² The Environment Agency

that.' (Jon Owen-Jones, previously Environment Minister for Wales, speaking at the ICF Conference 2012)

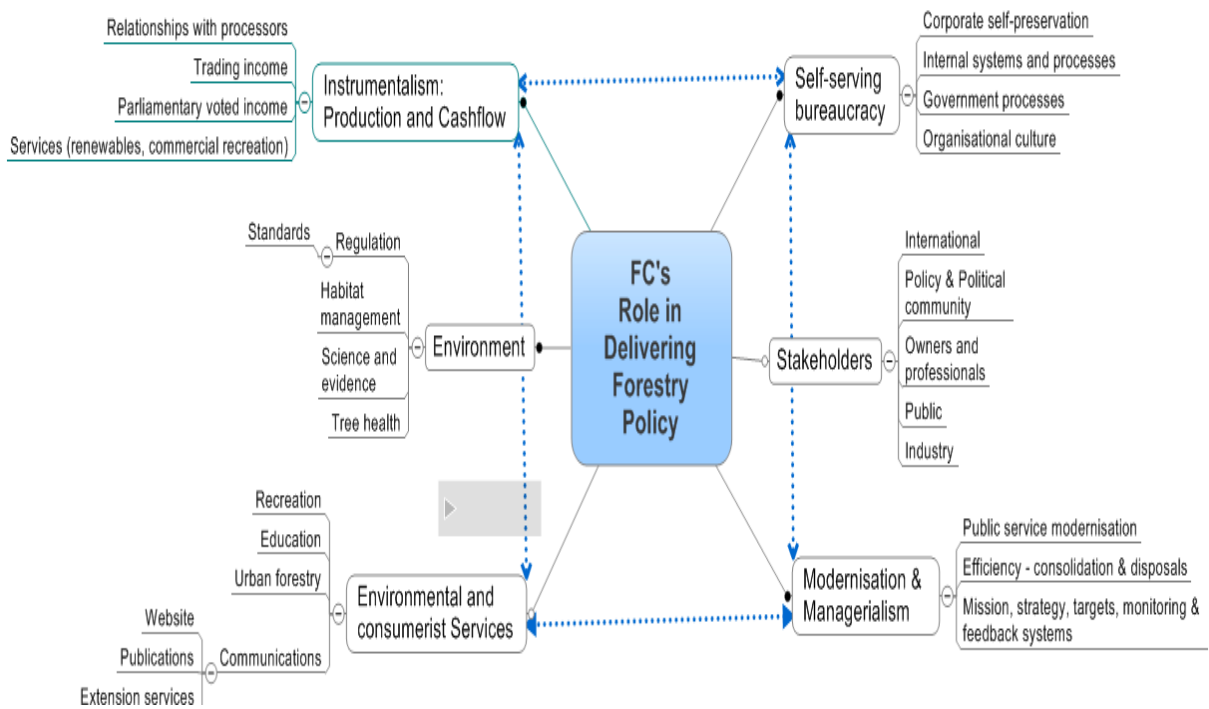


Figure 11: Poacher and Gamekeeper - FC's role in delivering Forestry Policy

Chapter 3: Forests as Quasi-Public Assets

3.1 Introduction

The public's reaction in 2011 to Government proposals to dispose of public forestry assets was not anticipated by Ministers or their officials. One interviewee had discussed this with the Secretary of State who said that she did not know and had not been advised that two previous attempts at privatising state forests, by the Governments of Margaret Thatcher and John Major, had also had to be abandoned because of adverse public reaction. This chapter is a brief exploration of the idea that forests have implicit value that is greater than indicated by their financial returns and that methods for assessing these values are at present under-developed. Most of the people who supported the campaign against the forest sales would not previously have been thought of as stakeholders in forestry. It appears to be that to understand the importance of forests to contemporary society one requires an understanding of the symbolic value of forests and also the values of non-traded outputs such as public access or wildlife. Whether such values can be captured by various economic techniques of monetisation is a question over which even economists argue – as was evident by the different approaches of the leading economists at participating in the conference organised for this research.

Several of the foresters participating in the research lamented their lack of success in capturing the value of non-traded forest goods and services, which they argued were treated as free goods by society and consequently returned little income to the sector. The emerging application of an 'Ecosystem Services'⁶³ approach to forestry, which seeks to monetise the value of these non-traded outputs, is explored below not only because several participants suggested that it would be an important influence in future forestry policy but also because it is these previously and currently non-traded services that have been used as the justification for state involvement in forestry.

3.2 Who Gets the Rent?

One interviewee discussed a particular characteristic of forestry: its income is generated almost entirely by productive activities such as timber harvesting but this is only a small part of the economic value of forests, much of which is not traded or monetised. In addition to Willis *et. al.* (2000) a number of studies supported by the Commission's economist show that recreation, biodiversity (Garrod and Willis, 1997), landscape and amenity (Willis *et. al.*, 2003) and ecosystem services (Valatin and Coull 2008) have a high economic value. At present, however, they do not generate cash for the owner. He suggested that society expects landowners to provide benefits but

⁶³ Natural England explains the term so: 'Resources and processes supplied by natural ecosystems are known as ecosystem services. These include products like food and clean drinking water as well as processes such as the decomposition of wastes and the control of flood water.' <http://www.naturalengland.org.uk/ourwork/research/ecosystemapproach.aspx> accessed April 2013.

does not want to pay for them. Policy-makers are concerned with maximising non-timber benefits and feel they can appropriate them without engaging with forest owners. This raises the question of whether forests are actually seen by society as public rather than private goods. If so, does this affect the general perception in society and also in Government of who are the stakeholders in forests?

This concept extends beyond forestry to include all rural land. In the UK land-use is constrained by designations that cover possibly 70%⁶⁴ of the land area. Thus JNCC⁶⁵ (2012) identifies 2.5m ha of nationally or internationally important areas designated for nature conservation⁶⁶. DCLG (Department for Communities and Local Government, 2010) reports that Greenbelt covers 1.6m ha in England to which can probably be added a further 0.5m ha for the other countries in the UK. British Geological Survey (through the UK Groundwater Forum) reports that 55% of England and 14% of Scotland are designated as nitrogen vulnerable zones. National Parks (2012) reports 5.8m ha of land designated for its landscape and scenic value⁶⁷. All these designations⁶⁸ constrain land management; clearly society believes that land is a different kind of good to, say, a house or a motor car and that it is entitled to have a say in how it is managed. Home (2009) argues that although there is little political pressure to change landownership structures at present there are structural impediments to land-use planning that constrain delivery of *'the basic social needs of housing, food, energy, water, waste, ecosystems, transport and utilities.'* He argues that conflicts over land use allocation will increase and this will lead to increased state intervention *'to control and manage that scarce and dwindling basic resource—land'* (p. 30).

For this study this idea has implications for identifying who are the stakeholders in forestry and who might expect to have a voice in forestry policy. The political storm over the Government's 2011 proposals to sell-off some of its forests seems to indicate that society thinks differently about forests than it does about other land. This public interest in woods and forests has been ascribed by a number of authors (e.g. Henwood and Pidgeon 1998, Grove-White and Macnaghten, 1998) to the particular part that trees and woodlands play in place-making and the formation of personal identity. Note that when agriculture is affected by designations farmers usually are compensated. This is not often the case for forestry⁶⁹.

⁶⁴ Many designations overlap so it is difficult to assess the total area from separately reported figures. The area of the UK is about 22m ha.

⁶⁵ The Joint Nature Conservation Committee (JNCC). The statutory adviser to the UK Government on GB, UK and International nature conservation. Individual countries in the UK have their own advisory bodies.

⁶⁶ Special Protected Areas (SPA), Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), Areas of Special Scientific Interest (ASSI).

⁶⁷ National Parks, AONBs, National Scenic Areas.

⁶⁸ In addition to these national designations can be added local and regional designations such as country parks, local nature reserves, national trails, commons and so on.

⁶⁹ This is because agriculture is subsidised through the CAP, to which designations are often linked. Forestry is not covered in the CAP.

In any discussion of land-use in the UK an underlying factor is that population density varies greatly both between and within the constituent countries. A number of participants in the research felt that this difference in population, and in the consequent level of demand for recreation and amenity, led to differences in the way that land is viewed in different parts of the UK. They believed that in the South of Britain the public is interested in amenity and services and is anxious about activities that they think might threaten them, in the North felling and harvesting is much less controversial. One interviewee contrasted the public's muted response in Scotland to proposals in 2010 to lease public forests with similar proposals in 2011 in England that generated intense political opposition. In short, parts of Britain are very highly populated, access to land and the benefits of such access are constrained and the public does not want to give up the limited access it has. Access to public forests and many private forests is not constrained so the public values them more highly than land they have difficulty accessing.

The differences in population density were illustrated by Home (2009) who drew on parliamentary and official statistics data to illustrate the differences in population density within the countries of the UK and between the UK and selected countries in Europe. The figures show that Scotland is one of the least, and England one of the most densely populated countries in Europe. Moreover, in England over half the population lives in the southern third of its area so that south-east England ranks as one of the most densely populated areas of the world.

Table 4: UK Current and Projected Population Densities

	<i>Population 2006</i>	<i>Density 2006 pp sq. km</i>	<i>Projected Density 2056</i>
N. Ireland	1.8	128	153
England	51.1	390	521
Wales	3.0	143	165
Scotland	5.1	66	67
UK	61.0	250	324

Source: Parliamentary Written Answers 18th February 2008 cited in Home (2009)

Table 5: Selected Country Population Densities

<i>Country</i>	<i>Population (m)</i>	<i>Land Area (000 sq. km)</i>	<i>Pop. Density pp sq. km</i>
UK	61.0	242.5	246
Netherlands	16.4	41.5	395
Belgium	10.4	30.5	341
Germany	82.7	357.0	232
Japan	127.4	377.9	337
Poland	38.5	312.7	123
France	60.5	551.5	110
Spain	43.0	506.0	85
World	6,700	148,940	45

Source: Official Statistics cited in Home (2009)

The figures are relevant partly because forestry is an extensive land-use that is highly visible in the landscape, and thus in England in particular any forestry activity will be visible to and impact upon very large numbers of people. This means that in order to undertake regulated activities such as tree felling, pesticide application or new planting forest managers have little option but to engage with their local population in order to avoid contested applications for consent. Also, if the absolute value of services increases according to the number of people that benefit from them then services from forests in populous areas such as southern England will have particularly high values. For forestry policy, if the value of services is influenced by the number of people accessing them, the implication is that from a public policy perspective forests should be located in areas of high population such as peri-urban fringes – very much as CJC Consulting, cited above, suggested.

3.3 Forests and Ecosystem Services: Cost Benefit Analysis and Ecosystem Services Valuation

These non-traded outputs from forests fall within a recent DEFRA definition of ‘ecosystem services’ (Fish R *et. al.*, 2011): ... ‘those aspects of ecosystems⁷⁰ that are utilised, actively or passively, to produce benefits to human well-being.’ (p. 15) One of the interviewees discussed the emergence of the language and concept of ecosystem-services; he thought it would become increasingly important to the land-use sector not only in the UK but across Europe and more widely. It is a language or rhetoric, therefore, with which the forestry sector needs to be familiar. The purpose of this section is to introduce the underlying ideas and terms and illustrate their relevance to forestry. In order to inform discussion in the concluding parts of this text I also look at some of the methods used to arrive at values for services.

Central to the concept as the interviewee described it is the idea that the value of services of different types should be quantified, usually as monetary values, in order to allow comparison and prioritisation by policy-makers. Sangster (2006) in a literature review undertaken as part of the DBA, showed that monetisation of properties of nature such as beauty is contested largely on ontological grounds. Nevertheless, the approach has been readily adopted by Government as is illustrated by the importance attached to documents such as the *Stern Report on the Economics of Climate Change* (Stern, 2006). This frames climate change as an essentially economic problem, to be solved by regulation and market instruments such as carbon trading. Another recent and influential report is the UK National Ecosystem Assessment (2011), which presents ‘ecosystem services’ as simply the most recent development in a long tradition of environmental economics. The authors are aware

⁷⁰ An ecosystem is defined by the Oxford Dictionary so: ...‘a biological community of interacting organisms and their physical environment.’

that the language is technocratic and that this way of framing the natural world divides the science and policy community from wider society:

'... in the UK, ecosystem services are not a meaningful framework of interpretation of human-environment relations for the vast majority of people, although the term has gained traction in science and policy. Culturally the concepts which have most meaning are those of nature, place and landscape.' (p.40, *Synthesis of Key Findings*)

This reflects Binkley's earlier comments (1998) that in respect of the environment the public is influenced less by scientific facts as much as by social constructions of nature.

Fish *et. al* cite the Millennium Ecosystem Assessment (2005: p. 5) that identifies four broad categories of ecosystem services. They are set out in table 6 with some examples of how they relate to forests and urban forestry.

Table 6: Categories of Ecosystem Services with Forestry Examples

Type of Service	Forestry Example
Provisioning services: <i>the products we obtain from ecosystems such as food, fibre and medicines.</i>	In forestry and arboriculture this includes wood, wood fibre and pulp. To a large extent it is this category that generates cash for the forestry sector and on which forest owners and forestry professionals rely for their income.
Regulating services: <i>we derive benefits from the way ecosystem processes are regulated such as water purification, air quality maintenance and climate regulation.</i>	In forestry carbon capture in forest soils and in trees is such a benefit; in arboriculture urban cooling and improved urban air quality are frequently cited benefits. The Ecological Society of America gives an example related to water quality and forests: (Ecological Society of America ⁷¹) ... <i>'riparian forests'⁷² act as "living filters" that intercept and absorb sediments, and store and transform excess nutrients and pollutants carried in runoff from adjacent lands. They can reduce the nitrogen concentration in water runoff and floodwater by up to 90%, and can reduce phosphorous by as much as 50%'</i> .
Cultural services: <i>Services providing non-material benefits from ecosystems such as spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences.</i>	A number of authors have identified recreation in forests as one of the biggest benefits of this type (e.g. Willis & Benson 1989). Arboriculture, which is concentrated in urban areas, also delivers cultural services such as urban parks and street landscapes. Public health benefits associated with forests increasingly are being cited as a major cultural service with a high value in terms of savings to public health budgets (CJC Consulting, 2005). The public reaction against forest sales in England in 2011 was attributed by all the interviewees to the public's concern over the impact on this category of services: <i>'It was all about recreation and access'</i> said a member of the Independent Panel subsequently established by the Government to advise it on the future of the public forest estate.
Supporting services: <i>there are many ecosystem services that are necessary for the production of all other ecosystem services from which we benefit, such as soil formation and nutrient cycling.</i>	This concept is relevant to forestry as an extensive land-use concerned with the management of natural habitats where such processes take place. In urban environments trees and woodlands are seen also as the basis for a range of cultural and regulating services; for example, urban greenspace is said to be a factor contributing to the attractiveness and competitiveness of European cities (Sangster <i>et. al.</i> , 2011) and to public health benefits e.g. (Takano T; Nakamura K; Watanabe M, 2002), (Nilsson K <i>et. al.</i> , 2011).

⁷¹ From ESA's website, accessed January 2013. No date given on the web-page.

⁷² Woodlands alongside or close to streams, rivers and lakes.

The Over-Cited Case of New York City's Payments for Catchment Management and the Exception that Proves the Rule

One of the best known and much-cited examples of a payment to landowners for ecosystem services is New York City's payments for water services in its Catskills and Delaware catchments. DEFRA (2010b) summarised the scheme so:

... 'the programme to conserve the Catskills watershed forests cost the City(of NY) about US\$1.5 billion—a considerable saving over the US\$8-10 billion that a water filtration plant would have cost – and is administered through a formal urban-rural partnership constituting a true market. (p. 4)'

However, one of the interviewees commented that this is the best-known example simply because such examples are so rare; that in Europe such benefit would be seen as a public good and be appropriated by Government through regulation without payment. As an example he cited the Scottish Government's 2003 land reform act that, without compensating landowners, allowed the public unhindered access to open countryside⁷³ and to water and put at risk the income generated by deer stalking and salmon fishing.

A quick search (February 2013) on the web gave credence to his argument: in the first 30 web pages found in a search on the phrase '*payment for water ecosystem services*' only one other example was cited – a small case-study in a remote area of Tanzania. There were over a hundred citations, spanning several years, of theoretical academic studies and policy papers on payment for water services but no other examples of money actually changing hands. A search on '*New York City's payments for water services in its Catskills and Delaware catchments*' brought up several hundred citations that were 100% relevant. From this we might infer that cash payment for ecosystem services, or at least in respect of water and catchment management, is at present insignificant with little sign that this will change.

'Non-Market Benefits'

The fact that forests provide valuable services that do not generate cash led to a considerable research effort over many years into valuing 'non-market benefits' that in current parlance equate to ecosystem services. Whilst examples of payment for ecosystem services outside the field of carbon trading are hard to find an example that is often overlooked, perhaps because the language has changed, is recreation in the UK's state forests. Willis *et al* (2000), in an economic study into the non-market value of forestry reported that the Treasury allowed⁷⁴ the Forestry Commission in its accounts to include a value both for recreation and biodiversity. *The two principal NMB values used*

⁷³ Similar legislation was passed for England and Wales with the Countryside and Rights of Way Act 2000

⁷⁴ The Treasury allowed the allocation of value to recreation and biodiversity after a number of studies over several years by environmental economists funded by the FC.

by the Forestry Commission are a value for recreational visitors of £1 per visit, established in 1992 (indexed to £1.42 in 1999); and a value for biodiversity in remote coniferous forests, derived in 1996'. (par. 3, exec summary). Today payments for recreation are available to farmers through the single farm payment grant⁷⁵ and to forest owners through some of the targeted grants available.

A literature review for the Countryside Commission (ERM, 1999) listed 250 papers on valuing 'non-market benefits' from forests, trees and woodlands. Swanson and Loomis (1996), researchers for the US Forest Service set out very simply the reasons for such research:

Market price provides a measure of the value of some goods and services. The price of a can of green beans or a piece of lumber is easy to determine. Unfortunately, for other goods and services, various factors prevent normal market operations from determining their value via price. These factors are referred to as market failures. If adjustments are not made for these factors, basing economic decisions on observed prices (if they exist at all) will result in an inefficient allocation of resources. Many of the benefits of natural areas, such as recreational, ecological, biological, or intergenerational values, are subject to these market failures. Why a certain good or service is subject to market failure often can be linked to the non-exclusive or non-rival nature of the particular good or service. When one person's consumption of a good ... does not diminish another's consumption (non-rival use) or it is not feasible to exclude anyone else (non-exclusive use) from consuming the good (e.g. viewing a distant mountain), then the market process cannot establish a monetary value. Fortunately, methods exist to derive the value associated with non-rival or nonexclusive resources. By valuing such things as clean water, wilderness recreation, or biological diversity, a common framework can be applied to determine the most economically efficient mix of ecosystem preservation, commodity production, and recreational opportunity.'(p. 1)

The authors then continue by explaining how, once such services have been valued, cost-benefit analysis (CBA) is used in setting objectives and allocating resources. The process is intended to help managers and policy-makers compare and prioritise different types of outcome, for example species conservation, wood production or a reduction in forest fires, using a common framework of monetised values. They suggest that the benefits of the approach apply to three aspects of management decision-making (p. 3):

1. *'the comparative benefits of alternative management emphasis, including the particular mix of multiple uses offered in the alternative;*
2. *the optimal size or scale of a (public) land management action, such as acreage of critical habitat units; and*
3. *the optimal timing for implementing the components of the management action or policy.'*

Criticisms of this approach and its recent cousin Ecosystem Services Valuation (ESV) tend to be (a) ontological, where the positivist and reductionist nature of the approach is not easily accepted by those with a phenomenological mind-set; (b) methodological where the critique centres on the way

⁷⁵ Remarkably DEFRA and its equivalents pay money to farmers to provide recreation but place no obligation on farmers to tell people that their land can be accessed. Requests for information on land for which recreational payments have been made are rebutted on the grounds of 'commercial in confidence'.

that values are assessed, which is often through qualitative techniques. This criticism is made by POST⁷⁶ (2011) or (c) pragmatic where, as one interviewee pointed out, all this analysis has made no difference to the financial returns of landowners delivering such services.

POST identifies five basic methodologies in ESV: market prices, cost methods, revealed preference methods, stated preference methods and deliberative and participatory valuation methods. One of the speakers at the conference, a professor of Forest Economics, argued that other than with market pricing or cost methods the econometrics were underpinned essentially by subjective contributions that were likely to change over time, so the values were valid only at a particular moment. They are also sensitive to the contributor's knowledge of alternative possibilities, where you might value something highly if you don't know that alternatives are available or don't know the relative cost of alternatives. A further criticism identified by POST is that:

... 'the scale and relative importance of ecosystem services to society has yet to be fully determined. There is scientific uncertainty about how ecosystem interactions should be categorised and defined, as reflected by the lack of agreement on definitions of ecosystem services.' (p. 2)

However, one of the interviewees, the Director-General of the Forestry Commission, was pragmatic. Dealing specifically with this theme his view was that it is politically expedient to use such language because it is a rhetoric that has been strongly adopted across Whitehall, that the information it yields is an aid to decision-making '*rather than a straightjacket*' – a view that POST support: ... '*no single approach, such as valuation, is likely to provide sufficient understanding of the relationships between services and how best to manage their interaction*' (p. 4) – and that in many cases there are factors, such as legislative requirements, that over-rule any CBA-like approach.

Whilst acknowledging the criticisms POST supports ESV, using the example of forests to support their case. Given the importance of Westminster⁷⁷ to the forestry sector it is worth setting out their view on forest ecosystem services:

'... many ecosystem services are either undervalued, or have no value, in current decision making frameworks, although crucial to human well-being. For example, a forest can:

- *be a major store of carbon, helping to regulate climate,*
- *be a resource for industry in the form of fibre or fuel,*
- *prevent loss of soil and nutrients, flooding and avalanches,*
- *play a role in the water cycle, ensuring cycling of water vapour back to the atmosphere,*
- *provide a location for recreational activities.*

⁷⁶ Parliamentary Office of Science and Technology

⁷⁷ In London 'Westminster' is the location of the Houses of Parliament and has become established shorthand to refer to parliament and ministers – elected government. 'Whitehall' is the location in London of most of the UK civil service departments and is used to refer to executive government.

Most of the benefits above tend to be undersupplied, due to the emphasis on provisioning services from which land managers can secure market returns, in this case timber as a resource for industry. ... a forest managed exclusively for timber production may have less recreational value, store less carbon and be less effective at retaining nutrients. The role of economic analysis in environmental policy is to determine where a change in practices or policies may be in the wider public interest. (p. 3)

Thus POST is giving strong support to current attempts to value non-provisioning services using monetising techniques.

3.3 In Conclusion

At present the forestry sector draws its income largely from timber sales and commercial activities such as recreation and sporting⁷⁸, mineral royalties and utility easements⁷⁹ or way-leave payments. There are also grants available for certain activities such as planting and restocking. The dependence on timber income leaves the sector, even small forest owners, exposed to a global commodity market that historically has fluctuated widely.

Whilst the public forests are subsidised to provide recreation and other services these subsidies, in the recent furore over forest sales, were cited by Ministers as an example of inefficiency rather than delivery of public services. Clearly there is ambivalence in Government over the valuation of public services in this sector and a tendency to take a fairly narrow view that focuses on cash rather than non-traded outputs. The implication is that significant cash payments for ecosystem services are unlikely when the Government can, as explained by the interviewee cited above, simply coerce such services through the use of regulation. This is not only a European mind-set. In a search for examples of payments for ecosystem services (PES) in the United States Valatin and Coull (2008) found that cases that were presented as PES were mostly to do with compensation for damage caused by development or were commercial transactions to do with carbon-trading.

But there is now a large body of disinterested academic analysis and research⁸⁰ indicating that the economic value of forests in the UK is largely in the services they deliver rather than in the traded outputs. So far the forestry sector has had little success in translating this widely acknowledged economic value into money. The ambivalence in Government over the nature of forestry is illustrated by the membership of the Advisory Panel that they established after the 2011. Chaired by a bishop the initial membership was largely from single-interest environmental NGOs with no professional forester appointed – this was amended only after lobbying. This indicates that there is

⁷⁸ Hunting and shooting. In many lowland woods the pheasant shoot is the main source of income.

⁷⁹ A Scottish term equivalent to way-leaves in England and Wales.

⁸⁰ The report by Willis *et al* (2000) cites over 200 references.

an understanding that forests are an environmental asset and contrasts with a political rhetoric of production and efficiency.

The long-established subsidies and grants for recreation do set an important precedent, not only in the fact that the Treasury was persuaded to allow them but also in the way that it was persuaded to do so – through argument based on research by environmental economists. It indicates that sustained and rigorous argument can bear fruit. The forestry sector should, therefore, consider how such arguments can be developed and delivered to the decision-makers it needs to influence.

Chapter 4: Literature Review

4.1 Introduction

Rather than undertaking a single review at the start of the project the study, as it developed, was supported by an almost continual exploration of the literature. The account in this chapter, therefore, is of a review to cover issues that arose in preparation for the research and in the development of the conceptual model. The emergence of new themes during the study led to further exploration of the literature. The study benefited also from extensive reviews that were undertaken previously for dissertations towards the DBA, notably in Documents 1 and 2.

The two primary research questions in this paper are (a) how does contemporary thinking in society influence forestry policy (and indirectly forestry practice) and vice-versa and (b) how can the forestry profession maintain or enhance its position in the current period of upheaval? The following review looks at factors both internal and external to the profession that have been identified in the literature as impinging not only on perceptions of forestry but also on the ability of the profession to act independently or in its own interest.

The most extensive body of literature reviewed here covered institutional theory, including network theory, and systems of governance. At the start of the study it was clear that the forestry profession, and indeed the whole of the forestry and domestic timber-processing industry, considered themselves to have much less agency in policy development than players such as environmental and recreation-focused NGOs. Also the foresters argued that forestry was being mixed up with other issues such as climate change, recreation, health, sustainability and statutory planning so that it is difficult to establish boundaries and identify those stakeholders who have a legitimate voice in forestry.

The initial review, therefore, set out to look at these issues by drawing on a range of institutional theories to identify stakeholders in forestry and forestry policy. The underlying purpose was to ask who has legitimate voice and what is the source of that legitimacy? The starting point is the legislative framework for forestry, exploring whether it establishes particular groups or organisations as stakeholders or mandates particular interests? For example if environmental regulators or local authorities have powers relevant to forestry then they can be seen as part of the 'Institution' of forestry.

The review then turns to look at the systems of governance in operation, the characteristic nature of policy development in forestry – which I argue is emergent rather than planned – then the influence of legislation in parallel land-uses especially agriculture. From there the review looks at how the

particular characteristics of forests, trees and woodlands - for example their contribution to sense of place or importance as wildlife habitat - make it legitimate for non-forestry interests to have a say both in setting objectives for forestry management and in how those objectives are achieved.

Forests are a minor land-use in the UK and forestry policy is developed in the context of broader land-use concerns. The review therefore looks at some of the issues in rural policy, where there is a considerable literature on a mismatch between an institutional framework that is centred on production and efficiency and the needs of the contemporary rural economy that is little different to the service-dominated national economy. The review also touches on the way that different elements in society think about the countryside – the influence of culture – and at the evidence for a normative, technocratic mind-set within the forestry profession. As this section includes discussions of the culture of the forestry profession and other professional groups, and as the concept of culture can have different meanings depending on the context in which it is used, its use here follows Watson's (1987) definition. 'Culture' in this text refers to:

'The system of meanings shared by members of a human grouping that define what is good and bad, right and wrong and what are the appropriate ways for a member of that group to think and behave' (Watson 1987: p. 83)

4.2 Primary legislation for UK Forestry

Before considering the statutory context for forestry within the UK it should be noted that an important difference between forestry and agriculture and fisheries is that forestry⁸¹ was not included in the Treaty of Rome, which established the European Economic Community in 1958. Since then agricultural policy effectively has been supra-national and set at the European level, it receives guaranteed subsidies through mechanisms in the Common Agricultural Policy – creating strong vested interests in the *status quo* – and consequently changes only after highly complex negotiations among the 27 EU member states⁸². By way of illustration, in June 2012 the Parliamentary EFRA⁸³ committee wrote: *'The CAP is complex and burdensome. We urge the UK Government to press for greater simplification in the CAP ...'* (see Barclay 2012)

Forestry is the preserve of national governments who can adopt whatever policies they wish⁸⁴ and has no guaranteed subsidies. Nevertheless, the UK is active in international forestry policy processes and has made a number of commitments that impact on the sustainable management of forests in

⁸¹ Although forestry occupies just 13% of the UK land area (just 10% in England), and seems in England at least to have been no more than 15% at the time of the Domesday inventory of 1086, European countries typically average between 30% & 40% forestry with up to 70% in Scandinavian countries. This brings into question any attempts to use European understandings of forestry to interpret the place of forests and woodlands in British culture.

⁸² Fisheries are covered by the Common Fisheries Policy (CFP)

⁸³ Environment, Farming and Rural Affairs - EFRA

⁸⁴ Cross-border trade in timber and wood products, however, is covered by agreements under WTO.

the UK. Within the UK in the various Devolution Acts of 1998 forestry was made a devolved matter with each country able to make its own arrangements. International forestry and forestry in England remained the responsibility of the Westminster parliament, as did plant health.

Gilg's classic textbook on countryside planning (Gilg, 1996) provides a summary of land-use legislation with a commentary on its rationale. In Great Britain there have been just three instances of primary legislation dedicated to forestry, the Forestry Acts of 1919, 1947 and 1967. Northern Ireland has its own forestry legislation and introduced a new Forestry Act in 2010 (Northern Ireland Assembly). There is also a considerable body of secondary legislation that amends and interprets the three main Acts⁸⁵. It is likely that as a consequence of devolution each of the four countries in the UK will have their own forestry acts within the foreseeable future.

The 1967 Act replaced, rather than amended the previous acts and widened the general roles of the Forestry Commission to include (a) the provision of recreational access and (b) the enhancement of natural beauty⁸⁶. This act was amended by the Wildlife and Countryside (Amendment) Act 1985 so that the Commission was additionally required to try to achieve a reasonable balance between the interests of forestry, conservation and enhancement of the countryside, and the conservation of wildlife. Whilst the primary legislation places responsibilities on the Commissioners it gives no guidance on the actions they should take to meet them, this was left to the Commissioners and gave the Forestry Commission considerable autonomy in deciding what it would, and would not do to comply with the legislation.

Interviewees for this research were aware of the proposal for merging Forestry Commission Wales with the Welsh functions of the Environment Agency and with the Countryside Council for Wales (see Welsh Assembly Government, 2012) as it had been subject to public consultation. All the interviewees felt that it would affect forestry arrangements throughout the UK and lead to an eventual break-up of the Forestry Commission.

4.3 Governance Systems in Forestry

In qualitative research with forestry professionals (Sangster 2007) and in a subsequent quantitative survey (Sangster 2011) recurrent themes were that these professionals believe that currently and historically they play little part in the development of forestry policy. Also, forestry policy is over-influenced by interests that have little professional knowledge or expertise.

⁸⁵ Primary legislation is made by Parliament and includes Acts and binding treaties and conventions. Secondary legislation is made by the executive under powers delegated by parliament and generally is used to adapt legislation to changing circumstances.

⁸⁶ Note that in 1967 landscape, rather than nature conservation, was seen as the key environmental issue in forestry policy. It was almost 20 years before the Commissioners were charged with a formal duty to balance the of needs nature conservation with their other activities.

In order to understand the part that the forestry profession might play in the future development of its sector a starting point is to understand the nature and extent of the interests that have a legitimate claim to be heard. Equally important is to understand who is not heard and why.

What makes for legitimacy in this field? McKevitt (1998) argued that an important source of legitimacy comes from the institutional rules and regulations determined by public policy processes at different levels of government. Government, of course, is not the only source of legitimacy. Barker's (1982) research, for example, into the operation of quangos led him to postulate 'networks of accountability' based on professional norms operating across institutional boundaries; the theories of Rhodes (1996) on resource-based policy networks that incorporate both private and public sector players have been influential in political science, as has urban-regime theory from the United States, categorised by Stone (1989) and Harding (1999) as a similar resource-based concept. There is a body of literature, often set in the context of overseas development, on governance that encourages participation in forestry by 'communities' and by particular elements of society characterised, for example, by gender, income or age (See for example Mayers and Vermeulen (2002) for a wide-ranging polemic on the governance of forestry in the third world). Lawrence *et. al.* (2011) recently briefed the EU Standing Forestry Committee on contemporary forestry governance in Europe, outlining a complex mix of processes and a diverse range of stakeholders.

Whilst institutions can exist as organisations such as the Forestry Commission they can also, as Douglas (1986) explains, simply be a way of doing things or a pattern of behaviour that becomes a norm. In forestry such institutions might be the adoption by the private sector of the operational practices in the state forests, the role of the Forestry Commission in setting standards for the whole sector or the habit of the UK government to implement the outcomes of international forestry policy processes in which it has participated, even though these have no legally binding status.

A particular characteristic of forestry in the UK is that the state has a role not only in setting the legislative and policy framework but also, as by far the largest owner of forests⁸⁷, (see e.g. Schmithüsen and Hirsch 2010) in the UK it has a direct and highly significant influence on practice. Turner (1998), looking at how forestry policy and practice were aligned in the UK, was in no doubt that Government Departments were the dominant stakeholders and had the greatest influence in UK forestry.

⁸⁷Through the Forestry Commission and NI Forest Service, together with other state bodies such as the Ministry of Defence, the Government occupies about 38% of the woodland area of the UK. Over 80% of this is managed by the Forestry Commission.

4.4 The emergent nature of forestry policy

As a result of this absence of directive legislation forestry policy in the United Kingdom if it exists at all can be explained, perhaps, in terms of Jørgensen's and Mintzberg's (1987) argument that much public policy is emergent - implicit in practice rather than set out in any single text. Indeed Sangster (2002a) has argued that this is an area of public administration where policy actually follows practice. In this scenario a task of the Forestry Commission and Forest Service, the Departments for Forestry in the UK, has always been to translate the broader land-use and rural policies that apply in the UK and reflect them in their own practice on the UK's two largest forest estates; in doing so they develop standards and guidance that become the policy for the whole sector. Following discussions with board members of the Forestry Commission and with the Commission's head of international policy Sangster (2006), a senior policy official in the Forestry Commission, categorised forestry policy as:

'... a compendium of secondary policies through which the forestry sector tries to articulate or contextualise major policy themes such as sustainability, land use, economic development, social policies, environment, biodiversity and regulatory compliance. It is a tactical process, concerned mostly with the practicalities of the stewardship and management of a physical resource. (p. 11)'

This was well illustrated after the UN Conference on Environment and Development (UNCED) 1992 where the UK signed up to a set of forest principles. This required the UK to have a 'National Forest Plan' but no such plan existed. The UK response was to argue that its NFP comprised a mix of industrial, land-use, science, rural, fiscal, tax and educational policies and strategies that would be impossible to capture in a single document. (anon⁸⁸, pers. comm.)

Insofar as the Commission⁸⁹ is a corporate entity Jørgensen's and Mintzberg's (1987) suggestion that *"... policy' has long meant to the public sector what 'strategy' means to the private sector"* (p. 214) is particularly appropriate, since the operational strategies of the Commission become *de facto* policy. Accepting this suggestion, that UK forestry policy aligns with the practice of a corporate body, enables one to apply to a study of forestry policy concepts such as organisational survival and competition that are commonplace in academic business literature on strategy but are less commonly found in political science.

The idea of forestry policy as emergent is accepted by the European Parliament to apply also at the European level, with the 1999 European Parliament Factsheet on forestry stating:

⁸⁸ Head of International Policy in the Forestry Commission at the time.

⁸⁹ The Forestry Commissioners are established as an entity in the forestry acts whilst the Forest Service is simply a part of the Department of Agriculture and Rural Development NI.

'The lack of a specific legal basis in the treaties has meant that all measures in this area (i.e. forestry) have developed without pre-determined objectives. Objectives have been established on an ad-hoc basis.'(European Parliament, 2001, web page⁹⁰)

4.5 Forestry policy as a system of multi-level governance

For the forestry profession this emergent, implicit rather than explicit nature of policy means that it is ambiguous and changeable; difficult to tie down and subject to continual negotiation as practice changes in response to influences such as environmental legislation or technological innovation. It also means that policy analysis is unlikely to identify all the key stakeholders. As was seen in England in 2011, when there was public activism in response to Government proposals to sell public forests, the participants in this negotiation are not restricted to the forestry or land-use sectors. This was illustrated by the membership of the panel that the Government subsequently established to advise it on the future of public forests⁹¹. In short, forestry policy-making is 'messy'; the professional foresters' voice, indeed any voice, is just one among many and there is no guarantee that any one of these will be heeded. Stanley (2006) recently argued that 'forestry policy' is nothing more than self-interested pragmatism driven in part by funding opportunities. His research found policy staff adapting policy 'on the hoof' to fit with the requirements of funding bodies such as the lottery agencies and structural-fund⁹² partnerships. This susceptibility to outside influence is not a new phenomenon, as long ago as 1969 Ryle, in a review of the first 50 years of the Forestry Commission, wrote:

'...it is evident that all ... major decisions on policy and all important fluctuations in rate of expansion have been brought about by outside influences, or by ad hoc committees appointed to make investigations that should have been the prerogative of the Forestry Commissioners ... (p. 98)

Writing at around the same time Challenger (1970), in New Zealand, acknowledged that a range of professions have a valid interest in forestry:

'As an item in the landscape scene, forests may be observed from a multiplicity of viewpoints. The economist, forester, ecologist, conservator, recreationist, and landscape architect will all see different things in the same forest landscape'(p. 204)

The practical response by the Commission (Tabbush 2004, Tabbush, 2006) has been to develop systems and processes of various degrees of formality that allow participation by interested parties. This was identified by Weldon and Tabbush (2004) as a system of governance.

⁹⁰ http://www.europarl.europa.eu/aboutparliament/en/displayFtu.html?ftuld=FTU_5.2.11.html accessed July 2013

⁹¹ The 'Independent Panel on Forestry' established by the Secretary of State for Agriculture and the Environment in May 2011 was chaired by a Bishop and of its 12 members just one was a professionally qualified forester.

⁹² Most EU funding is dispersed by member governments. However, the European Commission retains about 10% of its budget to support transnational activities, mostly related to regional development policy, through direct funding. Most of this is channelled through the European Social Fund (ESF) and the European Development Fund (ERDF). These are known as the structural funds and are an important source of funding in forestry. Generally they are accessed through competitive bidding to meet objectives in plans agreed by national (ESF) or regional (ERDF) partnerships. Together with the Common Agricultural Policy (CAP) they account for the bulk of spending by the EC.

Insofar as the Commission is open to influences from international forestry processes, central and local government and communities and organisations this can be categorised as ‘multi-level governance’ where the ‘levels’ are both hierarchical, for example United Nations global forestry policy to local authority local plans, and spatial where a supra-national framework such as the European Landscape Convention and a local forest management plan both influence how a specific site is managed. OECD see this as ‘... *the exercise of authority and the various dimensions of relations across levels of government*’ driven largely by the economics of global competition. (web page⁹³ 2012). Others, for example Shove and Walker (2010) share Weldon’s view and see it as a sociological phenomenon arising from increasing interdependency between different actors in society, not only between regions and nations. This requires decision-making that is legitimated by processes in which these different players are able to participate. For the purposes of this research the question arises of how, and at what level or levels, professional forestry might participate effectively in this system. Gonzalez and Healey (2005) in a case-study of a regeneration project near Newcastle argued that, at this local level at least, participation from non-traditional stakeholders can be a source of innovation in governance:

‘In our case, we have seen that a network of actors coming from non-traditional arenas can make a substantial contribution towards the development of innovative governance capacity⁹⁴ by challenging existing political boundaries and contributing with new language and discursive practices.’ (p. 2066)

In reading this one cannot but help reflect on Ryle’s comment above. The 1947 policy, the only example of policy being set by the forestry sector, was the direct cause of one of the most contested land-use changes of the last century – the afforestation of the British uplands.

Following UNCED⁹⁵ in 1992, when the UK was one of many countries to adopt the non-binding ‘forest principles’, multi-level governance has been a continuing rhetoric in international forestry policy. As Hogl (2002) reported:

‘The (UNCED) concept of National Forest Programmes (NFPs) calls for the integration of multiple levels of government as well as the integration of private actors into the programming, implementation and evaluation of measures to promote sustainable forest management’ (p. 301).

More widely the concept has, in Svedin’s view, been strengthened in European countries by the European Commission’s rhetorics of subsidiarity⁹⁶ and decentralisation (Svedin U *et. al.*, 2001). These

⁹³ <http://www.oecd.org/regreform/policyconference/46270065.pdf> accessed July 2013

⁹⁴ In earlier papers Healey refers to ‘institutional capacity’, the change in language is probably to differentiate the concept from ‘institutional capital’, which some writers treated as synonymous. Also, ‘institutional capacity’ has a different meaning in the overseas development literature.

⁹⁵ United Nations Conference on Environment and Development (UNCED, the Earth Summit).

⁹⁶ The Oxford Dictionary explains subsidiarity as the principle that ‘a central authority should have a subsidiary function, performing only those tasks which cannot be performed effectively at a more immediate or local level’.

rhetorics influence the way that important mechanisms such as the Common Agricultural Policy (CAP) or structural funds operate in member countries.

OECD, however, is sceptical and wonders whether the adoption of the rhetoric of governance in the West has led to any change in practice. It points out that over the past two decades, using a measure of locally-raised versus centrally-dispersed revenues, it could be argued that many Western governments have tended towards centralisation. Sangster (2006) concluded that:

'... the language of forest governance is disingenuous, adopted by Governments in the Northern Hemisphere but designed to serve a political purpose that is very much to do with countries in the South.'

Svedin follows Rhodes (1996) in arguing that 'Governance' is not automatically beneficial:

'without proper systems of democratic control and oversight, governance risks being less, not more, accountable than government if more and more decisions are taken outside the traditional governmental system.' (p. 46).

For this research these warnings raise questions of whether, in the governance of forestry, there are feedback systems to take account of the views of stakeholders and flexibility that allows diverse participation. The public reaction to the proposed state-forest sales indicates that, for public forests at least, there was a feeling that the public did have a legitimate voice and that they valued it sufficiently to fight against a proposal that would reduce it.

4.6 The Relevance of Planning and Agricultural Legislation to the Governance of Forestry

Forests, woodlands and even individual trees are three-dimensional, visible in the landscape⁹⁷ and their creation and removal creates visual change that is likely to give rise to public concern (See e.g. Bell, 2004). They are imbued with values that are not ascribed to open, un-wooded space and are valued by the public *'for a wide range of primarily non-economic aspects of forests, woods and trees'* (Henwood and Pidgeon, 1998 p.7), they hold a disproportionate amount of the UK's biodiversity⁹⁸ (Sangster 2011) and are a nationally important recreational amenity. (Sangster 2011, Forestry Commission, 2005). It is not difficult to argue that these characteristics of forestry legitimate interests from outside the forestry sector in forming forestry policy. In particular those engaged in land-use planning, which is the Government's process for managing the demands on land and space, and thus indirectly makes local authorities particularly important stakeholders.

⁹⁷ Dame Sylvia Crowe, the Forestry Commission's first adviser on landscape, in discussion with the Commissioners in 1974 argued that 20thC afforestation has had an impact on the English landscape comparable to the parliamentary enclosures of 18th C.

⁹⁸ Although occupying just 10% of England's land area forests and woodlands account for 25% by number of sites designated for environmental reasons. (Forestry Commission 2005)

Henwood and Pidgeon's (1998) research indicated that woodlands are significant in place-making and in the formation of personal and shared identities. Whether such concerns matter is a view that is contested by modernist⁹⁹ planners so that Healey (1999) posits that:

'... advocates of cultural post modernity and market liberals argue that, compared to the societal dynamics of economic and social processes, the qualities of places are insignificant. This argument is reinforced by those who consider that the new information society liberates people from the need for place attachment.' (p. 117)

This debate was still active and discussed in some detail in the Lyons inquiry of 2007, which concluded that place-making and locality do continue to be significant concerns for local government. Given the impact of forestry on place and locality this conclusion reinforces the argument that local government has a legitimate voice in forestry affairs.

Handley (2010), and the Cabinet Office (Cabinet Office Strategy Unit, 1999) identify two divergent strands in land-use planning. They have separate roots in two notable wartime inquiries:

- The Scott Report (Ministry of Works and Planning, 1942) on land utilisation in rural areas that led to the Agriculture Act, 1947, and
- The Barlow Report (Lord Justice Barlow, 1940) on the distribution of the industrial population that led to the Town and Country Planning Act, 1947.

The Agriculture Act gave rise to a new discipline of countryside planning, explained by Wibberley (1982, cited in Handley 2010) as *'the creation of conditions under which rural activities can flourish and resources be sustained (presentation slide)'* though more recently Curry (2005) has suggested that today it characterised in terms of *'a particular concern for the supply of things and rather less regard for the demands and needs of people'* (p. 7). Curry has subsequently commented¹⁰⁰ on how an instrumental interpretation of the Agriculture Acts, together with the dominant lobby of landed supply-side interests in the Common Agricultural Policy, has trapped UK agricultural policy in a post-war production-orientated mind-set. As the Cabinet Office Strategy Unit (1999, p. 6) reported:

In short, there is a mismatch between the reality of the English countryside today and the inherited policy framework (rooted in the realities and policy instruments of the late 1940s).

This contrasts with forestry which, outside the CAP and with ambiguous core legislation that is open to multiple interpretations, has been able to adapt with little change to legislation and to calls for greater priority for recreation, wildlife and amenity.

⁹⁹ 'Modernist' has different meanings in different disciplines. In art it relates to a movement that arose in the late 19th C in response to the cultural implications of industry and urbanisation and persisted until the 1970s. In religion it refers to a movement in the Catholic Church; in economics and business studies it is a rationalist mind-set that is concerned with production and efficiency – for example seeing the value of forests as economic rather than symbolic.

¹⁰⁰ In personal discussion 2010.

Unlike agriculture, where intervention payments are guaranteed but are specific to particular activities, forestry incentives are paid at the discretion of national governments. Miller (1997 par. 25.3 and later), for example, recounts how in 1972 after a Treasury cost-benefit analysis of forestry that identified the value of informal recreation as a key non-market output the Commission was able not only to expand recreation on the public forests through an increase in its parliamentary vote but also to introduce an incentive scheme that gave money to private woodland owners who allowed recreation in their woods. Changes such as this in agricultural incentives require consensus and lengthy negotiation among the EU countries. Were national governments unilaterally to introduce payments for their farmers outside the CAP then they would be liable to challenge for lack of compliance with EU single-market regulations and also fall foul of WTO¹⁰¹ arrangements.

This freedom does have a price, however. Governments are able to chop and change forestry policy in a way that is not possible in agriculture. It is ironic that the political environment for forestry, an industry with an economic cycle that spans decades, is less stable than that for agriculture with its annual cycle of production.

Figure 20 illustrates, perhaps, why forestry attracts external interest. The settlement in the Welsh Valleys is surrounded by forestry that is both an important local amenity for recreation and an economic resource. Topography aside it is also the most important element in the local landscape. Despite this importance, prior to the mid-1980s there was little scope for local planners or local communities to influence the management of the forests. They were classed as 'Crown Land' and not covered by planning statutes. Today forest planners in both the public and private sectors are required to engage with local interests and with local authorities.

¹⁰¹ World Trade Organisation.



Figure 12: The Welsh Valleys – the forests are an important local economic and social resource but remain outside the scope of the planning system (Picture courtesy of Welsh Assembly Government)

Nevertheless, this still does not equate to forestry being subject to planning rules. Milbourne *et al* (2006) referred to Forestry Commission land as ‘white land’ that is not marked on planning authority maps and is not covered by any rural development policies. This was because it was seen as having crown immunity from regulation and the development authorities did not feel able to set policies for land occupied by another Department. The Forestry Commission, however, had no mandate for using its land for purposes wider than forestry even though it occupied 35% of the land area in South-East Wales.

Observing changing attitudes to forestry Mather (2001) referred to a post-industrial and post-productive turn in British forestry that is ‘*far more visible than in agriculture*’; his ideas are cited and adopted by many authors¹⁰². However, one has only to visit an active harvesting site, or visit the Forestry Commission website to read the headline mission statement: ‘*Forestry Commission Scotland aims to maximise the economic potential of Scotland’s timber resources (web page)*’¹⁰³, to see that there is nothing ‘post’ about industrial forestry¹⁰⁴. The industry has adopted new behaviours and values without abandoning the old.

A striking illustration of such adaptation in forestry has been, since the mid-1980s and continuing today, the promotion of trees and woodlands in highly populated and urban areas:

¹⁰² Slee, Nail, Marsden, Milbourne, Kitchen, Tsouvalis and others.

¹⁰³ <http://www.forestry.gov.uk/forestry/HCOU-4UCGGJ> accessed 2/7/2012

¹⁰⁴ At the time of writing the Forestry Commission in Scotland announced its greatest ever annual timber production. (*Scottish Forestry* Summer 2012)

'... one of the dominant features of the last three decades, in England as in many other countries, has been the rise of urban forestry' (Nail, 2008, p.4).

Again, the impetus came from outside the sector where in England the principle actor was the Countryside Commission¹⁰⁵. They were concerned that greenbelts – established under the 1947 planning legislation – were coming under pressure from development and urban expansion¹⁰⁶. They saw forestry as a means of differentiating greenspace and creating new boundaries and designated areas in the urban fringe.

At this time I led the Forestry Commission's move into this new area. I saw it as one of the strands through which the sector was re-inventing itself after radical changes in the late 1980s. From the start it was widely accepted that this move into what has become known as 'urban forestry' would be achieved through the forestry sector working closely with the land-use planning system, requiring integration and co-ordination across different policy communities working within different professional paradigms. Healey (1999) highlighted the difficulties in such co-ordination:

'conflicts between different policy communities (highway engineers versus health planners versus environmental regulators and pressure groups) may be structured by just as deep divisions in underlying systems of meaning and ways of acting' (p. 116) .

Twenty years later one of the interviewees in this study referred to co-ordination between forestry and other policy areas as *'work still in progress'*.

Forestry, like all sectors, is subject to general legislation on matters such as health and safety, environment and equality. Until the devolution Acts of 1998 made forestry a devolved matter, however, the Town and Country Planning Acts and their analogues in Scotland and Northern Ireland were the only significant body of primary legislation outside the Forestry Act that dealt directly with forestry. They provide local authorities with powers to licence tree felling¹⁰⁷ and cover the felling and planting of trees within development, bringing these activities within the domain of local government. Forest management, like agriculture, generally is not covered by planning legislation unless it requires built development such as buildings or roads.

Both the 1947 Acts have, of course, been much amended and reinterpreted over the years but, as Handley (2010) illustrated, their underlying principles remain in force. Scott (1942¹⁰⁸) considered amenity to be one of the main concerns of rural planning and though the term 'amenity' still

¹⁰⁵ Subsequently renamed the Countryside Agency and in 2006 merged with English Nature and the Rural Development Service to form Natural England.

¹⁰⁶ The chief planning officer in Staffordshire at the time (1987) told me that he supported this new trend in forestry because it might help hinder the expansion of the Black Country boroughs northwards into the greenbelt in the southern part of the county. He was concerned by the prospect of consequent boundary changes that might then lead to a challenge to the status of the county as a unitary authority.

¹⁰⁷ The most recent amendment to the T&CP Act was in April 2012 when new tree-felling regulations were introduced in England.

¹⁰⁸ Referenced under 'Ministry of Works'

generates debate about what it means there can be little argument that forestry is a legitimate interest and concern for practitioners not only in the large professional fields of town planning and land-use planning but also other disciplines such as outdoor sport, recreation and landscape design and management where amenity is a central interest.

From this and other literature we can draw a post-war modernist, almost Fordist or Taylorist, construction of the countryside, or at least of the farmed countryside, that reflected immediate post-war concerns over food supply. It has become embedded in domestic and European legislation and regulation and because it provides the rationale for huge subsidies it is highly resistant to change even though the priorities for the countryside today are very different. Forestry policy was not frozen in such a post-war stasis, nor was environmental land management, to anything like the same extent. This theme continues to generate debate in the rural geography literature and is discussed further in sections 4.8 and 4.9 covering rural development and forestry.

4.7 Forestry and Farming: tenure and inheritance systems, farming culture and the effects of financial incentives

The purpose here is not to undertake an exhaustive review of agriculture and farming relative to forestry but rather to explore the possibility that farmers, the dominant land-owning group in the UK, have a particular perspective on forestry.

In the report of the Independent Panel on Forestry (2012) much is made of the lack of a 'woodland culture' in Britain, and this was a significant theme in an interview with one of the panel members. Sangster (2004) suggested that in the farming community this lack of such a culture can be explained in part as stemming from traditional systems of land tenure for forests and woodland. Historically in England and Scotland trees were owned separately to the land and remained the property of landlords rather than their tenants unless there was a specific agreement otherwise, although the tenants retained rights over the land on which the trees grew. Today it remains rare for business tenancy agreements or co-farming arrangements to allocate rights over trees to the tenant. This is partly because such agreements are time-bound and trees are unlikely to provide income to a tenant within the timescale of a tenancy or annual crop-share agreement. As a result farmers, who until 19th and early 20thC land reforms were largely tenants, saw woodlands as a burden rather than an asset to the farm. There is thus little tradition among British farmers of managing woodlands as an economic asset or as part of an integrated enterprise. During the research this topic was discussed with a local farmer in Fife, Scotland, who agreed with the analysis and cited her own family history of farm tenancy where trees were seen as a burden on the farm. This contrasts with European

countries where, for example in Norway, the woodlands are considered to be part of the farm enterprise and a source of employment and income in winter. (See, for example, Jeanrenaud 2001)

Surveys of farmers by the Commission, summarised in a review by Turner (1997) indicate that to many farmers woodland management is not seen as farming. In consequence the financial value of their woodland is often overlooked by farmers. Although subsidies through the CAP have in recent years emphasised whole-farm approaches the fact that forestry has been outside CAP has helped perpetuate this British culture of separation of forestry and agriculture. Edwards (2010) echoed Turner and Jeanrenaud when he also reported that in the Scandinavian countries, where woodland is often over 50% of the land area and farmers traditionally own their woodlands, farming and forestry are closely integrated and farmers have a culture of woodland management. The separation of forestry and farming in Britain does seem to be cultural rather than based on the practicalities of farming.

The neglect of farm woodlands has been a long-term lament in British forestry policy. The Forestry Commission (2006, p. 11) estimates that around half of the woodland area in England is un-managed and that almost 60% of the potential timber output goes un-harvested. Most of this un-managed and un-harvested woodland is on farms. Leslie (2011), one-time head of policy in the Forestry Commission in England, quotes an area of ½ million hectares of neglected woodland in England ... *'(the resource is) almost entirely broadleaved and suffers principally from fragmentation and low current timber value due to past abuse'*¹⁰⁹.

Woodland management is not the only area where farmers fail to realise commercial opportunities. Supporting the argument for a cultural dimension in the way that British land is farmed a number of writers on rural entrepreneurship also report reluctance on the part of farmers to engage in activities other than traditional farming. This is succinctly articulated by Getz *et. al.* (2004, p. 125) cited in Phelan and Sharpley (2012) who, wondering why farmers fail to take advantage of tourism opportunities, observed that:

... 'farming is supply-driven, tourism is market-led; farmers are cost-cutters, tourism businesses are revenue maximisers; farmers produce single standardised products at a given price, tourism businesses diversify into many products and offer a range of prices'. (p. 3)

This is an echo of the productivist / post-productivist discussion in section 3 above. Drawing on Wilson's (2001) idea of 'mental landscapes', where the agricultural landscape is productivist, and Turner's (1997) argument that there is a degree of social regulation influencing farmers' behaviour,

¹⁰⁹ Leslie is referring in part to felling of woodlands during the two world wars that subsequently were too expensive to replant because of weed growth and poor internal road access.

we can perhaps argue that there is an embedded understanding among the farming community that a person is defined as a farmer by the things that he or she does and doesn't do: with forestry and tourism - and possibly other service activities such as environmental management - falling into the 'don't do' category.

Historic systems of tenure were, however, diverse and were also subject to sub-national modifications. The effects of this can be seen today in regional differences in land management. In Wales after the conquest by Edward 1st in 1284 the Norman feudal system was established in the border country and along the southern coastal plains. The upland country of west, central and north Wales retained its Welsh system¹¹⁰ of tenure. Although it was a long time ago the influences of these different institutional arrangements can still be seen in the landscape and rural culture of Wales where the estates and tenanted farms in the Norman areas contrast with the landscape of smallholdings or upland grazings common in the rest of the principality.

In Ireland the land reforms of the late 19th and early 20th C¹¹¹, whose scope included what is now Northern Ireland, meant that this separation of woodlands and farms was largely ended. Nevertheless the tradition that farmers do not manage woodlands remains embedded. The influence of culture, however, should not be over-emphasised as the examples below from Scotland and Ireland illustrate.

Reporting findings that are typical of such research FRCC¹¹² (1992) supported a study in the Scottish central Belt where:

'... hostility to farm forestry development remains strong, and there was widespread indifference to Government tree planting programmes... (farmers) did not regard trees as a crop and all were extremely unlikely to plant trees on productive agricultural land.' (p. 2)

The authors suggested that this reluctance by farmers is due partly (a) to the fact that they are used to annual cycles of activity and income so find the long-term nature of forestry and woodland income difficult and (b) the low returns from forestry make agriculture, subsidised through the CAP, a much better option.

This contrasts with recent experience in Ireland where rapid forestry expansion was achieved almost entirely by planting farmland. Kearney (2001) in a similar review of research into farming and forestry but in this case among Irish farmers reported that:

¹¹⁰ From 'Researching Historic Buildings in the British Isles' <http://www.buildinghistory.org/trefi.shtml>

¹¹¹ The Wyndham Land Purchase Act of 1903 gave tenants a right to buy their land and provided subsidies from the Government. It was one of a series of land reform acts intended to deal with political conflict over the rights of tenants.

¹¹² Forest Research Co-ordination Committee, FRCC

'The expansion in the area under forestry over the past 15 years was almost exclusively due to the economic stimulus in the form of afforestation grants and annual premia. Numerous studies had demonstrated the suitability of substantial areas of the country for productive forestry, but it was not until the introduction of an annual income (for farmers) that any significant breakthrough occurred in the development of private forestry.' (p. 1)

The difference here is that the farmland afforestation in Ireland was heavily subsidised by the European Commission through an Objective 1 programme¹¹³ that gave farmers an annual income. Although Objective 1 programmes have also run in the UK forestry has never received direct subsidy comparable to Ireland. In the UK there was a substantial incentive-driven expansion of forestry over the two decades to 1990 but the incentives were in the form of tax allowances rather than annual income. The tax incentives allowed annual net expenditure in forestry to be offset against personal income and the profits of enterprises, including non-landed enterprises. As forestry involves large initial costs and income from harvesting does not accrue for decades farmers were effectively excluded from afforestation, which was undertaken by landed estates and forestry companies acting on behalf of rich individuals and financial institutions – again perpetuating the separation of forestry from farming. Note that a key part of the Irish scheme was to deliver annual revenue tailored to fit the farming business cycle.

4.8 Forestry and Rural Development: Paradigms of the Rural

Agricultural policy is set within the framework of the CAP but in rural development the countries of the EU have a freer hand to develop national policies. An extensive literature on rural policy was categorised by Elands (2000), drawing on Marsden (1999) as constructing the countryside in terms of five discourses. The characteristics of each type are set out in table 7:

- Agri-ruralist,
- Hedonist,
- Utilitarian,
- Community centred and,
- Nature Conservationist.

Table 7: Discourses on rural development (Source: Elands 2000)

<i>Rural areas</i>	<i>Agri-ruralist</i>	<i>Hedonist</i>	<i>Utilitarian</i>	<i>Community Centred</i>	<i>Nature conservation</i>
Conception	Farmers are stewards of the countryside	Countryside as the garden of the city	Production areas to be used for economic purposes	Remote places	Potential nature areas, nature has intrinsic values
Problem	Crises in modern farming	Deteriorating aesthetic, cultural and	Underdevelopment and retardation.	Marginalisation, stagnation and decrease in liveability	Uncontrolled incursion of rural areas into

¹¹³ Objective 1 is a programme funded directly by the EC where the aim is economic 'convergence' so that poorer regions are lifted to the EU average.

		natural values		and economic vitality	wilderness areas
Future	New social contract farmers-society, sustainability & quality	Re-establishment of these values above all	Need for innovative economic activities	(Re) creation of basic socio economic structures and living conditions	Creation of new controlled, balance between rural and nature areas

Frouws (1998), however, complained that there is a tendency for policy-makers and academics alike to construct such theoretical concepts where rural people are the objects of, rather than participants in policy. This echoes the discussions in this document on forestry professionals and on environmental economics where there is a dissonance between the technocratic perspective and that of the people who live in or use the countryside. Frouws asks ‘*who talks like this, do any communities talk of themselves in this way?*’ (p. 55)

Philips (1998) remarking on how much rural geography failed to take into consideration the views and subjectivities of people living in the countryside quotes Philo (1992, p. 201) :

... ‘rural landscapes are either deserted of people ... or occupied by little armies of faceless, classless, sexless beings ... basically obeying the great economic laws...’

Whatever approach is adopted, common to all writers is an acceptance that the countryside – itself a contested term – is changing. Sangster (2006b) summarised some of the key changes reported in the UK literature:

- ‘Rural’ as an economic definition can convincingly be argued not to exist; the rural economy is integrated with the national & global economy,
- The countryside increasingly is cast as a source of services (environmental, ecological, recreational, industrial) rather than a place of production,
- The need for services for the urban population, especially water, is an increasing constraint on rural land use,
- Ownership rights over rural land are ambiguous and contested, for example recent legislation on hunting and access, regulatory ‘appropriation’ of water in the EC’s water framework directive, compulsory purchase rights of utility companies,
- Urban migration into the countryside is leading to changing values in the rural population and to differing perceptions of rurality, and
- New codifications of the countryside, for example in the discourses of sustainability, of rural development, of land designation and in ecology favour certain activities and inhibit others.

OECD (2006) suggested that similar changes can be seen in developed economies generally, identifying what they call ‘a new rural paradigm’ illustrated in table 11:

Table 8: The New Rural Paradigm (Source: OECD 2006)

	<i>Old approach</i>	<i>New approach</i>
Objectives	Equalisation ¹¹⁴ Farm income, Farm competitiveness	Competitiveness of rural areas, Valorisation ¹¹⁵ of local assets, Exploitation of unused resources
Key target sector	Agriculture	Various sectors of rural economies (e.g. rural tourism, manufacturing, ICT industry, etc.)
Main tools	Subsidies	Investments
Key actors	National governments, farmers	All levels of government (supra-national, national, regional and local), various local stakeholders (public, private, NGOs)

What we can take from the above discussion is that rural policy, of which forestry policy is arguably a sub-set, is complex and that there is considerable ambiguity and argument over its objectives. These arguments are mostly confined to scholars and policy-makers; they take place within an elite ‘rural technocracy’ whose constructions of the rural, it has been argued, are undertaken with little reference to the people and organisations whom their policies impact. These debates over rural policy are significantly different, however, to the recent debates over forestry policy where the ENGOs were active participants. The E-NGOs do not seem to be active participants in theoretical and policy literature. This might be because their interventions are through channels other than peer-reviewed literature, though they were also relatively absent in web-based searches. Is this because in forestry the E-NGOs have agency that they do not have in rural policy?

Having asked ‘who is the countryside for’ we now turn to a debate that concerns the nature of the rural economy and the suitability of current policies that have their origins in post-war legislation.

4.9 Forestry and the ‘Post-Productivist Transition’

A number of authors including: Marsden *et. al.* (2003), Mather (2001), Milbourne *et. al.* (2006), Nail (2008), Tsouvalis (2000) and Hopkins (1998) have postulated variously a ‘postmodern’, ‘post-productivism’ or ‘post-industrial’ turn in late 20th century British forestry. Table 9, from Mather, illustrates the differences between what he referred to as ‘industrial’ and ‘post-industrial’ approaches in forestry.

¹¹⁴ Bringing farmers’ incomes up to national average levels.

¹¹⁵ Fixing a price, usually through government action.

Several of these authors write similarly about agriculture. Wilson (2001, p. 78), writing of productivism in agriculture cites Lowe *et. al.* (1993, p. 221) to explain the term ‘post-productivism’ as:

‘... a commitment to intensive, industrially driven and expansionist agriculture with state support based primarily on output and increased productivity. The concern (of productivism) was for modernisation of the “national farm” as seen through the lens of increased production.’

In the extended citation Lowe then identifies a productivist agricultural regime where the focus was to boost post-war food production. The regime comprises ... *‘not only the Ministry of Agriculture and other state agencies but the assemblage of input suppliers, financial institutions, R&D centres and others who facilitated the expansion of agricultural production’* (p. 221).

Table 9: Characteristics of the Industrial and Post-Industrial Forest

	Industrial Forest	Post-industrial forest
Management objective	Timber production, Mono-functional	Environmental services Multifunctional
Typical composition	Even-aged conifers	Mixed age and species
Typical location	Peripheral / remote upland	Peri-urban / lowland
Values	Instrumental	Intrinsic
Ethos	Rational	Emotional
Management style	Authoritarian	Consultative
Management approach	Mechanistic / reductionist	Organic / holistic

Source: Mather (2001, p. 252.)

The Cabinet Office Strategy Unit (1999) had a similar view:

... ‘(there is) ... a mismatch between an emerging new paradigm for rural issues and a policy framework still shaped by the concerns of the early post-war period’. (p. 33).

Wilson is less able to define or to find scholarly definitions of ‘post-productivism’ and argues that productivism is still a live ideology that has adapted over time in an economy where services have overtaken production in importance. These ideas are highly relevant for forestry at present as one of the possibilities arising from institutional change is that agricultural departments, whom Lowe casts as key players in what Wilson sees as a continuing productivist regime, will assume direct responsibility for forest policy.

Other than Tsouvalis and Nail the writers cited above are applying an essentially economic critique. Though they might claim to stand outside the normative mind-set that they argue is embedded in agricultural policy they are writing, nevertheless, within a realist paradigm. Tsouvalis is one of a much smaller school of writers to examine forestry through a classically postmodernist lens, looking at issues of identity, symbolism, the creation of new meanings through social discourse and how actors in the sector have responded to changing social constructions of forestry and forests.

Miller (1997: pp. 43 - 66), who as Professor at Aberdeen taught many hundreds of currently practising foresters, reminds us, however, that services have always been an important output from forest management. He shows that society's demands on forests are changeable, reflecting the concerns of the time¹¹⁶. The traditional early 20thc non-timber outputs of shelter for livestock and crops, sporting¹¹⁷ and landscape have expanded to include recreation and environmental management and most recently a wide range of 'ecosystem services' that link forest management to outcomes such as water and air quality, flood management, carbon sequestration¹¹⁸, climate change and urban greening¹¹⁹. Willis *et. al.* (2003) in a study for the Commission to ascribe monetary values to non-traded benefits listed such benefits as including: open access, non-priced recreation, landscape amenity, biodiversity, carbon sequestration, pollution absorption, water supply and quality, and protection of archaeological artefacts as the principal direct benefits of forestry. Willis and Crabtree (writing as CJC Consulting (2005) subsequently proposed that if the potential benefits of forests for public health are monetised they are of an order of magnitude comparable to the sum of all the benefits listed above. The health benefits they identified arise because forests are spaces available for outdoor exercise. This can lead to savings to the NHS budget through increased fitness in the population.

An insight from the postmodernist authors such as Tsouvalis is that as forestry is reconstructed the new paradigms, rather than replacing previous constructions add to and sit alongside them. To Cloke and Milbourne (1992) there is no single rural space, but rather a multiplicity of social spaces in the same geographical area. For these authors the way in which the occupants of rural areas represent themselves is more relevant to rural policy than theoretical definitions. Cloke (1996) drew upon

¹¹⁶ Oaks for warships in 1840, pit-props for the coal mines in 1919, Ecosystem services and climate change in 2012! Miller describes an on-going discourse that, from the rationalism of the Enlightenment to the postmodernist confusion of 2012, reflects society's attempts to pin down its relationships with the natural world.

¹¹⁷ Shooting, hunting and stalking.

¹¹⁸ Trees are made largely of cellulose, a polysaccharide built through photosynthesis from carbon dioxide and water using the energy in sunlight. They absorb carbon dioxide from the atmosphere. Trees and organic forest soils are an important sink or store for carbon. Up to 18% of annual global carbon dioxide emissions have been attributed to forest clearance. (Stern Report, 2006, p. 537)

¹¹⁹ There are numerous references on services from forests, a good account is: *Parliamentary Office of Science and Technology (2007) Postnote 275: UK Trees and Forests.*

Baudrillard (1981) to argue that there exist notions of rurality that bear little relation to the actual conditions of many rural spaces but nevertheless influence how people act and think.

This accretion over time of often seemingly incompatible perspectives, for example timber harvesting and carbon sequestration by standing trees, makes forest management a complex activity. The changes seen in British forestry, as Humphreys (2004) illustrates in his review of forestry policy in European countries, have subsequently been mirrored in developed countries across the world. Despite its small forest area the UK has a significant influence in international forestry policy, attributed by two interviewees to its importance as a market for wood products and by another to its willingness to adapt and innovate as society changes.

Why is it that forestry might be able to innovate more effectively than other parts of the rural economy? The comments by the interviewees were discussed outside the formal interviews. They reflected an argument put forward by Sangster (2004) and is to do with the way that regulation in the forestry sector is largely through consensus rather than legislation. The Forestry Acts¹²⁰ charged the Commission with supporting the development of domestic forestry, timber processing, research and forestry education. As a result the Commission has close and very long-established relationships with private forestry interests and with the processing sector. It maintains an advisory service and operates grant schemes to encourage private forestry and, in order to provide security for capital investment in processing, guarantees timber supplies to major wood processors. The Commission employs about 1/3rd of the professionally qualified foresters in the UK; almost uniquely for a Government department its senior personnel are mostly technicians – professionally trained foresters. Commission personnel have close relationships with their private sector counterparts. Operating very much as Barker suggested, that professional networks are a normalising force that spans organisational boundaries, regulation of the forestry sector by the Commission is on a largely voluntary, consensual basis where the Commission and sector negotiate changes. This has enabled changes to regulation to be introduced rapidly once agreement is reached.

The interest by policy-makers initially in ‘non-market benefits’ and in current parlance ‘ecosystem services’ as the principle justification for intervention in forestry has consequences for governance. The beneficiaries of services such as improved public health, improved air quality, outdoor recreation, flood management or carbon capture are not landowners but different elements within wider society. Funding for the delivery of such outcomes comes from diverse sources. Stanley (2006) found that traditional funding in forestry, which had largely come from sales and production-oriented grants, has to some extent been replaced by a complex mix from lottery bodies, European

¹²⁰The most recent is the [1967 Forestry Act](#) (amended)

structural funds, environmental agencies, local authorities and other 'project funders'. Rather than funding programmes these funders wish to purchase specific outcomes; in order to maintain their programmes, therefore, forestry managers need to put together packages of funding that span a range of different outcomes each of which is funded by a project funder.

These funders expect a say in how the services they are funding are delivered and also demand that their projects are evaluated. Sangster (2006a) summarised Stanley's argument so:

'Stanley argued that this had led to the emergence of a 'project elite'. Funding is delivered through a new set of agenda-setting agencies to a small number of organisations that have the capacity to bid and the political awareness to apply the right language. He adds that beneficiaries are overwhelmingly state-sector and large NGOs whilst private landowners are excluded.' (p. 6)

Stanley's research was centred on forestry in South-East Wales. Weldon and Tabbush (2004) researching governance in public forests in North-West England found that a senior regional manager, whom they expected to be pre-occupied with line management issues, was in fact spending almost half his time travelling between 'partnership meetings'. Whilst their analysis differed to that of Stanley, as they interpreted their findings as evidence of a participatory approach to forest management, their study supported Stanley's later argument that in the public forests the task of middle managers increasingly was to engage with networks of funders and potential funders in order to maintain their ability to operate. The DG of the Forestry Commission, interviewed for this study, was quite clear that the Commission would be unable to operate without access to external funding and that this influenced management objectives in the Commission's forests.

4.10 Sociological and cultural aspects of forestry: symbolism, identity and behaviour

Whilst landscape design is a professional discipline there is a considerable literature predicated on the notion of landscape as a social construct. For example in Schama's frequently cited book '*Landscape and Memory*' (1995) we read:

'Even the landscapes that we suppose to be most free of our culture may turn out, on closer inspection, to be its product At the very least, it seems right to acknowledge that it is our shaping perception that makes the difference between raw matter and landscape' (pp. 9-10).

This idea of landscape as a construct, influenced by culture, was accepted with little contention by European governments in their ratification of the European Landscape Convention (Council of Europe, 2000), in which landscape is defined as:

"An area as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (preamble).

Macnaghten and Urry (1998) went further, proposing that nature itself is a construct built from specific social practices so:

'... 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". (p. 202)

We do not need, however, to over-theorise these connections between society and the physical world. Hoskins (1955), the great historian of landscape, needed no sociological theory to make the link between landscape and culture, to him there was an abundance of physical evidence:

'... the geologist ... explains to us the bones of the landscape ... but the flesh that covers the bones, and the details of the features, are the concern of the historian, whose task it is to show how man has clothed the geological skeleton during the recently comparative past.' (p. 13)

What we can say is that a society's understanding of landscape is intertwined with culture, indeed the physical reality of landscapes – think of a pastoral upland or a wooded royal hunting park – is frequently an outcome of culture. The almost treeless landscape of Norman England is another example. Bell (2004) argues that trees and woodlands are key elements in temperate landscapes because of their visual impact, their three-dimensional nature, the sense of enclosure they can imbue and their property of hiding and revealing what is visible to the observer. He argued that forestry is often contentious because it can induce rapid changes in landscapes, for example through felling and planting, to which the public react. One of the interviewees argued strongly that the public reaction to a proposal to sell the public forests was largely instrumental; it was to do with loss of amenity. An alternative argument, that it might also have been to do with a sense of dissonance with a cultural norm, can be made quite easily given the volume of literature on landscape and 'nature' as part of culture.

4.11 Differentiated Demands on Forests

Class differences

Macnaghten & Urry's comments hint that different social groups have different perspectives on the natural world. Travlou & Ward-Thompson (2009) made a similar case and suggested that the differences were in part down to aesthetics and affordances¹²¹, which opens up a large sociological literature on aesthetics as a social differentiator. In his book 'Distinction' Bourdieu (1984) explored

¹²¹ Things that the environment enables you to do. It is a term introduced by psychologist James Gibson who defined affordances as all "action possibilities" latent in the environment, objectively measurable and independent of the individual's ability to recognize them. People with different perspectives are likely to recognise different affordances. (Gibson, J. (1977), The Theory of Affordances. In Perceiving, Acting, and Knowing, edited by Shaw, R. & Bransford, J. ISBN 0-470-99014-7.)

how a conditioned appreciation of aesthetics is used as a marker for social differentiation, where the rude appreciation of the proletariat contrasts with the refined appreciation of the elite. Wood (1993), writing about the work of Albrecht Altdorfer chronicles how, as long ago as 16th c, 'landscape' transformed into art, a theme developed at length by Schama, allowing one to argue that it became the domain of the educated elite. Morris (2003) writing on the history of countryside access by factory workers in the early 20th c identified one of the barriers as a reaction by upper-class landlords against working-class people who had no proper understanding of the countryside. We can thus make a case for some kind of class-based, or perhaps education-based, difference in the way that people think about and value the countryside.

Social differentiation

This idea of the countryside as a space differentiated by class is recurrent in the literature (see e.g. Bunce, 1994) whilst Sibley, writing about the urban outdoor environment, discusses the tendency of powerful groups to "purify" space and to view not only the uneducated but also minority groups as defiled and polluting. Sangster (2005) wrote about the appropriation of the countryside by nationalists prior to the 2nd world war, making it a 'racist space' whilst Neal and Agyeman (2006) write of 'rural racism' as a continuing phenomenon. In a memorable passage Agyeman describes being the sole black face in a countryside populated by white people.

Personal characteristics

The literature is supported by a strong body of empirical research, a notable study being Burgess's (1995) pioneering research for the Countryside Commission that showed gender, cultural and lifestage differences in people's relationships and aspirations for forests¹²². The use of the countryside by disabled people is less well researched, partly because of ethical issue and the difficulties researchers have in obtaining access. Burns *et. al.* (2008) in a qualitative study covering Great Britain showed that provision for access by the disabled was open to criticism largely because forest managers saw 'disabled' as a single category and did not understand the diverse needs of disabled people.

There is clear evidence from surveys that the countryside is used differently by different classifications of people. FC statistics (Forestry Commission 2012c) explain the GB day visitor survey programme so:

'Day Visits Surveys'¹²³ were carried out in 1994, 1996, 1998 and 2002-03, for a consortium of government departments and agencies interested in tourism and recreation. The surveys provided estimates of the total number of leisure day visits from home to towns, countryside

¹²² The Forestry Commission's social research team have established a large portfolio of research on this and other themes, accessible as summarised reports at <http://www.forestry.gov.uk/fr/INFD-7N3EWJ>

¹²³ The surveys have subsequently been replaced by country-level surveys.

and seaside in Great Britain (England, Scotland, and Wales). They also gave the demographic profile of visitors and attributes of the visits such as duration and distance' (web page¹²⁴).

Forests and woodlands were included as a separate category within the surveys and came second to the seaside as the most popular recreational destination. The surveys show that countryside recreation is predominantly a middle-class activity. BAME people are under-represented and there are life-stage variations in outdoor recreation where the most significant pattern is a drop in outdoor activity in teenage years, especially among girls, that persists until mid to early 20's¹²⁵. Research in Central Scotland, subsequently confirmed in research in England (Ward-Thompson and Travlou, 2009) indicates that people who visited the countryside as children are more likely to visit again as adults. Old people are also under-represented.

Non-users

A considerable effort has been made by outdoor agencies in the UK, notably by Natural England (see for example, Natural England (2012)) to understand and address social exclusion in the countryside. The drivers for this were the New Labour policies on social exclusion and more recently the 2010 Equality Act that requires public bodies to analyse and understand the implications of their activities for equality and to address inequalities that they identify.

For the purpose in hand – to identify stakeholders and policy areas that are relevant to forestry – we can say:

- there is clear evidence of inequality in access to forest amenities and that the inequality legislation compels public bodies such as the Forestry Commission and outdoor agencies to take action;
- these differentials require a governance system that recognises the complexity of the demands on the forests;
- The forestry profession is an unlikely proxy for such a diverse range of interests and;
- Insofar as the professional groups involved in policy formation are an educated elite their world-view is likely to differ to that of the wider public and give greater emphasis to aesthetics and cultural constructions.

4.12 Consumerism as an Influence on Values

Continuing the theme of symbolism and identity, and again picking up the theme of postmodernism, another influence that seems likely to influence people's understanding of forestry is consumerism. The theme is introduced this theme here as the literature has wealth of ideas that are relevant both

¹²⁴ <http://www.forestry.gov.uk/forestry/INFD-5ZYLCR>, accessed December 2013.

¹²⁵ What seems to happen is that young adults recommence outdoor recreation when they start to take their children out to the countryside.

to the way that professional culture develops and also to the public response to the forestry sales proposal.

Lannon (1994) argued that consumerism was in part to do with the construction of personal and shared identities, following Douglas (1979) who explained consumerism as a largely symbolic activity in which possessions signal our values and status not only to others but ultimately to ourselves.

Mather (1998 p. 120) referred to a transformation of forests from places of production to places of consumption, where forestry policy reflects changing cultural practices in wider society (p. 106).

One interviewee for this study, a senior forester, discussed consumerism as an influence on how urban people understand the countryside. She commented on how visits to the Forestry Commission's wildlife sites were at an all-time high and still growing, and that public interest in nature-related television programs (cited as an example of '*nature consumption*') had never been higher. She believed that this indicated a sense of stewardship and altruistic interest in nature. However, another interviewee suggested that from the evidence of the antagonistic public response to privatisation of Forestry Commission woodlands the public's relationship with forests has a strongly instrumental aspect: '*it was all about having somewhere to walk the dog*' said this senior Commission official. Nevertheless there is a large literature that links place to identity and this, given the particularly strong influence of trees on the perception and quality of place, indicates a need for quite localised processes of governance where individuals have an avenue through which they can influence forestry – especially when forestry activities such as felling lead to significant changes in a locality.

Insofar as a consumerist approach to forestry is symptomatic of a postmodernist paradigm we can use these arguments to support Tsouvalis's (2000 p. 185) view that forestry in a post-modern world would mean that local communities are actively engaged in making decisions about 'their' forested environment.

The literature on consumerism holds ideas of interest to this study that relate to the way that individuals and like-minded groups form opinions about things. The following passage is adapted from Sangster (2007) in a document for the DBA:

'Jackson (2005) discusses the links between perception and understanding and their effect in engendering behaviours. People have limited agency in the choices they make and have coping strategies such as habit and heuristics to simplify the complexity of the choices they face. Jackson turns around the idea that values drive behaviour and asks if, instead of being the consequence of a person's beliefs and values, behaviours sometimes inform them. Do people infer meanings from observing their own behaviours and in so doing build for themselves a set of values shaped by the limited choices available to them?'

In this question Jackson nuances Jeremy Bentham's (1798) ideas of the Panopticon, later adapted by Michel Foucault (1975 pp. 158, 205). Foucault described a process of self-indoctrination in which people aspire to act within accepted norms. Initially seeking confirmation of their conformance with the norm through the observance of others they eventually begin to watch themselves and adjust their own behaviour. Douglas (1986) makes a similar case for internalised systems of compliance with social norms. She argues that the threat of exclusion is the foundation on which all social institutions are built.

Whilst these ideas are common in phenomenological analyses of consumerism, what each of these writers is describing from within their different disciplines does not seem to be very different to what business academics such as Argyris, illustrated for example in an interview with Kurtzman (1998), might describe as the development of organisational culture, or in the case of a profession such as forestry as professional culture. Lannon (1994) a marketing academic, writes of identity built through tribalism and membership and she, too, raises ideas of compliance with group norms that become personal norms, self-policing and signalling.'

We can, therefore, surmise that if what one does tempers one's values and understanding through self-surveillance and internalised compliance with group norms then professional groups automatically have an innate tendency to have a similar perspective on things that relate to or are routine within their working life. This is a different argument to that of writers on professionalism, for example Schmidt (2000), who attribute the normative force as deriving from a person's desire for legitimacy.

This idea is developed further in the final stages of this chapter where an argument is made that professional identity is to some extent formed by agency and the routines of work.

4.13 Legitimacy & Public Trust in Institutions and NGOs

It is argued at several points in this text that the profession's reputation and legitimating authority are important assets. In this section the idea is explored a little further. The mechanisms through which NGOs build and maintain their legitimacy are briefly considered together with indications that public trust in NGOs is diminishing.

The distinctive capabilities of the forestry profession, given that membership of a professional body is not necessary to practice as a forester, seem largely to be symbolic and to derive from its charter. If professions are communities of knowledge and if we accept Lyotard's (1984) idea¹²⁶ that knowledge increasingly is a commodity then it follows, as with all commodities traded between strangers, that there will be a demand for systems of quality assurance so that people can be confident that will get what they expect to get. ICF is an authority on knowledge in its field, it can pass judgement on the legitimacy of quality assurance schemes such as those found in higher

¹²⁶ 'Knowledge is and will be produced in order to be sold; it is and will be consumed in order to be valorised in a new production: in both case the goal is exchange. (pp. 4-5)'

education, meaning that it automatically has a role in HE, and it can itself provide quality assurance to processes such as forestry policy-making and forestry research and science. It can also question the legitimacy of decision-making and practice. To do so, of course, it needs to be recognised as an authority by those it wants to influence.

Why would decision-makers care about the endorsement of professionals? Bromley *et. al.* (2004) reporting on a lengthy ESRC¹²⁷ funded research project on the state of democracy in the UK reported findings similar to those in the 'Edelman Trust Barometer' (see below). They found a decline in levels of trust in government and in confidence in the political system. This was combined with low and decreasing levels of participation in elections and a diminishing sense of attachment to the political system (p. 5).

Diminishing trust in institutions seems to be a trend in Western countries. Edelman, a US public relations company, runs an annual world-wide survey, the '*Edelman Trust Barometer*' (Edelman, online¹²⁸), to measure public trust in a range of institutions. They reported for 2012 ... '*a nine point drop in the worldwide total, giving an overall score of 43% for trust in governments. In the UK trust fell from 43% in 2011 to 38% in 2012*'. Edelman also reported a drop in trust in NGOs and in business. How rigorous these results are¹²⁹ is not apparent from their literature but the trends they report are in line with a large volume of online commentary. Jepson (2005), drawing on contributions from CEOs of six major E-NGOs in the UK identified a growing concern over governance and legitimacy. So:

... 'from the outside, these NGOs¹³⁰ look and act increasingly like a morph between trans-national corporations and government development agencies. As a result scholars, policy analysts, journalists and activists with an interest in this field are starting to direct the same concerns of public accountability to these 'green-chip' ENGOs as were previously directed to other primary sectors in society' (p. 516).

The relevance of this concern is that governments, and to some extent companies and the large E-NGOs, feel a need to demonstrate their legitimacy. This is an opportunity for ICF to exert influence on forestry-related processes in government and more widely. Given the suggestion by Hallsworth *et. al.* (2011), in a discussion in Chapter 5 of their report, that civil servants have difficulty translating policy into practical action there seems also to be a role for ICF to build relationships in government and elsewhere.

¹²⁷ Economic and Social Research Council

¹²⁸ <http://www.edelman.com/insights/intellectual-property/2014-edelman-trust-barometer/>

¹²⁹ I wrote and asked; they follow Marketing Association codes.

¹³⁰ The paper was about E-NGOs with turnovers in excess of £15m.

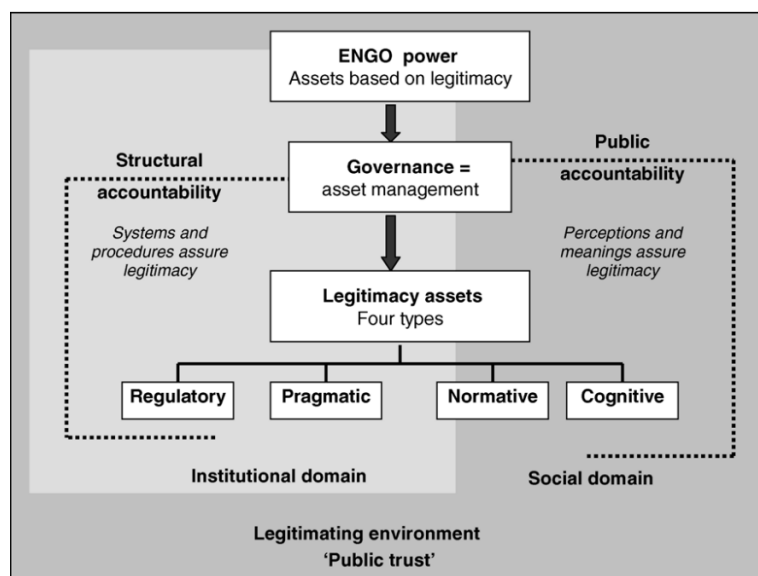


Figure 13: A conceptual model linking ENGO governance, accountability and legitimacy. Source Jepson (2005)

Turning to NGOs, which appear to be used by officials as a source of legitimacy in forestry policy, Goodin (2003) suggested that for NGOs accountability and legitimacy derives from their engagement in cooperative networks – as is illustrated by their relationships with officials and ministers. Jepson (2003) cast some light on why ENGO’s are given an inside-track. He argued that E-NGO legitimacy is essentially to do with a pragmatic acceptance of their power plus their symbolic association with particular sets of values¹³¹. His model of NGO legitimacy, illustrated in figure 13, reflects strategic models from the literature on corporate that construe capabilities and capacities as key resources.

Jepson argued that NGOs’ capacity for impact is founded on ‘different types of legitimacy that together establish and maintain public trust.’ He identified sets of ‘legitimizing assets’, set out in Table 10. Note that in Jepson’s model the regulatory dimension is relatively minor.

Table 10: Categories of legitimacy in the NGO sector and examples of ‘legitimizing assets’, from Jepson (2005, p. 520)

Legitimizing category	Regulatory	Pragmatic	Normative	Cognitive
Descriptor basis	Proper, based on law, conforming to legal requirements	Real-world, based on self-interest, value production, demands of the marketplace.	Rightness, based on evaluation, conforming to ideals.	Taken for granted, based on cognition, conforming to models.
Legitimizing assets	Abide by law, duly constituted, properly managed by conventions etc.	Economic clout, lobbying-networks, professional expertise, history of engagement, organisational realities, benefits of ‘brand alignment’.	Activities benefit others, independent actor, grounded knowledge, public constituencies, wise stewardship of resources, effective and efficient delivery of activities.	Self-sacrifice, defenders of values, moral ideals, honesty, challenge power & status quo, watchdog.

¹³¹ Jepson drew heavily on a paper by Lister (2003) arguing that the legitimacy of NGOs is socially constructed. Her paper was to do with NGOs in overseas development; Jepson applied her arguments to E-NGOs in the UK.

What seems to be indicated in the literature is that the structural accountability of major NGOs increasingly is being questioned from a standpoint of organisational governance not only by academics but also by politicians and corporations. In addition the public seems to be increasingly uneasy, shown in surveys, over public accountability and perhaps feel that the pragmatic and normative dimensions identified by Jessop have tilted towards self-interest. These ideas are revisited in the concluding chapter.

4.14 Characteristics of the Forestry Profession

As it progressed the empirical research indicated that the forestry profession has characteristics that might in part be a reason for the exclusion of its members from decision-making. The literature was revisited to explore the concept of professionalism in the forestry sector and also more widely.

Professions in general

Schmidt (2000) drew on his experience as a teacher to argue that professionals of all kinds think less independently than non-professionals. He drew a distinction between the liberal tendencies of educated professional people, which he said applied to distant social issues, and their behaviour at work where their personal agency derives from adopting the mores of their profession. In his account a profession is an ideology to which members are inducted by training and their acceptance of peer group norms. Professions are also inherently exclusive: reviewing Schmidt's book Martin (2001) agrees: *'do you know many lawyers who support free training for litigants to represent themselves, or doctors who favour making it easier for people without medical qualifications, such as nurses, to practice medicine?'* (p. 41).

Forestry professionals

In addition to these characteristics the literature gives support to the notion that the forestry profession has a particular world-view. Environmental psychologists Kaplan and Kaplan (1989), observing how the forestry sector in North America responded to environmental concerns in the late 1970s and early 1980s, painted a picture of a normative mind-set that was traditional, rationalist and technological in outlook. Foresters were thus unable to engage with what they considered to be emotional and value-based arguments made by the environmentalists. There was a 'cognitive dissonance', or an epistemological conflict, that would require foresters to compromise their collective professional values if they were to accept the environmental arguments. The Kaplans (pp. 17 – 19) consider a person's judgements about natural environments to be based on perceptions that are developed from subjective experience. Professionalism, however, conditions such perceptions to fit with an indoctrinated rather than a personal construct so that the combinations of

elements¹³² of experience, which are common both to the professional and to the lay person, take on different meanings. The profession has a particular vocabulary to express these meanings so that communication with non-professionals is constrained by differences in perception and vocabulary.

Beckley and Korber (1995) made similar observations. They identified barriers not only between Canadian foresters and the public but also with other stakeholders and this led them to propose the existence of a 'forest management paradigm' (p. 1). Also in North America, Cramer *et. al.* (1993) in a survey to examine 'value orientations' of US Forest Service staff found that these value-orientations are reflected in their decision-making, even where regulation and statute indicate a particular outcome. They found 'sharp differences' between established management practice and the direction in which operational managers believed the agency should be moving, where greater emphasis should be given to 'non-commodity'¹³³ uses such as recreation and wildlife. This tendency has been clearly identified in my own research (Sangster 2002) as applying also to the forest service in Britain. The Commission's Director General at the time argued that senior staff were highly indoctrinated – *'to get on the fourth floor you have to see things like everybody else there sees them'* – and that innovation came, as Cramer proposed, largely through operational line managers adapting their practice in response to local influences. In a separate discussion several years earlier a senior retired FC manager¹³⁴ had made exactly the same point to me as the DG a decade later ... *'by the time you reach the fourth floor you are completely indoctrinated into the FC's way of seeing things'*. (pers. comm. 2004)

Professionalism as a differentiator

In the UK Grove-White¹³⁵ *et. al.* (1998) and Henwood and Pidgeon (1998)¹³⁶ in research for the Commission explored the relationships between professional foresters and the public; they found similar results to the North American studies. Both of these studies identified professionalism in the Commission to be a barrier that inhibits shared understanding with forest users. Grove-White, in subsequent discussion, suggested that this misunderstanding was severe enough not only to influence the attitudes of Ministers towards the Commission but was also leading the Commission to miss commercial opportunities.

A number of authors e.g. Mackay (1995), Mather (2001), have argued that forestry in the UK is, or has been, strongly positivistic. Deane (2004) in his MPhil thesis argues that a dominant positivist paradigm in Australian forestry, which has similar antecedents to the Forestry Commission,

¹³² The Kaplans have researched how people experience nature, and suggest that a combination of elements experienced by a person – green-ness, the shape of leaves, the texture of tree trunks and so on – are combined to generate an overall perception.

¹³³ The terms 'intangible' or 'non-market' are used in this report.

¹³⁴ Andy Neustein, the FC's manager responsible for forestry in Northern England at the time.

¹³⁵ A philosopher at Lancaster University and one-time Director of Greenpeace.

¹³⁶ Psychologists at Bangor University.

constrains the capacity of the forestry industry to engage with communities or benefit from participative approaches, for example in harnessing local knowledge. Bell (2002) has argued that forestry is a Cartesian, post-enlightenment project based on applying science and technology to dominate nature. In a series of studies of forestry in South-East Wales a number of authors from the Department of City and Regional Planning at Cardiff University e.g. Kitchen (2005), Stanley (2006), Marsden *et. al.* (2003) wrote collectively and individually on the governance of forestry in the UK. They argued the existence of a dominant paradigm in forestry that inhibits not only communication between the forestry profession and the public but also between state forestry and other parts of Government. Coles and Bussey (2000) in research in the English Midlands highlighted differences illustrated in table 11 in the ways that non-expert people thought and talked about their local woodland compared to professional woodland managers.

Local users	Woodland Rangers
Personal language used to describe woodlands.	Strict professional language to describe woodlands according to their training.
Urban woodlands classified according to a definition of natural derived from experience.	Urban woods classified according to conventional nature conservation / forestry terminology.
All woodlands that conform to this experience are highly valued, irrespective of formal classification.	Only woodlands that conform to this are highly valued, others receive no recognition and are severely undervalued.
Accept/require management that reinforces a personal ideal.	Accept/require management to meet nature conservation requirements irrespective of woodland's origin.
Non species specific.	Highly species specific.
Do not wish to see wider public use encouraged.	Encourage wider public access.
All use set in a social context.	Use set in nature conservation context.
Important requirement is that the experience is a refuge from the stress of urban life.	Important requirement is that natural areas are present in the urban situation.
Key issues of access and safety.	Key issues derived from nature conservation.
Regard the woodlands as their own.	Regard the woodlands as their own.
Tend to blame the local authority for problems.	Tend to blame the local authority for problems.

Table 11: Criteria Adopted by Local Users in Relation to those used by Woodland Rangers. Source: Coles and Bussey (2000)

There is, therefore, a body of research indicating that the forestry profession has a distinctive culture and sense of identity and that this culture impinges on the relationships and perceptions that foresters and stakeholders in forests have not only about one another but also about the forests themselves. Tsouvalis painted a similar picture of the Forestry Commission in the UK, though she goes on to examine how the Commission, or parts of the Commission, changed and took on board

contemporary values. Nail (2008) also gives an account of forestry practice in the UK that is attuned to public needs and concerned to manage the forests for public benefit. It is possible, therefore, that there has been a shift in the professional mind-set over the past ten to fifteen years since the early research was undertaken.

4.15 The Forestry Profession and Environmental Concerns

As with any land-use forestry is subject to environmental laws and regulations that constrain land management, for example preventing siltation of rivers or complying with pesticide and fertiliser regulations. The UK Forestry Standard (2011) and its associated environmental guidelines illustrates this very clearly. Because forests are often extensive, for example occupying large areas of upland water catchments or high-amenity landscape, individual forest managers tend to manage large areas and the decisions of a small number of individuals can impact large areas of land in a way that farming does not¹³⁷. Primmer and Karppinen (2010), in a survey of professional forest managers in Finland found that professional norms were a key factor in influencing forest management, in this case the introduction of procedures to conserve biodiversity:

... 'Normative beliefs relative to other foresters' expectations dominate the general subjective norm, signalling a primacy of a professional norm and the importance of peer networks.' (p. 136)

They drew on Ajzen's (1991) Theory of Planned Behaviour (TPB) in which social attitudes, subjective norms and sense of control drive intention and consequent behaviour, though a systematic analysis by Armitage and Conner (2001) of empirical research testing TPB found that subjective norms were a weak predictor of behaviour. Nevertheless a similar conclusion to Primmer and Karppinen was made by Sangster (2002b) in an analysis of literature covering the conflict between environmental and forestry interests in Scotland in the 1980s, where professional norms were argued to inhibit the voluntary uptake of environmental forestry objectives. Wiersum (1999) also cited professional norms as a barrier to innovation in forestry to the extent that he questioned the competence of foresters to meet new priorities for forest management. Hamilton (2008), writing about the legal profession, postulated a 'social contract' that mandates 'peer-reviewed professions' but requires reflection and awareness of changes in what is understood as social benefit.

In the 1960s in the United States the Bitterroot Controversy, reported by Nie (2009, web page¹³⁸) as '*a major flashpoint in American environmental history*' was underpinned by criticism of USDA¹³⁹ Forest Service practice from academics at the University of Minnesota school of forestry. The

¹³⁷ For example as a young forest manager in the 1970s I was responsible for planting programmes in the Scottish Highlands of over 5,000ha, 12,500 acres, each year. The North Scotland region planted around 35,000ha annually – an area about 50% greater than the New Forest – managed by 8 senior professional staff. Contrast this with an average farm size in England, Wales and NI of 40ha – 50ha and in Scotland of just over 100ha. (DEFRA statistics accessed June 2012 at http://www.ukagriculture.com/uk_farming.cfm)

¹³⁸ <http://www.foresthistory.org/publications/FHT/FHTSpringFall2009/Swanson.pdf> accessed June 2013

¹³⁹ United States Department of Agriculture

criticisms are centred on the culture of the Forest Service and are similar to those made against forestry in the UK during the 1980s when upland planting was at its peak.

The Bolle Report, named after the dean of the Forestry School (House of Congress 1970), marks a controversy that escalated into a major and persistent confrontation between foresters and environmentalists. It shows how professional practice had not kept up with changing social mores and also marks a dichotomy between academic and professional understanding of how forestry should be practiced. The authors reported that professional forestry values had become out of step with those of wider society. In his introduction, remarking upon the Forest Service's 'heavy timber orientation' the Dean of the University writes:

'... at this time any approach to public land management which would de-emphasize a broad multiple-use philosophy, a broad environmental approach, a broad open-access approach, or which would reduce the production of our public lands resources in the long run is completely out of step with the interests and desires of the American people' (p. 2)

The report continues:

There seems to be no possible way of justifying these practices (the predominance of harvesting). Then why have the practices been used? The core of forestry professionalism, the central tenet of professional (forestry) dogma, is sustained-yield timber management. ... The management objective became the maximum biologically sustainable quantity of the physical product, wood. With its implicit assumptions of scarcity, this dogma became the central dictum of professional forestry. As dogma it remains virtually unchallenged in American forestry education'. (p. 12)

Though professional dogma was partly to blame, the Bolle Report also found that the 'heavy timber orientation' was built-in by legislative action and control, by executive direction and by budgetary restriction.

Once again illustrating the capacity of forestry to adapt to its external environment the USDA Forest Service within a few years changed radically. Like its British counterpart that was engaged in its own similar fights and would also suffer eventual defeat by environmentalists, it had fought and lost its battle and had moved on.

The cultural differences between the US and Europe are perhaps illustrated by Cortner (1994) whose account of the growth of environmental management in the US is set in the context of 'increasing (public) concern about the environmental impacts of pollution ... coupled with a distrust of experts and a growing scepticism over the validity of technical decisions' (p.3).

'The 1970s saw an explosion of environmental legislation ... they began with the introduction of the National Environmental Policy Act (NEPA), which declared a national environmental policy for the nation, as well as expanding the public's right to have environmental impacts disclosed and to participate in the disclosure process. ... Numerous other legislation followed

... in the area of forest planning legislation in 1976 ... the National Forest Management Act required the preparation of comprehensive land management plans for lands classed as national forests and managed by the USDA Forest Service. The Federal Land Policy Management Act (FLPMA) ... governs the planning and management activities of the Bureau of Land Management, an agency that manages lands classified as public lands.’ (Cortner 1994, p. 4)

Central to the approach in the US, which Cortner acknowledged was to do with their national culture, was the introduction of new legislation. This contrasts with Europe and the UK where the tendency is to seek a voluntary approach based on consensus, for example in Britain there have been just two forestry acts, in 1947 and 1967, since the initial 1919 Act whilst forestry legislation in much of mainland Europe dates back to Napoleon¹⁴⁰.

Note that the US controversy almost coincides with the 1972 HMT cost-benefit analysis of forestry in the UK that saw recreation and amenity as the only rationale for government intervention in forestry. In short, services trump products. This researcher was a forest manager in England in the 1970s and early 1980s when the Forestry Commission was developing public recreation on its estate. Illustrating how quickly things changed in the United States, much of the practice that was adopted in the UK such as signage, interpretation, trail design and visitor surveys was based upon, and in the early phase actually mimicked practice developed by the USDA Forest Service and the US National Parks. By the late 1990s the UK had been through its own transformation and was widely regarded as a world-leader in the provision of recreation in its forests. Forestry Commission managers were regular visitors to North America to advise on landscaping, community engagement and recreation.

4.16 In Conclusion

The strongest theme in this section is to do with culture, or the way that different interests in forestry and wider land-use construct their world.

From the literature and from the empirical research it is clear that British society sees forestry as primarily a service rather than an industrial source of products. These services can be hedonistic, for example access to the outdoors for recreation, opportunities to see wildlife and enjoyment of a wooded landscape. They can also, using the parlance of ecosystem services, be cultural. These cultural services are complex; there is a growing body of sociological research on the part that place, and the activities that people do in different places, plays in forming identity. And as trees and forests are an important element of place there is an existential aspect that informs the way that people collectively and individually relate to trees and forests. In addition there is widespread recognition that there is a spiritual dimension to the way that people think about and engage with

¹⁴⁰ As part of the Napoleonic code, based for forests and water on an ordinance drawn up by Colbert during the reign of Louis XIV (*L'Ordonnance des Eaux et Forêts* of 1669)

nature and natural spaces, and there is a body of research that shows that trees are intimately bound up with and integral to this spiritual view of the natural world, indeed both Henwood and Pidgeon (1998) and Macnaghten and Urry (1998) argue from their research that trees are symbols of nature and representative of nature itself. This is difficult territory for academic investigation, or at least for researchers in land-related or policy-related disciplines, because there is a dearth of shared scientific language that captures this concept of nature as fundamental both to our personal and our collective psyches. This is despite the fact that it is a central theme in Western art and culture dating back at least to ancient Greece.

The interviewees in this research, two of them members of the panel established to advise the Government on forestry, all said quite explicitly that the public's reaction to the proposals to sell English public forests was purely to do with self-interest – an instrumental reaction to loss of amenity. *'It was all about having somewhere to walk the dog'* said one. But if people have no language to allow them to talk about what is important to them then perhaps they couch their concerns in the words that are available to them, and these don't give the full picture.

A voice that is missing from this research is that of the environmental NGOs. They are talked about but do not contribute directly and this is an omission in the study. The empirical research, and to some extent the literature review, cast them as single-interest groups who are used by officials as a cheap and easy proxy for public engagement. From the literature on regimes and networks there is theorised the notion of a regime where officialdom and the environmentalists manoeuvre to reinforce their mutual and individual legitimacy. It is a dynamic process where the players combine and recombine in different ways according to the issues that bring them together and their judgement about what position delivers the greatest benefit at any particular time¹⁴¹. Scientific and technological knowledge and ability are not central to this and the professionals are relegated to the role of spectator. Again, however, there is the possibility that this is a superficial perspective. RSPB, the Wildlife Trusts, CPRE and other ENGOs do not have millions of members simply because they have the ears of ministers and officials. Like the trees there is every possibility that these organisations are symbolic of something that people think is important but have difficulty explaining. The fact that policy staff turn to them might simply be an unconscious recognition of this implicit symbolic value. There are also indications that the position of the NGOs as legitimating authorities and proxies for the wider public is becoming weaker. Questions arising in debate over contemporary corporate governance are being applied in turn to the large NGOs and surveys show that public trust in the NGOs is weakening.

¹⁴¹ For example RSPB bitterly opposed the Severn Barrage proposal but still works closely with DEFRA officials on CAP reform.

Officials in departments outside the Forestry Commission are likely to have the same understanding of forestry as the wider public. Overlying this, however, is a strong, rationalist policy narrative. In the landed sector their approach is likely to be conditioned by their experience of agricultural policy, not only because agriculture is a dominant concern but also because of its political importance. Agricultural policy, like its junior sibling Fisheries Policy, is explicit. It is laid out very largely in the CAP and officials have little discretion in how they interpret it. It is unlikely that officials who are used to this agricultural policy paradigm will be comfortable with the loose, emergent nature of forestry policy. A further important group, highlighted by the DG of the Forestry Commission as having a particular importance in shaping political outcomes through their direct access to ministers are the political special advisers whose priorities are likely to be short-term and focused on the presentational aspects.

From the survey, interviews and literature it is clear that many forestry and arboricultural professionals do see themselves as spectators rather than participants in the decision-making that impacts upon their profession. An argument is made above that professional identity is likely to derive from the routine tasks of a person's job, and these routines are not uniform across the profession. So there are likely to be diverse constructions of professionalism in forestry. Nevertheless both the research and the review indicate that there is a professional culture in forestry that seems to be similar not only in Britain but across the developed world. It presents foresters as technically skilled, adaptive rather than innovative, task-orientated rather than socially or politically focused and by the time they achieve professional status they are likely to be indoctrinated into a fairly instrumental approach that frames problems as reducible and technical rather than political or social. As a group they seem to be trusted by the public, which includes the decision-makers who impact upon them, but not terribly well understood and probably are seen as out of touch with the political world.

Chapter 5: The Conceptual Model and Research Questions

5.1 Introduction

This section explains the development of the conceptual model and how it evolved during the research. The research used a grounded approach and the development of the conceptual model was very much in line with Fisher's (2010) observations. Fisher made a distinction between structured and grounded approaches to research. In a structured approach a conceptual framework is drafted early in the research whilst in a grounded approach it develops typically towards the end of the process. Whilst this research was undertaken using a grounded approach it was felt necessary to have a consistent approach to the interviews and semi-formal discussions and also to have a framework around which the conference could be structured. An initial conceptual framework, shown in figure 13, was drafted but was little more than a set of questions. These were intended to help identify the problem that was being studied and lead to the research questions that would help address it. The intention was that the conceptual framework would develop as the research progressed so that towards the end of the process it would frame the analysis. Originally cast in terms of coping with external change, as the research developed it was amended to take account of the complex perspectives of forestry that were found to exist not only among stakeholders and the public but also, it appeared, within the profession itself.

Another characteristic of grounded approaches is that research can commence prior to the formulation of an explicit research question, as Glaser (1978) explained, the starting point can be simply to know that a problem exists. The problem is identified and the research questions it implies emerge and are developed as the research proceeds.

Whilst in the literature there is a recurring theme of strong cultural and professional identity among foresters, and in discussion an official in an NGO¹⁴² likened the profession to '*a cloned male chorus line all singing the same song*¹⁴³', the research revealed a much more complex picture where individuals appear to construct their professional identities in part from the daily routines and tasks from which they derive agency in the workplace. If this is the case then the site-specific, located nature of forestry management means that the work of foresters might have a geographical dimension, implying regional and country differences in the way that individuals construct their professional identity. Divergence in the external political and regulatory environment for forestry in each country is likely to be accompanied by increasingly diverse constructions of professional identities.

¹⁴² A forester herself, working in a senior position in the Woodland Trust.

¹⁴³ 'It doesn't seem like that to me!' was the response from the Executive Director and President when this was discussed with them.

It also seemed that forestry is distinct to that of other land-uses by being more adaptable and more open to cultural influences and pressures than agriculture. This is argued to be because it is outside the strongly modernist regulatory and political framework of the Common Agricultural Policy. Drawing on Watson's (1994) ideas of a self-regulating system of work-related identity formation it is proposed that within the forestry profession there is considerable freedom for individuals to construct their professional identities leading to a diverse range of understandings of what being a forester or arboriculturalist means.

Thus the conceptual model developed from a relatively simple theme of stakeholder management to a more complex model of managing internal and external diversity. The question that emerged was what governance systems does the professional body need that will allow it to accommodate the increasingly diverse views of its members whilst maintaining its mandate to regulate the profession.

5.2 The Development of the Conceptual Model

The initial model was derived from findings in earlier in research for the DBA. This indicated, as explained above, that professionals felt left out of the policymaking process and that greatest attention was paid to environmental NGOs. In a previous paper for this DBA Sangster (2011) postulated the existence of a 'Green Regime' in environmental policymaking. The theoretical basis for this concept came from network theory in political science and its parallel, institutional theory, in critical geography and urban planning. A 'Green Regime' seemed to be a pragmatic pattern of behaviour where decision-makers used E-NGOs in particular both as experts and as proxies for the public. The initial model, therefore, was of a governance system that effectively, though for reasons that were unclear, excluded expert and professional input. At this stage the enquiry was to do with how this system operated, who was mandated to participate in such a regime and what constituted legitimacy. The literature review for this study explored these questions in greater detail. By understanding this process it was hoped that the research could develop ideas on how excluded stakeholders – foresters – could become actors and participate more effectively in forestry policy-making.

However, as the study developed other questions began to emerge. The literature review indicated that professions in general and the forestry profession in particular have characteristics that distance them from general society. Is it possible, therefore, that the lack of agency that Foresters complained of was in some part caused by factors related to the foresters themselves and their professional norms?

An early assumption was, as argued by Turner (1997), that the Government in its UK and country-level forms would continue to be important and this power is framed by UK and country forestry

policies. A question soon arose to do with the nature of forestry policy, inasmuch as the UK does not seem to have any. What passes for forestry policy could be argued to be a reflection of operational practice based on the management of the public forests by the Commission. This was the argument made by the DG of the Forestry Commission, who suggested that operational practice had evolved in response to broad themes such as environmental legislation or international commitments such as the Convention on Biodiversity rather than to any forestry-specific policies. Whilst the Forestry Commission has the usual corporate arrangements of mission statements, strategies and operational codes these are different in nature to national objectives and strategies that could be expected to apply to all players and influence the UK's interaction with forestry interests internationally.

Setting forestry in the context of wider rural policy, earlier reviews for the DBA in documents 2, 3 and 4 covered a large literature in which a number of authors identify a "regime" comprising actors in the continuing 'project' of efficient food production. This has its roots in immediately post-war concerns over food shortages. These authors contrast these embedded policy objectives with the actual needs of the contemporary rural economy which, like the wider economy, is dominated by services¹⁴⁴. The issue of how rural policy should be framed is contested within government itself, with officials in agricultural departments tending towards the status quo and others such as the Cabinet Office (1999) and parliamentarians (EFRA Committee 2012) calling for reform. Given that forestry policy is passing to agricultural departments in all four countries, where does forestry fit into such a discussion and what are the implications for the profession?

As the underlying question at this stage in the study was to do with the strategies or tactics the profession might follow in order to make sense of the changing institutional landscape the review turned also to literature on strategy, particularly writers who emphasise the value of relationships, competencies and embedded assets and also to literature on professionalism.

¹⁴⁴ There is a strong case e.g. Tarling and Rhodes (1993) that the rural economy is so integrated with the general national economy that except for very remote rural areas there is little discernible difference.

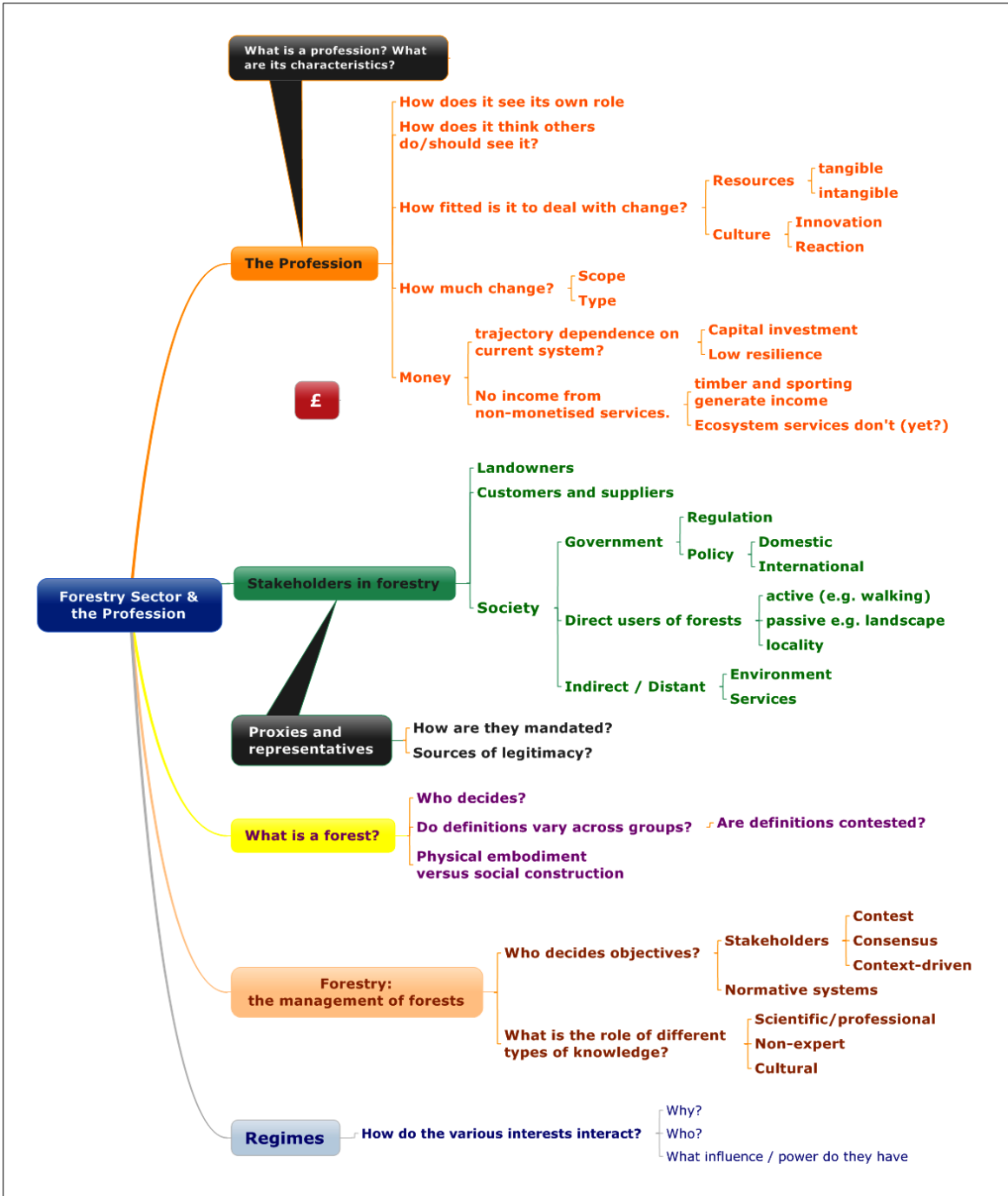


Figure 14: Exploring Forestry – an early model

Professionalism as a differentiator in a knowledge-based world

In the early conceptual model the forestry profession was cast in an instrumental role, drawing on the idea that professionalism is essentially a work-related categorisation that differentiates members from unqualified competitors and also from the general public. This is illustrated in ‘the profession’ section of figure 14. The literature review, however, raised challenges to this simple perspective.

In the substantial literature on professionalism and knowledge many authors identify dialectic¹⁴⁵ differences among experts and non-experts (for early, frequently cited works see Gouldner (1979), Collins (1979)). In the academic field of knowledge-management whilst the existence of a 'knowledge-based society' seems to be a given the role of the expert, however, is not secure. There is competition between different types and sources of knowledge so that Thorlindsson and Vilhjalmsson (2003), in a preface to a series of papers on science and society wrote: *'The status and authority of experts in the knowledge-based society is neither automatic nor self-evident'*. In this scenario a profession is simply one of a number of sources of knowledge and expertise and, according to Thorlindsson and Vilhjalmsson: *'... the maintenance of expert status and control requires legitimation and validation displays to fight off public disinterest and scepticism (preface).'* Thus experts have continually to justify their claims to legitimacy. Drawing on these ideas a schema, shown in figure 14, was developed on which the semi-structured interviews were to be based. Part of the underlying concept was the idea of a Schumpeterian¹⁴⁶ deconstruction in the forestry world from which a new perspective would emerge, presenting opportunities and challenges to the profession.

The Influence of Regulatory and Policy Frameworks

The idea from the literature review that forestry is more open than agriculture to cultural influences because it is outside the scope of European land-use policies and regulatory frameworks¹⁴⁷ gave rise during the research to a recurring question: *'How has the Forestry Commission survived for so long, and developed such a strong reputation at home¹⁴⁸ and abroad, when it has so little in the way of a formal or explicit strategy and the UK has no real policies for forestry?'*¹⁴⁹

The Commission's DG spoke directly to this question. He put it down to a strong sense of corporate self-survival combined with a highly adaptive culture that was able to bend when under pressure, so that the Government could impose change without having to do-away with the Commission. However, the most important factor was similar to the factors that maintain the agricultural paradigm. The Commission was established through primary legislation that would require parliamentary time to amend, and other issues were always deemed more pressing. The current

¹⁴⁵ Where a dialectic is seen as a predominant discourse that sustains a particular point of view. So non-experts and experts develop different discourses to make sense of the same phenomena.

¹⁴⁶ After the early 20th C Austrian economist Joseph Schumpeter who suggested that in capitalist economies innovation, in systems and in technology, leads to collapse of previous ways of doing things. In a process of creative destruction the resources released are reconfigured rather than lost. Schumpeter's thinking was concerned with the development, collapse and reconstitution of monopolies but his ideas have been widely applied to business processes and technological advancement and form the basis of the modern discipline of evolutionary economics.

¹⁴⁷ Forestry was not covered by the Treaty of Rome that established the European Economic Community. Unlike agriculture and fisheries states are able, therefore, to set their own policies for forestry. A disadvantage is that grant-aid delivered through the common agricultural policy is not directly available for forestry.

¹⁴⁸ Annual public opinion surveys by the Commission indicate that it has become one of the most trusted Government agencies.

¹⁴⁹ Of course, the Commission is only part of the sector, which is mostly private or, increasingly, third-sector.

changes arose from the inclusion of forestry in the devolution acts, when the opportunity was taken to change the founding legislation for the Commission simply by adding clauses to the devolution acts.

The 'Postmodern Turn' and the Influence of Culture on Forestry

As discussed in more detail in the literature review a number of authors have postulated a 'postmodern turn' in British forestry. Although agriculture, the dominant land use, has been analysed in the same terms these ideas have had little purchase on agricultural policy. An indication of why this is so, and as with rural policy generally the argument here is that it is to do with the external regulatory and political environment, can be found by turning to the case of the fishing industry. A short case-study is given at appendix 7. Fishing in the UK is comparable in size in terms of economic output and employment. (ONS 2010). It differs in being regulated, like agriculture, at a European level through the common fisheries policy. What emerges from the case study is an argument (FAO 2010) that the rigid regulatory framework has led to inflexibility (EU Commission 2013) and to failure of the CFP.

Whatever the reason might be, forestry seems to be able to respond collectively to external influences and its responses seem to have some kind of feedback system that damps down over-reaction to change and enables adaptation to be a continual rather than spasmodic phenomenon. None of this is explicit and leads one to consider the possibility of a culturally conditioned mind-set that is implicit across the profession.

This notion of highly effective adaptation to continual change over a long period sparked a further literature review, in this case on emergent strategies. The starting point was Mintzberg's and Water's (1985) highly cited paper that presents strategy as a reactive process driven by changes in an organisation's external and internal environments rather than the product only of planning. Ideas from this paper subsequently appeared in Jørgensen and Mintzberg (1987) where they were applied to public policy. This led to a re-reading of authors writing on resource-based approaches notably Kay, Fischer¹⁵⁰ and Rumelt.

Figure 15, adapted from a presentation by Burgess to an ICF workshop that the author organised in 2004, contrasts rationalist (on the left of the diagram) and constructionist approaches to environmental policymaking. From the arguments above we can perhaps categorise forestry policy as being derived more from a cultural perspective than from a rationalist or scientific mind-set. Alternatively we might say that there are fewer constraints to taking account of culture in forestry

¹⁵⁰ Fischer is a political scientist but his views on policy formation as a product of contested discourse align closely with Mintzberg's concept of emergent strategy – which Jørgensen and Mintzberg argue is, in the public sector, equivalent to policy.

policy because there is no dominating legislative framework that requires a rationalist construction. In Burgess's model forestry policy looks like a discourse generated by exchanges between a wide range of players rather than the planned process of policymaking epitomised in the Treasury's ROAMEF model of the policy cycle (See Fig. 26.)

Burgess, in subsequent discussion, supported the idea that the rationalist approach was akin to agricultural policymaking whilst the green was closer to forestry – a view that the advocates of postmodernism in forestry would support. However, Burgess (1995) who was one of the first social scientists to carry out extensive phenomenological research in forestry in the UK was dismissive of the 'postmodern turn' in forestry (Burgess, pers. comm.) arguing that this is over-intellectualising a process of sense-making that applies universally to human society. She also felt that a number of the authors are using the term 'postmodern' to describe a phase of industrial development. Wilson (2001) made a similar criticism of authors in rural geography who suggest that agriculture in advanced societies has moved from 'productivism' to 'post-productivism'. Where:

... 'The problem has partly been that the conceptual literature on post-productivism has largely failed to take into account the wealth of actor-oriented and behaviourally grounded research. (p. 77)'

A striking feature of Burgess's diagram is that the constructionist illustration is highly iterative and that 'policy' emerges from a circulating process, a discourse, much as Jørgensen & Mintzberg suggested. Relationships between the players are the foundation of the discursive processes from which strategies emerge. These ideas from social geography converge with those of business academics who see management as being 'about applying human skills to systems'¹⁵¹, including the economist John Kay.

Kay (1993) identified four types of resource that can contribute to an organisation's success:

- Relationships¹⁵² with: personnel, 'customers' and stakeholders,
- Reputation,
- Capacity for innovation and,
- Strategic assets, which can be in the form of: natural monopolies, sunk costs and exclusivity.

Kay's proposition was that these factors integrate through organisational routines into distinctive capabilities. Kay was writing about private-sector companies so these concepts are not necessarily tried and tested in public and third-sector environments, though he has since applied his ideas to

¹⁵¹ A term from British Library's Management and Business Studies Portal on Henry Mintzberg's theories. <http://www.mbspportal.bl.uk/taster/subjareas/busmanhist/mgmtthinkers/mintzberg.aspx>

¹⁵² Kay uses the term 'Architecture' to cover the sum of an organisation's internal and external relationships.

areas of public policy (see e.g. Kay 2010) and we can draw on Jorgensen and Mintzberg (1987) to argue that public-sector policy is analogous to corporate strategy.

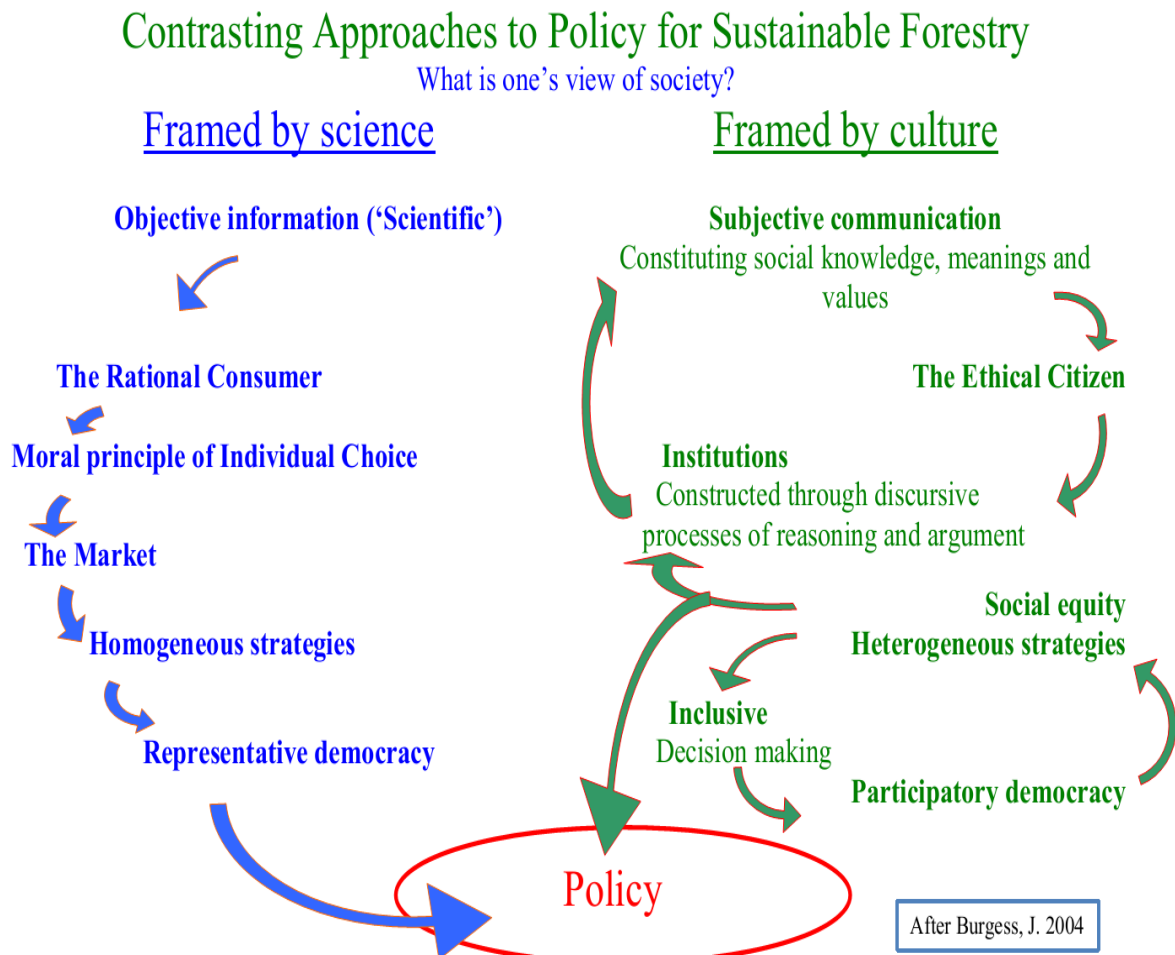


Figure 15: Rationalist and Constructionist Approaches Contrasted, after Burgess 2004

Fischer's and Gottwies's (2012 p. 2) central argument mirrors that of Burgess: policy arises from 'culture, discourse and emotion' as much as from rational deliberation. Fischer & Gottwies emphasised the influence of argumentative engagement by interests with different perspectives. Rumelt (2011) differentiated 'good' and 'bad' strategies according to the quality of information gathering and analysis that goes into their formulation, again taking a pragmatic approach that recognised the importance of subjective understandings in decision-making; so:

'... good strategy is coherent action backed up by an argument. An effective mixture of thought and action'¹⁵³ ... (it has) three elements: diagnosis that defines or explains the nature of the challenge ...; a guiding policy for dealing with the challenge ... (and); a coherent set of actions that are designed to carry out the guiding policy' (e-book: p. 77).

¹⁵³ The e-book version has no page numbers; this comes from the start of Ch. 5.

We can look also to Watson (1994) for further support to the idea that effective action in work requires a social framework: *'management is ... a social and moral activity ... one whose greatest successes is likely to come through building organisational patterns, cultures and understandings based on relationships of mutual trust and shared obligation ...'* Whilst he is writing here about management we can extrapolate these ideas to other areas of work-related activity as he continues: *'(it is) essentially a human social craft' that 'requires the ability to interpret the thoughts and wants of others ... and the ability to shape meanings, values and human commitments.'* (p. 223)

In the fisheries case-study we have a system where, in contrast to Watson's good-case scenario, these discursive processes are inhibited and the system fails. We can also take from the fisheries example a very clear illustration of a system predicated on science and rational analysis whose outcomes are in reality, and very much as Fischer and Gottwies suggest, driven by considerations of politics and self-interest.

Figure 14 sets out the information that at the start of the study was thought to be necessary to draw a picture of the forestry sector. Kay's ideas allow these to be broadened to understand how the sector fits, or fails to fit, with its wider environment and the distinctive characteristics that give or might give it agency if it wishes to take a more active part in setting its own destiny. From Fischer and Gottwies and from Rumelt we can take the ideas of argument – Burgess's 'discursive process' – as a 'guiding policy' and coherent action to which the research findings might point.

However, from the literature one can argue the case for a third aspect that adds to these processes – that workplace agency and habituated behaviour feeds professional identity and it is this social identity that frames an individual's professional world-view. The idea is explored in more depth in the following section. The discussion centres on forestry professions but the ideas are likely to apply also to other professions.

Revisiting the Conceptual Model: The Influence of Culture and Agency

As the literature review progresses the idea emerged that there are perhaps three forestry narratives in play in contemporary society, two of which are illustrated by figure 15 above.

One is rationalist and science-based, subscribed to by the agricultural policy-makers who since devolution in the UK have also been increasingly responsible for forestry policy. It seems also to be shared by many of the forestry professionals.

The other is akin to a phenomenological, perhaps a romantic perspective. It is based on subjective understanding but not necessarily on subjective experience. As one might argue that professional identity is socially constructed so might one make a similar case that understanding of the natural

world is also socially constructed and differs according to the identities that individuals in society adopt and group around. It is maintained and developed through discursive processes and is as much emotional as it is rational. The *38 Degrees* campaign against the English forestry sales illustrates that it is influential.

The third, applying Jackson's (2005) idea that behaviour influences identity and supported by the postmodernist arguments that personally internalised surveillance and compliance also inform identity, is a professional perspective that constructs forestry from a set of repeated actions, or behaviours, such as timber harvesting, road-making or planting that together establish a set of contingencies and routines – practices – that define what it is to be a professional forester for each individual practitioner.

But the daily routines of forestry practice are not uniform across Great Britain. The Director General of the Forestry Commission explained how in Southern England a forester is likely to spend a considerable proportion of his or her time explaining their plans to the public and to stakeholders in order to maintain their licence to operate. In the North-East of England and Scottish Borders, which are the principal timber-producing areas of the UK, a forester is more likely to be pre-occupied with the logistics of keeping sawmills supplied with logs and the felling, extraction, transport and replanting that this requires.

Can we draw here upon Simon's idea of 'bounded rationality' (1956) where in their working life people are constantly having to make decisions constrained by time and by a lack of the resources needed to gather all the pertinent information? So decisions are made based upon imperfect understanding. If the decisions that a person is making are mostly of the same kind, to do with organising felling or transport, for example, and those decisions have successful outcomes then perhaps the person becomes habituated to an (imperfect) understanding of their professional world that would be different if they had a broader perspective, or perhaps if their pattern of decision-making began to produce less success. Each person will have a different understanding of what it is to be a successful professional forester.

Continuing this theme we can turn to the anthropological literature and the concept of functionalism¹⁵⁴, described by Levi-Strauss (1978):

¹⁵⁴ Different disciplines in social science use the term 'functionalism' to describe different things. In sociology it refers to division of labour and how society is the product of activities within its different parts. The Stanford Encyclopaedia of Philosophy identifies functionalism in terms of seeing a mental state in the light of the contribution it makes to the system in which it sits. In anthropology the term as described above has fallen out of favour, perhaps because it implies a level of pre-determinism that fits uncomfortably with 20th C ideologies of individuality.

'... if you know that (the thoughts of) a people is determined by the bare necessities of living, finding subsistence, satisfying the sexual drives, and so on, then you can explain their social institutions, their beliefs, their mythology and the like. This very widespread conception in anthropology goes under the name of functionalism' (p. 12)

Whilst Levi-Strauss was talking¹⁵⁵ of *'people without writing'*, and was referring to the work of Malinowski rather than giving his own view¹⁵⁶, the core idea of functionalism, that we think of ourselves in terms of what we are able to achieve within the constraints that bear upon us, is very much in tune with the ideas above that behaviour shapes identity. For further support we can turn to sociological literature on the part played by agency – the scope to which one has capacity or freedom to take effective action – in shaping our concept of ourselves. In the following quotation Korsgaard (2009) writes of how 'necessitation' – the doing of things that have to be done – influences how we 'constitute ourselves'.

'... necessitation is the experience of a form of work: the work of self-constitution. Following Aristotle and Kant, it distinguishes actions — acts done for the sake of ends — from mere acts, as the objects of choice and the bearers of moral value. We constitute ourselves as agents, and so as the authors of our actions in this sense, in the course of constituting our practical identity. The principles of practical reason govern this process of self-constitution by bringing unity and integrity to the will.' (p. 1)

Watson (2008) argued that the formation of social identity, of which professional identity is one aspect, is complex. He made a distinction between *'internal, personal self-identities'* and *'external, discursive social identities'* (p.121) where (managerial) identity was just one of many social identities to which a manager (or professional) might relate. Watson argued that *'... for perhaps the majority of people their occupational identity is just one part of their life and their notion of self'* (p. 129). To Watson social identity was not a fixed thing; individuals are engaged in reshaping their identities in a discursive process of what Watson referred to as 'identity work', citing Halford and Leonard:

'... while generic discourses of enterprise, profession, gender or age may be important, they are received and interpreted in the complex contexts that individuals move in through their everyday lives'. (2006: p. 699)

To illustrate this idea of social identity being built from a discursive process he contrasted a two-stage process, shown in figure 16, with a more nuanced process illustrated in figure 17. In the simple model the individual is almost coerced into adopting a social identity based on a formal role.

Figure 16: A two-step view of the relationship between identities and discourses (from Watson 2008)



¹⁵⁵ *'Myth and Meaning'* is derived from a series of recorded conversations.

¹⁵⁶ Strauss is known especially for his work on structuralism, which is to do with the way that the capacity of a language to convey meaning influences the scope of understanding and thus culture and behaviour. He did not categorise himself as a functionalist.

Watson's argument was that the development of social identity is far more individualistic, context-specific and reflective.

Figure 17: A 'three-step' view of the relationship between (managerial) and other discourses and self-identity. From Watson (2008)



Whilst Watson used a manager as an example he believed that his argument applied to other social identities such as the professional identity in which we are interested here. He identified (p. 131) five categories of social identities:

- a. *Social category – class, gender, ethnicity etc.*
- b. *Formal role – occupation, rank, citizenship etc. (manager, professional)*
- c. *Local organisational – social identities e.g. an old-style Nottingham professor (perhaps a forester)*
- d. *Local personal – characterisations that various others make of an individual in the context of particular situations e.g. a good customer.*
- e. *Cultural stereotype – a devoted mother, a boring accountant.*

From Watson, therefore, we can take the idea that work-identity, a form of social identity, is malleable. It changes with the social environment in which a person might find themselves at any time and it is the product of reflection and interactive discourse.

Another strong theme in the literature is that one's perspective is dependent on the utility that one derives from forests and that cultural influences might not be as dominant as some authors indicate. So the Irish farmers mentioned above changed from a negative to a positive perspective on forestry when the incentive scheme allowed forestry to be adopted into their accustomed annual cycle. The Scottish farmers, with no such incentive, continue to remain hostile to forestry. Similarly in England farmers do not see woodland as a financial resource so management of their woodlands is neglected. In this light the public response to the proposed sell-off can be seen as a pragmatic reaction to a threat to an important amenity rather than driven by a principled sense of stewardship of nature or by an insult to a cultural more.

If we accept the views of those authorities who see forestry as a profession that, because of its history, has similar values and perceptions across the world then we can use the Scandinavian and North-American examples in the literature to reinforce the notion of a profession in Britain whose members also have an adaptive psychology. This is a problem-solving, pragmatic psychology that defines a problem according to established understandings rather than developing new sets of rules. Beinhocker (2006) describes it so:

'An adaptive mind-set is highly pragmatic. It values tangible facts about today more than guesses about tomorrow, doesn't expect that everything will work out as planned, and prefers lots of small failures to big ones. Above all, an adaptive mind-set is willing to say, "We learned something new; we need to change course"'. (p. 348)

We can see this pragmatism operating in the way that the foresters in the US and the UK, once they understood that the rules had changed, adapted to the new rules and developed their practice to suit them. In the interviews the DG of the Forestry Commission drew a distinction between the Commission's highly conservative corporate culture, which he saw as an impediment to innovation, and its 'operational culture' which is pragmatic and open to new ways of doing things.

In England in the 1980s the new rules said that forestry was to do with public amenity and the sector adapted. It is a mark of the profession's success in adapting its practice that in 2011 the public's concern over forest sales also included concern for the future of the Forestry Commission. This capacity to adapt has been a tangible source of strength. It also has dangers, illustrated so well by Ryle's comment on the failure of the profession to project its voice when the rules that govern it are under debate. It is unlikely to change. Today, faced with a rapidly evolving institutional environment, the question arises of whether such a mind-set can be used to advantage.

Tactically important for the profession is to understand and copy the way that services previously categorised in a long history of environmental economics studies as 'non-market benefits' (UK) or 'non-traded services' (USDA) have been reframed as 'ecosystem services'. This is important because government departments, seen by Turner (1998) as the most powerful stakeholders in forestry, increasingly are using the ecosystems services framework in their policy development and it is being adopted increasingly in European environmental policy and as a frame for global policy processes. What the literature indicates is that dominant narratives such as this tend to become embedded in professional discourse and identity. The importance of Government policy in influencing actions by the private sector was explored by Primmer (2011) who looked at the way that private companies in the forestry sector adapted to the requirements of the convention on biodiversity¹⁵⁷. She found that they relied on government policy and professional norms as the basis for corporate strategy, with little evidence that companies were making an independent analysis of the CBD requirements and responding independently.

¹⁵⁷ The Convention on Biological Diversity (CBD), a legally binding international treaty was opened for signature at the Earth Summit in Rio in June 1992 and entered into force on 29 December 1993

Figure 18 is an attempt to capture some of these ideas. This illustrates professional identity as reinforced through indoctrination; initially this is through peer-surveillance but the process then becomes internalised, much as Foucault suggested (1980) in his discussion of John Bentham's ideas (1798) on surveillance in prison design. However, professional experience tempers this system and the self-surveillance has its focus on the routines and tasks of day to day work. These routines develop a symbolic quality through the part they play in differentiating the professional from non-professionals and this symbolism eventually comes to represent to the individual, or group of similarly-tasked individuals, what it is to be a professional. It is a pragmatic and adaptive approach.

Explaining figure 18 in more details: it aims to bring together four ideas from the literature review and the responses to the survey. The starting point is the selection and recruitment of foresters and arboriculturalists into the professional body. The literature indicates that the forestry profession has a particular culture and historically has been seen as a 'foresters club'. Douglas (1986) wrote at length on the role of institutions in conferring identity, and we can draw on her ideas to suggest that in the case of a professional body this identity-forming role derives from the body's power to dictate what are and are not legitimate behaviours and constructions of knowledge for a professional member. Douglas drew on Fleck (1935) to argue that this process of identity-formation is implicit and '*hidden from the members of the thought collective*' (p. 13). Fleck made the case so:

'The individual within the collective is never, or hardly ever, conscious of the prevailing thought-style that almost always exerts an absolutely compulsive force upon his (sic) thinking, and with which it is not possible to be at variance.' (Fleck 1935, p. 41)

For our purpose here it is enough to accept that recruitment, which is preceded by three or more years of professional development, is an indoctrinating process that reflects the professional culture prevailing at the time.

The green circle in figure 18 is an attempt to portray Schmidt's (2000) ideas of how professionals become indoctrinated into Douglas and Fleck's 'thought collective', it also draws on Bentham's (1798) and Foucault's (1975) ideas of how, once an individual is thoroughly indoctrinated, self-surveillance takes over from peer-surveillance in supporting and maintaining professional norms.

Watson (2008), however, proposed that such professional identities are not fixed but develop and change over time through a process of 'identity-work' where the process of self-surveillance is accompanied by reflection and adaptation. This is the blue circle in figure 18. In Watson's model the symbolic importance of actions remains. He adds the concept of agency – the capacity to take effective action within the constraints of particular circumstances – and also the notion that it is through repeated, rather than one-off behaviour that symbolic meaning is developed. Individuals

watch themselves responding to circumstances in a particular way and these repeated actions shared across a profession contribute to or even establish professional norms. As the 'thought collective' changes as the norm-determining repeated actions change in response to external factors such as markets and subsidies the profession re-calibrates, new norms emerge and the indoctrination of the recruitment process adapts accordingly.

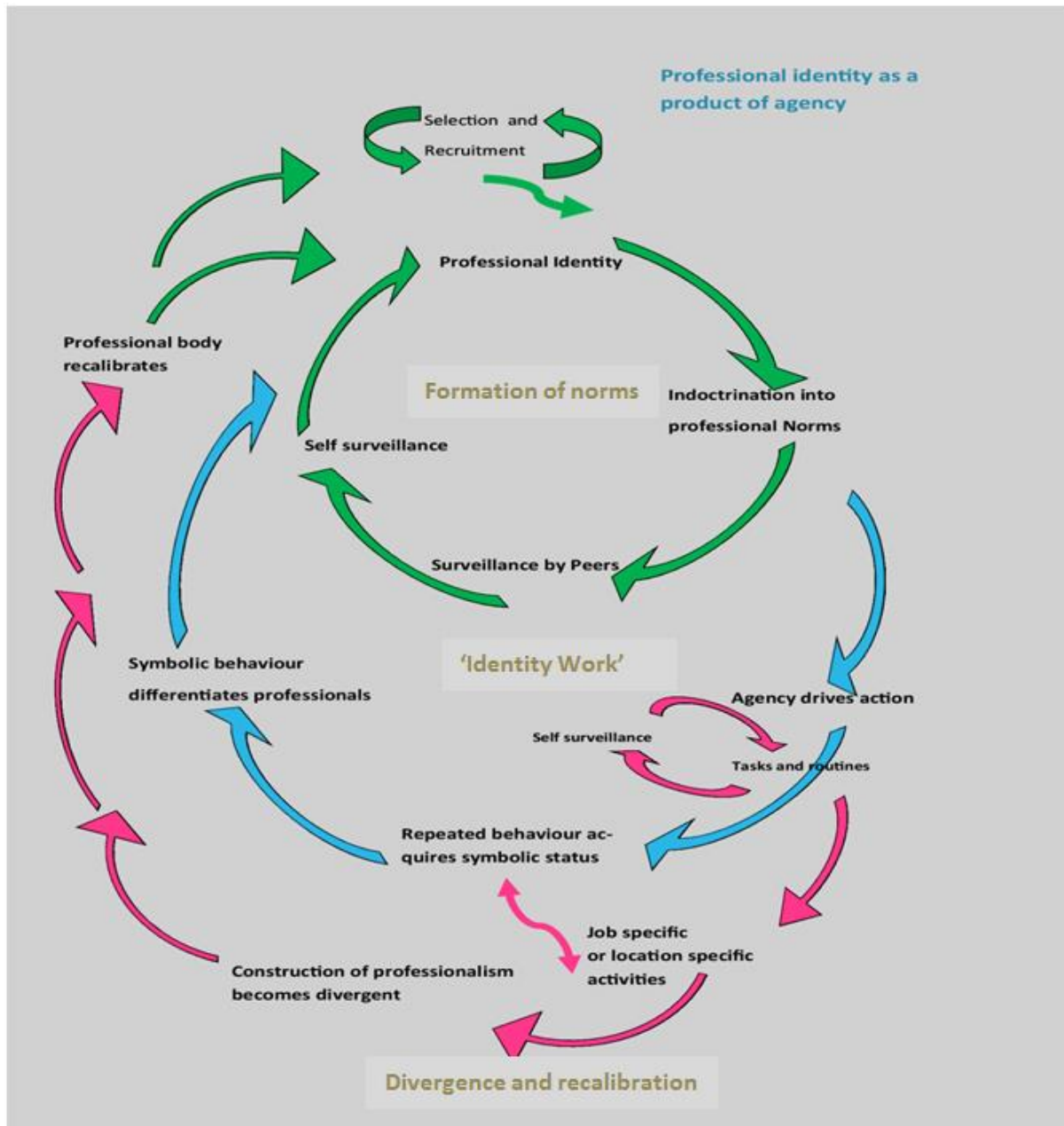


Figure 18: Agency driving professional identity

What this indicates is that there is an internal driver of change to professional norms that is internal to the profession. As devolution progresses it is likely that such internal forces that will automatically generate diversity within the profession.



Figure 19: A harvesting machine. Trees are felled, de-limbed and cut into logs in a single operation.



Figure 20: Extracting logs from the forest



Figure 21: Logs stacked at roadside being loaded onto transport.



Figure 22: At the sawmill



Figure 23: Engaging with the public at an agricultural show



Figure 24: Encouraging visits by ethnic groups



Figure 25: Street trees in Cardiff



Figure 26: Woodland Walks in Edinburgh

So the red circle in figure 18 is intended to show how in forestry such ‘repeated actions’, that are in some part determined by geographical location, influence the construction of professionalism. To illustrate how the work of professional foresters working in different locations differs contrast the figures above. Figures 19 to 22 illustrate modern harvesting activities that today would be typical in an upland production-orientated forest. Figures 23 – 26 show tasks and sites typical of lowland forestry in populous areas. Foresters in the uplands might engage professionally with a few dozen people in the course of a year, the lowland foresters are likely to engage with hundreds or possibly thousands of people.

Because particular combinations of routines and tasks predominate in specific localities, such as a conifer forest where harvesting predominates or a lowland forest where recreation and wildlife are the foremost management objectives, or to a specific job this leads to divergence in professional identity. This feeds a discourse on what it means to be a professional and this in turn leads to a recalibration of professional values that cycle through the system in an iterative process. The recruitment / selection cycle is included because of comments from three of the interviewees about how the forestry profession is almost self-selecting for people with a particular outlook, and Schmidt’s comments on how recruits into any profession tend to hold a world view that reflects the professional norm.

Type	Narrative	Management Objectives	Scenarios
Ideologist	Only professionals can set objectives for forestry.	Sustained financial returns from the forest.	Upland forestry. Private landowner.
Pragmatist	I’ll do whatever is necessary to get the job done.	Financial returns from the forest.	State forest line management. Lowland forestry.
Steward	My job is to look after the forests.	Forest conservation.	ENGO. Private landowner.
Regulator	My job is to manage the forests in compliance with regulations.	Sustainable Forest Management	State forest policy official. Local authority. ENGO activist.
Social engineer	Forestry is about delivering public benefits	Wellbeing.	State forest manager. Urban forester.
Proud professional	My job is to help clients achieve their objectives.	Financial returns from client fees.	Forest management company.

It is not a closed system. As Watson emphasised, professionals live in and are influenced by a social world that extends beyond work. However, in this model these influences will feed into the system

through the way that they impact on agency. For example, the war that was fought and lost against the environmentalists led to a requirement for foresters to manage for wildlife. This leads to a change in routines and tasks that then changes professional norms through the processes illustrated.

From this research, drawing on the survey responses and comments of the interviewees, we can attempt to set out a typology, illustrated in table 12, which captures some of the main approaches to forestry by individuals in the profession. A reason for attempting to understand the prevalent attitudes of the forestry professionals is that as a membership organisation ICF requires consensus from its members on the direction it takes.

What this analysis indicates is that within the forestry profession itself it is possible to identify modernist, ideological, phenomenological and environmental outlooks all in effect at the same time. Increasing complexity is a commonly recognised phase for professional associations, for example Williams and Woodhead (2007) charted a trajectory for successful small professional associations where complexity is managed through a series of step-changes as volunteer input gives way to professional staff supported by management systems. A particular issue identified by Ramirez (2009) is internal communication with the members especially where, as in forestry, members are in micro SMEs or single-practitioner firms with little support¹⁵⁸. If memberships are to be renewed and new members signed up Williams and Woodhead argue that the governance of these associations must be designed to allow diversity.

From the literature review it is clear that these perspectives are not confined to members. A considerable body of research points towards a strongly modernist mind-set, concerned with productivity and efficiency, within agricultural departments that are set to become the most powerful stakeholders in forestry. The profession is faced with the problem not only of maintaining a mandate in the face of increasing internal complexity, it also needs to take account of the fact that the views of its members are likely to be different to those of its most important external stakeholders.

5.3 Developing the Research Questions

Glaser and Strauss (1967) in their initial account of grounded theory as a research method argued that the starting point was to know that there existed a problem that was amenable to research. The nature of the problem would emerge as the research developed. This is the approach adopted in this study where, as the research progressed, two key research questions emerged to address the 'problem' of the profession's lack of influence.

¹⁵⁸ A particular issue for forestry is that members are geographically dispersed with a significant proportion located in remote areas, so that the process of reinforcement of norms through peer-group discourse is likely to be weak.

- A. How do current understandings of forestry impact the profession and what role does the profession play in informing such understandings?
- B. What might the profession do to maintain and enhance its position at a time of upheaval?

What follows is an account of how these questions emerged.

Earlier research for the DBA had suggested that environmental policy-making was restricted to a relatively small professional community comprised largely of individuals in Government and in environmental NGOs¹⁵⁹ (ENGOS). One participant in the research, a policy official in England, suggested that the reasons for this arrangement appeared partly to be a continuation of historic power structures that arose during the environmental activism of the 1970s and 1980s¹⁶⁰ and partly pragmatic, where the ENGO's were seen by Government as a relatively safe source of technical expertise that was trusted by the public. Professional foresters saw themselves as excluded from this community. The idea was given credence when, as explained above, the Government in 2011 proposed that an independent panel should review forestry policy but failed initially to nominate any professional foresters as members of that panel. It was comprised mostly of people from E-NGOs.

Throughout the research the government was identified by participants as a key stakeholder whose importance to forestry will continue beyond the current reforms. This is because environmental policies and regulations set by government are not only constraints on forestry and land-use more generally but also, in an example quoted by one interviewee, provide commercial opportunities such as wood-fuel projects that are reliant on government largesse, in this case renewable energy tariffs. The Government traditionally provides grants to incentivise particular outcomes and the four governments in the UK are by far the largest owners of forests.

However, whilst central and local government are the largest individual employers of foresters and arboriculturalists the majority, between 60% and 70%, are employed by the private sector¹⁶¹ and it was the private-sector that was largely responsible for establishing the Institute¹⁶².

Framing and reframing the research questions

The initial questions were to do with agency: why was the forestry profession not a participant in key processes that set objectives for the forestry sector and shape its practice? What might the profession do to be more influential in forestry policy?

¹⁵⁹ Non-Governmental Organisations (NGO)

¹⁶⁰ In the case of forestry the contest was largely to do with arguments relating to the effects of upland afforestation on landscape and wildlife.

¹⁶¹ FC Statistics 2012.

¹⁶² Personal comm. 2013. Prof. Hugh Miller, previous President of ICF.

To begin the problem was framed as being an issue of governance relating to the external environment for the profession. Governance is an ambiguous term, defined by Heywood (2000, p. 19) as *'the various ways through which social life is coordinated'* and by Weldon and Tabbush (2004) simply as the arrangements through which society makes decisions. Whilst authors such as Rhodes (1996) argued that 'governance' has replaced government others such as Pierre (2000, p. 5) suggested that government continues but its form and functions adapt as society changes. Jordan *et. al.* (2003), attempted to make an empirical analysis of governance where they took as their starting point a suggestion by Richards and Smith (2002, p. 272) that they explained so:

'... a focus on instruments is revealing because it highlights the difference between what the state (i.e. government) seeks to achieve (i.e. the policy objectives) and the means it uses (i.e. the policy instruments) to achieve them. (Richards and Smith) conclude that the policy goals have stayed the same but the means are changing.' (p. 2)

This separation of the formation of objectives from the means – the 'policy instruments' – used to deliver them is a useful distinction here because practice is the domain of professionals. Hallsworth *et. al.* (2011)¹⁶³ reporting on recent research of policymaking in Whitehall found that ... *'policy makers lack the resources to deal with the real problems they face; they often know what they should be doing, but experience difficulties putting it into practice'* (p. 30). Professional practitioners can, therefore, expect to have a relatively strong part to play in the design and operation of policy instruments, where policy-makers rely for their agency on others, but a correspondingly weaker part in the setting of policy itself. Jordan *et. al.* continued their line of thought to offer a distinction between government and governance so:

'... we argue that the quintessence of government is the use of regulatory policy instruments, whereas governance is characterised by the appearance of new instruments which allow social actors to steer themselves (i.e. self-regulation), with central government playing a much less active role.'

¹⁶³ The research was undertaken for the Institute for Government and funded by ESRC. Two of the researchers were senior civil servants.

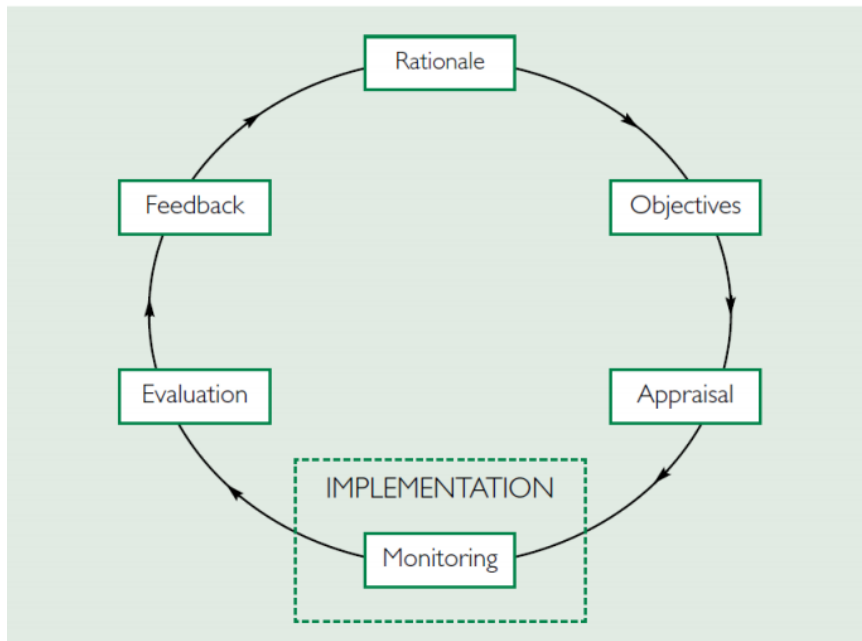


Figure 27: The ROAMEF policy cycle from the 'Treasury Green Book' (2003)

Picking up these ideas and retaining the underlying concern over agency one might ask at what points in the policy cycle the forestry profession could operate most effectively and how it might gain entry into the policy cycle. Figure 27 illustrates a policy-cycle model¹⁶⁴, in this case taken from the Treasury Green Book that is the handbook on economic evaluation and appraisal used in the Government Economic Service (GES).

Numerous models of the policy cycle are available. An alternative to the Treasury approach is illustrated in figure 28 taken from guidance from the Northern Ireland Government (2012). The ROAMEF cycle is more explicit about feedback and response whilst the NI model places stronger emphasis on communication and consensus. In contrast to strategy development in the third sector policy development in the public sector attracts considerable research. Given that the two sectors are often faced with similar concerns (see Anheier 2012 below) there seems to be some scope to adapt policy-cycle models to help conceptualise strategy-making in NFP organisations.

¹⁶⁴ Numerous models of the policy cycle are available, in many cases the feedback systems are looped so that feedback operates within and between the different activities.

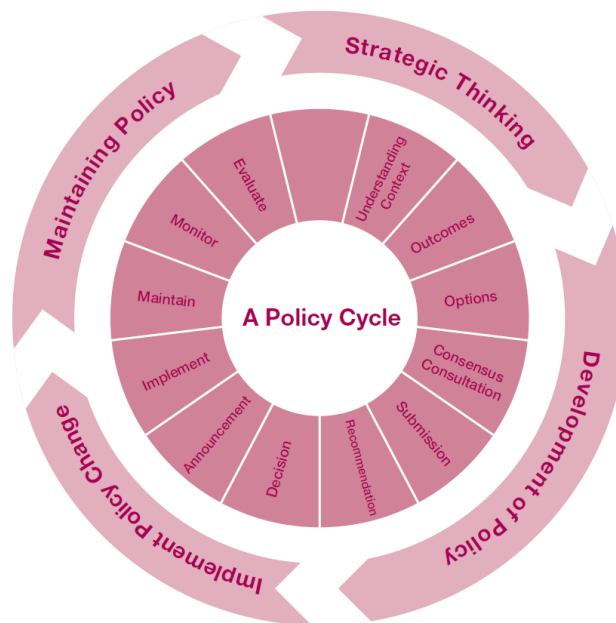


Figure 28: A policy-cycle from the NI Government (2012)

Refining the Focus of the Research: from external to internal governance

The study initially was predicated on the idea that the forestry profession needed to pick up the representational role that was being vacated by the Commission – covering all of the phases in the cycle. However, one interviewee, the Executive Director of the Institute, thought that this was unrealistic. This was not only because resources would not allow it but also the members were likely to have a diversity of views that would be difficult to promote in a cohesive way. She argued that the Institute was a professional body, not a representative body.

Other interviewees agreed, with the Director General of the Commission suggesting that the Institute could best promote its members' interests if it concentrated on being seen as an arbiter of good practice. His argument was to do with the appearance of governance and mirrored that of Hallsworth, above, that civil servants are concerned with the legitimacy of their decisions. ICF could gain leverage if its support was seen as an important aspect of legitimacy in forestry decision-making. This idea has support from the findings of Greenwood *et. al.* (2002) who, in a study of professional associations¹⁶⁵ operating in changing, highly institutionalised environments, suggested that they played a significant role in legitimating change. Whilst forestry is not as institutionalised as the accountancy bodies studied by Greenwood this need for legitimacy will certainly influence policymakers and should be a source of influence for the Profession.

¹⁶⁵ Accountancy bodies in North America

In terms of the ROAMEF cycle the territory for ICF to occupy, and the platform on which it builds its relationships with its Government stakeholders, therefore becomes the operational areas of appraisal, monitoring and evaluation.

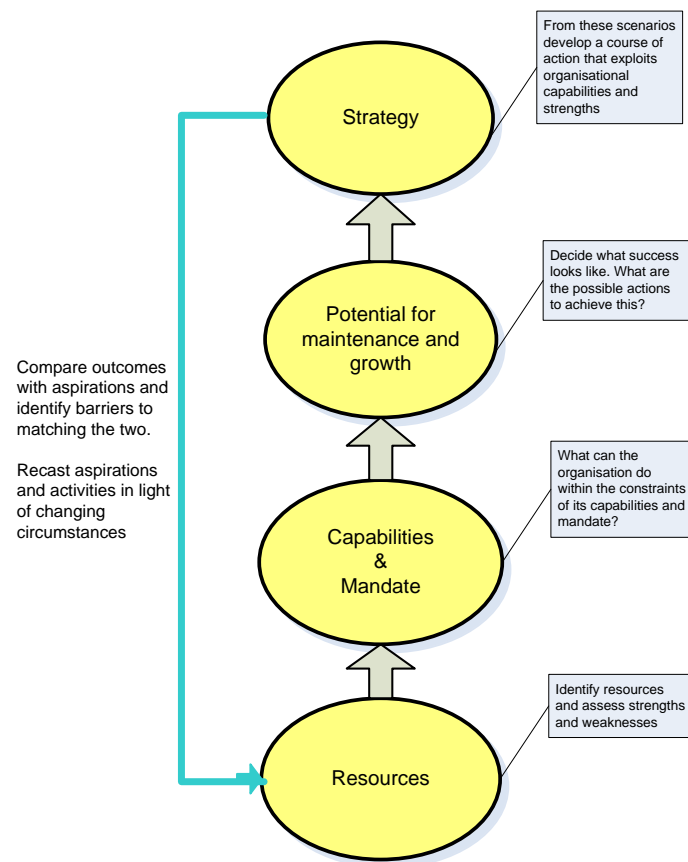


Figure 29: A generic framework for analysing resources and capabilities in a NFP Organisation. Derived from the Treasury Green Book (online), Grant (1995), Kay (1993) and Anheier (2002)

The ROAMEF cycle is silent about resources and capabilities; perhaps there is an assumption that a Government will have available the resources needed to effect the desired change. It is also ambiguous about how and by whom ‘implementation’ will be undertaken. However, if we follow Mintzberg in seeing ‘policy’ as analogous to organisational strategy, take the ‘rationale’ in ROAMEF as analogous to ‘purpose’ – in the case of forestry the mandate set out in the Royal Charter – and follow Kay (1993), Grant (1992) and others in seeing resources and capabilities as the building blocks of strategy then we can construct a framework, set out in figure 29, linked to a policy cycle that might be applied to a not-for-profit body such as a professional association. The framework is iterative and can also be used for navigating in times of change.

Anheier (2002), however, urges caution in the the use of models from the business world to explain the operation of NFP organisations because of the complex outcomes that NFPs are often seeking:

'... the management challenge is not that non-profit organisations have no bottom line at all, the problem is that they have several, and some would say "sometimes too many." A non-profit organisation has several bottom lines because no price mechanisms are in place that can aggregate the interests of clients, staff, volunteers and other stakeholders that can match costs to profits, supply to demand, and goals to actual achievements.(p.6) the notion of non-profit organisations as multiple organisations and as complex, internal federations or coalitions requires a multi-faceted, flexible approach, and not the use of ready-made management models carried over from the business world or public management.' (p. 8)

Supporting the research findings reported in this document, of a diverse set of 'realities' within the professional body, Anheier identified a characteristic of NFP bodies as:

'... a normative dimension (requiring) management that includes not only economic aspects but also the importance of values and the impact of politics. Thus ... we are dealing with organisations that involve different perceptions and projections of reality as well as different assessments and implications for different constituencies' (pp. 8-9)

He asked why financial measures are so often used to measure the performance of NFPs and argued that performance should be measured according to the degree of success in meeting the purposes for which the organisation exists.

Nevertheless, finance is necessary for any organisation and for professional associations Williams and Woodhead (2007) argued that the main source is membership fees. This makes retaining and growing the membership an abiding concern for professional bodies.

Whilst the third sector increasingly is attracting management research the literature on professional associations, especially those outside law accountancy and health, remains sparse. Gruen *et. al.* (2000) attempted to model the effects of different activities in professional associations and found that *'... core services performance was the only construct in the model found to affect member retention'* (p. 34). In other words the internal regulatory and developmental activities were more important to members than external representation. This introversion is hardly surprising given the

roots of professional associations in mediaeval guilds and merchant trading groups concerned with creating monopolies and barriers to entry¹⁶⁶.

Given the caveats above it is possible to construct a simple set of questions that match the steps shown in figure 28 and also address the issues of governance that are indicated by table 11.

- 1) In respect of resources, capabilities and mandate what are the factors that provide opportunities and constraints for the Institute?
- 2) What does increasing diversity among the membership – Anheier's '*different perceptions and projections of reality*' – imply for the way in which the Institute manages its affairs?
- 3) What are the implications of these factors for the maintenance and growth of the Institute? What behaviours do they imply for the managers of the Institute?
- 4) What are the strategic implications for the Institute?

Models such as the one illustrated in figure 29 are commonplace in the business literature and where they are tailored to the specific circumstances of an organisation they seem likely to provide a useful tool for managers, in this case by helping elicit a set of strategic questions for the foresters' professional body. However, there appears to be a growing argument in the literature for a tacit dimension to management and decision-making, for example Fischer & Gottweis's (2012) argument that rationalist rhetorics mask processes of decision-making that are in fact highly subjective and relationship-dependent. Chia (2002)¹⁶⁷ made a similar point in arguing that the '*epistemological priorities of a literally-based Western culture*' ... exemplified as ... '*a dominant Western mind-set of knowledge-creation, dissemination and application*' are ascendant over ... '*the invisible, the tacit, the spoken and the implied*' (pp. 1 - 4). However, for Fischer, Chia, Kay and others it is these latter qualities that are the actual basis for much decision-making, even in the literally-minded West.

Taking the research and literature review together there are a number of recurrent themes:

- Culture: not only of the foresters and arboreculturalists but also the decision-makers who influence their world. The foresters are much more diverse than they appear to be from the outside. The decision-makers deploy a rationalist rhetoric and operate within a legalistic framework but are highly influenced by expediency and tacit concerns over legitimacy.
- Governance: where the diversity of views among the foresters means that the professional body needs to be able to accommodate a wide range of perspectives. Externally the decision-makers seek legitimacy and turn to ENGOs rather than the professional body.

¹⁶⁶From '*A History of Associations*' prepared for the Canadian Society of Associate Executives by M. C. Batten, CAE.
<http://www.csaecanada.com/AboutCSAE/AHistoryofAssociations.aspx>

¹⁶⁷ Chia was contrasting Asian approaches to business with those in the West.

- **Mandate:** whilst the Royal Charter of the foresters allows them a wide range of options they have chosen to operate in a fairly constrained way – for example by passing on a recent opportunity to incorporate wood scientists into the Institute despite a clear mandate in the Charter to cover this field. The inference is that there is a normative, narrow construction of what membership of the Institute means and that there has been no mandate to go beyond this.
- **Legitimacy:** with over 1000 technically qualified staff and 200 forest scientists the Forestry Commission's credentials as the leading authority on forestry have been unquestioned. However, the institutional changes move decision-making to unqualified people who need to be able to demonstrate that their decisions are properly informed. Trust in Government is widely reported (e.g. Edelman Trust Barometer 2012, British Social Attitudes Survey 2013) to be diminishing. Decision-makers seem likely, therefore, to look outside government for legitimating authority. This seems to be a key opportunity for ICF. However, the Institute has little capacity to engage and only speaks for a minority of practitioners.

The thesis that emerges is that if the professional institute wants to have greater influence over its external environment it needs continuously to demonstrate that it speaks (a) with technical authority and (b) on behalf of the profession. At present both these criteria are contestable. The behaviour of the Institute indicates that it portrays a narrower perspective than is indicated by the diversity of its membership and its members only make up 30% or so of the number of practitioners operating at a professional level. The voice of the Institute might be stronger if it spoke for a higher proportion of foresters and arboriculturalists, if employers saw membership as a necessary qualification for professional employment and the Universities teaching forestry saw the Institute as a standard-setter that gave their students access to employment.

Whilst the royal charter might be a proxy that allows the Institute to claim to speak for the profession this is not sufficient to demonstrate that it speaks with authority and is not simply promoting a narrow vested interest.

What does the Institute need to do to be seen as a credible and authoritative voice for the forestry profession and a source of legitimacy for forestry decision-making?

Chapter 6: Research Method

6.1 Research Method

The research method followed Glaser’s grounded theory approach (1978) subsequently adapted by Pidgeon and Henwood (2002, 2004). Following the original description of grounded theory by Glaser and Strauss (1967) the two authors independently developed the methodology. Strauss, in collaboration with Corbin (1998) developed a strongly structured methodology with a codified, systematic approach to the gathering and analysis of data and also called for verification, which sets them firmly in the objectivist camp. Glaser continued with a more comparative approach that placed greater reliance on the skills and insights of the researcher. Henwood and Pidgeon (1998) applied Glaser’s approach to a large-scale qualitative research programme in forestry in Wales. Figure 30 illustrates their approach.

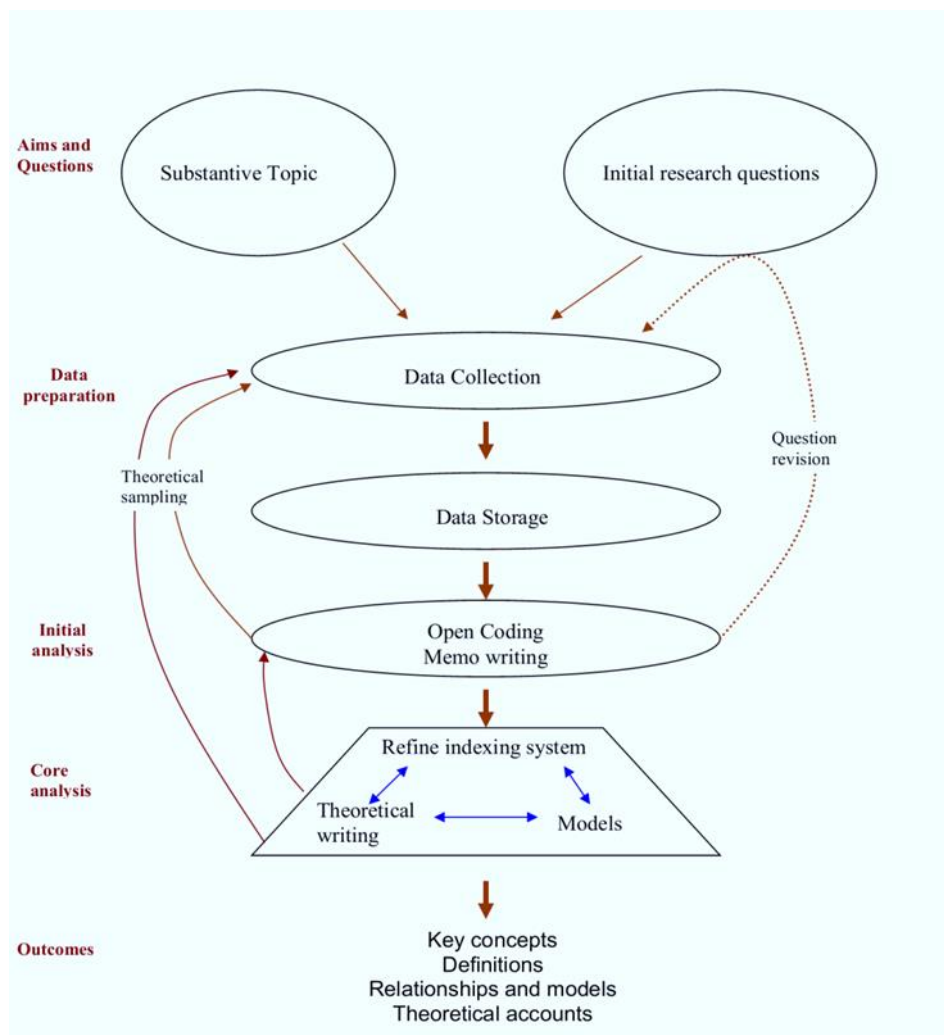


Figure 30: Key Concepts in Grounded Theory. Adapted from Pidgeon and Henwood 2002.

A number of authors have criticised grounded theory as a research method, Charmaz (2000, p. 520) was typical in challenging Glaser's concept of a disinterested researcher. She saw this as an objectivist approach. In addition she cited a number of criticisms relating to the way that the construction of metadata by grounded theorists was said to lose nuanced detail. In addition, the reliance on procedures can distance the researcher from the subject of the research.

Glaser, a nurse, and Strauss a statistician were in 1967 reporting on research in a hospice. Their data was a reflection of the subjective, lived experience of their subjects. In the research reported here the underlying concern is to understand the reflections of individuals on their professional environment, how it is changing, how those changes impact upon their professional life and what might be done to take advantage of such change? Charmaz suggested that one role of the grounded theorist is to identify and recount stories. In this research this applies in part to the interviews and very much to the informal discussions with foresters and officials during the course of the research.

6.2 Data sources

The research used a number of sources of information:

- Interviews with senior figures in the forestry sector. The interviewees were selected to cover (a) the Forestry Commission, (b) the scientific and forest research community, (c) the private sector as represented by CONFOR, the industry representative body, and (d) the Institute of Chartered Foresters. Four interviews were undertaken. The interviewees were:
 - The Director General of the Forestry Commission, himself a previous President of the Institute of Chartered Foresters.
 - The Chief Executive of the Forestry Commission's Forest Research Agency.
 - The Chief Executive of CONFOR, the industry representative body, and
 - The Executive Director of the Institute of Chartered Foresters.

The first two interviewees listed were members of the Forestry Commission's Executive Board. The latter two were members of the Independent Panel on Forestry established by the Government in 2011 to advise it on future forestry arrangements in England. Three of the interviewees are professional members of ICF.

The interviews were tailored to each individual, with questions designed to explore each particular perspective. Interviewing was undertaken after the main literature review, which provided themes to inform the design of each interview.

- Qualitative data from a survey of ICF members undertaken in autumn 2011 for Document 4 of the DBA. The survey was designed with Document 5 in mind and included a number of questions asking for qualitative data. The quantitative data from the survey was analysed and reported on in paper 4 for the DBA, the qualitative data had not previously been analysed. The survey was sent to all ICF members by e-mail. 155 members, 13% of the membership, responded. The data comprised 97 separate entries totalling 4,450 words. Comments were invited in the following areas:

Question	Number of Responses
Can the general public contribute usefully to forestry policy?	44
Who do you think is most listened to in forestry consultations?	10
What are the greatest barriers to participating in forestry policy-making?	5
Are there barriers to participation related to the Equality legislation categories of race, religion, gender, age, sexual orientation, sexuality?	14
Invitation to comment on how forestry policy is made and who participates	24

Table 13: Qualitative questions in the survey of professionals

The responses were subsequently discussed with individual ICF members, some of whom had responded to the survey and some had not, at meetings and at a national conference held in May 2012. A total of 12 people were asked to comment briefly on the themes in the analysis.

- An international conference organised and chaired by the researcher on behalf of the Institute of Chartered Foresters. The conference was held at the CBI building in central London. The speakers were chosen (a) for their knowledge at a strategic level of particular aspects of forestry or land-use policy, (b) because their organisations play an important role, for example Ian Cheshire, the Group Chief Executive of Kingfisher plc. whose company is a major purchaser of wood products and was instrumental in introducing forest certification into Europe, (c) for their knowledge of forest and environmental economics and their understanding of the way that economics informs policy development. This group comprised three economists one of whom, Ian Bateman, had led DEFRA's recent Ecosystem Services Evaluation project to develop methodologies for monetising ecosystem services and (c) A further group was from the research and academic community where John Innes was leading an international task force¹⁶⁸ on the recruitment of scientists into forest research. At the time of the conference tree health was causing concern following a spate of high-profile tree diseases introduced from overseas. Joan Webber, head of Tree Health in Forest Research, spoke about the development of the UK's strategy for tree health. Table 14 shows the list of speakers with their affiliations.

¹⁶⁸ For the International Union of Forest Research Organisations IUFRO.

Future Forestry: Meeting the Needs of Society in 21st Century

Organiser & Chair: Marcus Sangster FICFor, CFor, MSB, CBiol

Speaker	Affiliation	Topic
Bateman, Ian (Professor)	Prof. Environmental Economics, Univ. East Anglia	The value of forest ecosystem services.
Beedell, Jason Cheshire, Ian	Partner, Head of Research, Smiths-Gore Group Chief Executive, Kingfisher Plc.	CAP reform and its impact on the UK Sustainability as a corporate objective.
Dickie, Ian	Director of Business Development, Economics for the Environment.	Economic instruments for the management of UK forest ecosystems.
Freer-Smith, Peter (Professor)	Chief Scientist, Forestry Commission	Challenges for forestry research.
Henson, Jonathan	Director (rural), Savills	Landowners' views on sustainable land management.
Innes, John (Professor)	Dean of Forestry, Univ. British Columbia	The changing world of forest management.
Langley, Edward	Head of Environmental Research, Ipsos MORI	Public attitudes to forests and the environment.
Oistad, Knut	Deputy DG, Norwegian Ministry of Ag. and Food	The international context for forestry in Europe.
Owen-Jones, Jon	Forestry Commissioner, previously Environment Minister in the Welsh Assembly.	Institutional change in forestry in the UK.
Phillips, Ian	Landscape Consultant	Urban forests and green infrastructure.
Porrit, Jonathon	Director, Forum for the Future	The politics of the proposal to sell forests in England.
Price, Colin (Professor)	Prof. of Forest Economics, Univ. Bangor	Understanding how society values forests.
Rivers, Matthew	Director of Biomass Business, DRAX Power Ltd.	UK energy policy & the international biomass market.
Rollinson, Tim	DG Forestry Commission UK	UK Forestry and the Global forest policy process.
Webber, Joan (Dr)	Head of Tree Health, Forest Research	The health of forests and trees in Britain.

Table 14: Speakers at the Forestry Conference

- A workshop with the forestry departments of UK and Irish universities that the researcher chaired. It was organised on behalf of the Professional and Educational Standards Committee of ICF, which the researcher also chairs. The committee had become concerned that the academic standing of recruits into the profession was being called into question by potential employers. The same issue had been highlighted in the forestry conference when delegates, in plenary discussion, argued that foresters must make more effort to differentiate themselves and emphasise their professional standing. All the universities offering undergraduate forestry degrees in the UK took part plus Univ. Dublin from the Republic of Ireland. Participating institutions were:
 - Aberdeen University,
 - Askham Bryan College (Harper Adams University),
 - Bangor University,
 - University College Dublin,
 - Edinburgh University,
 - Harper Adams University,

- Moulton College (University of Northampton),
 - Myerscough College (University of Central Lancashire),
 - Plumpton College (University of Brighton),
 - Sparsholt College (University of Portsmouth),
 - University of Cumbria,
 - University of the Highlands and Islands, Inverness College.
- Informal discussions with industry and sector figures during the course of the research.

6.4 Advice

Whilst there was no formal advisory group for the research Professor Hugh Miller, formerly Head of the Forestry Department at Aberdeen University and Professor Julian Evans, formerly Professor of Forestry at Imperial College London and current President of the Institute of Chartered Foresters were kind enough to comment on the text as it developed. Mr Rod Leslie, formerly head of forestry policy with the Forestry Commission in England and a leading campaigner against the proposed sale of public forests, and Mr Peter Wilson, formerly CEO of Timber Growers UK and currently a private consultant specialising in forestry certification and forestry policy analysis, advised on the analysis and conclusions.

6.5 Data Collection, Storage, Management and Analysis

Interviews: Three of the interviews were recorded and verbatim texts were prepared. Recordings were made using an Olympus digital recorder and the files loaded onto a computer. They were transcribed into Microsoft Word using speech recognition software. One of the interviewees was unwilling to be recorded; notes were made during this interview. The verbatim texts were edited for grammar and punctuation and then sent to the interviewee, as previously agreed, to allow corrections and adjustments. The three recorded interviewees accepted the texts without change. The interviewee who was not recorded was sent a copy of the map derived from the coding, again no changes were made.

Survey: The responses were downloaded from 'Survey Monkey' into an Excel spreadsheet. Each set of responses – those from the same question – was then transferred to a Microsoft Word document then manually coded. Survey Monkey changed the terms and conditions of their contract during the research and this placed some constraints on the analysis of the data.

Conference: The presentations and discussions were summarised by *rapporteurs*. Their reports were then manually coded and entered into the software.

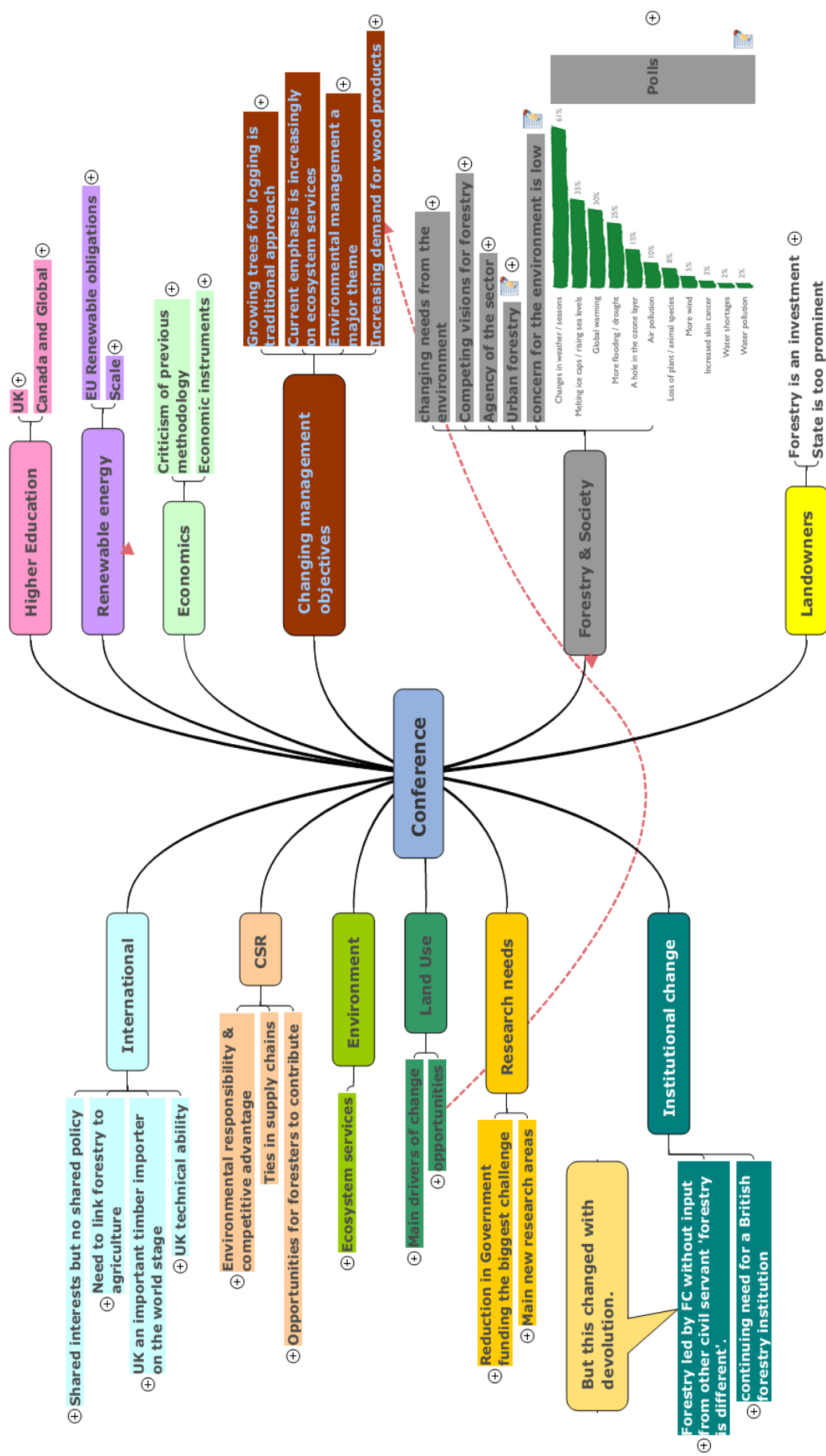
HE Workshop: The output was a set of flip-chart notes. These were photographed and stored on a computer as image files. They were not coded. A table was drawn up summarising the key points and identifying potential actions for the Institute.

Informal Discussions: These varied from short exchanges of just a minute or two to more detailed discussions. Notes were made and the information was added to the collected data. The notes were coded using themes drawn from the other data sources.

Data was manually coded using highlighters and coloured pens. 'Topics' were identified and were used to gather related ideas and comments – 'elements' – together. The data was then recoded and topics and their associated elements were dropped, regrouped or adjusted. The topics were then entered into a software visualisation programme, 'Mindjet Mindmanager'. This was a means of storing and organising manually derived data rather than an analytical programme such as NVivo. The software has a facility for attaching notes and memos to topics, making links between topics and sub-topics and cutting and pasting topics. Figure 31 is a diagrammatic representation, a 'map', of the topics identified in coding the records of the conference. Figure 32 shows one of these topics, Higher Education, expanded to show the lower-level elements.

The output from the survey, interviews and conference was a set of such maps that laid out the topics and their elements that were identified in coding the different texts. Where the same topics appeared on each set of maps they were then amalgamated. This led to a new set of maps each of a single topic showing the elements that had been amalgamated from the different data sources. The maps were printed out on a large-format printer.

Figure 31: Level 1 & 2 Coding of 'Future Forestry' Conference Proceedings
 The software allows notes and files to be appended to each theme or level.



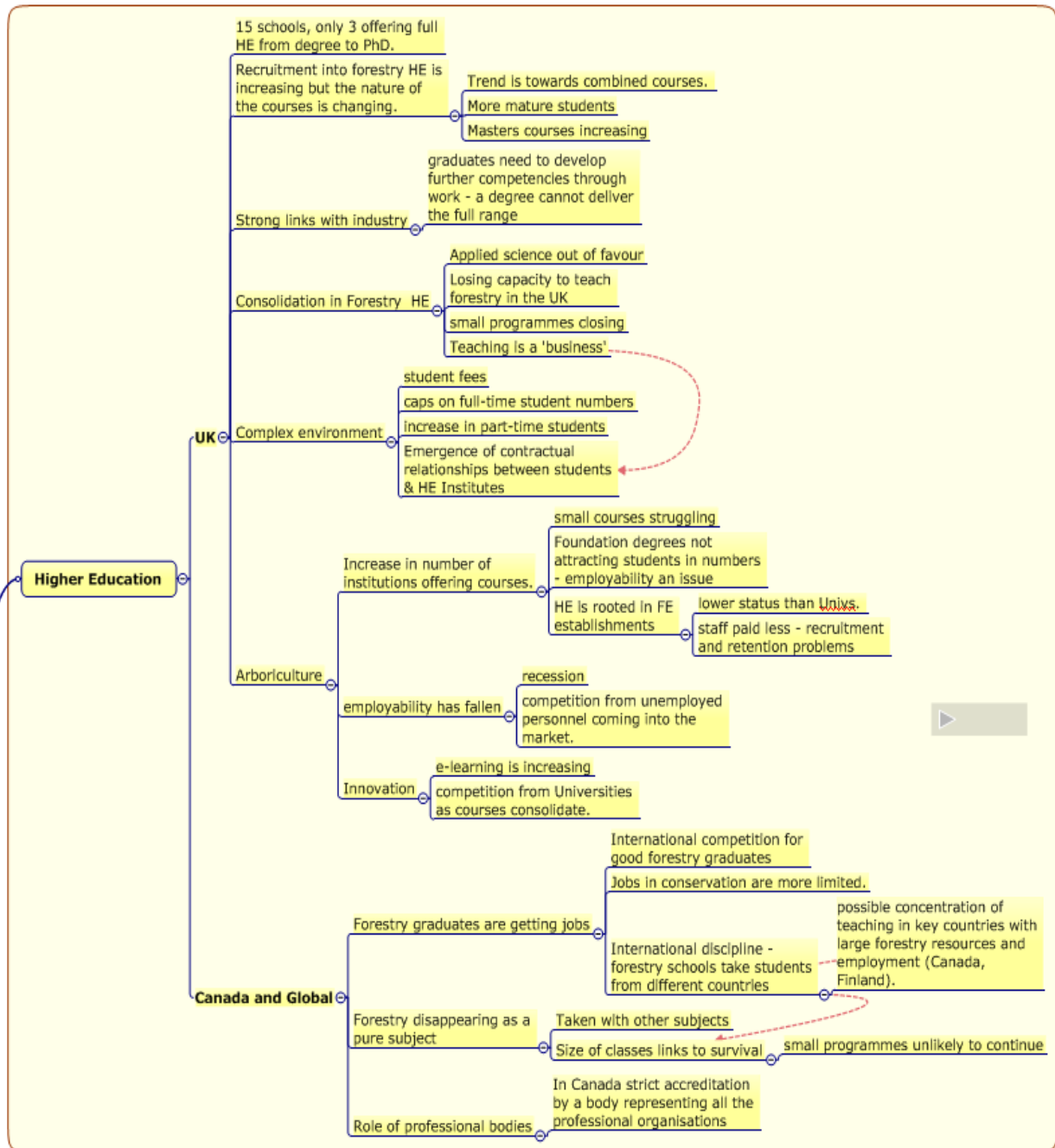


Figure 32: The topic 'Higher Education' expanded to show elements. From the Conference.

Chapter 7: Discussion of Findings from the Research

7.1 Introduction

Because a grounded theory approach was used in this research the formulation of the research questions took place during the study rather than at the start. The lengthy chapter above on the conceptual model is as much to do with the identification of the key problem and associated research questions and the development of an analytical framework as it is about the design of the research itself. Initially formulated as relating to the fit of the profession with its external environment and asymmetric governance in forestry policy-making the problems finally identified were to do with the interaction of the profession with wider society and the capacity of the profession to adapt and take effective action to maintain or enhance its position in a time of change.

The two core research questions, as set out in the preceding chapters, emerged as:

1. How do contemporary understandings of forestry within wider society impact on the profession and, in turn, what part does the profession play in the construction of such understandings? And,
2. How can the profession maintain and enhance its position at a time of upheaval in the institutions and arrangements for forestry?

Linked to these key questions are further subsidiary questions to do with the governance of the profession itself and the credibility of its contributions to decision-making in forestry.

This chapter is in two parts. The first uses ideas in the model in Figure 29 to look at some of the strategic issues facing the Institute itself. The second section is more concerned with governance and relationships and possible tactics. The central idea in the chapter is that the Institute faces step-changes, not only one of the well-documented hurdles that organisations must overcome at different stages in their growth but also a cultural step-change as it closes the book on its history as a learned society, almost a club for forestry graduates, and completes its journey to becoming a contemporary professional body.

The research indicates that increasing complexity is not confined to the external environment for forestry professionals but is also seen internally within the profession. It is argued in the preceding chapters that a link between professional agency and professional identity means that locational differences influence the construction that individuals make of their profession. This has implications

for the structure of the professional body, indicating a need to strengthen its regional or country-level presence.

Geography seems also to be a factor in how people outside the profession think of forests. Two of the interviewees in the research were members of the independent panel established by the Government to advise it on forestry in England. Each had each participated in a series of visits to a variety of forests and the communities close to them. These interviewees suggested that locational differences are also significant in determining how the public think of forests and foresters. They gave the example of public attitudes to felling saying that in Scotland it causes much less public concern than in central and Southern England. Another example, illustrating the influence of institutional differences, was that in England informal access is highly valued by the public and there is anxiety when it might be threatened but in Scotland it is taken for granted because it is embedded as a general right in statute¹⁶⁹.

The institutional changes in forestry are likely to accelerate such geographically influenced constructions because separate forestry arrangements are developing in each home country. This is in part because the forests and land tenure systems in each country have different histories and the forests themselves have different characteristics in terms of their productivity, species and the balance of services they provide. As the Forestry Commission's influence as a unified, cross-country organisation diminishes it seems, therefore, that a more divergent range of ideas on what it is to be a forestry professional will emerge. If the Institute is to continue as the professional UK-wide body for this diverging professional community then it will need governance systems that allow diverse perspectives to be accommodated whilst maintaining its core purposes of maintaining and developing standards and providing professional services to members.

7.2 The Internal Environment of the Profession

The Institute as a Business: The Institute has been growing membership slowly, increasing from around 1,100 to 1,300 over the past eight or nine years. It is one of the smallest professional institutes in the UK and the Privy Council intimated recently that it would today be considered to be too small to be awarded a charter (anon, pers. comm.¹⁷⁰). Its financial position is nevertheless secure relative to the current level of services it provides with the six full-time-equivalent staff who are its main cost. It has reserves adequate to allow the charity to be wound up in an orderly fashion should this ever be necessary, its risk register indicates a relatively low level of business risk now and in the foreseeable future. Its main assets are the goodwill embedded in its membership subscriptions and its ownership of the academic journal *'Forestry'* published by OUP.

¹⁶⁹ The Land Reform Act (Scotland) 2003 <http://www.legislation.gov.uk/asp/2003/2/contents>

¹⁷⁰ The comment was made by a Privy Council official to the ICF Exec. Director when she applied to make changes to ICF's bye-laws.

Providing Services to Members: The Institute's core 'business' was identified by two of the interviewees as the provision of services to members by setting and regulating professional standards, managing examinations and entry procedures and providing professional development opportunities. This is very much the mandate given in the Charter and it was the quality of such activities that Gruen *et. al.* (2000) found to be the most important influence on the recruitment and retention of members to the associations they studied. In addition ICF maintains when appropriate a presence in technical fields such as health and safety committees, British Standards Institute committees and land-based educational processes. For much of this provision the Institute relies on voluntary work by its members; its examiners and exam board are voluntary and most of the technical representation is done by unpaid members. From discussion during the research it is clear that the Institute's management and many Council members believe that they are at the limit of the voluntary support they can expect from members.

The Institute's Competitive Environment: Whilst its charter provides a significant barrier to entry it does face competition from RICS¹⁷¹, a professional body in the landed sector that also has forestry mandate and has a policy of offering full chartered membership to ICF members without the need for further qualification. Consolidation, rather than direct competition, was seen by interviewees as the most potent threat to the Institute as an independent body. However, a proposed merger with RICS was rejected by the membership ten years ago since when the Institute has slowly grown. The Institute, therefore, is in a secure position and there are no immediately apparent reasons why it should not continue as it is for many years to come.

The profession, however, is not regulated and there is no need for practitioners to acquire professional accreditation from the Institute in order to work in the sector. At present no commissioning bodies, in Government or in the private and voluntary sectors, require professional status when letting forestry or arboricultural contracts. Nor do any employers require their foresters to be professionally accredited. The Executive Director when interviewed estimated the membership at around 30% of the foresters and arboriculturalists whose work might justify professional status. If 70% of the sector feels that accreditation is not necessary then a question arises of whether it is actually legitimate for the Institute to cast itself as the voice of the profession.

Without such a voice, however, the ENGOs seem likely to continue as the de-facto authorities to whom decision-makers turn. Effectively this makes them the most significant competitors to the Institute. Perhaps more importantly the Institute's low level of penetration among its potential members means that its roles of regulation and standard setting in professional practice are likely to

¹⁷¹ Royal Institute of Chartered Surveyors

be ineffective on a sector-wide basis. This is likely to make the Institute seem irrelevant to decision-makers. The answer for the Institute is in part to extend its membership to include a higher proportion of eligible practitioners.

Forestry culture: All of the interviewees and several of the professionals who were approached less formally spoke of internal characteristics that inhibited the profession from engaging in matters that affected it. In particular they identified a professional culture that was an impediment to communication and engagement with non-foresters. *'The whole sector is massively, innately conservative'* said the Director General of the Forestry Commission. *'People do forestry because they like trees, not because they like people'* was a frequent comment from participants in the research. These comments closely mirror those of Ryle, quoted above (p. 52), from almost fifty years ago who noted that decisions on forestry between 1919 and 1969 were almost always made by bodies and individuals outside the sector¹⁷². This raised a question of whether the foresters' possible lack of influence was in some way related to characteristics of the forestry profession itself, leading to an exploration of professional culture generally and of forestry culture in particular. The DG of the Commission in interview went on to talk of how foresters tend to be adaptive, are good at solving problems posed by others and at turning policy and strategy into actions, but are less comfortable when taking a lead themselves. The chief executive of CONFOR and the executive director of ICF both discussed how the profession was poor at communicating and felt that this was in part a cultural factor, again: *'people don't come into forestry because they want to deal with people, a lot of them want to get away from people'*.

A feature of the Institute is that all of its officers (councillors, executive director, committee chairs) are members of the Institute. This raises questions about governance and whether the Institute has access to a sufficiently broad and diverse range of experience and skills. This is discussed in more detail under governance.

Miller (2013, pers. comm.) contributing to the research gave an account of the development of the professional body from a learned society to a chartered institute, a move that was led by members in the private sector active particularly in extensive upland plantation forestry, forestry investment and forestry research in Scotland. The members of the new Institute had a relatively narrow view of forestry and did not cope easily with dissent. This was evident in the case of Tompkins, a member whose publication in 1986 of a book¹⁷³ that criticised upland afforestation led to his ostracism and

¹⁷² The single exception was the 1947 forestry policy that was designed by foresters and led to major controversy through the 1970s and 1980s.

¹⁷³ Tompkins S. C. (1986) *The Theft of the Hills*. See refs.

eventual resignation from the Institute. This idea of the professional association being ‘a forestry club’ arose in two of the interviews and in several of the informal discussions.

Constraints to Growth (1) Operational: In a not-for-profit professional organisation such as ICF that is reliant on subscriptions for its income opportunities to grow income are constrained by the rate of recruitment and subsequent retention of members. The managers of the Institute concede that they face resource constraints that prevent the team from taking on more work and that they are at the limits of what they can expect from voluntary input from members. Expansion will require a step-change – what the European Commission (2013: p. 2) describes as dealing with a ‘*crucial lifecycle phase*’. Although the membership of the Institute is slowly growing this incremental growth¹⁷⁴ does not fit with the scale of new resources – for example the salary and associated costs of a new senior staff-member – necessary to maintain and develop services to the increasingly diverse membership. Whilst ICF does have financial reserves it relies on them for investment income. An increase in its operating costs¹⁷⁵ could not be sustained unless additional income is found.

Many models¹⁷⁶ have been developed to illustrate the growth characteristics of small organisations. Accepted wisdom, commonplace in the literature on SMEs, is that growth is not a steady, incremental process but is stepped. The idea is that as an organisation grows it becomes more complex and needs to consolidate a particular level of complexity before it regains its previous rate of growth. Figure 33 from Churchill and Lewis (1983) is typical in illustrating a series of ‘crises’ or step-changes that arise as a company grows. Each step-change contains an element of risk as it requires the deployment of new skills and resources and often commits the organisation to higher fixed costs. These then need to be paid for with increased income. When an organisation is at such a stage its growth is likely to tail off unless it can find and maintain the necessary resources to ‘climb’ the step.

¹⁷⁴ Charities are constrained from operating to make profits though trading operations are possible if they relate to the charity’s core business. ICF itself does generate a significant income through its academic journal ‘*Forestry*’, which is a mature operation where the income is relatively stable.

¹⁷⁵ 2012 accounts show an annual surplus of £38k of which £12k came from investments. The Charity Commission recommends charities to carry reserves sufficient to pay down on-going commitments such as leases and potential staff redundancy payments plus three months operating costs. These would amount to about £150k for ICF. It has reserves of about £250k. It generates about £440k each year with a practicing membership of around 1,300.

¹⁷⁶ Goldman Sachs (2013) in a review for Government on the health and needs of SMEs reported that they had found numerous proprietary models, too many to list, developed by consultancies and used commercially.

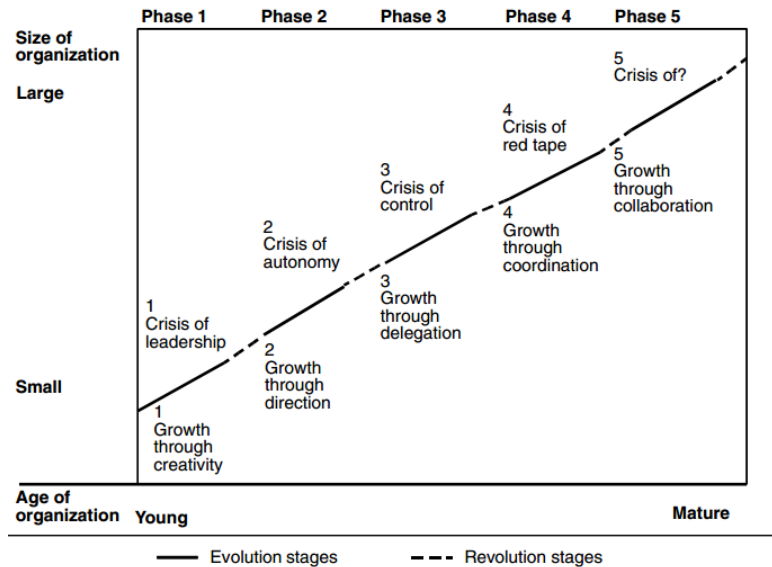


Figure 33: Organisational growth as a series of challenges. From Churchill and Lewis 1983

Note that these points of change are not, in this model, driven by financial issues but are to do with organisational and cultural development, though they could equally relate to challenges such as increasing the quality and scope of membership services of a growing professional body. Other authors have made similar analyses; Steinmetz (1969) argued for three rather than five critical stages but agreed that such ‘crises’ also are to do with culture and capacity. Similarly a number of authorities (Gibb, 1997; Glover 2012) interpret such steps in terms of an organisation needing to learn how to cope as growth leads to new challenges. Goldman Sachs (2013, p. 9) in a review paper for a UK Government business support programme proposed that growth of small organisations has three elements:

‘the development of entrepreneurial and managerial capabilities, development of peer-to-peer support networks, and a partnership model of support provision between the corporate and higher education sector that also draws on and complements existing local assets, infrastructures and networks’.

Goldman Sachs’ mention of relationships with higher education is perhaps to do with the need for organisations need to take a disinterested, strategic perspective in their business and product development. It is highly relevant to forestry and was an important theme at the conference.

These models are mostly to do with companies, rather than not-for-profit bodies, that are likely to have access to finance through the financial markets that is not available to most third-sector organisations. This might be why in this literature finance is not seen as a significant limiting factor. Whilst charities can and do borrow it is generally to invest in projects that will generate a return – an activity that other than in the management of its reserves is outside the mandate of the Institute.

Rickey *et al* (2011) in an advisory pamphlet on borrowing by charities advised that charities such as ICF would be highly unwise to borrow, even if they could find a lender, because their freedom of action in income generation is constrained and they are less able to respond to external changes than companies.

What emerged from the research was that one of the cultural step-changes that the Institute faces is to do with the governance of the profession.

Constraints to Growth (2) Governance and Culture: Whilst this issue was not raised directly by participants in the research a number of responses to the questionnaire and comments by three of the interviewees implied that the Institute was poorly fitted to cope with change because of its strongly production-orientated (modernist) perspective and its lack of skills and resources in influencing external stakeholders. This view was held by members themselves. What seems to be indicated is that the 'official' construction of forestry by the Institute is at odds with a much wider range of views that has developed within the membership. Subsequent analysis showed that other than the executive director (a fellow of the Institute but salaried) the Institute's officers and committee members are all volunteers and are all members of the Institute. The majority of members work in micro-businesses, often sole-proprietor, with the second largest group being members from public bodies. As discussed above women are very much under-represented, comprising just 16% of the profession, people in BAME categories are almost completely missing as are disabled people. This raises questions (a) of whether the professional body has access to the skills and networks it needs, (b) whether there is sufficient diversity in outlook and experience among the Institute's volunteer officers to accommodate a more diverse membership operating in an increasingly complex professional environment and (c) are the needs of the users of services from forests sufficiently understood given the skewed demographic profile of the profession?

There is a large body of authoritative guidance on organisational governance covering public, private and voluntary sectors that emphasises the value of diversity among boards and officers. The Financial Reporting Council (2012), which publishes the UK Corporate Governance Code for companies, said in its guidance on board composition:

'Diversity in board composition is an important driver of a board's effectiveness, creating a breadth of perspective among directors, and breaking down a tendency towards 'group think'. (p. 2)

The Institute of Directors (2011) took a similar line:

'... diversity in terms of professional background, education, sector experience, nationality, age and personality may all be relevant in the composition of an effective board' (online)

In the third sector the Code Steering Group (2010) published guidance on governance on behalf of a consortium of charitable organisations. The guidance is endorsed by the Charities Commission. In their view boards should be constituted so that:

- *‘together (they) have a mixture of knowledge, skills and experience that is relevant to the organisation’s circumstances and needs,*
- *have the requisite characteristics and skills to work as a committed, effective and supportive team, whilst retaining independence of thought and the maturity and ability to challenge constructively and,*
- *embody diversity in its widest sense, strengthening decision making by bringing a broad range of backgrounds and perspectives.’* (principle 3, p. 16)

Whilst few of the Institute’s trustees take an active part other than attending Council meetings (pers. comm. anon) what is clear in this guidance is that good practice dictates that trustees of charities should be active and that boards should have a range of appropriate skills and experience in their membership.

‘Boards set the long term vision and protect the reputation and values of their organisations. To make a difference a board needs to have proper procedures and policies in place but it also needs to work well as a team and have good relationships within the organisation. An effective board will provide good governance and leadership by:

- *understanding their role*
- *ensuring delivery of organisational purpose*
- *working effectively both as individuals and a team*
- *exercising effective control*
- *behaving with integrity*
- *being open and accountable’*

(Code Steering Group, Introduction; pp. 9 – 11)

Whilst the culture of the forestry profession was covered in some depth in the research the specific question of governance of the Institute was covered only incidentally. Nevertheless there were comments from participants that the Institute was like a club for forestry graduates. The practice of appointing trustees and officers only from the membership and without consideration of the skills of the individuals does not fit well with current concepts of good practice in the governance of charities, for instance NCVO¹⁷⁷ recommends that charities undertake skills audits of their boards and aim to match the skills on the board with the needs of the organisation.

The current arrangements might well be very suitable for the Institute, especially in respect of the cost of governance. It seems possible, however, that a broader skill-set and exposure to experiences from outside the sector would be an asset and would help mitigate against external perceptions of the profession as a club rather than a disinterested professional body – a perception that three of

¹⁷⁷ National Council for Voluntary Organisation NCVO <http://www.ncvo-vol.org.uk/>

the interviewees¹⁷⁸ put forward as a part-explanation of why the profession is treated with caution by decision-makers. Research by the Institute itself¹⁷⁹ among forestry students has shown that this perception also hinders recruitment of new members. This was supported by Tomlin (2001) who interviewed school leavers who were making decisions about their university courses and undergraduate students who were making first-job choices. She found that the young people saw forestry as being closed to outsiders. Girls in particular saw it as an unattractive career choice because they thought also that it was dominated by middle-aged men.

Culture as a barrier to professionalism: In the responses to the survey a significant minority of foresters and arboriculturalists felt that only they are qualified to set objectives for forest management because others do not have the necessary understanding. Such a mind-set seems likely to lead to distrust. If the professionals appear to be unwilling to accept, or perhaps negotiate objectives set by stakeholders then it is to be expected that those stakeholders will turn to proxies such as the ENGOs. In the report of the Independent Panel (2012) there was a similar idea to that put forward by these foresters, where the panel made much of the lack of a 'Woodland Culture' in the UK.

'We want to see a new woodland culture in which woodlands and wood as a material and fuel are highly valued and sought after. To achieve this requires people to think and behave differently, such that woodlands and wood products are used and appreciated in everyday life'. (p. 7)

From a marketing perspective this seems naïve as it lacks any concepts of differentiation and targeting. A differentiated approach would identify different stakeholder groups, for example architects who specify materials in buildings or officials who can promote renewable materials. It would lead to aspirations such as: *'we need architects to understand the structural and thermal benefits of wood so that they specify wood in their designs'* or *'we want policymakers in the Department of Energy to understand that wood is a renewable product so that they encourage its use in energy-efficient building'*.

If the Panel's message is that decisions cannot be made by the public until everybody in the UK has a better appreciation of woodland and wood products then this seems to be an abrogation of the professionals' role as providers of expert knowledge. A lawyer does not expect a client to have knowledge of the law before offering advice yet foresters seem to feel that they cannot offer professional services to people who do not have knowledge of woodlands.

¹⁷⁸ DG of the Commission, CEO Confor, Exec Director ICF.

¹⁷⁹ By Thalia Bogdanou, a KTP placement working on professionalism in forestry 2010 – 2012 who interviewed forestry students.

Why this is so is not clear; it is possible that these notions are a symptom, apparent in the survey responses, of the profession's feeling of being 'semi-detached'. Do members see themselves as cut out of decision-making processes and react defensively? Without the self-confidence to cede a degree of legitimacy to others do they thus perpetuate their position on the margin? Ackroyd (1996) referred to self-referencing professions, where professional norms are driven by internal rather than external forces, as 'encapsulated groups' and it does seem that this could apply at least partially to the forestry profession.

Discussion: Looked at simply as a business the Institute is on a plateau. Its income from membership and its academic journal closely matches the costs of providing services to its members and undertaking a small amount of representational work. It has neither the staff resources nor access to the additional voluntary effort necessary to do much more than it does at present. Its membership is growing so there is a possibility of some incremental improvements. Any expansion in staff, however, will probably require a move to new offices and its CIT systems seem likely to require continued investment. So any increase in income is likely to be absorbed by increased costs without much change in the services offered.

In such a situation an organisation is liable to be taken over by a competitor looking to use up spare capacity in its fixed cost-base so that it can take on more members and reduce its per-member cost of services. Such consolidation was the logic that drove the proposal, rejected by the members, of a merger with RICS. Experience in the commercial sector indicates that for companies in such a position eventual consolidation is highly probable. Professional bodies are not companies, even so 'when', rather than 'if' such consolidation will take place seemed to be the question that some of the members had on their minds.

Ackroyd (1996) wrote about the factors that lead to longevity in professions:

'... the professions In the United Kingdom achieve a monopoly or quasi-monopoly of specific expertise, as professions typically do, (and) they achieve this through distinctive forms of self-organization. They maintain considerable control by combining a closure in the labour market outside employing organizations through their associations and the practice of licensing practitioners, but they also maintain control inside employing organizations as well, through informal organization.'

Neither of Ackroyd's conditions of closure in the labour market or control inside employing organisations applies currently to ICF.

However, the Institute need not be passive. Its charter mandates it to include a wider range of forestry, arboricultural and wood-related skills than it presently covers, so there is some scope for it to expand outside its current fields. There seems also to be some scope for it to expand its membership, growing beyond its current 30% of potential members. Improving its member services is one potential route, and it is argued below that this would be linked to improvements in governance. Another is to attempt to engineer the type of control and closure that Ackroyd identifies, this is discussed below with the case of the Government's 'Professionalising the Civil Service' initiative used to illustrate the type of opportunity that the Institute might exploit.

7.3 The External Environment of the Profession

Introduction

The nature of the changes to forestry and what is driving them has been covered in the preceding chapters. In this section the aim is to look at some of the attributes that the profession has, or can develop, that it can exploit to advantage. Rather than cover all the issues that arose during the research the discussion concentrates on four particular areas that seemed to have particular importance. The first related to government as an employer of foresters and as an important decision-maker. The second is to do with higher education, important for not only for the recruitment of new members and for maintaining standards but also for training forest scientists and as a source of innovation. The third topic, covered only briefly, is the opportunities that arise for the profession in the forest-product supply chain. The fourth topic is sources of funding. It draws on the recent experience of the Institute itself and of the researcher. Two themes developed in the preceding text continue here: the profession has under-developed reputational assets and the forestry sector requires robust systems of governance.

During the research the idea emerged that within the profession there is conflation of 'forestry' – the management of forests to meet objectives – with 'forest'. Members feel a strong sense of stewardship of the forests and, perhaps, don't trust non-foresters to share the same sense of concern. This might in part explain why the profession, as discussed above, has been reluctant to engage in decision-making led by non-foresters¹⁸⁰. This sense that only foresters care properly about forests has consequences not only for their relationship with decision makers but also inhibits a proper division of labour, for example where very little forest research is done outside a small government forest research institute¹⁸¹. This characteristic of the profession, however, can also be

¹⁸⁰ I attended many international forestry meetings over the years. In meetings where a person was not already known to other participants a question that was certain to be asked was: 'Are you a forester?' One always felt that the question was more to do with this shared sense of stewardship – do you think like us – rather than one's technical knowledge.

¹⁸¹ Illustrated very clearly in joint evidence (2011) submitted by the research councils to a parliamentary environment select committee inquiry into forest research.

seen as strength. The position of the NGOs as proxies and legitimating authorities is not unassailable. Public trust in foresters seems to be increasing whilst for most other institutional groups, including the ENGOs, it is diminishing. Perhaps this is because the sense of stewardship that differentiates the profession is seen by the public as in some way altruistic and people are able to distinguish between single-interest and self-interest.

The part of Government: Whilst forestry policy is just one factor that influences the external environment for the Institute's members the importance of central and local government actually extends well beyond the area of forestry policy. Perhaps 30% of the Institute's members are employed by Government, rising to more than 40% if local authorities and agencies are included.

Local authorities in particular are not only significant employers of ICF members they are also important customers for arboricultural businesses. A wide range of commercial opportunities for forestry professionals derives from government processes such as planning regulations, renewable energy policies, environmental regulations, contracting-out of operational activities such as grant inspections and through 'green' elements in urban and rural development initiatives. This is not an exhaustive list but does indicate that ICF might benefit from a stronger focus on the way that it engages with government in its different guises.

Participants in the research had differing opinions about the value of the Forestry Commission as a voice for forestry. The Director General himself said during the interview that those outside the Commission greatly over-estimated its voice in Government. Nevertheless the principal route into Government for the sector has been the Forestry Commission, which until recently had access to all three GB forestry ministers and close links to the Northern Ireland Forestry Service. In the future there will be no single point of access and the sector will have to develop relationships with each of the four governments.

A resource that has been referred to above is to do with the Institute's reputation. ICF is perhaps the only organisation outside government that has a specific mandate to set standards and regulate the practice of forestry, albeit this applies to its members rather than the whole sector. It can therefore bestow legitimacy on decision-making and on forestry processes. It is also the only body outside government with a mandate that extends geographically across the whole of the UK and with networks that reach into every part of the forestry sector. It can therefore speak with authority. To turn these resources into capabilities it needs to engage more actively with its external stakeholders.

Whilst the Forestry Commission is going to change there was consensus among the participants in the research, supported by a previous environment minister for Wales, that there will continue to be

in each country an organisation charged with managing public forests. Indications from England (DEFRA 2013¹⁸²) and Wales¹⁸³ indicate that there will also be a continuing regulatory function that sets standards, issues felling licences, approves applications for grant-aid, provides advice to landowners and also to Government and undertakes other functions set out in the 1967 Forestry Act. Thus the Government in its various forms will continue to be both an important employer of members of the profession and also an important decision-maker and source of funds. What Government will not have¹⁸⁴, except perhaps at a high strategic level, is a single forestry presence that spans the UK. There seems, therefore, to be an opportunity for the Institute to develop a presence as a co-ordinating influence. Again, this illustrates the need for the profession to develop relationships with those who have responsibility for forestry in each of the four countries.

The consensus among the senior figures engaged in this research was that the four governments in the UK will establish some kind of mechanism to provide an element of co-ordination on forestry. The precedent they mentioned was the Joint Nature Conservation Council (JNCC): when the current country-level statutory environmental organisations in the UK were spun off from a single UK body the JNCC was established to provide coordinated environmental advice to the UK government. There was also consensus, however, that any such arrangement would operate at a very high level.

Government as an employer: A recent development in the civil service, identified in the literature review rather than the research, has been the emergence of professional groups. This seems to be a significant opportunity for forestry. It arises from recommendations in civil service reform to develop a framework for implementing and maintaining consistent professional standards and practice. Guidance has been published (CSL 2013) that applies to all four countries. It offers an opportunity for the number of professions recognised by the civil service to expand and for professional associations to collaborate with the civil service to developing and maintain professional standards in government. The guidance makes it clear that such professional bodies must themselves have robust systems of governance so:

'Any profession working collaboratively within an organisation will need to identify and/or implement its own governance structure. The governance of some Civil Service professions can also be determined and shaped by their respective Professional Body or Council. Good governance has 7 major characteristics and these are outlined in the graphic below. Effective

¹⁸² The Government's response to the report of the independent panel on forestry.

¹⁸³ Where the Welsh Government has established a forestry policy team within central government.

¹⁸⁴ The future of Forest Research, the UK government's government research institute dedicated to forestry, is unclear. However, it enjoys strong support from all parts of the sector and is likely to remain as a UK body.

governance should define roles and responsibilities and the decision making processes within a profession and should facilitate the achievement of objectives'. (p. 3)

The graphic, a generic model, is reproduced below as figure 34 together with a set of criteria (figure 35) that the civil service uses to assess whether professional associations qualify to be partners in the Government Professions scheme.

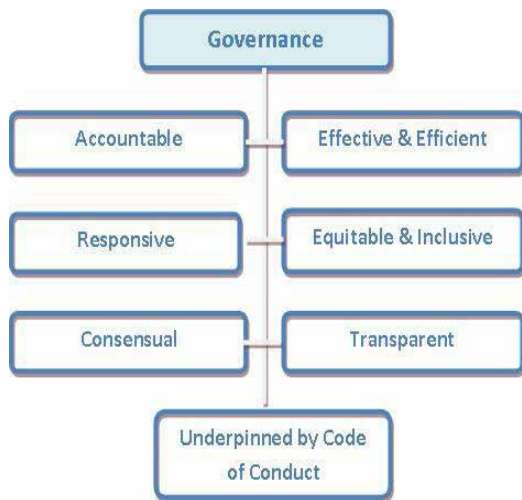


Figure 34: The characteristics of good governance in a professional body. Source CSL (2013)

Requirements Checklist

- Accountable**
Are clear lines of accountability and robust processes in place for holding decision-makers to account?
- Responsive**
Does the governing body respond in a timely fashion to both emerging and current needs?
- Consensual**
Does the governing body work collaboratively to address the varying priorities and needs of members across departments?
- Effective & Efficient**
Are objectives set and mechanisms in place to monitor delivery and value?
- Equitable & Inclusive**
Is there a fully inclusive governance structure that engages all members of the profession?
- Transparent**
Does an effective information dissemination strategy exist?
- Underpinned by Code of Conduct**
Is the Civil Service Code and any additional professional code of conduct adhered to? Where no profession-specific code already exists, should one be adopted?

Figure 35: Governance criteria for professional associations to collaborate with the Civil Service. Source CSL (2013)

Whilst forestry is not listed as a profession in the guidance the civil service does actually have a head of profession for forestry. The appointed person is the most senior UK government official with a forestry degree, previously head of the Forestry Commission in Scotland and now a senior official in the Scottish government. The reason for the appointment was explained (pers. comm. anon.) as being because the newly appointed head of the Commission in England is not a forester and, reinforcing a point made above, that the Government was concerned about legitimacy.

This is a clear opportunity for the Institute to press for forestry to become a recognised civil service profession. To do so, however, it would have to match its governance processes to those required by Government and also play an active part in the professional group. The benefits of doing so are that it would help extend professional membership across government where less than 40% or so of forestry graduates currently are ICF members. If advancement becomes linked to professional recognition then one would expect foresters in government to aspire to membership. This is the type of control within employing organisations that Ackroyd identified as a factor in the sustainability of professional bodies. Other advantages would be that recognition in central

government would give the Institute leverage in pressing for recognition in other areas of government, notably local authorities but also executive agencies. The increase in overall membership could be considerable, perhaps in the order of 25% if professional membership among government employees was to double (i.e. increase to 80% of employees), leading to a considerable increase in income and thus in capacity.

Recognition of forestry as a profession would help with another problem that the sector faces. With the current exception of Scotland forestry policy is no longer the domain of technically trained foresters but has passed to mainstream civil servants. Staff turnover in the civil service is high, with the Institute for Government (2013) reporting turnover of up to 30% in some departments. This does not include posting of staff between departments or movement of staff between jobs in a department. IFG estimated an average length of posting for a senior civil servant currently to be about two years¹⁸⁵ and asks how civil servants ever have a chance to learn about the topics for which they are responsible. In practice this means that the sector will be dealing with relatively junior officials who are unlikely to spend more than 2 years in their job and will have little knowledge of forestry¹⁸⁶. A formally recognised profession within government might help encourage policy staff to seek advice.

Higher Education and Research: A theme that emerged from the conference that had not been raised elsewhere was that that higher education in forestry is undergoing changes that have implications both for the recruitment of foresters into the profession and also of forest scientists into forestry research – which has long-term implications for the sector’s capacity to innovate. Higher education was said to present an opportunity for the Institute to show greater leadership and assistance to HE institutes. This led to a workshop led by ICF that all the UK HE institutes teaching forestry attended together with University College Dublin.

What the academics reported is that there is a trend for forestry schools in universities not only in the UK but also in Europe to be merged into larger life-science departments. Modular teaching within these larger departments is leading to a dilution of forest-specific content. Forestry is taken as an option where the choice of modules defines the degree but the modules are not necessarily specific to forestry. So it is possible, for example, to take as part of a forestry degree a generic ecology module or soil science module where there is no forestry-specific content. For the profession this raises questions about the relevance of the degrees to forestry practice and whether

¹⁸⁵ Institute for Government (IFG) web-site, <http://www.instituteforgovernment.org.uk/blog/4043/government-reshuffles/> accessed June 2013

¹⁸⁶ At present (2013) DEFRA, responsible for forestry policy in England and internationally, does not employ directly a single qualified forester to cover forestry issues.

the knowledge and skills of graduates matches the profession's required competencies. For research there are questions of whether postgraduates with skills in generic natural-science research, for example in hydrology, soils, zoology or ecology, are suited to undertake forest research without requiring considerable further training. There is also an issue with the recruitment of forest scientists where forest research can be seen as a niche from which it might be difficult to progress.

Tactically there is an issue for the profession in the low number of students who apply for associate membership, aspiring to professional status, on completing their degrees. At the HE workshop a number of HE institutes were concerned that the low numbers of students being recruited onto their courses made them liable to closure. All the HE institutes, however, reported that their students were in demand by employers, with more jobs available than there were graduates, so that all their graduates who wanted to continue in forestry or arboriculture were finding good-quality employment. One would expect this to be a compelling attraction to school-leavers; there seems to be a problem with marketing.

The Wood Supply Chain: Ian Cheshire, the Group CEO of Kingfisher¹⁸⁷ suggested that retailing is where most people come into contact with forest products and this presents an opportunity for the profession to promote forestry. He also argued that the forestry profession has skills that are of value to retailers as they seek to prove the sustainable *bona fides* of the products they sell. His point was that, like officials who seek legitimacy in their policy-making, retailers also need external validation for claims relating to the sustainability of their products and supply chains.

These ideas were not developed further by participants in the research but to have such a senior figure inviting engagement by the profession seems to be an opportunity that should not be overlooked.

In Conclusion

The picture that emerges from these analyses is of a professional body that is undergoing rapid change driven by its managers but still lags behind the membership in adapting to changes in its environment. Its existing governance systems are beginning to look out-of-date when compared with current concepts of good practice and there are indications that the professional norms on which the Institute's activities are predicated are out of kilter with the way that some of its members construct their professional identity. In particular the Institute seems to have a production-orientated bias whilst a large part of its membership derives a living from the service functions of forests and trees.

¹⁸⁷ A major UK retailer of wood and wood products into the construction and home improvement markets in the UK and Europe.

Although the membership of the Institute is small it is also complex. This applies not only to the variety of work that is undertaken and the different patterns of tasks in different places but also to the diverging political and social environment in the different countries. The structure of the Institute was not raised as an item of concern during the research. However, these issues of governance and managing diversity do beg a question of whether its organisational design meets the current needs of the Institute. The Institute does have a regional structure but the regions are relatively inactive. This seems partly to be because of the cost of maintaining an engaged and active regional structure, partly because only so much can be delivered through volunteers and partly because of the need to concentrate the small number of staff so that they can work as an effective team.

Resources are constrained by the subscriptions available from the small membership yet the Institute needs to increase its expenditure if it is to deliver membership services appropriate to a contemporary professional body. It has already made considerable progress in exploiting sources of external funding available through grants of different kinds.

In the following chapter some suggestions are made about how some of these concerns might be addressed.

Chapter 8: Concluding Thoughts

8.1 Introduction

The failed merger with RICS in 2005 led to changes in ICF. It appointed as its executive director an effective professional manager who was also a qualified forester and gave her a mandate to make the Institute a modern professional body. It expanded its membership to include arboriculture and it has started to exploit its status as a third-sector, charitable organisation connected to industry to apply for grants and development funding. Its management executive comprising managers and senior elected officers includes people who in their work outside the institute have a track record of success. This small research project is unlikely to add greatly to the plans that they already have in mind. It is hoped that the preceding text might introduce some new ideas and perhaps spark some further reflection. In this chapter there are some ideas on positioning and on exploiting some of the changes that are underway.

The chapter has three interlinked themes: governance, structure and resources. The core idea is that managing complexity requires a marketing approach where a minimum amount of segregation is undertaken so that activities can be tailored to meet the needs of different groups. This is the approach taken by other professional bodies such as RICS and the Society of Biology, which has a number of professional registers where members are distinguished by particular skill-sets and by different CPD¹⁸⁸ procedures.

The professional body cannot generate sufficient resources from its current range of activities to function as a credible professional body. If we look to the corporate world then in a mature market, one where the growth curve has flattened or is perhaps sloping downwards, a company would adopt cost-based strategies or would attempt to consolidate¹⁸⁹ its market through acquisition or merger¹⁹⁰. The first option is not open to ICF; in fact it probably needs to increase its costs through improving its member services. The second option, of taking over similar organisations, is unlikely to yield any short-term advantage and would place considerable demands on management time but should be considered as a medium to long-term objective; the Institute should take an opportunistic stance. This is covered in a little more detail below. The option of being taken over or merging with another body has been rejected by the membership and is not considered to be an option.

¹⁸⁸ Continuing Professional Development

¹⁸⁹ Interestingly, the ICF president in post immediately prior to the proposed take-over by RICS, of which he was the principal instigator, had a corporate background as a board member of an international forest products company. He was applying a classic corporate solution to the problem of maturity and low growth.

¹⁹⁰ Usually so that fixed costs can be reduced as a proportion of turnover.

8.2 Government, Governance and Geography

The research indicates that the profession needs to develop relationships separately with decision-makers in each of the four countries. Whilst the Institute has recently opened an office in Bristol, well placed to access the relevant DEFRA offices, it has only 1 out-stationed person. Developing and managing relationships with Wales and Northern Ireland from Edinburgh is unlikely to be effective (a) because it is logistically difficult and (b) country officials are unlikely to regard people from outside the country as relevant. This implies a need for a country-level presence that only with difficulty could be provided by the current regional structure, which is dependent on volunteer time and struggles even to organise periodic meetings.

The appointment in Government of a UK Head of Profession for forestry might present an opportunity. There can hardly be a head of profession unless there is a profession to be the head of. This raises the possibility that perhaps 30% of the current membership could become part of a Government-recognised profession with the 60% of foresters in Government who are not members suddenly incentivised to apply for professional accreditation. There is a possibility for a targeted recruitment drive, initially in central government then extending to local government and agencies. Because forestry is devolved, with each country having separate policies, there would need to be some kind of country-level structure to the government profession.

Explicit in the Professionalising Government initiative is a commitment to professional development and this in turn means that development activities can be undertaken during working time. In short, there is a possibility that resources could be available for country-level development of the profession, rather than professional development of individuals, within government. This would be a completely new resource. It should not be beyond the wit of experienced, capable people to make this a resource that also boosts the profession outside government.

Also explicit in the initiative is a willingness to work with professional bodies provided they meet certain criteria, particularly in respect of responsive and transparent governance. No doubt these criteria would be open to negotiation; what they are likely to include are a robust and effective complaints system and the presence of suitably qualified, active board members drawn appropriately from a diverse range of backgrounds and experience. If the Institute were to follow-up on this potential opportunity the implication is that it would need to include lay members among its trustees and that its trustees would be more active than at present in making their skills available.

There is a possibility, therefore, that the Institute could use the 'professionalising government' initiative to establish country-level presence. It would be paid for by a major employer who would

also assist further development of the profession whilst encouraging suitably qualified personnel to apply for professional accreditation.

This is conjectural, but the opportunity seems to be advantageous and should be pursued. If it does not materialise there still remains a need for a stronger geographical presence and this implies stronger and more active regions.

The Government Profession guidance on governance also seems to be a practical approach that would benefit the Institute. If the Institute continues to pursue external funding then it will find that the rules of many schemes require governance processes that reflect those recommended in the Government's guidance; funding will not be available for organisations that don't meet current good practice.

8.3 Structure, Interest Groups and Geographical Differences

Whilst the research indicates that there is considerable diversity among the membership in terms of their professional practice and interests this is not reflected in the organisation of the Institute's activities other than the occasional conference. It would not be correct at all to say that the Institute has a one-size-fits-all policy but the research does seem to indicate that a more differentiated approach than is currently offered might help attract members. Higher education and research is an example¹⁹¹: the HE workshop indicated a possibility for some kind of HE/Research sub-group or membership category within the profession. However, discussion with a number of forest scientists in Forest Research, many of them senior with considerable reputations, indicated that there is a barrier, of perception at least, for scientists to achieve chartered status. Professional accreditation is contingent upon members not practising outside their competencies, for example it would be inappropriate for a valuation specialist to provide advice on health and safety, so there is actually no reason why a forest scientist or a forestry lecturer should not be accredited provided he or she meets appropriate criteria.

Ian Cheshire's suggestion at the conference that there are opportunities for foresters to play a stronger part in the wood-product supply chain has not been developed further. The profession's charter, however, mandates the Institute to cover almost all the activities between germinating a tree seed and delivering a primary wood product to a manufacturer. It would also apply to marketing and communications not only related to forestry and to arboriculture but also to the wood supply chain more generally. Similarly there is scope for the Institute to encompass more

¹⁹¹ The HE issues identified at the conference and workshop are not unique to the UK, staff were contacted at forestry schools in Florence, Freiburg and Lyon. They reported similar concerns and expressed interest in collaborating to identify problems and discuss the possibility of concerted pan-European activities. This is the kind of added-value that the Institute can deliver.

service-related activities such as forest recreation and tourism that are growing rapidly and are served by people with specific qualifications.

There seems to be a case, therefore, for a more differentiated approach and the possibility that the Society of Biology's approach of maintaining a number of different 'Registers' for different types of professional activity might help with recruitment. One of the reasons why the Institute has such low penetration among its potential membership might be, as was suggested by the executive director, because membership decisions are made based on assessments of self-interest, and a large number of potential members don't see any benefit. This accords with the suggestion of Gruen *et. al.* (2000) that the quality of membership services is the most important factor in retention and recruitment. It is possible that what the Institute has to offer appears to be too homogenous or generic to particular groups, for example managers in forest recreation. If the Institute is interested in growing its membership then one possible tactic is to map out those activities that it has a mandate to cover and where it identifies groups of sufficient size it might research the type of services the group would value. In such circumstances the most economical approach would probably be to consider how existing services could be reconfigured to meet newly identified needs.

In respect of existing members the categories of Chartered Forester and Chartered Arboriculturalist are available. Whether the two groups are equally served seems to be uncertain and again this is worth exploring with some internal research.

8.4 Resources: Constraints and Opportunities

In this short section some ideas are put forward, all of them emanating from the research, on how the forestry profession might attract new resources. They mostly require expert knowledge, implying that the Institute might usefully establish a fund-raising resource targeted on a small number of strategic areas.

Professional Development Programmes as a Resource: In professional groups where a significant proportion of members is employed within companies, for example the different disciplines of engineering (Engineering UK, 2009 p.3) or health and social care professions (Royal College of Nursing 2007) professional development tends to be paid for in part or in full by employers and take place in work time. For the larger professions such as nursing professional groups within employers take responsibility for organising professional development. Agreements on professional development between professional bodies and employers are a significant resource for the wider profession, for example the research reported by Barker (1982) illustrated that professional standards and norms develop across professional networks that span corporate and institutional boundaries. Thus well-resourced professional development programmes within employers such as

Rolls Royce, with its Professional Excellence Programme¹⁹², become an influence and a resource to the whole profession. In forestry the predominance of micro, often single-proprietor businesses makes such professional development less affordable and also much more the responsibility of individuals so that is less of a collective resource. The Forestry Commission, the largest employer by far, has never required its professionally trained staff to undertake professional development so this employer-supported resource of 'professional-development spill-over' has been unavailable in forestry. A tactic that the Institute might adopt, therefore, is to target Government and the larger forestry and arboricultural employers to support in-house professional development. An ideal situation might be where a sub-group of members from the larger employers, including Government, collaborates on issues of professional development, perhaps with the HE institutes involved as well.

Status as a Resource: The Institute can be categorised in a number of ways that give it entry into European and domestic grant-aid and funding. It is a voluntary organisation and a charity. Its close relationships with industry qualify it to participate in development programmes, its mandate and status as a professional association qualify it to participate in educational and training programmes. As an employer it can be categorised as an SME and can apply for a range of grants and support available from Government. Its position also makes it a potentially attractive partner in European-funded developmental initiatives such as LIFE where participation by third-sector organisations and SMEs often carries weight in the scoring systems used to assess applications.

Relationships as a Resource: It seems likely that the country-level governments would for a number of reasons value an active professional body. It might be worthwhile for the Institute to approach officials in the countries, say that it cannot cope with increased consultation and advice with current resources and ask for help. If there are programmes that could provide assistance then the officials will know who is running them and who can advise on making a credible application.

There seem also to be opportunities to collaborate more widely with other professional associations and third-sector bodies. For example, there are a number of organisations that are actively promoting STEM¹⁹³ teaching and careers, targeting school pupils at critical decision-times such as when choosing GCSEs courses and then university courses. They include the Government's Science and Technology professional group and professional bodies such as the Society of Biology¹⁹⁴, which has an extensive teaching membership, and Engineering UK that brings in all the engineering

¹⁹² Reported in the Henry Jackson Initiative for Inclusive Capitalism <http://henryjacksoninitiative.org/initiatives/1/employment/1> accessed October 2013.

¹⁹³ Science, Technology, Engineering, Maths

¹⁹⁴ The author is a chartered biologist, accredited by the Society of Biology, as well as a chartered forester.

professions. Key decision-makers that these bodies want to target are career advisers; ICF wants to do the same but does not have the necessary resources. What are the opportunities to collaborate given that forestry is a STEM profession? Again this type of engagement requires expertise that is likely to be beyond ICF's volunteers but might attract external funding if, for example, it is presented as meeting Government objectives for creating job opportunities in STEM professions.

These ideas are offered to illustrate a way of operating rather than as actions that the profession must take.

Consolidation as a resource: In the preceding text it is suggested that the Institute is in some degree vulnerable to takeover by a larger body hoping to service the forestry membership from an existing cost-base. This logic could be reversed and ICF could itself become a consolidator, offering services to other organisations and using the increased income to increase the scope of its managerial team and develop new posts in services such as fund-raising and relationship management discussed above. This is the model of the Society of Biology that offers secretariat services to a number of learned societies and is thus able to offer a wider range of services to all its members and associate bodies than it would on its own. The CEO of CONFOR, the sectoral representative body, said in his interview that one of the distinctive characteristics of forestry is its proclivity to generate initiatives (few of which join CONFOR!) Opportunities to offer services to the many forestry initiatives in the UK might be worth exploring.

Linked to the idea of consolidation is the question, raised in informal discussion by a member at the conference, of whether the Institute is being sufficiently aggressive within its own sector in aiming to attract members from trade associations, for example the Arboricultural Association that has a membership several times that of the Institute.

8.5 Final Conclusions

The purpose in this last chapter has not been to set out any courses of action that the profession should follow but simply to explore, with some illustrations, the idea that the foresters have more agency and control over their destiny than they might think.

Turning to the questions introduced at the start of this paper, in respect of the impact of non-expert understanding on the industry it is quite clear that forestry cannot ignore this. Land use in the UK is highly regulated; there are numerous examples to show that the needs of the urban population will always trump those of rural landowners. The decision-makers who now set the rules for forestry are themselves likely to be urban-based civil servants who share the perspectives of our urban society. Also, the benefits that forestry provides to society are not reflected in the cashflow received by

forest owners; the fact that there are likely to be decades between making a forestry investment and seeing a cash return makes forestry an unattractive financial proposition. Forestry, therefore, is likely always to be dependent on public subsidy or the deep pockets of landowners who own forests for reasons other than investment returns. Public subsidies will be justified on the grounds that they compensate landowners for maintaining or enhancing 'ecosystem services' such as recreational access, landscape quality, biodiversity and carbon sequestration. Thus it seems that forestry policy must always be a reflection of environmental policy. Seen in this light the way that the E-NGOs were given a voice before the foresters seems to be nothing more than a pragmatic approach that reflects the power-structures in play.

But this paper demonstrates that trees, woodlands and forests have a symbolic value and a place in contemporary culture that sets them apart. The literature time and again points towards a strong, albeit mostly latent, sense of stewardship within society towards trees. When in 2011 the public thought that their forests were under threat this latent sense of stewardship was awakened and had enough force to make the Government change direction. The events of 2011 and the surveys quoted in the literature review also show that the profession itself is trusted by the public to look after the trees and forests – they have legitimacy and are able to bestow legitimacy on decisions by others that affect trees and forests. This means automatically that the profession has a part to play in informing the social construction of forests and trees by the public. This is a capability that the Forestry Commission has deployed effectively but the wider profession has neglected. As the Commission's role declines there is scope for the profession to project its voice more prominently.

This leads on to the second question, what must the profession do to maintain or enhance its position? This is discussed above and what emerges is that there are two factors to consider: the first is that resources will be necessary, the second is that the internal culture of the profession is not necessarily a strength when it comes to engaging with external decision makers.

The issue of resources is relatively complex: the Institute of Chartered Foresters has one of the smallest memberships among professional bodies in the UK. Whilst it has some financial reserves that could support short-term activities it could not support a more active role funded solely by its current subscription income. The example of the Forestry Commission might point to a solution: Weldon and Tabbush showed that over a period of perhaps ten years the FC went from a situation where all its income came through timber sales and grant-in-aid from Parliament to one where around 40% of its income came from external sources linked to partnerships with NGOs, local authorities and other organisations. There is no reason why the Institute should not follow a similar strategy – indeed it has already started to do so. However, applying for grants, developing projects

and maintaining partnerships requires staff time and expertise that is not currently available. The Institute is faced with having to invest to develop a new capability without any guarantee that it will attract new resources. Also, its inward-looking culture is not ideal if its future lies in attracting partners and external funds.

In 2005 the Institute narrowly survived a merger proposal, instigated by its own officers, from the very much larger Royal Institute of Chartered Surveyors. The rationale for the merger, as discussed with two interviewees for this research, was partly that the larger body would have resources to allow such investment in attracting external funds. The bid failed because the foresters felt that a distinctive voice for forestry would be lost in the bigger organisation. The rationale for consolidation is not, however, going to disappear. If it is to survive then in the medium to longer term it seems that the Institute must grow its membership to a level that provides the income necessary to operate effectively. The charter provides some clues as to how this might be achieved, as the Institute has a mandate that covers all the wood-supply chain and not just the growing and management of trees. Thus it might seek new members in timber processing and even in timber marketing. Similarly there is scope to extend chartered membership to forest scientists and environmentalists.

If it is correct, as the research indicates, that the profession has an under-used capability through its role in legitimating forestry policy then it is likely to be in the interest of the forestry policy-makers that the Institute should survive. A closer relationship is indicated with the civil servants who will lead forestry policy in the future; the scale of resources necessary to secure an independent voice for forestry is insignificant relative to the public expenditure on forests, tree health and public amenity.

Does the governance of the Institute meet current ideas of good practice? No. Does the Institute welcome and take advantage of diversity? No. Are there cultural impediments that hinder the emergence of a modern, professional body? Yes.

But the profession is changing rapidly. The issues raised in this document are already well known to the leaders of the Institute. Its membership is becoming rapidly more diverse both in gender and age-profile and one hopes that it will advance and prosper for many years to come as a professional body with a strong reputation.

References

- ACKROYD S. (1996) Organization Contra Organizations: Professional and Organizational Change in the United Kingdom. *Organization Studies*, Vol. 17, 23.
- AGUIAR, M. (2011) *Discursive Resources, the Identities of Top Managers and the Long Term Sustainability of Their Organizations*. DBA, Nottingham Trent University.
- AJZEN, I. (1991) The Theory of Planned Behavior *Organisational Behaviour and Human Decision Processes*, 50, 179-211
- AMBROSE-OJI, B. (2010) Social Diversity in the Forestry Profession. Edinburgh: Forest Research.
- ANHEIER H. K. (2002) Managing non-profit organisations: Towards a new approach. *Civil Society Working Paper 1*. London: Centre for Civil Society. Online at: <http://eprints.lse.ac.uk/29022/1/cswp1.pdf>
- ARMITAGE, C. J. & (CONNER, M. 2001) Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40, 471-499.
- ASSOCIATION OF BC FOREST PROFESSIONALS. (2012) *Regulating the Profession* [Online]. Online at: http://www.abcfp.ca/regulating_the_profession/practicing_in_bc.asp.
- BARCLAY, C. (2012) *Agriculture – CAP Reforms*. Standard Note: SN/SC/3680. House of Commons Library, Science and Environment Section. Online at: www.parliament.uk/briefing-papers/SN05519.pdf accessed July 2013.
- BARKER, A. (ed.) (1982) *Quangos in Britain*, London: Macmillan.
- BAUDRILLARD, J. (1981) *For a Critique of the Political Economy of the Sign*, St Louis, Telos.
- BECKLEY, T. M. & KORBER, D. (1995) Sociology's Potential to Improve Forest Management and Inform Forest Policy. *Rural Economy Staff Paper* Edmonton: Department of Rural Economy, University of Alberta.
- BEINHOCKER, E. D. (2006) *The Creation of Wealth: Evolution, Complexity and the Radical Remaking of Economics*, Harvard, Harvard Business School Publishing.
- BELL, S. (2002) *Managing Forest Landscapes for Tourism*. Institute of Chartered Foresters Annual Discussion Meeting, Edinburgh.
- BELL, S. (2004) *Elements of Visual Design in the Landscape*, London, Routledge
- BENTHAM, J. (1798) *Proposal for a New and Less Expensive mode of Employing and Reforming Convicts*, London.
- BINKLEY, C. S. (1998) Forestry in a postmodern world or just what was John Muir doing running a sawmill in Yosemite. *Policy Sciences*, 31, 133-144.
- BOURDIEU, P. (1984) *Distinction: A Social Critique of the Judgement of Taste*, London, Routledge & Kegan Paul.
- BRITISH SOCIAL ATTITUDES SURVEY (2013) Key Findings: Trust, Institutions, Politics. Online at: <http://www.bsa-30.natcen.ac.uk/read-the-report/key-findings/trust,-politics-and-institutions.aspx> [Accessed September 2013].
- BROMLEY, C., CURTICE, J. & SEYD, B. (2004). Is Britain Facing a Crisis of Democracy? In: CENTRE FOR RESEARCH INTO ELECTIONS AND SOCIAL TRENDS (ed.) *Online*. The Constitution Unit, School of Public Policy, University College London.
- BUNCE, M. F. (1994) *The Countryside Ideal: Anglo-American Images of Landscape*, London, Routledge.
- BURGESS, J. (1995) *Growing in confidence: understanding people's perceptions of urban fringe woodlands*, Cheltenham, Countryside Agency.
- BURNS, N., PATERSON, K. & WATSON, N. (2008) Exploring disabled people's perceptions and use of forest recreation goods, facilities and services in Scotland, England and Wales. Glasgow: Strathclyde Centre for Disability Research, Department of Sociology, Anthropology and Applied Social Sciences, University of Glasgow
- CABINET OFFICE (1918) Report by the Forestry Sub Committee of the post-war Reconstruction Committee of the Cabinet. In: CABINET OFFICE (ed.). HMSO.

- CABINET OFFICE STRATEGY UNIT. (1999) *Rural Economies* [Online]. Cabinet Office Online at: http://www.strategy.gov.uk/downloads/su/rural/rural_report.pdf.
- CHALLENGER, S. (1970) Forest in the Landscape. *New Zealand Journal of Forestry*, 204 - 212.
- CHARMAZ, K. 2000. Grounded Theory: Objectivist and Constructionist Methods. In: DENZIN, N. K. & LINOLN, Y. S. (eds.) *Handbook of Qualitative Research*. Thousand Oaks: Sage.
- CJC CONSULTING (2005) Economic Benefits of Accessible Green Spaces for Physical and Mental Health: Scoping study: Final report for the Forestry Commission Edinburgh: Forestry Commission.
- CHIA. R. 2002. From Knowledge-Creation to the Perfecting of Action: Tao, Basho and Pure Experience as the Ultimate Ground of Performance. Online at: <http://business-school.exeter.ac.uk/documents/papers/management/2002/0204.pdf>.
- CHURCHILL N C & LEWIS, L. V. (1983) The Five Stages of Small-Business Growth. *Harvard Business Review*, May - June 1983.
- CSL (2013). Professions Best Practice Framework. [Online] Civil Service. Online at: <http://resources.civilservice.gov.uk/wp-content/uploads/2011/05/CSL-Professions-Booklet-FINAL.pdf> Accessed September 2013.
- CLOKE, P. (1996) Rural Life-Styles: Material Opportunity, Cultural Experience, and How Theory Can Undermine Policy *Economic Geography*, 72, 433-449.
- CLOKE, P. & MILBOURNE, P. (1992) Deprivation and lifestyles in Rural Wales: rurality and the cultural dimension. *Journal of Rural Studies*, 8, 359 - 371.
- COLES, R. W. & BUSSEY, S. C. (2000) Urban forest landscapes in the UK - progressing the social agenda. *Landsc. Urban Plan*, 52, 181-188.
- COLLINS, R. (1979) *The Credential Society, An Historical Study of Education and Stratification*, New York, Academic Press.
- CORTNER, H. J. (1994) Legal and Institutional considerations in Public Participation in the United States. In: TSUCHIYA T & KAKIZAWA H (eds.) *International Symposium on Public Participation and Environmental Conservation*. Tokyo: Japan Society of Forestry Press.
- CORNFORTH C. (2003) Governing Non-profit Organisations: Heroic Myths and Human Tales. 96/03. Online at: http://www7.open.ac.uk/oubs/research/pdf/WP96_03.pdf [Accessed September 2013]
- COUNCIL OF EUROPE (2000) European Landscape Convention. CoE Treaty Office, Florence.
- COWAN, A. (2009) *Local Authority Tree Officers: A Female Perspective* MSc Myerscough College
- CRABTREE, R., CHALMERS, N., THORBURN, A., MACDONALD, D., EISER, D., POTTS, J. & COLMAN, D. (2001) Economic Evaluation of the Community Woodland Supplement: Final Report for the Forestry Commission. Craigiebuckler, Aberdeen: Macaulay Land Use Research Institute
- CRAMER, A. L., KENNEDY, J. J., KRANNICH, R. S. & QUIGLEY, T. M. (1993) Changing Forest Service Values and their Implications for Land Management Decisions Affecting Resource-Dependent Communities. *Rural Sociology*, 58 475-491.
- CURRY, N. (2005) Some popular assumptions about countryside planning. *RASE Publications*. Stoneleigh: RASE.
- DEANE, P. M. (2004) *A failing science: Understanding private landowners in the forestry milieu*. The Australian National University.
- DEFRA. (2010a) *Impacts on Changes in the Wider Economy on Agriculture and the Agri-Environment : Report prepared by The Andersons Centre for Defra* [Online]. London: DEFRA Statistics. Online at: <http://www.defra.gov.uk/statistics/files/defra-stats-foodfarm-environ-obs-research-envoutcome-widerecon-aug10.pdf> [Accessed December 2012 2012].
- DEFRA. (2010b) *Payments for ecosystem services: A short introduction* [Online]. Online at: <http://archive.defra.gov.uk/environment/policy/natural-environ/documents/payments-ecosystem.pdf>.
- DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG) (2010) *Local Planning Authority Green Belt Statistics: England 2009/10* [Online]. Online at:

- <http://www.communities.gov.uk/publications/corporate/statistics/lagreenbelt2009>
[Accessed 4th October 2012].
- DEPARTMENT FOR ENERGY AND CLIMATE CHANGE (DECC). (2012) *Renewable Energy Policy* [Online].
Online at:
http://www.decc.gov.uk/en/content/cms/meeting_energy/renewable_ener/renewable_ener.aspx.
- DOUGLAS, M. (1986) *How Institutions Think*, Syracuse, NY, Syracuse University Press.
- DOUGLAS, M. (1979) *The World of Goods; Towards an Anthropology of Consumption*, New York, Basic Books.
- DREYER, M. & SELLKE, P. (2011) Enhancing 'regionalisation' of the Common Fisheries Policy: An opportunity and challenge for participatory fisheries governance *Annual Convention 2011 of the International Studies Association (ISA) on Global Governance: Political Authority in Transition* Montreal: Dialogic.
- ECOLOGICAL SOCIETY OF AMERICA. *Water Purification Fact Sheet* [Online]. Online at:
<http://www.esa.org/ecoservices/comm/body.comm.fact.wate.html> [Accessed 18.12.2012
2012].
- EDELMAN (Online) *Edelman Trust Barometer*. 2012 ed. <http://tinyurl.com/7yprmtz> [accessed June 13th 2013]
- EDWARDS, I. (2010) *Woodlanders: New Life in Britain's Forests*, Glasgow, Saraband.
- ELANDS, B. H. M. (2000) The Disputed Nature of Rural Development: its implications for forestry' Keynote presentation. *The Role of Forests and Forestry in Rural Development - Implications for Forest Policy*. Vienna: IUFRO.
- ENGINEERING UK (2009) *Where do Engineering Graduates Go?* [Online]. Online at:
<http://www.engineeringuk.com/resources/documents/Where do Engineering Graduates Go Dec 09.pdf> [Accessed October 2013]
- ERM (1999) *The Value of Trees and Woodland: A study to collate information on the quantification of the benefits from use of individual trees and woodlands apart from those associated with timber production* Cheltenham: Countryside Commission.
- EUROPEAN PARLIAMENT (2001) *Forestry Policy* [Online]. EUROPA. Online at:
http://www.europarl.europa.eu/factsheets/4_3_0_en.htm [Accessed 12/9/2012].
- EUROPEAN COMMISSION (2013) Directorate of Maritime Affairs and Fisheries [Online] Home Page, opening paragraphs: http://ec.europa.eu/dgs/maritimeaffairs_fisheries/index_en.htm
accessed June 2013.
- EUROPEAN COMMISSION (2013: 2) *Entrepreneurship as a main driver for economic growth* [Online]. Brussels: Europa. Online at:
http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_id=6359&lang=en
[Accessed June 2013].
- FAO (2010) *The State of World Fisheries and Aquaculture*. [Online] Rome, FAO. Online at:
<http://www.fao.org/docrep/013/i1820e/i1820e.pdf>
- FINANCIAL REPORTING COUNCIL. 2011. *Guidance on Board Effectiveness* [Online]. Online at:
<https://frc.org.uk/FRC-Documents/FRC/Guidance-on-Board-Effectiveness.aspx>.
- FISCHER, F. & GOTTWEIS, H. (eds.) (2012) *The Argumentative Turn Revisited: Public Policy as Communicative Practice*: Duke University Press.
- FISH, R., BURGESS, J. & Turner, K. (2010) Participatory and deliberative techniques to support the valuation of ecosystem services: an introductory guide: Draft Guide. DEFRA.
- FISHER, C (2010) *Researching and Writing a Dissertation*. Prentice Hall, London
- FLECK, L. (1935) *The Genesis and Development of a Scientific Fact*. Translation, 1979. Chicago: Univ. of Chicago Press.
- FOOT, D. (2010) *Woods and People: Putting Forestry on the Map*, Stroud, The History Press.
- FOREST STATISTICS (2012) *Forestry Facts & Figures*. Edinburgh: Forestry Commission.

- FORESTRY COMMISSION (2005) *Forestry Facts and Figures: A summary of statistics about woodland and forestry in Great Britain*. Forestry Commission Statistics Branch, Edinburgh: Online at www.forestry.gov.uk/statistics
- FORESTRY COMMISSION (2006) *A Woodfuel Strategy for England*. Forestry Commission.
- FORESTRY COMMISSION (2011) *MCPFE indicator 6.2: Contribution of forestry and manufacturing of wood and paper products to gross domestic product* [Online]. Online at: [http://www.forestry.gov.uk/pdf/SOEFInd6.2.pdf/\\$FILE/SOEFInd6.2.pdf](http://www.forestry.gov.uk/pdf/SOEFInd6.2.pdf/$FILE/SOEFInd6.2.pdf) [Accessed 12/09 2012].
- FORESTRY COMMISSION (2011) *The UK Forestry Standard*. Edinburgh: Forestry Commission.
- FORESTRY COMMISSION (2011) *The UK Forestry Standard*. Edinburgh: Forestry Commission.
- FORESTRY COMMISSION (2012a) *Forest Inventory Reports* [Online]. Online at: <http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-89zffj> [Accessed 25/9 2012].
- FORESTRY COMMISSION (2012b) *Statement from members of the Government's Renewable Energy Deployment Environmental Issues Project Board* [Online]. Online at: <http://www.forestry.gov.uk/forestry/INFD-7TSD68> [Accessed 12/9 2012].
- FORESTRY COMMISSION (2012c) *Forestry Statistics: Recreation* [Online]. Forestry Commission. Online at: <http://www.forestry.gov.uk/forestry/infd-5zylcr> [Accessed 12.1 2013].
- FRCC (1992) *Farm Forestry Research: A summary of research projects sponsored by FRCC as an NERC special topics programme*. In: PARR T (ed.) *Research Information Notes* Farnham, Surrey: Forestry Commission.
- FOUCAULT, M. (1975) *Discipline & Punish: The Birth of the Prison*, New York, Vintage Books.
- FOUCAULT, M. (1980) *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*, New York, Pantheon Books.
- FROUWS, J. (1998) The contested redefinition of the countryside. An analysis of rural discourses in the Netherlands. *Sociologia Ruralis*, 38, 54 - 68.
- GARROD, G. D. & WILLIS, K. G. (1997) The non-use benefits of enhancing forest biodiversity: A contingent ranking study. *Ecological Economics*, 21, 45-61.
- GETZ D, CARLSEN J & MORRISON A (2004) *The family business in tourism and hospitality*, Wallingford, CABI.
- GIBB, A. (1997) Small Firms' Training and Competitiveness: Building Upon the Small business as a Learning Organisation. *Small Business Journal*, 13-29.
- GILG, A. (1996) *Countryside Planning; the first half-century*, London, Sage.
- GLASER, B. & STRAUSS, A. (1967) *The discovery of grounded theory: Strategies for qualitative research*, New York, Aldine.
- GLASER, B. G. (1978) *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory*, Sociology Press.
- GLOVER, J. (2012) Rural resilience through continued learning and innovation. *Local Economy*, 27, 355-372.
- GLYNN, M., RICHARDSON, W., ANABLE, J., QUICK, T., ROWCROFT, P. & SMITH, S. (2012) Independent Panel on Forestry Woodland Owner Survey. Final Report to the Independent Panel on Forestry. London: URS.
- GOLDMAN SACHS (2013) *Stimulating Small Business Growth: Progress Report on the Goldman Sachs 10,000 Small Businesses UK Programme*. In: 10,000 Small Businesses UK 2013 *Web* <http://www.business.mmu.ac.uk/news/2013/10KSB%20UK%20Progress%20Report%20-%20April%202013%20-%20web%20version.pdf> Accessed June 2013
- GONZALEZ, S. & HEALEY, P. (2005) A Sociological Institutional Approach to the Study of Innovation in Governance Capacity. *Urban Studies*, 42, 2055-2069.
- GOODIN, R. E. (2003) Democratic Accountability: The Distinctiveness of the Third Sector. *European Journal of Sociology / Archives Européennes de Sociologie*, 44, 359-396.
- GOULDNER, A. (1979) *The Future of Intellectuals and the Rise of the New Class*, London, Macmillan.

- GRANT, R. (1995) *Contemporary Strategy Analysis*, Oxford, Blackwell.
- GREENWOOD R, SUDDABY R & HININGS C. R 2002. Theorising Change: The Role of Professional Associations in the Transformation of Institutionalised Fields *Academy of Management Journal*, 45, 58-80.
- GROVE-WHITE, R. & MACNAGHTEN, P. (1998) *Woodland Sensibilities*. Edinburgh: Forestry Commission.
- GRUEN, T. W., SUMMERS, J. O. & ACITO, F. (2000) Relationship Marketing Activities, Commitment, and Membership Behaviors in Professional Associations. *Journal of Marketing*, 64, 34-49.
- HARDIN G (1968) The Tragedy of the Commons. *Bioscience*, 162.
- H. M. TREASURY (1972) *Forestry in Great Britain; an Interdepartmental Cost/Benefit Study*. London.
- H.M. TREASURY (1973) *Public Expenditure White Paper*. In: HMT (ed.). London: HMSO: Available at National Archive Catalogue Reference:CAB/129/173/18.
- HALFORD, S. & LEONARD, P. (2006) Space, Place and Time: Contextualising Workplace Subjectivities. *Organization Studies*, 27, 657 - 76.
- HALLSWORTH, M., PARKER, S. & RUTTER, J. (2011) *Policymaking in the Real World: Evidence and Analysis*. Institute for Government. www.instituteforgovernment.org.uk
- HAMILTON, N. (2008) Assessing Professionalism: Measuring Progress in the Formation of an Ethical Professional Identity *University of St. Thomas law journal [1549-2028]* 5, 470 - 808.
- HANDLEY, J. (2010) Countryside Planning – where next? *What Can the South Pennines do for us?* Burnley: Pennine Prospects Annual Conference.
- HARDING, A. (1999) Regime Formation in Manchester and Edinburgh. In: STOKER, G. (ed.) *The New Politics of British Local Governance*. Basingstoke: Macmillan.
- HEALEY, P. (1999) Institutional analysis, communicative planning and shaping places. *Journal of Planning Education and Research*, 19, 111 - 121.
- HEYWOOD, A. (2000) *Key Concepts in Politics*, Basingstoke, Palgrave.
- HENWOOD, K., & PIDGEON, N. (1992) Qualitative research and psychological theorizing. *British Journal of Psychology*, 83, 97-111.
- ICF (2013) *Woodlands and the Green Economy, Capitalising on Ecosystem Services*. ICF National Conference 2013.
- ICF (2013: 2) *Putting Trees in the Hands of Experts* Online at: <http://www.charteredforesters.org/about-the-icf/> Accessed June 2013
- INDEPENDENT PANEL ON FORESTRY (2012) *Final Report* [Online]. DEFRA. Online at: <http://www.defra.gov.uk/forestrypanel>.
- INSTITUTE OF DIRECTORS. 2011. *Press release: Board diversity should be about more than gender diversity, says IoD* [Online]. Online at: <http://www.iod.com/influencing/press-office/press-releases/board-diversity-should-be-about-more-than-gender-diversity-says-iod> [Accessed September 2013].
- INSTITUTE FOR GOVERNMENT (2013) *Whitehall Monitor #11 analysis of Civil Service turnover rates*. Online: <http://tinyurl.com/oqw3b4c> Accessed June 2013.
- HENWOOD, K. & PIDGEON, N. (1998) The Place of Forestry in Modern Welsh Culture and Life. *A Report to the Forestry Commission*. Bangor: University of Wales, Bangor.
- HM TREASURY (2003) *The Green Book: Appraisal and Evaluation in Central Government, 2003*, p. v. Green Book available at: http://www.hm-treasury.gov.uk/d/green_book_complete.pdf
- HOGLE, K. (2002) Patterns of multi-level co-ordination for NFP-processes: learning from problems and success stories of European policy-making. *Forest Policy and Economics* 4, 301 - 312.
- HOME, R. (2009) Land ownership in the United Kingdom: Trends, preferences and future challenges. *Land Use Policy*, 26S, S103-S108.
- HOPKINS, J. (1998) Signs of the Post-Rural: Marketing Myths of a Symbolic Countryside. *Geografiska Annaler*, 80 B, 65 - 81.
- HOSKINS, W. G. (1955) *The Making of the English Landscape*, Guildford, Hodder and Stoughton.

- HOUSE OF COMMONS (2012) *Greening the Common Agricultural Policy EFRA Committee* [Online].
www.parliament.uk. Online at:
<http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvfru/170/17003.htm>
[Accessed 12.1 2013].
- HOUSE OF CONGRESS (1970) Congressional Record, November 18, 1970: A University View of the Forest Service. Washington: House of Congress.
- HUMPHREYS, D. (2004) *Forest for the Future: National Forest Programmes in Europe*, Brussels, COST.
- INDEPENDENT PANEL ON FORESTRY (2011) Current Business Model and Financial Management of the Forestry Commission: Prepared for the Panel by the Forestry Commission.
- JACKSON, T. (2005) Motivating Sustainable Consumption. *ESRC Sustainable Technologies Programme*. The Sustainable Development Research Network.
- JNCC (2012) *Protected Areas* [Online]. DEFRA Website. Online at: <http://jncc.defra.gov.uk/page-4241>
[Accessed September 2012 2012].
- JEANRENAUD, S. (2001) Communities and Forest Management in Western Europe. In: RIETBERGEN, S. (ed.) *Regional Profiles from the Working Group on Community Involvement in Forest Management*. Gland, Switzerland. IUCN.
- JEPSON, P. (2005) Governance and accountability of environmental NGOs. *Environmental Science and Policy*, 8, 515 - 524.
- JORDAN, A., WURZEL, R. K. W. & ZITO, A. R. (2003) *Has Governance Eclipsed Government? Patterns of Environmental Instrument Selection and Use in Eight States and the EU*. CSERGE Working Paper EDM 03-15. Univ. East Anglia
- JØRGENSEN, J. & MINTZBERG, H. (1987) Emergent strategy for public policy. *Canadian Public Administration*, 30, 214-229.
- KAPLAN, R. & KAPLAN, S. (1989) *The Experience of Nature: A Psychological Perspective*, New York, Cambridge University Press.
- KAY, J. (1999) Mastering Strategy: Resource Based Strategy. *Financial Times*, 29th September 1999.
- KAY, J. (1993) *Foundations of Corporate Success*, Oxford, OUP.
- KAY, J. (1993: 2) The Structure of Strategy. *Business Strategy Review*
- KAY, J. (2010) *How to spot a good from a bad quango* [Online]. John Kay. Online at:
<http://www.johnkay.com/2010/10/13/how-to-spot-a-good-from-a-bad-quango> [Accessed 13/10/2010].
- KEARNEY, B. (2001) A review of relevant studies concerning farm forestry trends and farmers' attitudes to forestry. Dublin: COFORD.
- KITCHEN, L. (2005) Woodlands for Valleys People: The Governance of Forestry in Southeast Wales. Cardiff: Department of City and Regional Planning, University of Wales, Cardiff.
- KORSGAARD, C. M. (2009) Agency and Identity. *Self-Constitution: Agency, Identity, and Integrity*. New York: Oxford Scholarship Online.
- KURTZMAN, J. (1998) An Interview with Chris Argyris. *Strategy+Business*.
- LANNON, J. (1994) Mosaics of Meaning: Anthropology and Marketing. *Journal of Brand Management*, 155-168.
- LAWRENCE, A., JOHNSTON, M., KONIJNENDIJK, C. & DE VREESE, R. (2011) Briefing Paper 3: The Governance of (peri-urban) forestry in Europe. *Briefings on Urban Forestry prepared for the EU Standing Forestry Committee*. Brussels: Europa.
- LESLIE, R. (2011) *Forests for the Future: Save Our Woods* [Online]. Online at:
<http://saveourwoods.co.uk/wp-content/uploads/2011/03/Forests-for-the-Future-with-notes-Rod-Leslie.pdf> [Accessed 3.1.2013 2013].
- LISTER, S. (2003) NGO legitimacy - technical issue or social construct? *Critique of Anthropology*, 23, 175-192.
- LONDON ECONOMICS (2004) Investigation of the determinants of farm-retail price spreads: Final report to DEFRA. DEFRA.

- LORD JUSTICE BARLOW (1940) Royal Commission on the Distribution of the Industrial Population. London: HMSO.
- LORD RIDLEY (2012) Presentation to the Royal Forestry Society Annual Whole Society Meeting 2012. *Quarterly Journal of Forestry*, 106, 297 - 299.
- LOWE, P., MURDOCH, J., MARSDEN, T., MUNTON, R. & FLYNN, A. (1993) Regulating the New Rural Spaces: the uneven development of land. *Journal of Rural Studies*, 9, 205 - 222.
- LYONS, S. M. (2007) Place Shaping; A shared ambition for the future of local government *Lyons Inquiry into Local Government*. London: The Stationary Office.
- LYOTARD, J-F. (1979) (1984) *The Postmodern Condition*, Manchester, 1984 Eng. Translation: Manchester Univ. Press.
- MACKAY, D. G. (1995) *Scotland's Rural Land Use Agencies: The History and Effectiveness in Scotland of the Forestry Commission*, Dalkeith, Scottish Cultural Press.
- MACNAGHTEN, P. & URRY, J. (1998) *Contested Natures*, London, Sage.
- MARSDEN, T. (1999) Rural Futures: The Consumption Countryside and its Regulation. *Sociologia Ruralis*, 39, 501-526.
- MARSDEN, T., MILBOURNE, P., KITCHEN, L. & BISHOP, K. (2003) Communities in Nature : The Construction and Understanding of Forest Natures. *Sociologia Ruralis*, 43, 238.
- MARSHALL, G. (1998) *Oxford Dictionary of Sociology*, Oxford, OUP.
- MARTIN, B. (2001) Review of J. Schmidt's 'Disciplined Minds: A Critical Look at Salaried Professionals and the Soul-Battering System that Shapes their Lives' *Radical Teacher*, 62, 40 - 43.
- MATHER, A. S. (1998) The Changing Role of Forests. In: ILBERY, B. (ed.) *The Geography of Rural Change*. Harlow: Longman.
- MATHER, A. S. (2001) Forests of Consumption: postproductivism, postmaterialism and the postindustrial forest. *Environment and Planning C: Government and Policy*, 19, 249 - 268.
- MAYERS, J. & VERMEULEN, S. (2002) *Power from the Trees: How Good Forest Governance can Help Reduce Poverty* [Online]. IIED. Online at: <http://pubs.iied.org/pdfs/11027IIED.pdf>.
- MCCAULEY, J., DUBERLEY, J. & COHEN, I. (2000) The Meaning Professionals Give to Management and Strategy. *Human Relations*, 53 87-116
- MCKEVITT, D. (1998) *Institutional and Regulatory Environments*, Milton Keynes, Open University.
- MILBOURNE, P., KITCHEN, L. & MARSDEN, T. (2006) Nature, state and community: social forestry in the post-industrial British countryside. *Geoforum*.
- MILLENNIUM ECOSYSTEM ASSESSMENT (2005) *Millenium Ecosystem Assessment, ecosystems and Human Well-being. Synthesis Report*, Washington DC, Island Press.
- MILLER, H. (1997) Forest Policy: The International and British Dimensions. *University of Aberdeen Undergraduate Course Notes*. Privately published.
- MINISTRY OF WORKS AND PLANNING (1942) Report of the Committee on Land Utilisation in Rural Areas. HMSO.
- MINTZBERG, H. & WATERS, J. A. (1985) Of Strategies, Deliberate and Emergent. *Strategic Management Journal*, 6, 257 - 272.
- MOFFAT, A.J. and MCNEILL, J.D. (1994). Reclaiming disturbed land for forestry. Forestry Commission Bulletin 110. HMSO, London, 103pp.
- MORGAN, G. (1997) *Images of Organization*, London, Sage.
- MORRIS, N. (2003) *Feeling Nature: Naturism, Camping, Environment and the Body in Britain, 1920-1960*. PhD, University of Hull.
- NAESS, A. (1989) *Ecology, Community and Lifestyle*, Cambridge, Cambridge University Press.
- NAIL, S. (2008) *Forest Policies and Social Change in England*, Amsterdam, Springer.
- NATIONAL PARKS (2012) *National Parks are Protected Areas* [Online]. Online at: <http://www.nationalparks.gov.uk/learningabout/whatisanationalpark/nationalparksareprotectedareas.htm> [Accessed 14th September 2012].

- NATURAL ENGLAND (2012) Monitor of Engagement with the Natural Environment: The national survey on people and the natural environment. Annual Report from the 2011-12 survey. Natural England.
- NEAL, S. & AGYEMAN, J., (EDS) (2006) *The new countryside?: Ethnicity, nation and exclusion in contemporary rural Britain*, Bristol, Policy Press.
- NIE, M. (2009) The Bitterroot Controversy. In: CUBBAGE, F. W. (ed.) *Forests and Forestry in the Americas: An Encyclopedia*. Routledge.
- NILSSON, K., SANGSTER, M. & KONIJNENDIJK, C. (2011) Forests, Trees and Human Health and Wellbeing: Introduction. In: NILSSON, K., SANGSTER, M., GALLIS, C., HARTIG, T., DE VRIES, S., SEELAND, K. & SCHIPPERIJN, J. (eds.) *Forests, Trees and Human Health*. New York: Springer.
- NORTHERN IRELAND ASSEMBLY (2010) NI Forestry Act (2010) online at www.legislation.gov.uk
- NORTHERN IRELAND GOVERNMENT (2012) *A Practical Guide to Policy Making in Northern Ireland* [Online]. Belfast: Office of the First Minister and Deputy First Minister. Online at: <http://www.ofmdfmi.gov.uk/practical-guide-policy-making.pdf> [Accessed Sept. 2013].
- OECD (2006) *The New Rural Paradigm: Policies and Governance*, Paris, OECD.
- OECD (2012) *Multilevel Governance* [Online]. Directorate for Public Governance and Territorial Development. Online at: www.oecd.org/gov/regional/multilevel2012 .
- OFFICE OF NATIONAL STATISTICS (2007) *UK Standard Industrial Classification* [Online]. Online at: <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html> [Accessed 25/9/2012].
- PARLIAMENTARY OFFICE OF SCIENCE AND TECHNOLOGY (2011) Ecosystem Service Valuation. *POSTNOTES*. Westminster.
- PERRY, D. & HANDLEY, J. (2000). The potential for woodland on urban and industrial wasteland. *Forestry Commission Technical Paper 29*. Edinburgh: Forestry Commission.
- PETTIGREW, A. (1985) *The Awakening Giant*, Oxford Blackwell.
- PIDGEON, N.F. and HENWOOD, K.L. (2004) "Grounded theory" In M. Hardy and A. Bryman et al (Eds.) *Handbook of Data Analysis*, London : Sage.
- PHELAN, C. & SHARPLEY, R. (2012) Exploring Entrepreneurial Skills and Competencies in Farm Tourism. *Local Economy*, 27, 103 - 118.
- PHILIPS, M. (1998) Social Perspectives. In: ILLBERY, B. (ed.) *The Geography of Rural Change*. Harlow, Essex: Addison Wesley Longman.
- PHILO, C. (1992) Neglected Rural Geographies: a review. *Journal of Rural Studies*, 8, 193 - 207.
- PIDGEON, N.F. and HENWOOD, K.L. (2002) *RE: Key Concepts in Grounded theory*. Personal communication to M. Sangster.
- PIDGEON, N.F. and HENWOOD, K.L. (2004) "Grounded theory" In M. Hardy and A. Bryman et al (Eds.) *Handbook of Data Analysis*, London : Sage.
- PIERRE, J. (2000) Introduction, in: Pierre, J. (ed.) *Debating Governance*. Oxford, OUP
- PRIMMER E (2011) Analysis of institutional adaptation: integration of biodiversity conservation into forestry. *Journal of Cleaner Production*, 19 1822 to 1832.
- PRIMMER, E. & KARPPINEN, H. (2010) Professional judgment in non-industrial private forestry: Forester attitudes and social norms influencing biodiversity conservation. *Forest Policy and Economics*, 12, 136 - 146.
- PRINGLE, D. (1994) *The Forestry Commission: The First 75 Years*, Edinburgh, Forestry Commission.
- RAMETSTEINER, E. (1999) *The Attitude of European Consumers towards Forests and Forestry* [Online]. Rome: FAO. Online at: http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/x0963E/x0963e0a.htm.
- RAMIREZ, C. (2009). Constructing the governable small practitioner: The changing nature of professional bodies and the management of professional accountants' identities in the UK. *Accounting, Organizations and Society*, 34, 381-408.
- RICHARDS, D. and Smith, M. (2002) *Governance and Public Policy*. Oxford, OUP

- RETAIL FORUM FOR SUSTAINABILITY (2012) *Sustainable Seafood*. Issue paper no. 9. [Online] Brussels: Europa. Online at:
<http://ec.europa.eu/environment/industry/retail/pdf/fish%20issue%20paper.pdf>
- RICKEY, B. JOY, I. & HEDLEY, S. (2011) Best to borrow? A charity guide to social investment *Online*. New Philanthropy Capital. www.thinknpc.org/?attachment_id=750&post-parent=872 accessed June 2013
- RHODES, R. A. W. (1996) The New Governance: Governing without government. *Political Studies*, XLIV, 653 - 667.
- ROYAL COLLEGE OF NURSING (2007) *A joint statement on continuing professional development for health and social care practitioners* [Online]. London: RCN. Online at:
http://www.rcn.org.uk/_data/assets/pdf_file/0003/78708/003064.pdf [Accessed October 2013].
- RUMELT, R. (2011) *Good Strategy / Bad Strategy: The Difference and Why it Matters*, London, Profile Books.
- SANGSTER, M. (1992) Urban Forestry, The Future and its Impact on the Tree Care Profession: Community Forestry in the UK. *Keynote Presentation, sixty-eighth Annual Conference of the International Society of Arboriculture*. Oakland, California: ISA.
- SANGSTER, M. (1994a) Promoting Trees In and Around Towns. *Scottish Forestry*, 48, 160 - 162.
- SANGSTER, M. (1994b) Public Participation in Forestry Policy and Forest Management in the United Kingdom. In: TSUCHIYA T & KAKIZAWA H, eds. *International Symposium on Public Participation and Environmental Conservation*, November 7 - 9 1994 Tokyo. Tokyo University.
- SANGSTER, M. (1995) Planning and Designing New Woodlands for People In: FERRIS-KAAN R (ed.) *The Ecology of Woodland Creation*. Chichester: Wiley.
- SANGSTER, M. (2002a) Forestry Policy. *Staff Paper*. Forestry Commission.
- SANGSTER, M. (2002b) *Strategy Making in the Forestry Commission*. MBA Thesis, Open University.
- SANGSTER, M. (2004) The United Kingdom: A tradition of consensus in forest planning and regulation. In: HUMPHREYS D (ed.) *Forests for the future: National forest programmes in Europe - Country and regional reports from COST Action E19* Brussels: Europa.
- SANGSTER, M. (2005) Health and the Countryside: An Historical Reflection. *Countryside Recreation* 13, 28 - 29.
- SANGSTER, M. (2006a) *Contemporary Understandings of Forestry: the impact of changing perceptions of forestry on forest policy in Great Britain - Document 1*. DBA, Nottingham Trent University.
- SANGSTER, M. (2006b) *Contemporary Understandings of Forestry: the impact of changing perceptions of forestry on forest policy in Great Britain - Document 2*. DBA, Nottingham Trent University.
- SANGSTER, M. (2007) *The Case of the Forestry Professionals: Insider perceptions of forestry policy*. DBA, Nottingham Trent.
- SANGSTER, M. (2011) *Green Regimes*. DBA, Nottingham Trent University.
- SANGSTER, M., BUSSE NIELSEN, A. & STEWART, A. (2011) Briefing Paper 1: The physical (peri)-urban forestry resource in Europe. *Briefings on Urban Forestry prepared for the EU Standing Forestry Committee*. Brussels: Europa.
- SCHAMA, S. (1995) *Landscape and Memory*, London, Harper Collins.
- SCHMIDT, J. (2000) *Disciplined Minds - A Critical Look at Salaried Professionals and the Soul-Battering System that Shapes their Lives*, Lanham, MD, Rowman & Littlefield.
- SCHMITHÜSEN, F. & HIRSCH, F. (2010) Private Forest Ownership in Europe. UNECE/FAO.
- SCHWANDT, T. A. (2001) Three Epistemological Stances for Qualitative Inquiry: Interpretivism, Hermeneutics and Social Constructionism. In: DENZIN, N. K. & LINCOLN, Y. S. (eds.) *Handbook of Qualitative Research*. Thousand Oaks: Sage.
- SCOTT, P., BARROW, G. & PEARSON, R. (1997). Provision for woodland recreation and access in Great Britain. Edinburgh: Forestry Commission.

- SHOVE, E. & WALKER, G. (2010) Governing transitions in the sustainability of everyday life. *Research Policy*, 39, 471-476.
- SIMON, H. A. (1956) Rational choice and the structure of the environment. *Psychological Review*, 63 129-138.
- SMITH, S. (2003) National Inventory of Woodland and Trees: England. *National Forestry Inventory*. Edinburgh: Forestry Commission.
- STANLEY, K. (2006) Social Forestry in the Post-Industrial Countryside: Making connections between social exclusion and the environment. Department of City and Regional Planning, University of Wales, Cardiff.
- STEINMETZ L. L. (1969) Critical stages of Small Business Growth: When they occur and how to survive them *Business Horizons*, 12, 29 - 36.
- STERN, N. (2006) Stern Review on the Economics of Climate Change. HMT.
- STONE, C. (1989) *Regime Politics, Governing Atlanta 1946 - 1988*, Lawrence, Univ. Press of Kansas.
- STRAUSS, A. & CORBIN, J. M. (1998) *Basics of Qualitative Research : Techniques and Procedures for Developing Grounded Theory* London, Sage.
- STRAUSS, L. (1978) *Myth and Meaning*, London, Routledge.
- SVEDIN, U., O'RIORDAN, T. & JORDAN, A. (2001) Multi-level Governance for the Sustainability Transition. In: O'RIORDAN T (ed.) *Globalism, Localism and Identity*. London: Earthscan.
- SWANSON, S. C. & LOOMIS, J. B. (1996) Role of Nonmarket Economic Values in Benefit-Cost Analysis of Public Forest Management. *General Technical Report*. Pacific Northwest Research Station: USDA Forest Service.
- TABBUSH, P. (2004) New Forest – New Future: Consultation and Community Involvement in Forest Planning. *Social Science Publications*. Alice Holt: Forest Research.
- TABBUSH, P. (2006) Consultation and community involvement in forest planning. *Social Science Publications*. Alice Holt: Forest Research.
- TAKANO, T., NAKAMURA, K. & WATANABE, M. (2002) Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. *J. Epidemiol Community Health*, 56, 913-918.
- TARLING, R., RHODES, J., NORTH, J. & BROOM, G. (1993) *The Economy and Rural England*. London: Rural Development Commission.
- THE CODE STEERING GROUP (2010) Good Governance: A Code for the Voluntary and Community Sector. Online at: <http://www.governancecode.org/wp-content/uploads/2012/06/Code-of-Governance-Full1.pdf> [accessed September 2013]
- THE HOUSE (2011) All-Party Groups: A Comprehensive Guide. *The House*.
- THORLINDSSON, T. & VILHJALMSSON, R. (2003) The Knowledge Society. *Acta Sociologica*, 46, 99-105.
- TOMLIN, P. (2001) Professional Women Foresters in the British Forestry Industry. Edinburgh: Forestry Commission.
- TOMPKINS, S. C. (1986) *The Theft of the Hills*, London, Rambler's Association.
- TRAVLOU, P. & WARD-THOMPSON, C (2009) A Critical Review of Research in Landscape and Woodland Perceptions, Aesthetics, Affordances and Experience. OPENspace, Univ. Edinburgh. Online at: http://www.openspace.eca.ac.uk/pdf/appendixf/OPENspacewebsite_APPENDIX_F_resource_7.pdf
- TSOUVALIS, J. (2000) *A Critical Geography of Britain's State Forests.*, Oxford, Oxford University Press.
- TURNER, R. M. (1998) Towards a National Forestry Programme for the United Kingdom. Edinburgh: Forestry Commission.
- TURNER, R. M. (1997) Farmers and Native Woodlands: A Review of Literature to Establish the Degree and Nature of Farmer's Attitudes to, and Involvement With, Native Woodlands: Forestry Commission. Ag. sub-group of the Forestry Authority's Native Woodlands Advisory Panel

- UK GROUNDWATER FORUM. *Nitrate and pesticide pollution* [Online]. British Geological Society; NERC. Online at: www.groundwateruk.org/.../nitrate_and_pesticide_pollution.pdf [Accessed September 12th 2012].
- UK NATIONAL ECOSYSTEM ASSESSMENT (2011) *The UK National Ecosystem Assessment: Synthesis of the Key Findings*. Cambridge.
- UK PARLIAMENT (2011) *UK Parliament: Science and Technology Committee - Minutes of Evidence: Forest research* [Online]. Westminster: Parliament. Online at: <http://tinyurl.com/p28nrah> [Accessed June 2013].
- UNEP (2012) *The role of supply chains in addressing the global seafood crisis*, [online] New York. UNEP. Online at: <http://tinyurl.com/kj8dwpb>
- USDA FOREST SERVICE (1970) *Management Practices on the Bitterroot National Forest: A Task Force Appraisal*. May 1969- April 1970.
- VALATIN, G. & COULL, J. (2008) *Payments for Ecosystems Services: Findings and Perceptions from the USA*. Edinburgh: Forest Research.
- WARD-THOMPSON, C. & TRAVLOU, P. (2009) *A Critical Review of Research in Landscape and Woodland Perceptions, Aesthetics, Affordances and Experience*. Edinburgh: OPENSspace Research Centre, Edinburgh College of Art.
- WATSON, T. J. (1987) *Sociology, Work and Industry*, London, Routledge.
- WATSON, T. J. (1994) *In Search of Management: Culture, Chaos and Control in Managerial Work*, London, Routledge.
- WATSON, T. J. (2008) *Managing Identity: Identity Work, Personal Predicaments and Structural Circumstances*. *Organisation*, 15.
- WEIR, D. (1993) Not Doing the Business. *Times Higher Education Supplement*, 30th April 1993: 22.
- WELDON, S. & TABBUSH, P. (2004) *Public participation and partnership: A review of Forestry Commission practice and governance in a changing political and economic context*. Forest Research.
- WELSH ASSEMBLY GOVERNMENT (2012) *Singe Body* [Online]. Cardiff: WAG. Online at: <http://wales.gov.uk/topics/environmentcountryside/consmanagement/seb/?lang=en> [Accessed 1.1 2013].
- WIBBERLEY, G. (1982) *Countryside Planning: A Personal Evaluation, Occasional Paper No. 7*, Ashford, Wye College.
- WIERSUM, K. F. (1999) *Social Forestry : changing perspectives in forestry science or practice? Landbouwniversiteit Wageningen*.
- WILLIAMS, C. & WOODHEAD, S. (2007) *The Growing Pains of Smaller Professional Associations*. *PARN Research*. Bristol: PARN.
- WILLIS, K., GARROD, G., SCARPA, R., MACMILLAN, D. & BATEMAN, I. (2000) *Non-Market Benefits of Forestry: Report to the Forestry Commission, Phase 1*. Newcastle: Centre for Research in Environmental Appraisal and Management, University of Newcastle.
- WILLIS, K. G., GARROD, G., SCARPA, R., POWE, N., LOVETT, A., BATEMAN, I., HANLEY, N. & MACMILLAN, D. C. (2003) *The Social and Environmental Benefits of Forests in Great Britain. Social & Environmental Benefits of Forestry* Centre for Research in Environmental Appraisal & Management, University of Newcastle.
- WILSON, G. A. (2001) From Productivism to Post-Productivism... and Back again? Exploring the (Un)changed Natural and Mental Landscapes of European Agriculture. *Transactions of the Institute of British Geographers*, 26, 77-102.
- WOOD, C. S. (1993) *Albrecht Altdorfer and the Origins of Landscape*, Chicago, Univ. of Chicago Press.
- WORM B, BARBIER E.B., BEAUMONT N., DUFFY J.E., FOLKE C., HALPERN B.S., JACKSON J.B., LOTZE H.K., MICHELI F., PALUMBI S.R., SALA E., SELKOE K.A., STACHOWICZ J.J., WATSON R. (2006) *Impacts of Biodiversity Loss on Ocean Ecosystems Services*. *Science*, Vol. 314 no. 5800 pp. 787-790

WYNNE, B. (1996) *May the sheep safely graze? A reflexive view of the expert-lay knowledge divide.* in
LASH S, SZERSZYNSKI B & WYNNE B. eds. (1996) *Risk, Environment and Modernity: Towards a New
Ecology*, Sage. London.

Appendix 1: Terminology and Concepts Relating to the Conceptual Framework

Concept	Explanation
<i>Capability</i>	Having the knowledge and skills to undertake a particular activity or set of activities.
<i>Capacity</i>	Having the resources to apply such skills and knowledge.
<i>Culture</i>	The text relies on Watson's definition: <i>'The system of meanings shared by members of a human grouping that define what is good and bad, right and wrong and what are the appropriate ways for a member of that group to think and behave'</i> (Watson 1987: 83)
<i>Emergent behaviour</i>	Reflective but unplanned response to events.
<i>Governance</i>	There are many definitions. The Institute of Governance has an explanation that fits with this project: <i>'Governance determines who has power, who makes decisions, how other players make their voice heard and how account is rendered'</i> .
<i>Institution</i>	An accepted way of doing things (after Douglas 1986). This can be, but is not always an organisation, often public. The Oxford Dictionary also includes in its definition aspects of society such as the family or religious belief. The meaning used in this text follows that of Thetis, in the prologue to John Barton's (1999) <i>'Tantalus'</i> : <i>'the shapes that humans make to fix things.'</i>
<i>Legitimacy / Legitimation</i>	Again, many definitions. ODS refers to legitimacy as institutionalised power given moral grounding. In the context of this project it is used to indicate an accepted right to participate in decision-making.
<i>Mandate</i>	ODS explains this as: <i>'the authority to carry out a policy'</i> . In this text it is used to indicate the scope of legitimacy e.g. The Forestry Commission is widely trusted to comment on forestry but not on medicine.
<i>Modernism</i>	ODS explains modernism as an ambiguous term that relates to the 'sweeping changes' that took place particularly in art and literature between the late 19 th C and the 2 nd World War. In business writing, however, it tends to relate to industrialisation and the effects of this on work practice, the concentration of labour and the changes these exerted on society.
<i>Policy</i>	Mintzberg (1985) sees policy as the public sector equivalent of strategy. It is used here to mean the way in which Government objectives will be achieved – what actions should and should not be taken.
<i>Postmodernism</i>	ODS has an almost three-page discussion on the meaning of postmodernism but fails, ironically, to offer a definition of what it means. In this text it is used in the context of a pluralistic, urban-centred society in which individuals make sense of their complex social environment through heuristics and discourse. Most authors would accept that there is nothing 'post' about postmodernism – it adds to rather than replaces previous (and continuing) 'social conditions' (Lyotard (1979) trans. 1984)
<i>Productivism and Post-Productivism</i>	Terms used in rural policy studies where productivism casts the countryside in the role of a factory delivering tradable goods and financial returns and policy is concerned with efficiency and productivity. Post-productivism acknowledges the increasing importance of services in the rural economy – such as recreation, landscape and more recently a range of 'ecosystem services' such as carbon sequestration and flood reduction. The terms are often used to contrast immediate post-war preoccupations with production with the increasingly dominant service

<i>Profession</i>	economy in rural areas. They are realist terms; some authors have been criticised for using the terms post-productivism and post-modernism synonymously ¹⁹⁵ . A community of skilled practitioners who maintain their agency through barriers to entry, cultural norms, indoctrination and processes of exclusion – after Schmidt (2000).
<i>Rationalist discourse</i>	A positivist and often reductive discourse that explains the social world through a technical and scientific narrative. Defining beautiful landscape or outdoor exercise as an ‘ecosystem service’ is an example of this approach.
<i>Regime</i>	A system of governance as it is practised, rather than as it is said to be practised. Often based around informal networks that form through pragmatism, mutual self-interest or expediency. After Rhodes (1996)
<i>Stakeholder</i>	Individuals and groups who are impacted by forestry-related decisions and, in the eyes of decision-makers, are entitled to a voice or are given a voice as a matter of expediency – perhaps as a proxy for wider public engagement. After Turner (1998)

¹⁹⁵ Burgess (pers. comm.) has criticised Mather’s influential papers (1998, 2001) on ‘post-materialism’ in forestry as descriptions of a phase of industrial development rather than an account of cultural change.

Appendix 2: GSR Ethics Checklist

Purpose of the checklist: This checklist has been designed to improve consistency and thoroughness in the ethical scrutiny of social research in government. It is recommended that the checklist be completed as part of the commissioning process and should be referred to, and ideally updated, throughout the research management process.

Government Social Research (GSR) issued professional guidance for use by all those managing and commissioning government social research GSR Ethical Assurance for Social Research in Government and includes a requirement to put in place suitable systems and processes to ensure that appropriate ethical standards are met (the use of this guidance was formalised through the GSR Code). The guidance aims to ensure that all research is conducted in line with five key ethical principles. The checklist has been developed to help meet this aim.

Instructions for use

The checklist is structured under the five key principles of the GSR guidance:

- *Principle 1:* Sound application and conduct of social research methods and appropriate dissemination and utilisation of the findings.
- *Principle 2:* Participation based on valid informed consent.
- *Principle 3:* Enabling participation.
- *Principle 4:* Avoidance of personal harm.
- *Principle 5:* Non-disclosure of identity and personal information.

For each of the sections you should describe the relevant ethical sensitivities and risks and the appropriate action that will be taken to manage the issues identified. The grey text in the template provides example questions for each component of the principles to highlight what issues might be considered.

Please complete the checklist with as much detail as possible. If a component of a principle is not relevant to your project you should mark it as not applicable and move on. It may also be that a component is not relevant at all stages of a project it is therefore advisable to return to the checklist throughout the life of a project to ensure all ethical issues are identified.

Some projects may also fall under the ethical procedures of external ethics committees. This may include interviews with NHS patients and/or staff, and to participants who may lack the mental capacity to provide informed consent.

The expectation of external ethical procedures applying to a particular project does not replace the need to complete the ethics checklist on the commissioning of a new project.

Assessing Ethical Sensitivity

The checklist requires you to make a judgement about the level of sensitivity for each issue that is identified. This should take into account the inherent sensitivity of the issue itself and the steps that can be taken to manage the issue appropriately.

A guide to the sensitivity ratings is as follows:

Red – Highly Sensitive: The issue will need to be closely monitored and managed with remedial action likely to evolve throughout the project.

Amber – Sensitive: The issue will require to be managed throughout the project but initial identification of remedial action should ensure sensitivities are appropriately managed.

Green – Not Sensitive: The issue has been assessed adequately as not being sensitive, and this has been documented in the checklist.

In addition to rating each issue, the project also needs to be given an 'overall' sensitivity rating. In most cases, this should be the same as the most sensitively rated part of the project. However, this is a guide rather than a rigid rule.

Appendix 3: Naess's (1989) Eight Principles of Deep Ecology

1. The flourishing of human and non-human life on Earth has intrinsic value. The value of non-human life forms is independent of the usefulness these may have for narrow human purposes.
2. Richness and diversity of life forms are values in themselves and contribute to the flourishing of human and non-human life on Earth.
3. Humans have no right to reduce this richness and diversity except to satisfy *vital* needs.
4. Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
5. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
6. Significant change of life conditions for the better requires change in policies. These affect basic economic, technological, and ideological structures.
7. The ideological change is mainly that of appreciating life quality (dwelling in situations of intrinsic value) rather than adhering to a high standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the forgoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes.

Appendix 4: The Role of the Researcher

For some of the topics covered, for example land-use policy and forestry in highly populated areas I was the Commission's lead spokesman and internal advisor. As an 'insider' - as an FC official, a long-standing member of the professional institute and a middle-ranking civil servant and departmental head of profession I had access that was of a different nature to that of an external researcher.

This is not at all an ethnographic study, and I claim no abilities as an ethnographer, but there is an element of first-hand experience brought to bear – for example in the recounting of conversations with Ministers, FC board members and senior industry figures over the years. During the research I had many conversations with individuals within the sector or with an interest in forestry as officials or users of forest amenities. Many of these conversations were shaped by the research questions in this study and they have been used to inform the research. In the Forestry Commission I was responsible for framing and commissioning some of the forestry and land-use related research on which this study draws and many of the authorities that I rely on I know personally. To some extent I am an authority, very occasionally the only authority, on some of the matters that I write about. Watson (1994: p. 8) suggests (citing Weir 1993: p. 22) that the skill of the ethnographer relies upon *'an ability to use language, to observe, and to empathise, above all to listen quietly, and to reflect over a long period.'* I hope that, as a social scientist, I have some ability to apply such principles but I acknowledge that I cannot claim to be disinterested or to be disengaged.

In the following text when I draw upon my own direct experience I put myself into the picture and use the first person singular. I also use the first person in section 1.6 below when dealing with ontology and epistemology as these are relevant to my personal world-view and the overall tenor of the text.

Appendix 5: Epistemology

Whilst the data is largely qualitative I follow Glaser (1978) in being willing to use data of different kinds and from different sources. Schwandt (2001) writing on the philosophical underpinnings of social science identified three epistemological stances for qualitative, phenomenological research: (1) Interpretivism, (2) Philosophical Hermeneutics and (3) Social Constructionism. In Interpretivism the starting point is that human action is inherently meaningful. Whilst meanings might vary according to social variables such as culture and context the job of the researcher is to develop an understating of the meanings of the social phenomena under study. To Schwandt this approach: *'considers understanding to be an intellectual approach whereby a knower (the inquirer as a subject) gains knowledge about an object (the meaning of human action)'* (p. 194). So in interpretivist traditions the interpreter: ... *'objectifies that which is to be interpreted. And, in that sense, the interpreter remains unaffected by and external to the interpretative process'*. (p. 194).

Schwandt's account of philosophical hermeneutics is difficult to summarise. It differs to interpretivism in eschewing the idea that the inquirer is separate to or disinterested in the inquiry. Also the researcher's own biases and understandings are a resource that should be positively engaged in the process of understanding, which he likens to a 'state of being'. Hermeneutics is *'not a method for solving problems of misunderstandings or problems concerned with the correct meaning of human action ... but (its goal) is to understand what is involved in the process of understanding itself'* (p. 196).

Like hermeneutics social constructionism critiques the notion of meaning as an object. However, whilst hermeneutics sees language as a route to 'truth' constructionists might argue that *'there is no truth to the matter of interpretation'* (198). Schwandt also suggested that in philosophical hermeneutics meanings are negotiated whilst in social construction they are developed through discourse. A general assumption in social constructionism is that *'knowledge is in some sense ideological, political and permeated with values'*. (198). Schwandt discussed two constructionist perspectives – 'weak' and 'strong'. The distinguishing characteristic is that the weak interpretation retains some concept of 'correct' interpretation whilst the strong perspective rejects the idea of comparison between meanings and maintains that social construction of meaning is peculiar to a particular time and circumstances that cannot pertain in different circumstances or time.

Unlike Glaser, and consistent with Schwandt's (2001) description of the constructionist perspective, I follow Henwood and Pidgeon (1992) and Charmaz (2000) in believing that it is not possible for a qualitative researcher to be completely disinterested, uninfluenced by one's personal world-view or by the research process and findings. Similarly I agree with Fischer and Gottweis (2012) who ...

'reject the notion that policy analysis and planning are value-free technical endeavours, ... policy is affected by ... factors, including culture, discourse, and emotion. (preface) I subscribe to the view, which is relevant to my analysis and conclusions, that these factors influence most decision-making including policymaking. My own direct observation of officials attempting what these authors refer to as *'rationalistic, techno-scientific policy making'*, currently referred to in the UK as 'evidence-based policy' is that limited time, path dependency and political pressure mitigate against the analysis and deliberation needed for disinterested decision making, even if such a thing is possible.

In respect of organisational strategy I am firmly in the Mintzberg / Kay / Chia / Fischer camp that sees business, public or private, as an essentially social activity where relationships of different kinds are central to success.

In the literature review and discussion of research findings in this paper the writing follows the practice of the various authorities on which I draw in considering the actions of groups rather than individuals, for example in the discussion of professions as systems that bind members into a particular world-view. There is a danger here; the people who make up these groups do not lose their human agency or capacity for reflection simply because someone has attached a label to them. The research, however, is to do with individuals in their workplace where their behaviour is governed by the rules, obligations and constraints of paid employment. And perhaps it is these factors that are the true topic of the research. The men and women are players who, between their entrance and exit into the workplace play their particular parts only to set them aside when they leave the stage.

Appendix 6: An Account of Concepts and Ideas from the Research

A6.1 Introduction

The research relied on a number of sources of information that have been brought together in the text. It was not thought possible to maintain a coherent and succinct account whilst attributing each idea to a particular individual or even to a particular data source. Three of the interviewees were also concerned about direct attribution. The following account, therefore, sets out the main themes and elements from the research and attempts to provide sufficient signposting to indicate where these came from. It is derived from things that people participating in the research said or wrote and should not be taken as factual or comprehensive. Where assertions are made these come from the research participants and are not necessarily the views of the researcher.

Following this introduction, which briefly covers the themes that emerged from the different data sources, the chapter begins by considering how these forestry professionals see their external environment and their sense of agency in respect of the factors that they believe influence their sector. It then considers what they think about the way that the public – including non-foresters in government – understands forestry and the forestry profession and how these perceptions are played out in forestry policy. Next it considers how the management of forests as an economic resource is impacted or constrained by these environmental factors. The foresters felt strongly that the dominant voice affecting forestry is that of the environmental interest groups; their reflections on this are set out. The chapter then looks at education and research in forestry, which many participants felt are important for the future of the profession, at the impact of government on forestry at a time when official institutions are in flux and it concludes with some insights into how foresters see themselves. There is considerable overlap between the themes.

The survey

Qualitative texts from the survey were manually coded; seven strong themes emerged:

- The external environment for forestry and the agency of professionals in influencing it,
- Public understanding and Aspirations for Forests,
- Managing trees as an economic resource,
- The Part Played by Interest Groups,
- Education and Research,
- Government and Forestry,
- The characteristics of the forestry profession.

The Forestry Conference

The texts from the rapporteurs were coded manually. The themes, listed below emerged from the coding. These reflect, but are not exactly the same, as the themes around which the conference was organised.

- International forestry policy processes,
- Corporate and Social Responsibility in the supply-chain,
- Forests as Environment,
- Forests as Land Use,
- Research Needs in Forestry and Arboriculture,
- Drivers and implications of Institutional Change,
- Forestry as an Investment,
- Society's understanding and needs from forests,
- Matching management objectives to changing needs,
- Economic analysis to inform policy,
- Forests as a source of renewable materials and energy and,
- Higher education and recruitment into the Profession.

The interviews

There were four interviewees, three of whom asked that if they were quoted directly the quote should not be attributed. Three interviews were recorded and transcribed verbatim. One interviewee did not wish to be recorded but was willing to allow written notes to be made during the interview. The interviews were coded manually and mapped onto the key themes from the surveys and conference.

The HE Workshop

The outputs from the workshop were captured on flip charts then summarised as a table. Discussions were recorded in note-form, coded and mapped onto the HE themes from the conference.

Informal interviews and discussions with individuals

These were recorded as they occurred as notes. They were used to triangulate the analysis or to provide insight into themes that arose in the research.

A6.2 The external environment for forestry

International policy

A number of speakers at the conference covered this topic. The United Kingdom is an important timber importer, the third largest of all countries in the world. It therefore has an important role in setting standards, for example in timber certification. It can use its purchasing power to influence forestry practice in the countries that supply its markets.

The UK also has an advanced technical ability. It has a history of technical progress in forestry, its forestry research is well-regarded and it is seen as a leader in urban forestry and in linking forestry to the needs of a modern, essentially urban society. Even though it has a small forest area it has a legitimate voice and is influential in international processes covering forestry policy and trade in wood and forest products.

The DG of the Forestry Commission, as an interviewee and as a conference speaker, reported that the biggest concern in international forestry policy is probably climate change. Linked to this is deforestation, which generates a significant proportion of greenhouse gases in the world – according to the Stern Report (Stern, 2006) perhaps 25% of greenhouse gas emissions arise as a result of deforestation. However, whilst this is a shared interest to all participants in international forestry policy there is actually no shared strategy to deal with deforestation. Deforestation is, essentially, a social and political problem where the pressing short-term needs of poor and expanding populations for land and subsistence over-ride long-term national interests.

Another issue, especially relevant to Europe but also applying elsewhere, is the traditional separation of forestry from agriculture. Unless forest policy is linked to policy for agriculture and other land uses we will continue to see damage to forests especially in developing countries where there is competition for land. But even in Europe an integrated approach to land-use is required and recognition of the value of forests to the green economy – picking up on many of the ideas in ecosystem services where non-monetary values can be more important than cash-generative activities.

Responsibility for forestry policy in England and for international policy now rests with DEFRA who have little or no in-house forestry expertise and certainly have no senior staff with experience of forestry.

Changes in management objectives for forestry in the UK and across the world

John Innes, Professor of forestry at British Columbia speaking at the conference, stated that the days when forestry was indistinguishable from mining (because it was simply the extraction of a natural resource) were long gone. This applied to forestry across the world. Forestry in much of the world traditionally has been about managing trees for logging. This is a relatively low-cost approach that generates maximum returns. However it causes environmental damage and is disliked by society – for its appearance and also perhaps for the 'violence' of its approach. Increasingly the emphasis in Forest management is on ecosystem services so that environmental management has become a

major theme in forestry policy. However, this leads to increased costs and also to reduced returns from timber harvesting as it reduces the volume of timber available from any area. Professor Innes echoed other contributors to the research in saying that new research is required in joining practice and ecological management in an effective and economic way.

Globally there is increasing demand for wood products and this has led to a steady increase in timber and wood product prices over the past decade, driven largely by demand from China. New markets are developing related to renewable energy and renewable materials and also to carbon trading and carbon credits. These are competing with traditional markets for supplies so that prices for forest products are likely to remain robust. In some cases the business models in the new markets are built around public subsidies for renewable energy rather than profits from trading and processing.

Again, in this debate it was reiterated that foresters increasingly need to be able to manage the competing demands on their forests both for products and for services. This will require greater engagement by Foresters in a more sophisticated and complex market. Research is required on how to manage forests to produce a wider range of products.

Several respondents to the survey mirrored Prof. Innes's thesis that commercial forestry no longer could be undertaken without also meeting wider objectives. However, they wrote that in practice there is little conflict between the management of forests as an economic resource or as an amenity for public use and wildlife. Even woodlands managed for nature conservation can also generate income. However, a number of the respondents felt that interest groups often focus on single issues and ignore the possibilities for meeting other objectives. This polarises discussion so that the public are led to think that woodlands cannot be managed to deliver multiple outputs, or that managing to generate a financial return conflicts with environmental or recreational objectives. This means that to sustain a mandate for commercial forestry in the UK foresters need to engage more actively with the public. Several survey respondents acknowledged that the public contribute to forestry through subsidies ... *'a massive contribution to funding forestry through taxation'* ... and this entitled the public to have a say about the outputs they are buying.

Corporate and social responsibility

Linked to these changes in what is expected from forestry today is an opportunity for companies to develop their environmental credentials. For major companies engaged in the timber and wood products business environmental responsibility can be a definite source of competitive advantage.

Ian Cheshire, the group CEO of Kingfisher plc. spoke of B&Q's adoption¹⁹⁶ of a 'Net Positive' approach where the aim is to use their power in the market to make the environment better. This requires a capacity to measure environmental impacts. Delegates in plenary discussion noted that this also brings competitive advantage to large companies, not only from an enhanced reputation with the public and decision-makers but also through tying in supply chains through processes such as certification. This was seen by some delegates as a threat to the ability of forest owners to sell forest products in an open market.

In this arena opportunities for Foresters to contribute are probably (a) in the fields of restoration – dealing with the consequences of un-enlightened corporate behaviour in respect of the environment, (b) in sustainable Forest management, including making this a better understood concept, and (c) in Forest expansion. Foresters also have a role in bringing together different players to deliver sustainability along the supply chain.

Institutional change in the UK

In the view of Jon Owen Jones, previously an environment minister with responsibility for forestry in Wales and currently a Forestry Commissioner, before devolution forestry policy was led by the Forestry Commission without input from other civil servants. A new Minister taking on a forestry portfolio might thus think that forestry is somehow different to other subjects. However devolution has led to rapid changes in governance. Forestry is the responsibility of the countries, with each country having different objectives for forests. The Forestry Commission structure is '*flexible up to a point*'. But in fact radical change in one country threatens the stability of the whole system. And it is such radical change that is taking place in Wales.

However, the Forestry Commission is not the target; the Welsh government had its sights set on taking control of Environment Agency functions in Wales that were still run from England despite devolution. To do this it has felt it necessary to introduce change that encompasses not only Environment Agency activities but also those of the Forestry Commission and the Countryside Council for Wales. There will be a continuing need for a British forestry institution, however, but the role and governance of such an institution has still to be worked out. There seems to be a window of opportunity for forestry businesses to wield influence and also possibly for the Institute of Chartered Foresters.

¹⁹⁶ B&Q Ltd. is a Kingfisher subsidiary and is a major supplier of wood and wood-based products in the UK market and also in France.

Among the interviewees there was general agreement that the FC's days are numbered. How quickly change might happen was open to question with one interviewee suggesting that the cost of integrating CIT and management systems would inhibit rapid change. Another suggested that FC would '*face a lingering death*' because the support it enjoyed generally in Scotland and public support for it in England meant that radical change would politically be difficult.

One FC board member reported that on a day to day basis the implications of change were difficult to fathom. The Commission no longer had direct access to ministers in England and the FC's board had very little information on which to base decisions. As a result the Commission was seen to be leaderless '*adrift in a coracle with no paddle*' where the Board was not providing direction and DEFRA, now responsible for forestry in England, was taking a very short-term and political approach.

Changes in land use policies that impact upon forestry

A number of speakers and delegates at the conference supported the view of the Commission's Director General and proposed that the main drivers of change in forestry will come not directly from forestry processes but rather from the common agricultural policy (CAP), which is undergoing continual cycles of reform, and from green incentives such as the renewable heat incentive that are linked to environmental policy.

One interviewee saw the CAP as an important barrier to meeting forestry objectives. Whilst CAP reform is supposed to encourage holistic approaches to land use in practice the agricultural departments see CAP funds as 'farmers' money'. This combined with the power of the agricultural lobby means that any switch of subsidies to environment and amenity will be strongly contested and unlikely to happen. '*Farmers and agricultural officials won't allow "agricultural money" to be spent on environment*' was the view of one interviewee. Farmers do not see woodland as an asset and the very large areas of unmanaged farm woodlands are likely to remain un-managed without some form of linkage to agricultural subsidies.

A6.3 Public understanding and Aspirations for Forests

Two interviewees and a number of speakers and delegates at the conference suggested that opportunities for forestry and the forestry profession to take a more active role in policy come from the popularity of woodland with the public and also the public's trust in the profession and in the Forestry Commission. However the political and social environment for forestry is becoming more complex. Again the point arose that foresters will have to show greater professionalism and it is likely that their role in bringing different interests together will increase. New opportunities are likely to require the recombination of different skills and knowledge.

Forestry and society as covered in the forestry conference

Forest policy today is developed within the context of changing needs from the environment. Key factors are requirements for fuel and food, for food security and competition for land. There seem to be two competing visions for forestry; one is located in government and is ideological and strongly based on science and technology. The second is more visionary and looks towards integrated land-use functions, recognises the importance of markets and the opportunities for increasing the supply of timber from the existing resource. Currently the forestry sector does not have a powerful voice or any significant lobbying power. Renewable energy and greenhouse gas reduction – carbon trading, carbon credits, carbon sequestration in timber and forest soils – provide an opportunity for new arguments to support the sector.

One speaker at the conference, Edward Langley head of environmental research at MORI, argued that foresters should not be too concerned about public opinion. Polls show that for the public environmental concerns such as climate change and forestry have a low score. He used a Scottish Government chart, reproduced below as Figure 31, to illustrate that the public’s priorities are waste and waste disposal, energy and the price of energy, overpopulation and the demands this makes on services and resources. However, MORI thinks that environment is likely to become more important in people's minds. In respect of forestry there is support for afforestation (new forestry) and trees are also seen as being good for climate change.

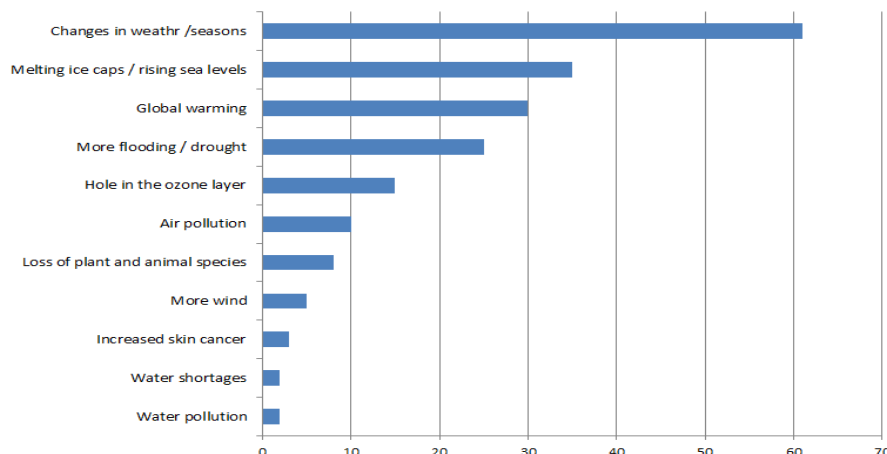


Figure 36: The Public’s Environmental Worries. Forestry isn’t listed. From the Scottish Environmental Attitudes and Behaviours Survey 2008

Urban forestry as a shop-window for forestry

Delegates at the conference in plenary session agreed that for most people the trees they come most into contact with are close to home or to work – usually in urban areas. One of the features of forestry in the past 20 years has been the emergence of ‘urban forestry’ as a sub-discipline within forestry. For urban forestry the planning system is a major influence. The planning system is a

balancing process with established methods for engaging the public. As such it presents an avenue for forestry, or at least urban forestry, to promote and explain itself. In England the planning system is being revised and a 'National Planning Policy Framework' is under development. It seems likely that local plans will be developed to meet local needs, that natural environments can be given a place in the planning system that they have not had before and that greater collaboration between professions will be encouraged.

Urban forestry encompasses a range of sites each with their own characteristics:

- Gardens,
- Parks,
- Streets,
- Brownfield sites,
- Transport corridors and utilities.

Historically we have tended to separate land uses on such sites but opportunities arise through promoting dual use or multiple uses so that urban forestry can sit alongside sports fields, property developments and innovative uses such as geothermal energy plants.

Barriers to locating forests near centres of population

Ian Bateman, an economist who had recently led DEFRA's Ecosystem Services Valuation¹⁹⁷ project, speaking at the conference suggested that the ecosystem services approach means that policy makers might assess the value of different land uses and prioritise the most valuable. This includes both cash and non-cash generating activities and is in contrast to the current situation where market value currently drives land-use.

Using this approach it can be seen that forests in the United Kingdom currently are badly located to deliver ecosystem benefits: these benefits include timber, carbon storage and recreation. Since the middle of the last century forestry policy has concentrated new planting in remote rural areas whilst the benefits of forestry tend to be of greatest value to local people and have greatest absolute value when there are many local people. The logic therefore is to place forests in areas of high population where they are accessible to a high proportion of the population. However, there are structural barriers to locating forestry in the most appropriate areas. According to one of the interviews CAP '*distorts land values massively*', inflating land values as the land-market builds the NPV¹⁹⁸ of subsidy streams into the capital value of land. In terms of ecosystem services forestry undoubtedly has higher value than agricultural land but this is not reflected in forested land values or in the priority given to forestry in policy.

¹⁹⁷ UK National Ecosystem Service Assessments UKNEA

¹⁹⁸ Net Present Value: the capital value today of future revenue usually calculated by applying a discount rate based on the current cost of capital plus a risk factor. The value is sensitive to the discount rate and when interest rates are low, as in the early 21st Century, NPV rises.

Forestry and society as covered in the survey of forestry professionals

Overall the forestry professionals, participating in the survey, felt that public participation in setting objectives and saying how trees or woodlands should be managed was a positive factor. Some saw it as essential as otherwise policy loses its legitimacy. Nevertheless, almost all the survey group felt that the public were ignorant about woodland management, had little understanding of how particular outcomes are achieved and that '*... emotion outweighs expert knowledge*'. However, diversity of opinion was generally seen as a good thing and input from sectional interests was seen as valuable because often it was informed by expertise.

Two respondents to the survey felt that public input was most productive when it was to do with a particular issue. People were then able to think about it in depth and give a considered contribution. On broad issues this was not the case. Several responses made similar points, though in slightly different ways: '*the public are interested in what affects them directly,*' ... '*the public don't know much about forestry but do but make a sensible contribution when they are asked*' ... '*lack of knowledge doesn't mean poor quality input*'. Another response criticised the methodology used in public-opinion surveys and suggested that better targeting is needed when inviting public comment: ... '*I question the canvassing of people stood in a forest. ... more urban/peri-urban involvement is needed.*' A small minority of responses were less positive: the public are ... '*grossly uninformed and make poor comments*'.

There was a strong sense that both the public and officials do not understand the long timescales in forestry and arboriculture, where the outcomes from a decision might not be apparent for decades. This sense of time comes through in the responses as a characteristic that is perhaps peculiar to professional foresters and arboriculturalists and contributes towards their collective identity: ... '*the public do not like change and see things very much in the short term.*' ... '*Forestry works in decades and ideally centuries, politics works in four-year cycles. There needs to be a long-term view by policy makers.*' ... '*we cannot afford to jeopardise true sustainability in the interests of short-term political expediency*'.

Several respondents wrote of the public's aversion to change, a particular concern in forestry where harvesting can lead not only to visible change in landscapes but also to the nature of places. However, the majority of responses that covered this point saw the public's concern as understandable so that the benefits of harvesting needed to be explained. Only one respondent

wrote of NIMBY¹⁹⁹-ism. Several responses reported that forest management was always seen as detrimental, perhaps because tree-felling is usually involved.

A number of respondents felt that private forestry (forestry not done by the FC) was seen very negatively and that this perspective was the result of disinformation from E-NGOs and 'pressure groups'. There is an automatic assumption by the public that woodland is publicly owned: ... *'There is little knowledge of the extent, breadth and work of the private industry'*. The interests of the Forestry Commission were not necessarily the same as the interests of the wider sector. There was some criticism of the Commission for promoting non-marketed outcomes rather than timber production, which was seen as pandering to public opinion. Also the Commission was criticised for failing to promote the sector properly to achieve a *'better balance between the different interests'*.

The overall impression is of a body of practitioners who see themselves as set apart from the general public, but understand why people see things as they do. There is also an underlying sense that the professional foresters feels that they lack agency, with little power to influence the environment in which they practice – they write as observers rather than participants.

The need to educate the public

The need to educate the public was a strong theme in the responses in the survey. This recurrent idea from the survey of a supportive public hampered by ignorance appeared strongly in some of the interviews and was also a theme in recent Government-sponsored reports in England and Wales. One respondent framed this as 'capacity building', a term from community development. There is a sense from the professional foresters that the public is well intentioned but ill-informed, and that people can contribute positively when they have good information. However, single-interest groups promote their own perspectives and the forestry sector as a whole has been weak in promoting a view of its own. There were two distinct approaches among the professionals:

1. The public in general does not understand forestry and needs to be educated. It is uninformed, does not understand the timescale for growing trees and foresters need to put more effort into getting their messages across.
2. The public is interested but ignorant. People should be given the information they need to engage on particular, often local issues in which they have a direct interest. *'The 'public' is not a single body and therefore does not hold a single opinion'*. Respondents taking this line wrote of targeting, local participation and working with local communities. *'You get a more robust response when you are dealing with a small issue that directly affects people'. ... 'the*

¹⁹⁹ Not in My Back Yard (NIMBY), a term from the United States now universal.

requirement is to develop ... self-started involvement including tangible participation in forest management.'

A number of respondents saw their role as providing expert knowledge to assist decision making; ... *'the Government should listen to the public but they are not experts, I am.'*

None of the group discussed how the public were to be educated; this was a role for someone else. Nor did they discuss the resource needs in terms of person-hours or money.

One respondent felt that there is a semantic difficulty, where the language used to describe woodlands and woodland management leads to confusion because it is understood by the public to be about the environment and nature rather than productive land-use. This person suggested that the sector should adopt language from agriculture, referring more frequently, perhaps, to 'tree farming' and 'crops'. Production should be concentrated on 'tree farms'. Other professionals agreed that professional language was a barrier to communicating with the public but thought that an over-emphasis on production would reinforce prejudices against private forestry as an extractive activity.

In subsequent discussion with senior figures in the sector this aim of educating the public was found to be more sophisticated than indicated in the formal research. There was a general understanding that the messages to be put to the public were that wood is a renewable product, that consumers should give preference to wood-based goods before 'unrenewable' plastic, cement and steel and that renewability was derived from a cycle of planting and harvesting. In essence it is a market-based concept where the objective is to influence the buying decisions of consumers.

Barriers to engaging the public

For participation by the public the barrier most frequently cited by the professionals was poor or wrong information. This generally arises from over-reliance by the public and media on E-NGOs. In some cases public participation is substituted by input from organisations that are seen as public representatives.

A small number of respondents felt that 'group think' was a barrier that prevented a reasoned response. Again, there was a suggestion that the public respond best when they are dealing with a topic that affects them directly or they have personal experience. Manipulation of participatory processes, for example by constraining responses through asking predetermined questions, was also cited by the professional foresters as a means of suppressing unwelcome responses and steering outcomes.

Barriers to professional input into policy-making reflected some of the themes that emerged from the literature reviews. The profession was said to be predominantly white, middle-class, male,

middle-aged and rural. Women are poorly represented, especially among the older demographic, and have difficulty being heard. Ethnic voices are few and far between, partly because immigrants tend to concentrate in urban areas. Disability was a recurrent theme, possibly because forestry and arboriculture take place in outdoor environments that can be physically challenging. The sense here was that the respondents were aware that the profession has a particular culture and that there are demographic and social differences between the foresters and wider society that might lead to the profession being out-of-touch with society.

The need for ICT skills to respond to online consultations inhibits responses. Resources can be unavailable, in particular the time needed to analyse issues and respond in a considered way.

The interviewees took a similar line to the survey respondents; the public was considered generally to be ignorant about forestry even though it had '*a lot of goodwill for forests and foresters*'. People do not understand that woodlands and trees need to be managed nor do they understand where wood comes from or that products such as paper and boards are made from trees. This applies internationally: one of the interviewees had recently been at an overseas conference where foresters from all over the world were saying the same thing.

A6.4 Managing trees as an economic resource

Economics

Prof Colin Price, one of the U.K.'s very few economists specialising in forestry, in a presentation at the conference criticised the methods that underpinned a number of previous economic studies. Many of these were preference studies or contingent valuations that required the public to be able to make choices between options or to assess values. Prof. Price argued that although customers want services they do not have the knowledge needed to assess their value. This idea that forestry objectives are set to meet the aspirations of people who do not understand the implied costs and trade-offs was a predominant theme in the results from the survey of professional foresters.

Ian Birdie, an independent economist who previously was head of economics at RSPB, discussed the use of economic instruments in achieving forestry policy. Such instruments should be context specific, taking account of fiscal constraints, environmental needs and the expectations of society.

They might include:

- adjustment to tax regimes – especially for sustainable management,
- payments for ecosystem services,
- investment in green infrastructure,
- support for businesses that benefit biodiversity.

In the interviews the Forestry Commission's DG suggested that there are two perennial questions in the environmental and forest economics literature (1) '*Who gets the rent?*' – i.e. who are the people who pay for and who are the people who enjoy the benefits from woodland and the natural environment, and (2) '*how can un-marketed benefits be monetised?*' – so that the value to society of tangible and intangible outcomes can be compared using the same measure. Despite their prominence in policy-related research only one respondent in the survey raised these issues directly: '*Forests need to earn their keep, but forestry is not very lucrative and NTFPs²⁰⁰ (sic) are a part of this*'. Among other respondents to the survey there appeared to be an implicit acceptance that recreation, wildlife, landscape and other intangible benefits from forest management were necessary outputs and just part of what forestry is about and delivers without payment.

Perhaps a third of the survey respondents emphasised that the private sector was driven by market forces and that this influences the balance of benefits that they manage their forests to deliver. This includes non-market benefits, so policy should be designed to deliver the benefits that society wants, which might be different in different places. This '*... should be in the forefront of formulating policy*'. There was an underlying sense in a sizeable minority of the survey responses that civil servants have little or no understanding of land management and the market is much better at deciding what benefits are needed.

The majority of respondents, however, felt that the public were unconcerned about whether or not woodland was economic, or whether the forestry industry contributed to the national economy. To these respondents the public simply wants amenity. This lack of concern about woodlands as economic assets was contrasted with farming, where the public have no difficulty understanding that a farmer needs to make money from his fields. This is perhaps because so much woodland is institutionally owned that the public do not understand the need for woods to be financially sustainable. The public were seen to be informed by the media and by E-NGOs who '*emphasise wildlife and amenity and ignore economics*'. A number of responses in the survey referred to forestry's role in providing jobs in rural areas whilst two of the interviewees felt that rural development was neglected because the needs of farmers, rather than the rural community, were given priority.

Ecosystem services

One of the interviewees argued that new money from government to pay for ecosystem services is unlikely:

²⁰⁰ Non-Timber Forest Products (NTFP)

'The Government is unlikely to make new money available for services that are already being delivered free of charge. The forestry sector's hopes of new resources coming into forestry as payment for ecosystem services are unlikely to be met'.

In Britain and Europe the tradition is to appropriate benefits from forests through regulation. For example the UK Forestry Standard 'gives away' environmental benefits without seeking payment. The 'Standard' can require forest owners to give up without payment sometimes up to 25% of their forest area as open space for wildlife. The water framework directive was cited as a Europe-wide example of appropriation without payment.

At the conference there was a plenary discussion where it was suggested that the government is ... *'moving quickly to introduce economic incentives in compliance markets'*, these include biodiversity offsets, carbon credits and flood management. However, at a recent two-day national conference in (ICF 2013) on payments for ecosystem services none of the speakers, all experts in environmental markets of different types, were able to give examples of such markets that actually were functioning.

Renewable energy

The EU renewable obligations have created business opportunities and led to the development of business models where wood and wood residues are used to generate electricity. However, this requires substantial investment in capital plant and equipment so that security of supply and the cost of supply are key concerns to investors. Matthew Rivers, Director of Biomass Business at DRAX Power Ltd. speaking at the conference said that in the UK the supply-side is too small and fragmented to sustain an industrial-scale enterprise such as DRAX. Therefore 95% of supply to DRAX comes from overseas²⁰¹; note that there is increasing competition from other EU countries for this supply so the domestic market has little pricing power. The business model requires continual subsidy.

One of the interviewees was sceptical about the value to forestry of markets for renewable energy: ... *'you would think it is heaven-sent for forestry but the renewable energy subsidies are based around electricity and that means competing in global markets, providing material at great scale but low cost and where competition is strong. The domestic wood-fuel market is different; this is where you can make money. Renewable energy markets are competing for supplies with traditional markets for wood and wood-fibre – pulp, paper, board and timber – and in the long term might actually damage these traditional outlets.'*

²⁰¹ As the writing-up of the research was concluding DRAX's importation of very large quantities of wood fuel chips from the United States was attacked by conservationists and featured prominently in the national news. One of the arguments against wood-fuel as a renewable energy source was the length of time, quoted as 50 years, that it takes for harvested wood to be replenished by the growth of new trees.

Landowners' perspectives

Landowners, or rather land agents selling forests, see forestry as an investment where returns are generated not only from timber but also from services and from demand for a finite resource in a crowded island. However, timber and sporting rentals are at present the only reliable way to generate cashflow, to realise the other values you need to sell the asset. The value of woodlands is increasing because people will pay for leisure and recreation for private enjoyment – this is over and above the timber value. There are tax benefits to owning forests, particularly in respect of inheritance tax but also some income tax benefits. In economically difficult times woodlands can be seen as a safe haven by investors. In the UK, however, the state has too prominent a role that constrains opportunities for investors.

A6.5 Interest Groups

The role of E-NGOs in influencing and informing public opinion was a recurring theme in the interviews, survey and conference. Two strands of concern were identified:

1. Representation without legitimacy: 'Pressure Groups / E-NGOs / Vested Interests' were seen as setting themselves up as representing public opinion. This is accepted by officials and the media. However, these are single-interest groups who present a particular viewpoint that is not necessarily that of the public. But because these groups are seen as representatives they are not challenged and their views prevail. *'The public can make sensible input when they are engaged properly. But these groups attempt to represent the public and they present a particular viewpoint that is not that of the public.'*
2. Manipulation of information: Campaigning groups deliberately set out to control the agenda. They do this in part by controlling the questions that are asked and not asked and by manipulating the way that questions are framed. The public will often sign up to a campaign without really understanding the issues and people were often misled by campaigning bodies. Some respondents also felt that the Government behaves in a similar way, framing questions in a way that encourages a particular response: ... *'Framing the questions and the opportunities for comment can affect the results more than almost anything else.'*

The part played by interest groups

In addition to the role of E-NGOs and interest groups in informing the public the disparity between well-resourced NGOs and poorly resourced forestry interests was highlighted by some respondents. The following was typical: *'You can put a lot of effort into giving a proper well-thought-out response. However, agencies, E-NGOs, Govt (sic) quasi Govt have comparably unlimited resources to respond to consultation. In the private sector you are too busy doing your job to compete for attention'*. E-NGOs

were seen as having power not only because of their staff and strong finances but also because their large memberships led government to: *'... treat conservation charities similarly to statutory consultees, giving an unfair weight to single issues'*.

None of the respondents to the survey referred to forestry-sector institutions and representative bodies, such as ICF and CONFOR²⁰² as having a role in policymaking. The Forestry Commission was seen as the main voice for the sector and was criticised in the survey responses and in two of the interviews for failing to take a sufficiently independent line. In agriculture the NFU was seen as a powerful interest-group representing farmers but forestry was not seen by respondents in this research as having any comparable body or any power in the policy process.

Reading the survey responses together one is left with the feeling that the group is concerned that forestry is never considered 'in the round'; that policy is made in response to a series of particular issues that happen to arise rather than as a joined-up process that looks at the whole picture and tries to strike a balance.

E-NGOs and forestry

All of the interviewees took a similar line on E-NGOs. E-NGOs are trusted by the public and are used by officials and ministers as a proxy for the public and for public engagement. The larger E-NGOs are very well resourced with substantial PR and marketing departments that combined with their large memberships and effective communication makes them very effective at lobbying, giving them political influence. They are used by government for advice. In fact some are almost indistinguishable from government with senior personnel from E-NGOs taking positions in government agencies and special advisers frequently recruited from E-NGOs. However, almost all are single-interest: for example RSPB is interested in birds, the Woodland Trust is interested in native woods but not productive forestry, the National Trust is interested in heritage. They are not interested in holistic approaches or in broad messages. Their method of operation is to identify an issue and then take a simplistic bi-polar position based on for-or-against. They are not a proxy for professional advice, where a professional can take a broad approach.

Civil servants have little time for reflection so take the easiest line. E-NGOs are an easy option for them. The civil servants spend very little time in any one job and often know little about the topics they are making decisions about, so they do not question the advice they are given. They are more interested in credibility than accuracy. For example DEFRA doesn't have a single forester though they have taken forestry policy away from FC. They have little historical knowledge – otherwise they

²⁰² Confederation of Forest industries – an umbrella body representing forestry and wood processing interests.

would have known that there would be a protest over sales – and their understanding of forestry is no different to wider society. However, once officials engage they do become interested as they become more knowledgeable.

Ministers' reliance for advice on political advisors rather than career civil servants is increasing steadily and gives policymaking a very short time horizon. Everything is judged by what it might look like in tomorrow's newspapers.

A6.6 Education and Research

Changes in forestry education and in the research needs of the sector were highlighted at the forestry conference as an issue where the Institute needs to intervene. As a result a workshop on higher education in forestry was held in January 2013. The outputs from the workshop are summarised in the table below. Among the interviewees higher education was seen as important for recruitment into the profession and the Institute was seen as having a role in advising on the content and standards in HE forestry education.

Higher Education (HE)

Prof John Innis, from the University of British Columbia – one of the world's foremost forestry universities – spoke of global processes in forestry HE. Forestry is disappearing as a pure subject; it tends increasingly to be taken with other subjects and there is a tendency for forestry to be merged into larger departments such as life sciences.

Forestry graduates are successfully finding employment; there is international competition for good forestry graduates. This contrasts with jobs in conservation which are more difficult to find. Increasingly forestry has become an international discipline with forestry schools taking students from different countries. This is likely to lead to a concentration of teaching in key countries such as Canada and Finland that have large forestry resources and employment. The size of classes is a factor in the survival of courses and this again is likely to drive consolidation worldwide; small programs are unlikely to continue whatever country they might be in.

In the United Kingdom speakers at the conference drew a distinction between arboriculture and forestry. Higher education in arboriculture is rooted in further education establishments, these tend to have a lower status than universities and their staff enjoy smaller salaries. This is leading to recruitment and retention problems with lecturers in arboriculture. Nevertheless an increasing number of institutions are offering arboricultural courses. Small courses are struggling to survive, and foundation degrees are not attracting students in significant numbers – this is probably because

they do not help students to get jobs. The Institute sees the maintenance of standards in arboricultural teaching as problematic.

The HE Workshop

For a professional institute higher education is important for recruitment of new members. Conversely, institutes are important to universities because of the part they play in setting and maintaining standards, identifying competencies and skills required to practice. They also influence the success of students in the job market, which is becoming an important measure of success for university courses. This influence can be through accreditation of courses and the weight this might carry with future employers and also the fact that degrees recognised by a professional body are likely to provide a fast route to professional status.

Higher education in the UK is complex: the introduction of student fees, caps on full-time student numbers, the increasing proportion of part-time students and the development of a more contract based relationship between institutes and students are all factors that impact on recruitment of students. In higher education there has been a decline in university numbers taking forestry as a single subject. There is a tendency, not only in the UK, to merge forestry departments into larger schools – very often under a ‘life-sciences’ heading. Forestry is then taught as a series of modules that are relevant but rarely specific to forestry. For example ecology might be taught by a generalist rather than forest ecologist. Another factor has been the entry of new HE institutes into forestry, often agricultural colleges that have gained university status. As a result there are far more HE qualifications to deal with. They are at varying levels and there is no guarantee that graduates will be taught the core competencies necessary for professional status. This means that graduates have further to go before they can qualify for professional status. ICF currently captures only a small proportion of potential members and, especially since arboriculture was awarded professional status, it is likely that there is a potential to increase membership 3 or 4 times.

In forestry in the United Kingdom there are 15 HE forestry schools with two more in Ireland but only three offer a full suite of HE degrees from undergraduate to postgraduate. Recruitment of students into forestry HE is increasing but the courses are changing; not only is there a trend towards combined courses rather than pure forestry but there are more mature students, with a particular tendency in forestry for people to come into the sector in mid-career, and the number of Masters courses is increasing. The sector has strong links with industry and there is a recognition that graduates need to develop further skills through work.

Table 15: A summary of points arising from the HE workshop

HE Workshop: Benefits of Collaboration between ICF and HE Institutes		
Activity	Benefits	Action
Recruitment	<ul style="list-style-type: none"> Increased numbers Improved quality of applicants 	<ul style="list-style-type: none"> ICF to be more active in student support. Consider an HE membership category.
Professional development after HE	<ul style="list-style-type: none"> Recruitment into ICF Improved status for individuals. Quality of forestry professionals. Value-added for HE Institutes. Earnings progression. 	<ul style="list-style-type: none"> Joint targeting of final year students ICF/Institutes. ICF to be pro-active with members in seeking placements. Possible short-term job experience placements / internships. Review CPD for early career members. Does it help job mobility? Could ICF organise a 'milk round' – HE and industry.
Public Image	<ul style="list-style-type: none"> Greater visibility for a group than individual bodies. 	<ul style="list-style-type: none"> Annual gathering, joint promotion of forestry education. Establish a 'Council of UK and Irish Forestry Schools'. Joint PR on issues such as plant health.
Support for University Lecturers	<ul style="list-style-type: none"> Personal development. Future resource for ICF. Benchmarking and standards. 	<ul style="list-style-type: none"> 'HE Chapter' with own CPD programme. Perhaps link with other learned bodies – forestry societies and Soc. Biology? True accreditation of individual courses. 'ICF Badged'.
Industry Support	<ul style="list-style-type: none"> Relevance of courses to employment and careers. Recruitment into courses and ICF. Develop stronger links with companies. 	<ul style="list-style-type: none"> In-course days with the industry: features on jobs, business planning etc. ICF to have a list of potential guest lecturers on their website. Industry to support course topics. Open days at universities with students making presentations to ICF and industry members.
Industry links to HE	<ul style="list-style-type: none"> Quality and quantity of recruits. Graduates understand business better. Match skills to industry needs. 	<ul style="list-style-type: none"> ICF to explore possibility of a sponsorship scheme.
Careers advice	<ul style="list-style-type: none"> Greater selection of candidates. 	<ul style="list-style-type: none"> ICF members to offer school placements. Members to offer to give talks on forestry to schools careers. Scout 'Forest Badge'.

Research needs in the forestry sector

The biggest challenge to Forest Research (FR, the Government research institute dedicated to forestry and part of the FC) is the reduction in government funding; this is leading Forest Research to seek alternative sources of funds and to look at commercialising some of its activities.

Despite the reduced funding new areas of research are opening up and the government expects these to be addressed. Climate change is an obvious new area but within this plant health,

sometimes labelled bio-security, is emerging as perhaps the most important²⁰³. The number of threats is increasing because of global trading in plant products and this raises questions about the role of the profession in managing forests to reduce the impact of new diseases and prevent as much as possible any new diseases appearing. FR's social research team is exploring how society interprets some of these new problems. These include:

- population growth and demand for products and services,
- reducing greenhouse gases,
- managing for long-term sustainable biodiversity, and
- building resilience into forests and woodlands so that habitats can cope with change.

Resources for Forest Research (FR)

Key stakeholders in FR include DEFRA but also the Scottish and Welsh governments. DEFRA is becoming more important as FC declines. Because of DEFRA's increased interest FR is being encouraged to work in partnership with other government agencies but the transaction costs are high and returns are poor.

Forest Research is funded through the Westminster vote via DEFRA, so Scotland and Wales are reluctant to commission research directly preferring instead to rely on FC (GB) to commission their research using its funding from Westminster. FR is working on service-level agreements with the countries, however. At present Scotland spends very little on forest research from its own resources. It would make sense for countries to commission their own research directly but the current arrangements, where money is channelled through DEFRA to FC then to Forest Research, inhibits such a move.

Government support for research, including research in forestry, is predicated partly on market failure so is not guaranteed, particularly because much forestry research is highly applied and has commercial value – being 'near market' makes it harder to justify public funding. The forestry sector is used to getting 'free' research.

Plant health

A number of new plant and tree diseases have appeared in the UK in recent years, mostly as a consequence of globalised trade in horticultural products and free trade within the EU common market in these products. Politicians and officials have become aware that there is a political risk if major species become affected, as has recently happened with Ash dieback disease.

²⁰³ Many species indigenous to Britain, including insects and micro-organisms that damage trees, were eliminated by the ice age that ended just over 10,000 years ago. The land-bridge between the UK and mainland Europe that existed after the ice retreated was inundated before many species were able to recolonise Britain. As a result the UK has fewer plant diseases and insect pathogens than Europe.

Tree pathology has been made a high priority for Forest research and, with no new money, there is a danger that tree health will take resources from other areas of research leading to a significant narrowing of FR's research capabilities and making it a potential takeover target, for example by FERA.

Maintaining a forestry-specific research capacity through Forest Research was a cause for concern both to the forestry professionals in the survey and to the interviewees. The agency was said to enjoy very strong support from all parts of the sector. (The researcher, discussing institutional change with a senior figure in private forestry was told: '*... we don't care what happens to the Commission but we must protect Forest Research*'). However, there was speculation that FERA, the DEFRA research institute responsible for a large area of land-related research, was interested in taking over Forest Research. There was agreement that this would be bad for forestry.

A6.7 Government and Forestry

DEFRA

Anxiety over DEFRA's increasing importance in forestry²⁰⁴ was a worry for the interviewees and for the survey respondents. A particular concern was that forestry would be overlooked and decisions made with no understanding of their impact.

Two of the interviewees spoke of a pseudo-rationalist culture in DEFRA where the department presents its policies as evidence-based but it is very careful about what evidence it uses, and rejecting as non-scientific anything that doesn't fit its preconceptions²⁰⁵. There is a mismatch between public and official expectations of what the countryside is for. The cultural value of the countryside is overlooked and agricultural intensification is encouraged despite the fact that it is leading to degradation of the landscape and natural environment.

Although it arose as a merger between the agricultural and environmental departments (MAFF and DoE) DEFRA has been completely captured by agricultural interests whom it sees as its main stakeholder or client. It is focused on supporting farmers and is not interested in the wider rural economy. Everyone knows that the system is broken but DEFRA is in denial and no-one admits it. It uses the CAP as an excuse not only for not making changes but also to generate self-serving activity such as excessive regulation that justifies its existence.

²⁰⁴ Prior to 2009 the Forestry Commission's funds came from its own parliamentary vote. Since then they have been channelled through DEFRA. At the same time DEFRA took over responsibility for forestry policy in England and for international forestry policy, including the EU.

²⁰⁵ In a classic study Wynne (1996) showed how agricultural scientists failed to acknowledge the advice, because it wasn't 'scientific', of farmers in the Lake District on where radioactive fallout from Chernobyl was likely to be greatest. The farmers were right and the failure to take their advice prolonged the constraints on sheep sales for some years.

The feedback systems in the agricultural and land-use policy cycles are broken. The problems are well understood but the officials simply have no idea what the solutions might be or how to make things happen. So there is a constant pretence that things are wonderful whilst the country is subject to '*massive environmental degradation*'. Their actions simply don't match the needs they should be addressing. They have direct access to people who could help them – the arms-length bodies such as the Forestry Commission – but they don't use them. For example they have never brought these bodies together to discuss things and talk about solutions.

The White Paper on the Environment is really good. It is well put together and covers the important issues. But it is quite clear that there is no understanding of how to make things happen – how to take effective action to make the aspirations real.

In respect of the evidence-based rhetoric, there is a lot of evidence-gathering but very little analysis. The political pressure for short-term solutions means that there is very little reflection and long-term goals such as reducing flood risk, conserving the natural environment or even making climate change understood to the public is ignored.

DEFRA officials see forestry as a conservation activity, not a productive industry. They thus use the E-NGOs as proxies for forestry rather than forestry professionals – for example they appointed E-NGO representatives to the independent panel.

Government generally

The land-use institutions in the UK, indeed in the EU, are poorly integrated. Priority is given to activities covered by EU treaties – the CAP and Common Fisheries Policy – with little concern over how these impact elsewhere. For example CAP payments to farmers greatly inflate the value of land and make nature conservation and forestry unable to compete. Priority is given to farmers' interests. This makes farmers a very powerful lobby and their behaviours, driven by subsidy, can be very detrimental to the environment.

The Forestry Commission in Government

In England an advisory panel was established after the 2011 debacle. The Panel felt that there was a problem of what to do with the Forestry Commission. Amalgamating forestry into other departments has been bad for forestry where it has been done in other countries. For example in New Zealand the environment body that is responsible for all their native woodlands employs just two foresters. Even in the UK we can see that in Northern Ireland where the Forest Service is part of the Department of Agriculture they have almost completely failed to develop the public forests for recreation because there is a production-centred mind-set.

Scotland and Wales are intent on taking forestry out of the current arrangements, which means there will be separate approaches in all four UK countries. In England the current Government has an ideological opposition to public ownership that doesn't apply in the other countries. Discussions in England have been mostly about structures rather than delivery and this obsession with structure is inhibiting large-scale, landscape scale, progress. It seems likely that there will be some UK-level co-ordination of forestry once the Forestry Commission has gone.

In terms of its own behaviour, the Forestry Commission was criticised for looking after its own interests at the expense of the wider forestry sector, which is a departure from its historic role as a voice for forestry generally. It was also felt that change was not necessarily a bad thing. Whilst in England the panel members reported that the public greatly valued the Forestry Commission and wanted continuing Government ownership of the public forests, rather than seeing them managed through a Trust, they also felt that the Commission could have done more to develop its forests as local and regional assets.

Interviewees and professionals responding to the survey felt that the Commission's communications were largely self-promoting and one interviewee said that FC's briefings for ministers were slanted towards what was good for FC rather than for forestry. The dominance of FC also meant that the private sector was inhibited from taking a leadership role itself – though others suggested that the sector would be incapable of doing so because of conflicting interests. At present the Commission was *'completely distracted by reorganisation'*.

The FC being in government is a two-edged sword for the sector. It means that the UK's main forest organisation is unable to lobby openly for forestry – though it does mean that forestry has a voice within Government. However, the DG of the Forestry Commission felt that the sector greatly over-estimated the influence of the FC within government.

Interviewees highlighted the different priorities for forestry in the three home countries, where Scotland has a greater focus on production but England gives priority to amenity and wildlife with Wales in between the two.

FC was seen as having a very strong organisational culture and identity.

A6.8 The Forestry Sector

The Forestry Profession: The public profile of the profession

Typical quotes from the interviewees were: *'Society doesn't know there is a forestry profession'*, *'Children know more about the Amazon forest than their local woodland'*. This latter comment was in

the context of environmental education where the interviewee felt that forestry was cast as an issue of overseas development rather than UK conservation at home.

One interviewee argued that because a professional qualification is not required to practice forestry the profession would always struggle to develop a public profile. Another suggested that *'the public do not understand forestry so don't value professional foresters'*. This was despite the ability of professional to manage woodlands *'for a wide range of objectives and better financial outcomes'*.

As a result of this lack of knowledge about forestry and the profession foresters have little or no voice. This is the case not only for forestry policy but also in business; though Scotland was seen as better than England perhaps because of the size of forestry in the rural economy. There was little that could be done to improve the public image because there are not enough resources *'... the Woodland Trust has 200 people and 70 of them are full-time on public relations and marketing (sic), I have one person part-time on communications. I could employ a roomful of people and make no difference!'* Another contributor felt that the only element in the wider wood-based sector that could reach the public were retailers such as B&Q. However, this group is more concerned with securing supplies than in promoting the forestry profession.

One interviewee said that to have a voice one must first have a place in which that voice might be heard.

The changing role of the Institute of Chartered Foresters

As the Forestry Commission's future becomes increasingly uncertain the Institute has been seen by some, not only members but also key organisations such as DEFRA, as an alternative voice for forestry and a source of technical advice.

There has been an increasing rate of recruitment from FC staff, especially in Wales where the FC's functions have been amalgamated into an environmental body. In Wales foresters are seeking to differentiate themselves within the new organisation and FC staff elsewhere seem to be applying for professional membership as insurance in times of uncertainty.

There seems to be an opportunity for the Institute to develop a higher profile with key organisations such as DEFRA, who now have responsibility for forestry policy but do not employ any trained foresters, and with the media and the general public. There also seems to be an opportunity for ICF to provide or facilitate training for policymakers and the informed public who wish to be informed but are not likely to practice professionally. However, apart from some publishing income the Institute relies for its funding almost entirely on member subscriptions and does not have the resources to expand its role.

Resources available to the Institute

Largely because of its structure, with many thousand small owners and a predominance of micro-businesses²⁰⁶, the forestry sector is notoriously unreliable as a source of funding for development and promotion and cannot be relied upon. Where the sector has funded joint activity it has generally been for specific projects where there is a short-term commercial interest for the firms involved – for example in the development of wood processing technologies at Napier University or in the ‘Wood for Good’ marketing campaign. Often these projects are coordinated and co-funded by the Forestry Commission.

The Institute has just completed a Knowledge-Transfer Partnership where a development post was co-funded through the University of Cumbria. This was the first time that Institute had applied for external funding. The KTP was very successful and has led the Institute to apply for a further scheme, the Employer Ownership Pilot Fund²⁰⁷.

The wider forestry sector: Structure

The private sector in forestry is dominated by SMEs. Some statistics a while ago showed forestry to have more SMEs than any other sector; many are single-proprietor businesses. Business is usually about processing a low-value product and this means there is low cash-flow. There is little or no capacity to take on overheads such as promotion. But to outsiders what is the forestry sector? *‘There is an Institute, a trade body that not everyone belongs to and a government agency. Not much else. So who is the sector?’* In wood processing the companies are consolidating, with small processors disappearing. The public have less and less contact with sawmilling and wood processing.

Outside the Forestry Commission there is no leadership in the sector. Take the example of what is happening to the Forestry commission. There are different views. The processors want FC to remain because it gives them guarantees of supply. The forest management companies want access to FC assets and the land agency companies want to earn fee income from selling the public forests. FC staff make up 30% of the profession.

Resources available to the Sector

Forestry Commission

The resources applied to forestry don’t match the benefits delivered. Public sector finance arrangements prevent efficient management and the budget is insufficient to bring about the scale of change that is being talked about. At present the estate in England is not financially sustainable.

²⁰⁶ Defined by the European Commission: ‘an enterprise that employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million.’ http://europa.eu/legislation_summaries/enterprise/business_environment/n26026_en.htm

²⁰⁷ Originally the application was made to the Growth and Innovation Fund (GIF), recently superseded by the EOPF.

Forestry trade and professional bodies

Funding is mostly through membership subscriptions. ICF applied successfully for a KTP – an externally funded fixed-term post – and found it valuable. CONFOR is having difficulty retaining trade members, partly because of competing interests between different sectors of the industry but also because companies are cutting back on costs.

Culture: the Forestry Commission

Being part of government breeds excessive caution and inhibits innovation. The Commission has a tradition of adaptation rather than innovation. Its reluctance to make radical change leads to a build-up of ‘historic baggage’ so, for example, the changes to the forestry arrangements in Scotland seem set to ‘drag on for years’. Being in government also means that the Commission does not have a truly commercial outlook.

Being part of government is comfortable; *‘the Commission has had a ‘slice of the cake (resources and access not available to private forestry) for a long time and is unwilling to give it up’.*

This applies to FC corporate culture. Operationally, however, the Commission has a strong track record in innovation and despite its small size is respected internationally. These innovations can be seen as *‘brushstrokes on a conservative canvas’.*

Culture: Forestry more widely

The whole sector is *‘massively and innately conservative.’* Using certification as an example²⁰⁸, the sector was bitterly opposed to certification and lobbied hard against it. Now, however, it likes certification – partly because it creates barriers to entry and differentiates British timber from some of its competitors. *‘We are very good at making systems work but poor at introducing new systems’.*

Foresters as a group tend to be introverted and task-focused. They are not strongly innovative and are poor at self-promotion – *‘you don’t do forestry because you like people’; ‘I think a certain type of person becomes a forester, not necessarily innovative people’.*

People in forestry, however, nowadays can have very different jobs. For example *‘Kielder is all about timber production whilst the New Forest is about conservation and recreation with timber as a bonus.’*

‘The representative body for the forest industry is shrinking so we might become even more introverted.’ Another recent development, perhaps in the past 20 years, has been a plethora of

²⁰⁸ Certification of the sustainability of the wood supply chain was forced on the sector largely as a result of a decision by Kingfisher plc., a company with about 30% of the market for sawn timber, to require certification of all the wood products that it purchased. Since sawmills cannot afford to have separate product streams for certified and not-certified timber the practical outcome is that they only buy certified timber. Thus all forests supplying timber to sawmills have to be certified. The Forestry Commission brokered the development of a UK system of certification – the UK Woodland Assurance Scheme UKWAS.

geographically based projects supported by government, for example the Community Forests and the National Forest. These tend not to see themselves as part of the wider forestry sector and do not join representative bodies. In fact *it can be difficult to work out what the forestry sector actually is; there is a professional institute, a trade body and a government agency and not much else.*'

A6.7 In Conclusion

From the account above one gains an impression of a well-developed and extensive professional community. It is gathered around a body of knowledge and expertise that has a long history, well established institutions, global reach and is underpinned by a strong foundation of research that is both applied and theoretical. Yet the profession in the UK, in Europe and more widely sees itself as having little agency in its own affairs.

Higher education was identified as a core concern because it impinges directly on recruitment into the profession and also into postgraduate education and forest science and research. Forestry was reported to be under threat as a stand-alone taught discipline even though the HE institutes reported that forestry graduates across the world are in short supply and in the UK ICF reports that the demand for graduates exceeds the output from the forestry schools. Students who want a job in forestry have little difficulty finding one. The HE workshop was warmly welcomed by the HE institutes who reported that it was the first time that they had come together to discuss common interests.

The Institutions of forestry in Britain are changing rapidly. The Forestry Commission's role in policymaking is coming to an end and forestry policy is now the domain of agricultural and rural departments in the four home countries. This has happened almost by accident as a consequence of devolution. Some of the participants in the research believed that the days of the Forestry Commission itself are numbered. In the short term this has led to an increase in recruitment into the professional body as qualified practitioners with an eye to the future seek to differentiate themselves. In the longer term the research indicates that the profession is giving little thought to the implications of current changes and the actions that need to be taken.

Forestry makes money by felling and selling trees and by providing technical services to clients of different kinds. Although there is considerable activity since the Kyoto Accord²⁰⁹ by entrepreneurs trying to develop new cashflow through innovative means such as selling carbon credits a recent two-day conference on this topic failed to identify any successful examples²¹⁰ working at any

²⁰⁹ A Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), it is an international treaty whereby countries agree to reduce the amount of greenhouse gases they emit if their neighbours do likewise. Agreed in 1997 and widely ratified in 2005. It includes rules that allow the development and trade in environmental derivatives such as carbon credits.

²¹⁰ 'Woodlands and the Green Economy: Capitalising on Ecosystem Services'. ICF National Conference, 1 & 2 May 2013, Glasgow.

significant scale. There seems to be a consensus in the profession that this is unlikely to change. The sector has been chasing payment for non-market services for decades, and to some extent has been successful in the public sector, which is subsidised, and also in the private sector by obtaining a small amount of funding through grants for recreation and environmental benefits. Yet the economists speaking at the conference and the FC officials who contributed to the research held out little hope that the current rhetoric of ecosystem services and ecosystem services valuation will translate into cash payments of any significance. Several participants were optimistic that reform to CAP would result in 'third pillar' payments (payments for environmental services) becoming available. History indicates that these optimists face disappointment²¹¹.

The general public, and in the eyes of one interviewee this includes the officials who are now responsible for forestry, sees forestry as an environmental rather than an industrial activity. The foresters' claim to be able to manage forests for a wide range of objectives so far has been disbelieved, not heard or is misunderstood. The simple, single-objective or single-issue narratives of the E-NGOs seem to have greater purchase than the more complex claims of the foresters. Very few of the participating foresters saw themselves as being in conflict with the E-NGOs and the foresters themselves, according to a number of surveys, are trusted by the public. Forestry in the UK is not on the public's list of environmental worries and events in England in 2011 show beyond any doubt that the public values forests and is willing to respond energetically when they think they are under threat. Whether this is because they do not wish to lose an amenity or whether there are more complex reasons is open to question.

Forestry close to and around towns continues to attract support, partly because of economic arguments for targeting environmental services on populous areas. This brings the foresters alongside a range of other professionals in planning, urban design, urban development and landscape design. These professions span the public and private sector and it is open to question whether they perceive forestry to be a profession akin to their own. *'Foresters don't wear suits at work, we don't look like solicitors or accountants in our waterproofs and hi-viz, and I wonder if anyone sees us as a profession at all.'*

Timber and wood products are among the most traded commodities in the world. One interviewee suggested that the greatest opportunity to engage both the public and the business community was through retailers. Ian Cheshire, the CEO of one of Europe's largest retailers of timber and wood

²¹¹ I discussed this issue with two Scottish farmers and an official from the Scottish Government. The farmers were strongly opposed to any diversion of 'farming money' to environment or rural development. The official thought that it would be politically impossible to make such changes other than at the margins.

products, supported this view and also argued that foresters could help retailers demonstrate their environmental *bona fides*.

Turning to the foresters themselves, the cultural characteristics of the profession have been explored in detail in the preceding text. There are structural issues, for example a representative body that speaks both for both ends of the supply chain, and an underlying question of whether the professional identity with which the foresters currently attire themselves is a good fit relative to the demands that society wants to make of them. If not then the Institute's capacity to change will be constrained since it is essentially a membership organisation and can change only insofar as the membership will allow.

Appendix 7: What's wrong with Agriculture? Lessons from the Common Fisheries Policy.

Fishing in the UK is comparable to forestry in terms of employment and turnover. Unlike forestry, but like agriculture, it is encompassed within the 1957 Treaty of Rome where the Common Fisheries Policy (CFP) is the fisheries policy of the European Union. As with agriculture individual states have limited freedom to form national policies²¹². Also like agriculture fisheries policy is rationalist or at least, as can be inferred from Dreyer's and Sellke's (2011) analysis of the governance of fishery policy, has a rationalist and scientific narrative. This narrative operates in parallel to the political horse-trading that it is supposed to inform policies that have been highly damaging (FAO 2010) to fish stocks in EU waters²¹³ (UNEP 2009 also Worm *et al* 2006). This is despite the existence in fishing of '*more sustainability initiatives than for any other animal protein source*' (Retail Forum for Sustainability, 2012, footnote to p. 1). The literature describes an industry that has been captured by a bureaucratic system that prevents change even in the face of compelling evidence of failure.

The European Commission itself (2013) supports this view:

'... what began as a set of tools to preserve traditional fishing patterns and defuse tension between a handful of nations is now a complex legal and scientific framework' (online: home page 1st par.)

Curry (2005) is one of several authors who apply similar arguments to agricultural policy. He drew a scenario where agricultural policy has its roots in the needs of post-war Europe and has since been almost impossible to change. This is because any change means that some country will lose out on subsidies and all countries have a veto. This is the Tragedy of the Commons (Hardin 1968) on a grand scale. Whilst it is in the long-term interests of all countries to act together it is not in the interest of any country to act alone; for example if a country was to refuse to pay agricultural subsidies it would raise the relative price of domestic farm production and create a competitive disadvantage for its producers. In fishing, if a single country reduces its take of fish the quota will simply be appropriated by the other countries. In both cases the altruistic action would not improve the perceived problem, because it would not change the behavior of others, and it would disadvantage the altruist.

For our purpose here we can perhaps take three messages from these examples: 1) it is very clear that, at least in the cases of fisheries and agriculture the argument that policy is evidence-based and founded on science is not easy to sustain. 2) Even in fields that are framed by strong statutes and agreements there is a strongly political element to the way that these laws and agreements are

²¹² Within the Common Fisheries Policy fishery conservation is reserved to the Commission so subject to majority voting by states whilst fisheries policy is a shared competence with the states. So it is a highly complex matter.

²¹³ Again from Europa: '*... Recent research (Worm, B. et al, 2006) on the role of biodiversity in marine ecosystems has even projected ... the collapse of all marine fish stocks by the year 2048*' <http://ec.europa.eu/environment/industry/retail/pdf/fish%20issue%20paper.pdf> accessed June 2013.

interpreted and implemented. 3) If it is possible that there is something about forestry that makes it different, endowing it with a capacity to change to an extent that has not been described in other areas of the primary sector, we can probably ascribe this to the fact that there are no international legal frameworks in place for forestry²¹⁴ and this difference is to do with its particular legislative and regulatory framework

²¹⁴ Whilst there are a number of discretionary international arrangements in place, for example the Ministerial Conference on the Protection of Forests in Europe <http://www.foresteurope.org/> the British Government has consistently opposed moves to develop a legally binding international convention on forestry similar to those for climate change or biodiversity, an idea that was proposed in the 1992 UNCEP 'World Summit'. It also consistently opposes calls from the European Commission to develop a pan-European forestry policy.