Power relations in the decision-making processes of forest owners in Northern Finland

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Abstract: In this article we examine the power relations of forest management in connection with private forest owners' decision-making processes in Finland. Questions of power are considered through an examination of management decisions regarding even-aged and uneven-aged silvicultural systems. The application of different silvicultural methods has been a historically contested theme in Finnish forestry which has led to litigation cases between forest owners and the private forest administration since the beginning of the 20th century. The study material is derived from in-depth interviews with private forest owners carried out in 2005–2007 and from the documents of three court cases that took place between 2004–2008. The analysis utilises a political ecology framework and particular attention is paid to the interplay and construction of knowledge and power. The results reveal some major differences in how forest owners think about and conceptualise silvicultural systems and practices, and also shed light on the power relations involved in decision-making. The differences become apparent during the court cases, which also contest power relations. The results indicate that more attention should be paid to the varying needs of forest owners in Finnish forest policies.

Introduction

A long history of conflicts in Finland concerning forest management practices emphasise the need to study power relations interwoven in decision-making processes of the forest owners. Because of the importance of forestry for the national economy, forests in Finland have been understood as national property and as an important resource for many actors (Berglund 2001; Siiskonen 2007). About 52% of Finland's commercial forests are owned by private forest owners, with the remainder owned by the state and the forest companies (Metsätilastollinen vuosikirja 2009), resulting in a diversity of perspectives on forest management (Siiskonen 2007).

A major change occurred in Finnish forest management during the 20th century. Even-aged silviculture was adopted in the management of commercial forests instead of selective timber felling that had previously characterised forestry practices. This change in traditional methods was linked to concerns about the state of the country's forests, but it was also influenced by the rise of the pulp and paper industry. It was accompanied by conflicts between private forest owners and forestry professionals (Siiskonen 2007) and heated debates over forest management continue today. Many private forest owners argue that they should have freedom in choosing their silvicultural practices and the debate is affecting the renewing of the Forest

Act of Finland (Metsälaki uudistetaan ja vaihtoehtoja lisätään metsänkäsittelyn säädöksiin ja suosituksiin 2011).

Regardless of abundant research on forests in Finland, only a few studies have been carried out on the decisionmaking processes and strategies of forest owners (see e.g. Hänninen et al. 2001; Karppinen 2005; Kumela & Hänninen 2011). Research combining questions of power with forestry dilemmas in Finland has also been rare (see however Berglund 2001; Vainio & Paloniemi 2012), but there is a lacuna in this area in the literature on forestry in industrialized countries in general (Winkel 2012). The dominance of forestry discourses by powerful state and industrylevel stakeholders has meant the exclusion of the perspectives of other groups (e.g. Berglund 2001). Recent research points to the need for an actor-centred analysis of forest management (Winkel 2012) to overcome the limits of sectored expert knowledge and place emphasis on the encounter of real life decision-making in its manifold contexts (Heikkinen & Robbins

In this article, aspects of private forest owners' decision-making processes are discussed through three questions:

- 1. What are forest owners' arguments and practical solutions when selecting even-aged or uneven-aged forest management?
- 2. How can forest owners' arguments, solutions and experiences be interpreted within a context of power relations?
- 3. How are arguments and power relations contested and sustained in court trials involving different forestry actors?

Study material and fieldwork methods

During 2005–2007, a number of in-depth thematic interviews were carried out with 24 forest owners in the province of Northern Ostrobothnia, Finland. The questions touched mainly on the forest owners' conceptions of different silvicultural methods (for example, forest regeneration, forest ground preparation and thinning methods) and their arguments for the applications they have chosen, but they were also asked what they would like to do if they would have freedom to apply different methods. In some of the interviews photographs of different forests were used as a starting point for discussions, while others were carried out walking with informants in and through the forests they owned. Discussion during interviews was somewhat unstructured, even though the discussion was steered towards predefined topics. In this way the interviewees had an opportunity to bring out those points they considered important (see Hirsjärvi & Hurme 2000). An important criterion in choosing the informants was that they should represent the diverse viewpoints of forest management.

The study material also contains documents of three court cases concerning forest regeneration and cuttings that occurred in different locations in Finland between years 2004 and 2008. In the course of these cases, which were brought by the forestry authorities against forest owners, different views and arguments became apparent and there is significant and rich material contained within the transcripts. In this article some of the major

Table 1 Background information on the interviewees (N=24).

Sex Men	17
Women	7
Age	
< 40 years	2
40-59 years	12
≥ 60 years	10
Occupation	
Farming and/or forestry	7
Pension	10
Paid work	5
Entrepreneur	2
Place of residence	
On farm	17
In countryside but not on farm	3
In town or population center	4

arguments of the opposing parties are examined through the court records, and it is shown how practices and assertions of power are manifested in relations between forest owners and forest management administration.

Political ecology as a conceptual framework

A political ecology approach emphasises that the relations between humans and environment are mediated by power relations (Biersack 2006). This approach also emphasises that environmental problems are multidimensional and the legitimising of certain causal relations are acts of power (Heikkinen & Robbins 2007). Within a political ecology framework, human signification is understood more as constructing nature than reflecting it. Through human conceptualisation and activity, nature is transformed for human purposes, although it exists simultaneously

regardless of human activities (Biersack 2006).

Power is present when the benefits and disadvantages are divided between people (Hornborg 2001). The resources that power needs to function can be both symbolic and material, such as knowledge, financial or natural resources, organisations or norms (Paloheimo & Wiberg 1996). According to Wolf (2001) and Lukes (1974), different types of power can be distinguished. Decision-making power is defined as the ability of an individual or an actor to have authority in decision-making (Lukes 1974 (ref. Dahl 1957); Wolf 2001). If some actors are left out of the decision-making process it can be interpreted as an outcome of their incompetence or abilities to participate (Lukes 1974; Gaventa & Cornwall 2001). This view of power has been critiqued for its narrowness, because it is only describing interpersonal relations and single situations in question, instead of answering the questions of who benefits and who loses and why. Instead, structural power is inherent in the whole setting for human action (Wolf 2001). Structural power influences an actor's activities through, for example, the monopolisation of knowledge and its production by controlling education, media and political programmes (Gaventa & Cornwall 2001). The task of research is to discover how the structures of power, such as networks, hierarchies and corporations are built up, how they work, and why (Wolf 2001).

On the other hand, in both modes of power the positions of the actor may shift depending on the situation (Gaventa & Cornwall 2001; Gezon 2005). Power may also meet resistance. Local actors

can express their own views, accept some practices and reject others. Resistance may also be silent and included in everyday actions (Scott 1990). Here we point out that the court cases are concrete episodes of power which reflect and contest established power relations, but they also reflect the on-going resistance and may participate in a process of a restructuring of power.

Practice and power in private forestry

Arguments for private forest management practices

When scrutinising the arguments connected to even-aged and uneven-aged management in the interviews, roughly two groups of answers can be distinguished. For those interviewees who preferred even-aged management, the forest was considered to regenerate and grow naturally in clear phases, which regular forest management methods were said only to mimic. Final felling is followed by forest regeneration by seeding, planting or natural regeneration by leaving seed-trees. Final felling and ground preparation were seen as necessary for new growth. Undergrowth was often considered to be useless in forest regeneration and therefore, many of the informants argued, it should be cleared. Forests should be steered to grow in an even-aged way, which was suggested for example for the forest in Figure 1. Uneven-aged management of forests was described to lead to an economically inefficient use of forests because of slow forest regeneration and growth.

These conceptions of silvicultural methods follow the views of officially legitimised forest management, which is followed by the official private forest management sector (see Hyvän metsänhoidon suositukset 2006). Forest policy and management in Finland is carried out by institutions whose functioning, reasoning and practice is based on the law (Rantala & Primmer 2003). For example, forestry professionals offer counselling in forest management associations and in the Finnish Forest Centre (see Forest Management Associations 2011; Suomen metsäkeskus 2011).

However, some of the forest owners criticised this kind of forest management and they said they were looking for alternatives to current forms of forest management. One possible solution was said by some to be uneven-aged forest management where trees would be harvested by a single-tree selection method. This form of harvesting was also seen as a form of forest regeneration, because it creates space for the undergrowth. A forest stand containing trees of many species, sizes and ages was seen as flexible for different uses of wood, which also enhances the resilience of a forest to environmental change. The forest in Figure 1 was described to be in a good condition for steering the growth towards stands of uneven-aged forest. Economic efficiency for private forest owners was a very important argument for uneven-aged forest management, because there would be fewer costs and wood could be harvested more often than in even-aged forests.

It was also defined as problematic that the forestry professionals did not trust the forest owners' calculations of the costs



Figure 1.One of the photographs shown during the interviews. Such images were used as ways of discussing different preferences in forest management. Based on discussion of this particular image, some informants stated that the structure of this kind of forest should be more even-aged, while others thought the best approach for its management was to steer it towards uneven-aged growth.

and incomes of their forestry, although owners bear the financial responsibility for their forest management. Interviewees pointed out that the forest organisations that supervise and counsel private forest renewing methods are also involved in selling seedlings and forest management services in Finland. The counselling of forest owners was thus seen as only focusing on even-aged forest management, which also serves their business interests. The whole forest sector was seen to be conforming to the needs of paper and pulp industry.

One third of the informants preferred clearly even-aged forest management. However, another third preferred either even- or uneven-aged forestry, depending mostly on the structure of the forest cover and the features of the soil. The location of the forest also affected the decision; large regeneration felling was sometimes not chosen near their homes because of the effect on the landscape, with a preference given to felling some distance away. The last one third of the informants preferred clearly uneven-aged forests, but this was also influenced by the features of the forest. Many of them also saw clear cutting and planting, or regeneration felling with seed trees as useful or even necessary in some situations. The interview material reveals that forest management preferences were

not associated with differences in gender, age, place of residence or with the size of a forest.

Deconstructing power in private forestry

Different modes of power can be analysed from the debate of appropriate forestry methods. Decision-making power describes a situation where the practising of unevenaged forest management is explained as originating because of a lack of knowledge which professional counselling can correct. Attention is thus paid to concrete and observable action and behaviour. This mode of power includes clear differences in opinions and even open conflicts. Thus the differences in viewpoints are recognised, but they are defined to be a problem of individuals. In this way, the problems are seen to be limited and easy to define (Lukes 1974; Gaventa & Cornwall 2001). By contrast, adversaries experienced situations in which their knowledge, especially related to their own economic reasoning and specific situation, was not respected. The adversaries also concluded that the counselling is biased, as are counsellors' interpretations of the Forest Act. By this way, the exclusion of knowledge and the aims to monopolise knowledge were the key mechanisms of power in the debate for appropriate forestry methods (see Gaventa & Cornwall 2001; Wolf 2001). Critics of official forestry also argued that the biased situation is based on the processes of greater society and that the whole operational environment of forestry is formed to support the benefits

of industry, forest organisations and the nation as a whole, not the benefits of the individual forest owner. This explanation reflects the existence of structural power, where power relations are embedded in large-scale institutional arrangements and where the consequences of power are hard to recognise (see Wolf 2001).

Lukes (1974) also claims that structural power is the strongest way for power to operate, because it shapes consciousness and may prevent awareness of possible conflicts and unjust institutions. In the interviews that were conducted, it was clear that some forest owners perceived neither problems nor a need for changes in forest policy. For them, an even-aged forest represented a well-tended and productive piece of nature while an uneven-aged forest represent a ruined forest. Instead, some forest owners would have renewed the forest policy from scratch and for them a clear cut area represented a destroyed forest. Resistance towards power – i.e., a refusal to follow the advice of forestry professionals - was especially common among the forest owners for whom forestry was important for the household economy and who tended to draw on their own knowledge of forestry practices. However, if considering structural power, these adversaries did at least recognise that current forest policies were not based on, nor did they satisfy, their needs and premises. Nevertheless, some of these informants emphasised that the institutionalised power setting was probably already shifting, which could be seen for example in recent attempts to formulate new forest policies in Finland.

Contesting and sustaining power relations

Throughout the court case documents, the very same arguments concerning pros and cons of forest regeneration and thinning methods and their consequences reiterate and reaffirm the definitions presented during the interviews. In Finland the Forest Act (1093/1996) establishes the framework for forest management in areas that are categorized as forest land. According to the act "felling may be performed in a manner which promotes the growth of the tree stand left in the area (intermediate felling), or in a manner required for the establishment of a new tree stand (regeneration felling)" (Forest Act 1093/1996, unofficial translation). Following regeneration felling, a forest owner is responsible for regenerating the area within a certain time period, and the seedling stand must have "economic growth potential" (Forest Act 1093/1996, unofficial translation). Regeneration can be carried out by planting new seedlings, sowing or by using natural regeneration, depending on the features of the site. There are no clear rules concerning uneven-aged forest management in the Forest Act and the interpretations vary regarding the legal status of managing uneven-aged forests (see Leppänen 2003; Kiviniemi 2004; Vaara 2004; Laakso 2009; Pappila 2010). However, it has been claimed that uneven-aged forest management would be possible according to the Forest Act if the forest is suitable and used for other than commercial purposes, e.g. for multiple use of forests or preserving diversity (see e.g. Kiviniemi 2004).

In the three court case examples, forest owners were accused by the Finnish Forest Centre of not following the Forest Act when practising forest regeneration. However, the defendants argued that natural regeneration would have been enough after final felling in their forests. The soil would not have needed preparing, they said (Katselmuspöytäkirja 1.10.2004; Ylivieskan käräjäoikeuden tuomio 14.5.2007; Rovaniemen hovioikeuden tuomio 14.12.2007). The arguments put forward by the forest owners emphasised that a natural forest would consist of trees of many sizes, ages and species, and therefore naturally regenerated seedlings of different sizes should be utilised in forest regeneration (Lähde E. yhteenveto 2007; Rovaniemen hovioikeuden tuomio 14.12.2007, Lähde E. & Vaara L. lausunto 25.10.2004). An important argument was the economic efficiency of forest management. The costs of artificial forest renewing were considered too high, they said, compared to the potential growth of production. (Maanomistajan kirje korkeimmalle hallinto-oikeudelle 21.10.2005, Metsäkeskus Pohjois-Pohjanmaan ilmoitus Haapajärven kihlakunnanviraston syyttäjäosastolle 28.12.2005, Lähde E. yhteenveto 2007, Rovaniemen hovioikeuden tuomio 14.12.2007).

According to the Finnish Forest Centre, which oversees the observance of forest legislation, the process of renewing areas should involve soil preparation and planting (Katselmuskohteen esittely 27.9.2004; Katselmuspöytäkirja 13.10.2005; Lapin metsäkeskuksen ilmoitus Koillis-Lapin kihlakunnanvirastolle syytteen nostamiseksi 27.10.2005; Salon käräjäoikeuden tuomio

11.6.2008). Demands were also made for clearing of those seedlings or any smaller trees whose size was not considered suitable for an even-aged seedling stand. An evenaged seedling stand and the forest in general were defined to have the best growth potential (see Katselmuskohteen esittely 27.9.2004; Metsäkeskus Pohjois-Pohjanmaan ilmoitus Haapajärven kihlakunnanviraston syyttäjäosastolle 28.12.2005). The economic efficiency was estimated through the net growth of the forest, which did not include the costs of the procedures that they stated to be necessary (see Rovaniemen hovioikeuden tuomio 14.12. 2007; Salon käräjäoikeuden tuomio 11.6.2008).

One of the cases was decided in favour of the defendant. The seed trees and shelterwood that were left to the site, as well as the existing seedlings, were estimated to be able to produce a seedling stand that has economic growth potential within the time that has been set by the law (Ylivieskan käräjäoikeuden tuomio 14.5.2007). In the other two cases, the forest owners were judged to be guilty of infringement of the Forest Act. According to the judgment, the seedling stands did not have economic growth potential within the imposed time referred in the Forest Act (Rovaniemen hovioikeuden tuomio 14.12.2007; Salon käräjäoikeuden tuomio 11.6.2008). The conceptions of the development of the forests and economic efficiency are thus the most notable differences between the reasoning of forest owners and the Finnish Forest Centre. Using the court case documents and the literature concerning Finnish forest legislation some interesting remarks on power relations can be made.

Forest owners relied on their personal experience of forestry and their own assessment of the forest, while the Finnish Forest Centre's arguments followed legal terms, definitions and categorisations of forests. In one of the cases, it was notable that the Forest Act was interpreted as not to recognise forests which could be simultaneously commercial and unevenaged. In a sense of decision-making power, the forest owners' views of economically profitable forest were thus excluded by pointing to a definition which made their arguments irrelevant (see e.g. Lukes 1974).

In research on forest legislation it has been argued that economic efficiency for the forest owners does not automatically follow from the maximum amount of timber produced. Nevertheless, the Forest Act focuses on efficient timber production in terms of cubic meters, not economic efficiency (Tahvonen et al. 2004), but it has also been argued that the Forest Act privileges the needs of the forest industry over the needs of forest owners (Vaara 2004). Both of these arguments were also referred to in many of the interviews of this research. Adversaries of current forestry policies emphasised that their understanding of forestry economics as well as their knowledge of forests was ignored, while more powerful actors behind the scenes benefitted from the current institutional and policy arrangements. In a sense, such feeling points to concerns over the existence of structural power that disadvantages forest owners. The material from the interviews as well as the court cases provides an example of how power relations are contested and sustained in practice. The court cases also

reflect recent critical discourses concerning forestry in Finland in general and increasing calls for renewing forest legislation (see e.g. Äijö 2009; Metsälakiin tulossa merkittäviä uudistuksia 2012).

Conclusion

The results of this study draw attention to the importance of understanding decisionmaking processes and power relations in forest management. This research shows that the understandings and interpretations that forest owners and other stakeholders have of forest management may vary significantly. Although the forest owners and other actors are conscious of these differing views in forest management, not all of the arguments and reasons for them are necessarily recognised. Differences in conceptions of forests and forest management also lead to different practical solutions in the forest and even conflicts in the form of court cases where different arguments and understandings are contested.

Different conceptions of forest management and forest use, with accompanying conflicts, have a long history in Finland. As this study shows, paying close attention to power relations helps to disentangle the reasons for such conflict. For example, ignoring the knowledge of the advocates of unevenaged forest management and seeing the dispute as a problem only of individuals is one way decision-making power works.

If the disagreements are interpreted from this point of view, the disputes will preferably be solved by influencing the forest owners' choices, which may lead to open conflicts such as the court cases reveal. The argument that forest management in Finland is organised to support the needs of the powerful forest industry points to the existence of structural power which influences societal practices. From this point of view, the disagreement is not seen as a problem of single cases and individuals and the conflict resolution would preferably result from a recognition and reorganisation of structural power relations. In the court cases considered in this article, the differences between legitimised forestry practices and forest owners' understandings of forestry became visible and concrete. The court cases also served as a forum to contest different understandings of forestry as much as they pointed to power relations.

On the other hand, resistance is a part of power relations. The forest owners stated they wanted to find their own solutions to problems in forest management regardless of professional advice. Some forest owners, however, had noticed shifts in forest policy and forest management practices, and they were anticipating flexibility in the renewed Forest Act. In any case, Finnish forestry debates reveal important ways about how power relations are contested and sustained in Finland today.

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