



Re-inventing forestry expertise: Strategies for coping with biodiversity protection in Finland



Taru Peltola ^{a,*}, Johanna Tuomisaari ^b

^a Finnish Environment Institute, P.O. Box 111, 80101 Joensuu, Finland

^b School of Management, University of Tampere, 33014, Finland

ARTICLE INFO

Article history:

Received 16 October 2014

Received in revised form 2 October 2015

Accepted 12 October 2015

Available online 29 October 2015

Keywords:

Biodiversity

Forestry

Expertise

Policy implementation

ABSTRACT

Tackling biodiversity loss requires new forms of expertise in forestry. Drawing on a case study in Finland, the paper analyses how professional foresters are invited to protect the heterogeneity of forest ecosystems while they simultaneously work to homogenise these habitats for improved productivity. To understand how formerly irrelevant biological knowledge, and related skills and expertise gain credibility in forestry decision-making in such a complex policy context, the paper adopts a two-fold theoretical approach. On one hand, it focuses on the tools and techniques which redirect expert practice, introducing new rationalities, roles and routines for professional foresters. On the other hand, it seeks to view foresters as complex sociological actors who reinvent themselves as biodiversity experts by strategically mobilising various kinds of resources to negotiate their role and status as experts. This two-fold analysis addresses how the status of biological knowledge is determined by the tension between formally configured expert rationalities and expert identities and roles mobilised through informal interactions. Three expert strategies in engaging with biodiversity are identified based on the personal histories, motivations and identities of the foresters: the ambassador, navigator and bolshie. Through these strategies professional foresters interact with each other and with landowners while implementing biodiversity policies, hence influencing the policy outcomes.

© 2015 Elsevier B.V. All rights reserved.

"[When I started doing fieldwork together with a senior male colleague], I really felt I was doing something girlish [when focusing on nature values] although biodiversity had become the duty of the guys, too."

[Paula, Forestry Engineer working for a local Forest Management Association]

1. Introduction

Biological expertise is increasingly needed to respond to the global goal to halt the loss of biodiversity. In particular, forest certification, forest conservation programmes and regulation of forest use have made the processing of biological information a necessity when forestry operations are planned and carried out. Nevertheless, the opening lines from an interview with Paula, one of those professional foresters in Finland who have assimilated their professional practice to protecting the

heterogeneity of forest ecosystems, imply a tension between the formal expectations for expert performance and informal professional identities and roles.

In Finland, professional foresters have played an important role as the engineers of the modern forest-based economy, and they have identified themselves as the managers of the nation's "green gold" (Suopajärvi, 2012). The strengthening focus on biodiversity has opened up room for more versatile expert identities and roles in forestry sector (Suopajärvi, 2009). Despite this, Paula did not feel like an expert in a mundane working situation although she was more highly-trained in biodiversity issues than her colleagues. Her struggle is a telling example of how expert identity is mixed up with other social positions, in her case gender and age. It also suggests that boundaries between relevant and irrelevant, credible and unconvincing expertise are formed in spontaneous everyday encounters.

In this article, we analyse the tension related to the transforming expertise of forestry professionals like Paula, who play a key role in biodiversity policy implementation as planners of forestry operations and advisers on sustainable forest management. The task of these professionals has for decades been to advance intensive forestry according to the principle of sustained yield. This involves the homogenisation of forest ecosystems for the sake of maximising productivity. Given their role as advocates of intensive forest management, we ask how formerly irrelevant biological knowledge about the diversity of forest

* Corresponding author.

E-mail addresses: taru.peltola@irstea.fr (T. Peltola), johanna.tuomisaari@uta.fi (J. Tuomisaari).

¹ Current address: Irstea, 2 rue de la Papeterie, BP 76, 38 402 Saint-Martin-d'Hères Cedex, France.

ecosystems, and related skills and expertise gain credibility and become valuable assets, and how professional foresters reinvent themselves as biodiversity experts.

Expertise has been widely debated in the social sciences. The special issue of *Forest Policy and Economics* in 2009 addressed the role of expertise in forest policy processes and, in particular, in framing policy problems (Kleinschmit et al., 2009). More recently, expert power in shaping policy discourses has been explored in the context of climate governance and forestry (Kamelarczyk and Smith-Hall, 2014). Our analysis complements these studies by focusing on policy implementation and the role experts play in shaping policy outcomes (see also Maletz and Tysiachniouk, 2009).

Focusing on the interplay between the practices of governing expert work and the social dynamics of expertise, we explore the efforts to tackle the environmental impacts of timber flows in the Finnish context. To address the tension between formal expectations and informal priorities, we combine two theoretical perspectives in our analysis.

First, we follow those studies emerging within science and technology studies (STS) which argue that mundane but often invisible expert routines shape the relations of authority (e.g. Corburn, 2007; Porter and Demeritt, 2012). Inspired by Actor-Network Theory, and Foucauldian ideas of governing, this view helps us to understand how the work of professional foresters is disciplined and redirected through “scripts” inherent in protocols, tools and techniques that have been introduced to implement biodiversity policies (see Akrich, 1992).

The expectations and rationalities arising from expert practices do not, however, explain how foresters gain credibility as biodiversity experts in a field where environmental goals are constantly negotiated against resource use goals. To understand how policy implementation is related to the priorities and expectations arising from the social dynamics of expertise, we combine the STS view with the idea of sociologically complex experts, arising from critical policy studies (Peck and Theodore, 2010) and interpretive policy analysis discussing the art and strategies of governing (see e.g. Hajer, 2009). This notion emphasises that experts actively adapt to and seek to influence the power relations constituting their position as experts (Prince, 2010). This means that there is room for strategic choice, meanings, rules and social norms created by those who participate in the policy implementation process (Bracken and Oughton, 2013; Peck and Theodore, 2010; see also Tsouvalis, 2000).

Our analysis focuses on this strategic aspect of expertise in policy implementation. As a result of our analysis, we present three different strategies, an ambassador, navigator and bolshie strategy, which describe the ways in which professional foresters negotiate their role and identity regarding both the expectations arising from the scripts redirecting their expert practice and the priorities arising from the social encounters with colleagues and landowners.

1.1. The case: protecting forest biodiversity in Finland

Forest conservation has been a source of conflict in many countries; in Finland, the conflict started with a debate over old-growth forests and protected areas in the 1970s (Raitio, 2008). This phase was followed by fierce local and national-level resistance to nature protection programmes and, in particular, the establishment of the European-wide Natura 2000 network of protected areas, which changed the focus of nature conservation towards privately-owned lands (Hiedanpää, 2002; Paloniemi and Varho, 2009).

Towards the end of the 1990s, protected areas were considered an insufficient means to halt the loss of biodiversity (Paloniemi and Varho, 2009). Consequently, the Finnish Forest Act was reformed and new regulations were introduced for forestry operations in commercial forests. According to the Act, valuable habitats and their characteristics should be protected during forestry operations. The Act identifies altogether seven valuable habitats: barren lands, peat lands, herb-rich groves and small watercourses that must not be destroyed. In addition,

the Nature Protection Act defines endangered species that must be protected.

Implementation of these regulations is monitored, and violations may lead to police investigations and trials. Securing the species and habitats is the responsibility of landowners, and it requires ability to identify nature values according to scientific criteria. However, as few landowners have the required skills, professional foresters play a significant role in giving advice on how to interpret the scientific criteria in practice.

In addition to regulation, biodiversity is addressed through forest certification, often considered as an example of market-based rationality of governance (Klooster, 2009; Albrecht, 2013). Here biological data is exchanged not because of legal requirements but because forest companies need to maintain their reputation (Eden, 2007; McDermott, 2012). By following standardised procedures defined by the certification criteria, forest companies aim to meet consumer preferences for sustainable forestry products.

Although certification is voluntary, practically all Finnish forests have been certified. The PEFC standards commonly applied in Finland have only few additional requirements to those specified by the Forest Act. They call attention to a few other habitat types than those seven mentioned in the Forest Act, and demand retention trees to be left in clear cutting areas to increase the amount of deadwood.

Because of conservation conflicts, there was also a need for alternative conservation tools. The Forest Biodiversity Programme for Southern Finland, launched in 2002 as a pilot project and continued in 2008, introduced the idea of voluntary conservation based on nature values trade (e.g. Paloniemi and Varho, 2009). Fixed-term conservation contracts were offered to landowners for sites that meet scientific criteria for valuable objects as defined by the Nature Protection Act.

All of these policy tools, both voluntary and mandatory, invite landowners wanting to conduct operations such as logging, thinning or forest road construction, to pay attention to biological values. Forest owners, or their collaborators (timber buyers or local Forest Management Associations consulting the landowners in timber contracts), must declare any planned operation two weeks prior to the operation. This gives the regional forestry administration the opportunity to check whether nature values are identified according to the legislation. The procedure changes the status of biological knowledge in forestry, and emphasises biodiversity-related expertise by making the processing of biological information obligatory when forestry operations are planned.

Environmental audits related to certification further strengthen the status of biological knowledge. The mechanism, however, is different from the legal procedure. If certification criteria are not met, the forest company selling paper products or timber is not entitled to use the PEFC label in marketing its products. This makes timber contracts an important means of communicating the certification criteria to the landowner. Professional foresters should also be able to identify valuable sites, and make recommendations to landowners about the best conservation option, including voluntary contracts.

2. Theoretical resources for analysing transforming expertise

Both theoretical perspectives we draw on suggest that becoming a responsible, biodiversity-aware expert involves more than the acquisition of conceptual knowledge and skills in biology.

STS studies highlight the role of social and material practices of knowing in the formation of expertise (Prince, 2010; Jasanoff, 2004; Corburn, 2007; Löwbrand, 2009; Bracken and Oughton, 2013). In addition to macro-level explanations on how authority and imaginaries about the role of expertise get stabilised in the society, often referred to as the co-production of scientific ideas and social orders (Jasanoff, 2004; Wesselink et al., 2013; Corburn, 2007), STS scholars have carried out a number of in-depth case analyses of expertise. Recently, the

Download English Version:

<https://daneshyari.com/en/article/6544900>

Download Persian Version:

<https://daneshyari.com/article/6544900>

[Daneshyari.com](https://daneshyari.com)