



The ecosystem approach, ecosystem services and established forestry policy approaches in the United Kingdom



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ABSTRACT

A series of approaches have been proposed for natural resource management and biodiversity conservation in recent decades. In the important forestry sector, two of the most dominant policy paradigms have been multi-purpose forestry and sustainable forest management. The Convention on Biological Diversity, amongst other transnational commitments, added the ecosystem approach and its related idea of ecosystem services to this succession which is increasingly becoming the basis for natural resource management, including in the United Kingdom (UK). However, this latest addition raises the stimulating question of whether in forestry the ecosystem approach and the associated ecosystem services concept really constitute something fundamentally new, or are merely an extension or re-branding of existing policy approaches. This paper contributes to a lively contemporary debate surrounding the ecosystem approach and ecosystem services, by examining how these two interrelated but distinctly different concepts are currently understood and adopted within UK forestry and in the context of established forestry policy paradigms. For this purpose, I undertook a review of the scholarly literature and legal and policy documents which have been triangulated with a survey of the attitudes, interpretations and opinions of forestry stakeholders through expert interviews. The analysis suggests that in the UK forestry sector, as elsewhere, the frequency of, often broad and ambiguous approaches to natural resource management and biodiversity conservation in general, and forestry policy and management in particular, are causing confusion amongst some stakeholders, who, unsurprisingly frequently conflate concepts seemingly without understanding the details. However, a clear understanding of the differences and similarities of these important concepts, stemming from overlapping but different disciplines, is crucially important for successful policy implementation and sustainable forest management. This article attempts to contribute to such a clarification and to further interdisciplinary understanding.

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1. Introduction

The importance of woodland and forestry to society has changed significantly over time. In particular, during the 20th century, forestry had been subject to a series of policy reassessments and changes in emphasis, beginning with a shift towards state organisation and productive plantation forestry in response to the 1919 Forestry Act (Mather, 1991). This was followed by a gradual widening of forestry objectives, especially from the late 1960s onwards, and the adoption of sustainable forest management in the 1990s (Slee, 2012). The Convention on Biological Diversity's (CBD) ecosystem approach and its associated ecosystem services concept can be seen as the latest development in thinking in natural resource management and biodiversity conservation, and are likely to influence

forestry policy and practice (Quine et al., 2013). The occurrence of yet another set of ideas, however, raises the potential for confusion and conflation of concepts. Moreover, it raises the particular question of whether the ecosystem approach and the concept of ecosystem services constitute a major innovation in UK forestry or are merely another extension or re-packing of existing approaches. Surprisingly, there appears to be a particular gap in the literature surrounding the application of the CBD's ecosystem approach and its principles to the UK forestry sector. Although there have been a number of international reports on the relationship between the concept of sustainable forest management and the ecosystem approach, and numerous activities and policy statements of intent around ecosystem services in the UK, little is known about how the CBD's ecosystem approach is currently understood, interpreted and applied in UK forestry. Only a few scholars have started to look at the ecosystem services concept in the context of forestry in the UK and even fewer have attempted to look at the relative relationship of these latest ideas and established forestry policy models. This

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paper which is based on a review of the literature and documents and a survey of expert views aims to do just that with the intention to advance understanding of these approaches amongst the academic, policy-making and forestry communities. I proceed with a general overview and a summary of the employed approach and methods.

2. Background

Forestry in the UK has had to adapt its policy approach repeatedly to changing macroeconomic circumstances, fluctuating public opinion, the growing importance given to non-timber benefits of woodlands, and increasing international influences and obligations (Raum and Potter, 2015). This has resulted in a number of forestry policy paradigm shifts and changing management objectives and practices. Commencing with a move from a hitherto largely uncoordinated *laissez-faire* approach to forestry towards state organisation, the 1919 Forestry Act (HMSO, 1919) aimed to drastically increase timber production, arguably launching the industrialisation of forestry in Britain (Mather, 1991). The emphasis on intensive, state-run monoculture plantation forestry continued more or less exclusively until the 1970s, when a broader justification for continuous state funding began to be established, leading to a widening of forestry objectives and the notion of multi-purpose or multi-functional forestry (hereafter used synonymously) (Slee, 2012). New objectives included a steadily increasing range of non-marketed public benefits provided by forests, including landscape amenity, places for recreation, the provisioning of wildlife habitat, and carbon sequestration. In the early 1990s, European and other international influences on UK policy-making intensified. In particular, transnational commitments to bring policy aims in line with the concepts of sustainable forest management and ecosystem-based management have brought about a significant shift in emphasis (Raum and Potter, 2015).

Most notably, the 1992 United Nations (UN) 'Forest Principles' (UNCED, 1992), consisting of a set of 15 voluntary principles, introduced the 'new paradigm' of 'sustainable forest management' (UNEP, 2003a). The concept is based on the overall idea of sustainable development articulated in the 1987 Brundtland Report and mainstreamed by the 1992 UN Conference on Environment and Development (UNCED) in Rio de Janeiro (Slee, 2012; WCED, 1987). Building on the UN Forest Principles, in Europe, the Ministerial Conference on the Protection of Forests (MCPFE) process developed a strategy for the promotion of sustainable forest management specifically for European forests. The strategy included a set of six principles or criteria with associated indicators (Wolfslehner and Vacik, 2008). In the UK, this notion was taken up through a number of policy statements throughout the 1990s, culminating in the publication of the first UK Forestry Standard in 1998 (Forestry Commission, 1998). The frequently updated Forestry Standard determines how international principles and agreements are applied to the forestry sector as a whole and is providing the basis for sustainable forest management in the UK (Forestry Commission, 2009). The concept has become firmly established in UK forestry today. However, as a result of the ongoing administrative devolution which began in 1998, the articulation of forestry policy has been delegated to the country level – England, Wales, Scotland and Northern Ireland – who now develop their own distinct strategies, priorities, and programmes, but which are informed by the UK Standard (Forestry Commission, 2011).

In 2000, the UN Convention on Biological Diversity (CBD) formally endorsed a new strategy for biodiversity conservation and the integrated management of the natural environment and its resources, the 'ecosystem approach' (CBD, 2000). The parallel rise of the similar but distinctly different ecosystem services concept,

mainstreamed by the UN-led Millennium Ecosystem Assessment (MA) in 2005 (MA, 2005), however, created considerable confusion which remains largely unresolved until today. Certainly, the review of scholarly accounts and public documents identified the frequent conflation of concepts. Especially the more integrated ecosystem approach was often used as synonymous with the more limited and arguably more anthropogenic concept of ecosystem services (Waylen et al., 2014). Moreover, in the global forestry community people were struggling, due to their similarity, to understand the difference between the ecosystem approach and sustainable forest management. This was compounded by the fact that the United States' National Forest Service had adopted an ecosystems management approach in 1992, then frequently called "new forestry" (Grumbine, 1994). In fact, numerous documents were produced by various international organisations to explore the similarities and differences between the ecosystem approach and sustainable forest management (e.g. FAO, 2003; UNEP, 2003a,b). It is therefore not only reasonable to assume that this challenge could be echoed in the UK forestry sector, however, there is also the potential for yet another layer of confusion or conflation of concepts, due to the well-established idea of multi-purpose forestry.

A number of forestry scholars have reviewed the shifting approaches to forestry policy and the underlying reasons for these. Rodney Helliwell (1969), for instance, looked at 'Multiple-Use Forestry in the United Kingdom', including the approach's reliance on valuing non-marketed forest benefits to justify public funding for forestry. Several authors wrote about sustainable forest management in a general, non-country specific way (e.g. Barbati et al., 2007; Wang, 2004; Wiersum, 1995). Surprisingly, no scholarly article could be found exclusively looking at sustainable forest management in the UK. Raum and Potter (2015) provided a historical review of key forestry policy approaches in Britain throughout the 20th century up to the CBD's formal endorsement of the ecosystem approach. The selection of forestry policy approaches examined in this paper is partly based on their review. A small number of scholars have also begun to look at forestry policy in the light of ecosystem services (e.g. Amacher et al., 2014; Quine et al., 2013). Moreover, various policy analysts have examined such accumulation of rationales and ideas over time, frequently leading to rebranding and backward referencing of policy paradigms (e.g. Skogstad and Schmidt, 2011; Weible and Sabatier, 2007). Others have reported on the broadness and ambiguity of environmental policy and legislation, especially those stemming from international commitments (e.g. De Lucia, 2015; Reid, 1997) which can either result in the conflation of ideas or weak policies, or both. Moreover, and not surprisingly, several authors (e.g. VanDeveer, 2003) observed an environmental policy fatigue or "green fatigue" amongst a growing number of stakeholders who appear to have become weary of broad and ambiguous, and frequently changing concepts and policy directions, without leading to real environmental improvements.

In an attempt to shed light on this multitude of overlapping policy approaches, stemming from different disciplines and fields, this work intends to look at how the ecosystem approach and the ecosystem services concept are currently understood and adopted in the UK forestry sector and in the context of established forestry policy paradigms. Moreover, this empirical analysis endeavours to answer the question of how different the ecosystem approach and its associated ecosystem services concept are from other forestry policy approaches that have gone before, namely multi-purpose and sustainable forestry. After a brief description of the methods used in this analysis, I proceed with a summary outline of the main policy paradigms and principles discussed in this paper. In the third section, I examine how these are understood and interpreted by forestry stakeholders at present. Lastly, the paper assumes a more theoretical discussion of the linkages between existing

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