

# History of Joint Ownership of Forests in Finland in the Context of European Forest Commons

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## Abstract

In Europe the history of forest commons dates back to the Middle Ages and some of them are still performing well. The formation of modern states in Europe favoured privatisation of previously communally managed property, including forest commons. Privatisation of state lands proceeded in Finland in the nineteenth century, but at the same time there was a need to establish co-owned forests to settle the landless population. The first part of the study focuses on exploring the development of the system of co-owned forests in Finland since the late nineteenth century until 2020. How has the Finnish system of co-owned forests responded to societal and economic changes during the long time frame of the study? The co-ownership of forests, called jointly owned forests in Finland, has had similarities with European and particularly with Swedish forest commons, but there have also been several differences. The second part of the study aims to approach the present Finnish system in the context of European, particularly Swedish, forest commons. Among the international research community development and special characteristics of the Finnish system of joint ownership of forests are poorly known.

## Keywords

Forest Commons, Forest Ownership, Finland, Sweden, Europe

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## 1. Introduction

Forest commons are most often associated in literature with present-day land-use practices in the Global South. In Europe the history of forest commons dates back to the Middle Ages but from the mid-eighteenth century, forest and other commons were criticised as an inefficient form of property management. The drivers of industrial revolution and liberal reformist movement connected with

economic, technological, and social changes in Western societies led to elimination most of historical commons by the end of the nineteenth century. Only small areas, located often in mountainous regions, remained (Bravo & De Moor, 2008; Pemán & De Moor, 2013). For example, in Italy communal forestry was able to survive in areas where it had a long working tradition and forests were not seen as economically important for the state (Merlo, 1995; Paletto et al., 2012).

It is necessary to make a distinction between the concepts common-pool resource and common-property resource. Within a common-pool resource it is difficult to exclude users because there are no user rights attached to a specific group (Short, 2011). Hardin (1968) argued in his classic article *The Tragedy of the Commons* that when people have open access to a natural resource, they are unable or unwilling to formulate governance and administrative structures to use it sustainably; this situation leads to its degradation. McKean and Ostrom (1995: p. 6) emphasise that “common property regimes are a way of privatizing the rights to something without dividing it into pieces. Common property also offers a way of parcelling the flow of skimmable or harvestable ‘income’ (the interest) from an interactive resource system without parcelling the principal itself”. To ensure continuity of the common-property regime, it needs to be recognised at the political level through legislation.

The FACEMAP COST Action project collected data regarding forest land ownership change in Europe from 1985 to 2015 from 28 European countries (22 EU and six non-EU countries) and recognised different types of co-ownership of forest land in 24 countries. These types of co-ownership were categorised as “old commons” and “new commons”. Even though co-ownership of forests has been widespread, research comparing forest commons in different countries has been marginal due to the great variation in their governance and management models. Furthermore, the emphasis on forest commons in national forest and public policies varies noticeably between countries (Živojinović et al., 2015; Lidestav et al., 2017).

The latest contribution to the debate on co-ownership of forests was presented by Lawrence’s research team in 2021. They examined the diversity of “community forest arrangements” in fifteen cases from four European countries. Both forest commons and community forests were included in their analysis due to great variation in the terminology countries used to describe this kind of ownership. Terminological challenges related to harmonisation of nationally originated concepts restricted comparison of information concerning “community forest arrangements” between European countries (Lawrence et al., 2021).

In the long run, the success of forest commons is dependent on their capability to change in parallel with economic and social changes. Lidestav et al. (2013) argue that common-pool resource regimes have shown that they can perform as well or even better than public and private resource management institutions under certain conditions. Ostrom (1990: pp. 88-102) promulgated the eight “de-

sign principles” for a successful common: it has to have clearly defined boundaries; match rules governing use of common goods to local needs and conditions; ensure that those affected by the rules can participate in modifying the rules; make sure the rule-making rights of community members are respected by outside authorities; develop a system, carried out by community members, for monitoring members’ behaviour; use graduated sanctions for rule violators; provide accessible, low-cost means for dispute resolution; and build responsibility for governing the common resource in nested tiers from the lowest level up to the entire interconnected system. Furthermore, McKean (1998) has pointed out the need for transparency and fairness in the decision-making of a successful common to share the benefits and costs between co-owners. Ostrom’s eight “design principles” for a successful common provide the theoretical framework to explore the historical development of co-ownership of forests in Finland.

## 2. Objectives, Literature Review and Methods

In Finland co-ownership of forests was a marginal object of study in forest research, forest history and social sciences until the 2010s. Thereafter, the number of jointly owned forests (JOFs, *yhteismetsät*), as co-owned forests are called in Finland instead of forest commons, has almost tripled. The main reason for the rapid increase was reform of the JOF legislation in 2003 that has also activated research focusing on JOFs (VPA, HE 240/2002). Joint ownership is becoming a notable form of forest ownership alongside direct private ownership that is the dominant mode of forest ownership in Finland.

The first aim of this study is to explore historical development of the system of JOFs in Finland since the late nineteenth century until 2020 and how it has responded to societal and economic changes in the society during the long time frame of the study. The second aim of the study is to approach the present Finnish system in the context of European, particularly Swedish, forest commons. The study is organized in two parts: the first part introduces the historical development of the system of JOFs in Finland and makes some comparison to the Swedish system of forest commons; the discussion part focuses on comparing the Finnish JOFs to European forest commons.

Joint ownership of forests has almost been ignored in Finnish academic research focusing on economic, social and forest history and the same concern also forest sciences until the 2010s. First studies focusing on JOFs in Finland approached the subject in the context of forest policy and the economy on a general level in the 1940s (e.g. Metsäpelto, 1940; Kiljunen, 1959). In the 1980s the research focus shifted to the legal basis, economic profitability, and operational environment of JOFs (Vuorinen, 1981; Kolehmainen, 1983; Kalliola, 1986; Rytteri, 1996). The leading objective of research in the early 2010s was to provide practical information for forest authorities and forest owners to promote joint ownership (see e.g. Pätsi, 2011; Havia, 2011; Honkanen, 2012). In the latest phase forest and social scientists have turned their research interest to critical

analysis of how JOFs operate, and how satisfied their shareholders are (Silveri, 2013; Hyytiäinen, 2014; Ikonen, 2018; Lehto, 2018; Siiskonen, 2020). The Finnish JOFs have not been presented thoroughly in international publications or used in comparisons of systems of forest commons in Europe.

Unlike the Finnish system, the Swedish forest commons have figured in international comparisons (see e.g. Lidestav et al., 2017; Lawrence et al., 2021). The Swedish tradition of research on forest commons is more diverse and provides a good basis for comparisons with Finland. Liljenäs's (1977) doctoral thesis in geography was the first systematic analysis of the role of forest commons in the development of agriculture and forestry in the county of Norrbotten in the northernmost part of Sweden (see also Liljenäs, 1971, 1982). The role of forest commons in Swedish society attracted political scientists in the 1990s (Carlsson, 1995, 1999, 2001). Forest researchers entered the arena in the early 2000s. Management of forests with private, commercial and co-owners have been compared, and researchers have also looked at the impact of forest commons on rural development (see also Holmgren et al., 2004; Holmgren et al., 2007; Holmgren, 2009; Holmgren et al., 2010; Lidestav et al., 2013).

In the European context Short (2011) has given a good introduction to various types of forest commons in different parts of Europe by linking them to changing of forest landscapes. His aim was not to compare different parts of Europe but to present various kinds of practices. Partly due to terminological challenges only a few comparative studies on European forest commons have been published. They have restricted to a few cases and assessing the performance of forest commons (see e.g. Bravo & De Moor, 2008; Pemán & De Moor, 2013; Gatto & Bogataj, 2015; Lidestav et al., 2013; Paletto et al., 2012).

Comparison of the Finnish system of JOFs in the European context reveals the diversity of the field: the great variation of age and history of forest commons, and their distinctive national characteristics. The most profound effort to create a framework for a systematic comparative analysis of "community forest arrangements" in Europe has presented by Lawrence et al. (2021: p. 449), whose leading aim was "to make sense of the diversity of terminology and forms of community forest arrangements by understanding what characterises them and thereby to identify distinctive issues associated with community forestry in Europe". The basic data of their study was collected from fifteen "community forest arrangements" in four countries (Italy, Scotland, Slovenia and Sweden). The oldest two forest commons were established in the thirteenth century and the four youngest in this century. The huge variation in age and size reflects the models and goals of operation in each case. Findings from the fifteen cases were organised under a typology with four broadly defined dimensions:

- 1) Forest characteristics: Community forest as a physical asset and its role in the wider landscape.
- 2) Community characteristics: Characteristics of the community forest group which owns or manages the forest (structure, processes of formation, membership and decision-making).

3) Relationship between community and forest: The relational aspect of the community forest group with its forest (collective action rules and rights, significance of the forest resource for the community).

4) Relationship between community and wider society (Lawrence et al., 2021: pp. 453-456, electronic supplementary material).

The diversity of the history of European forest commons makes straightforward comparisons between different systems challenging. In this study, country-specific European examples have been used to position the Finnish JOFs in European context. To do this, the systematic analysis of “community forest arrangements” in four European countries developed by Lawrence’s (2021) research team is used as a framework.

The main primary sources for analysing the long-term development of the system of JOFs in Finland are the enacted JOF legislation and preparatory parliamentary documents. Committee and working group reports, and memorandums relating to preparation and assessment of legislation, form another group of primary sources. The National Land Survey of Finland (*Maanmittauslaitos*) keeps a register of JOFs and the shareholder estates that can be used to analyse the development of the number, surface area and location of JOFs. In addition to official records, the presented research literature and case studies provide important detailed information on JOFs. Agricultural and forest magazines open a window onto public debates on JOFs. The utilised archival and printed sources are subjected to both qualitative historical analysis and qualitative content analysis.

### 3. Results: Changing the Goals of Co-Ownership of Forests in Finland

#### 3.1. Introduction to the History of Joint Ownership of Forests in Sweden and Finland

Growing criticism against commons and decline in their number due to privatisation of land holdings was characteristic of land-use policies and reforms in Europe in the nineteenth century (see e.g. Short, 2011; Bravo & De Moor, 2008). However, in Finland and Sweden development proceeded partly in the opposite direction. The state took the initiative to establish forest commons in both countries, to further land reform and settlement policy, to maintain political stability and to protect small-scale farmers from land grabbing by companies and speculators (see e.g. Lidestav et al., 2017; Helander, 1949).

In the mid-eighteenth century – when Finland was part of the Kingdom of Sweden – Sweden began the Great Redistribution of Land Holdings that was related to the European trend of privatising land. This long-standing process continued in Finland during the Russian period (1809-1917) and during independence (1917-), in its northern parts until the 1960s (see e.g. Kuisma, 2019). The leading assumption behind the privatisation of large areas of forest land was that private ownership would reduce the wasteful and destructive use of forests (He-

lander, 1949; Haataja, 1950).

At the same time when Finnish and Swedish forests were being privatised, the demand for timber increased noticeably in Europe. The end of mercantilist regulations in the sawmill industry in mid-nineteenth century Finland, which had restricted its expansion, was reflected directly in newly privatised forests (Kaukiainen, 2006). A great proportion of the increased demand for timber was met by acquiring it from private forests, which were in better logistical positions than state forests. From the point of view of the state, management of recently privatised forests was not going to plan. In both countries privatisation had not led to more sustainable management practices; instead, it had increased wasteful felling (Liljenäs, 1977; Enander, 2007; Holmgren et al., 2004; Helander, 1949). Due to lack of forest legislation and administration, authorities did not have workable tools in Finland and Sweden to control and regulate felling in the privatised forests.

Disappointed with the peasants' management of recently privatised forests, the Swedish government revised its policy on allocating state land for settlement purposes. The solution was to establish forest commons (*allmänningsskogar*). A forest common is a forest area that is divided into shares, which are owned jointly by several properties and are managed collectively through a committee elected by the assembly of shareholders. To secure sustainable management of forest commons, professional foresters are responsible for executing the confirmed management plans. Another cornerstone of the system is that shares in a forest common belong to the original estate and cannot be traded separately from it (Holmgren et al., 2007; see also SFS, 1952/167).

In Sweden, the establishment of forest commons occurred in one phase between 1861 and 1918. The 33 Swedish forest commons are located in the north of the country. Today they cover about 540,000 ha—that is about 2.4% of the productive forest land—and have ca. 25,000 shareholders (Holmgren, 2009; Holmgren et al., 2010; Skogsstatistisk årsbok 2014, 2014). The number of forest commons has not changed since 1918.

## 3.2. Four Phases of Establishment of JOFs in Finland

### 3.2.1. The First Phase (1877-1917): Ensuring Social Stability

The Grand Duchy of Finland adopted the basic principles of co-ownership of forests from Sweden. The leading objective was to organise the allocation of land for landless people in different parts of the country, particularly in southern Finland in the early twentieth century. The cornerstone of the Finnish system was anchorage of shares in a JOF to the original estate. As in Sweden, the shares could not be sold separately from the original estate (SA, 1925/184).

Committees set up to prepare forest legislation in Finland in the late 1870s recommended establishing JOFs in the implementation of the Great Redistribution of Land Holdings and in allocation of land for landless people for settlement purposes (Kom, 1883: p. 1; SA, 1886/29; Helander, 1949; see also Kom, 1900: p. 4). The first JOFs in Finland, called “additional land JOFs” (*lisämaayhteis-*

*metsät*), were established in 1887. Their number grew to eleven by 1908, covering about 20,000 ha of forest land. Between 1901 and 1917 73 “old settlement JOFs” (*vanhat asutusyhteismetsät*) were established for the settlement of landless people, covering 21,000 ha of forest land divided between 1700 shareholders (Metsäpelto, 1940; Kiljunen, 1959).

From the first, many shareholders in the latter type of JOFs were dissatisfied with the practised settlement policy. In many cases forest land belonging to the original estate was too small for the household to get the firewood and building wood needed for its own consumption (Metsäpelto, 1940; Kiljunen, 1959). Quarrels between shareholders of the “old settlement JOFs” were often related to pricing of firewood from the JOF and were soon recognised by the authorities. The Ministry of Agriculture allowed permits to dissolve many of the recently established JOFs by selling or dividing them between shareholders. In 1940, of the 73 “old settlement JOFs” 34 were still working but in the mid-1980s only sixteen were left (Kiljunen, 1959; Kalliola, 1986, Appendix 1).

Most of the established JOFs did not improve the viability of established small farms as expected. One motive for the establishment of small settlement plots, which owned part of their forest in the form of a share in a JOF, was to maintain political stability by creating an independent group of small-scale farmers (Siiskonen, 2020).

### 3.2.2. The Second Phase: The Great Redistribution of Land Holdings in Northern Finland

Despite increasing criticism towards joint ownership in the early 1920s there was still a need for this kind of forest ownership in northern Finland due to the completion of the Great Redistribution of Land Holdings there. In addition, the previously established working JOFs needed their own legislation that had been prepared in the beginning of the century. The first Jointly Owned Forest Act (*yhteismetsälaki*) came into force in 1925. The Act addressed the inseparability of the share in a JOF from the original estate, as in Sweden. Management of a JOF was organised through a board elected by the assembly of shareholders and was based on a management plan (VPA, HE 46/1924; SA, 1925/184).

The Great Redistribution of Land Holdings in northern Finland begun in 1931 and continued until 1965. During this period eight JOFs were established that were exceptionally large on the European scale. In 1986 they covered 273,000 ha of forest land, more than half of the total area of all JOFs (Vuorinen, 1981; Palojarvi, 1982). At the turn of the millennium, the largest of them, the Kuusamo JOF (Kuusamon yhteismetsä) covered 85,000 ha (2020 about 92,000 ha) (Maanmittauslaitos, 2020). Land-use practices and ecological conditions in northern Finland were in many ways comparable to northern Sweden, which explains the large size of co-owned forest in both areas.

### 3.2.3. The Third Phase: Resettlement of the Evacuated Population

After the Winter War (1939-1940) and Continuation War (1941-1944) Finland had to resettle the evacuees from Karelia and other areas ceded to the Soviet

Union. In total about 420,000 people were evacuated—about 11% of Finland’s population—and the majority of them were small-scale farmers (Raninen, 1995). The primary aim in resettling the population was to establish viable farms which had enough agricultural and forest land within the same estate, but this was impossible to achieve everywhere. Allocation of forest land to a new farm as a share in a JOF was only the secondary option. The allocations consisted of state land and land acquired by the state from companies and great landowners (Vuorinen, 1981). (Table 1)

To meet the challenge of resettlement, 81 new JOFs were established between 1945 and 1958, based on the Land Acquisition Act (*maanhankintalaki*) (SA, 1945/396). In 1962 they covered 128,000 ha of forest land that was divided between 4400 shareholder estates. The average size of a JOF was about 1500 ha (Vuorinen, 1981, Appendix 1). Most of the new JOFs were established in south-western and western Finland where it was difficult to separate suitable estates with enough agricultural and forest land. Administrators had learned from previous bad experiences and saw it as essential that the new original estates should have not only enough agricultural land, but also enough forest land to produce firewood and building wood for domestic consumption – and preferably some timber for sale (see e.g. Kom, 1920: p. 16). The share in a JOF was to provide income for shareholders through commercial felling and different kinds of forest work (Palojärvi, 1982; Vuorinen, 1981).

### 3.2.4. The Fourth Phase: From Regulation to Free Transaction of Shares in JOFs

Due to growth in farm sizes and the commercialisation of farming the share in a

**Table 1.** Total number of jointly owned forests (JOFs) established and working in 1986.

Legal basis of establishment of the JOF	Year of establishment	Total number of established JOFs	Number of JOFs working in 1986	Average size in 1986, ha	Total surface area in 1986, ha
Additional Land JOFs	1887-1908	18	18	1070	19,220
Land Grant JOFs	1889-1913	3	0	0	0
<b>Great Distribution of Land Holdings JOFs*</b>	1931-1965	8	8	34,100	272,710
Crofter JOFs	1907-1925	12	6	1320	7920
<b>Old Settlement JOFs*</b>	1901-1917	73	16	430	6950
Rapid Settlement Act of Displaced Population JOFs	1941	2	2	355	710
<b>Land Acquisition Act JOFs*</b>	1945-1958	81	73	1590	115,970
Land Use Act JOFs	1963-1974	4	4	7900	31,600
Farm Act JOFs	1978	6	6	3000	17,000
Reindeer Act JOFs	1982	2	2	6750	13,500
		<b>209</b>	<b>135</b>		<b>485,000</b>

\*Special reference is made to JOFs marked bold. Source: Kalliola, 1986, Appendix 1.



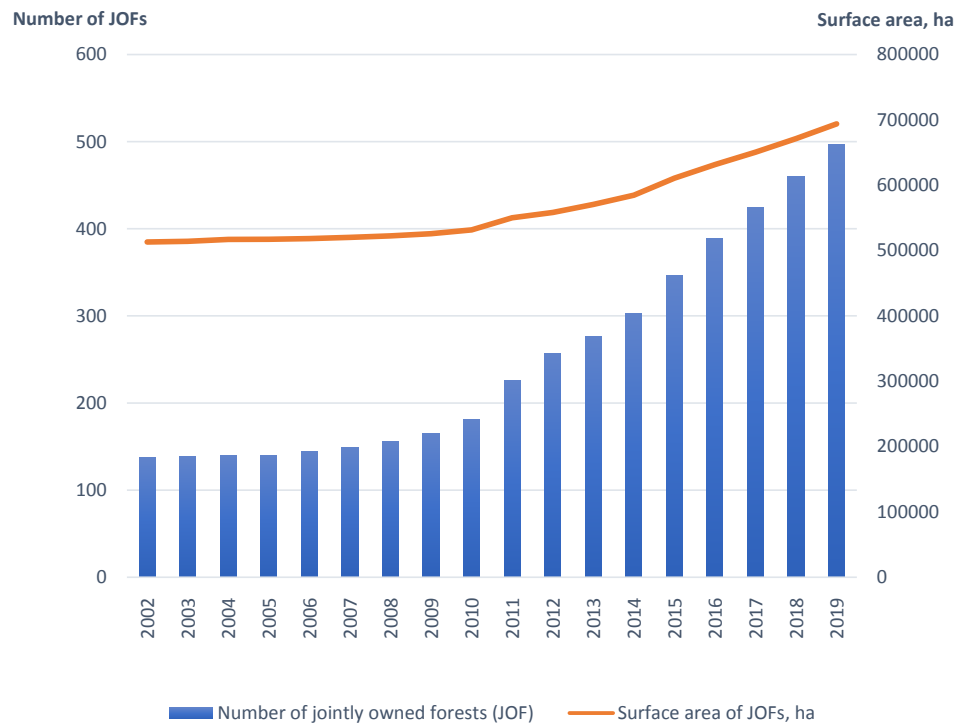
JOF did not play as crucial a role for farmers in the 1990s as it had played a few decades ago (see e.g. [Peltonen, 2019](#)). At the political level, instead of being a tool to support agriculture, JOFs began to be seen as a potential form of ownership of large areas of private forests. Until the end of the twentieth century JOFs had been established on state lands or on lands acquired by the state for settlement or resettlement purposes, for completion of the Great Redistribution of Land Holdings in northern Finland, or to conduct a few land consolidation projects in Ostrobothnia ([VPA, HE 205/1996](#); [VPA, HE 240/2002](#); [Kolis, 2016](#)).

According to the Jointly Owned Forest Act of 2003: “The current societal meaning of JOFs is based on their active and sustainable management and on their impacts on the regional economy” ([VPA, HE 240/2002](#)). In the Act and policy programmes, the main benefits of JOFs were seen as the systematic long-term management of large forest areas that would provide steady income for shareholders and ensure better preservation of biodiversity (see also [MMM, 2019](#); [MMM, 2011a](#)). Furthermore, JOFs were subject to lighter bureaucratic and expensive administration and to lower taxation than direct private ownership, which was expected to encourage private forest owners to consider the JOF as an alternative form of forest ownership ([VPA, HE 80/2011](#); [VPA, MmVm, 10/2011](#); [Collin, 2004](#)).

The greatest obstacle to voluntary formation of JOFs by incorporation of private forest estates had been the inseparable connection between the share in a JOF and the original estate. The 2003 Act severed this connection and made it possible to trade with shares in JOFs separately. The two main arguments for this radical revision of the law were, first, owners’ freedom to decide what to do with their property and second, making it easier to become a shareholder in a JOF ([SA, 2003/109](#); [MMM, 1999](#)).

Financial and administrative incentives provided by the state during the 2000s slowly dissipated prejudices towards joint ownership of forests. Since the new legislation came into force, the number of JOFs has more than tripled, from 137 in 2003 to 497 by early 2020. However, the surface area has grown only by one third. The average size of a JOF more than halved, from 3100 ha in 2010 to 1400 ha in 2019, and the median size was reduced from 864 ha ( $n = 166$ ) in 2010 to 352 ha ( $n = 497$ ) in 2019 ([Maanmittauslaitos, 2020](#)). In the beginning of 2020 JOFs covered 700,000 ha of forest land, comprising about 3% of forest land in Finland (cf. 2.4% in Sweden), whereas about 60% of forest land is in private ownership divided into 400,000 forest property entities ([Suomen metsätilastot 2019, 2019](#)).

The main explanation for this recent development ([Figure 1](#)) is that forest owners have not been eager to incorporate their forest estates into working JOFs but preferred establishment of new ones. Two noticeable reasons for forest owners’ hesitation to incorporate their estates into a working JOF have been, first, difficulties in defining the quotation value of the incorporated estate, and, second, suspicion and distrust about administration of the JOF. Many JOFs have



**Figure 1.** The development of the number of jointly owned forests (JOF) and their surface area in Finland, 2002–2019. Source: *Maanmittauslaitos, 2020*.

also been unwilling to expand their surface area by accepting new shareholders (*Maanmittauslaitos, 2020; Kärkkäinen, 2010; Pätsi, 2011; Silveri, 2013*).

The establishment of a great number of new JOFs in the 2010s has changed the structure of shareholders; in this, the “new” JOFs differ from the “old” ones. For the latter, shareholders were selected by authorities responsible for re/settlement, but the majority of the shareholders in “new” JOFs are often family members, relatives or know each other in some other way. An important objective of JOFs established around families is to retain the forest property and transfer it undivided to the next generation (see e.g. *Silveri, 2013; Virtanen, 2020*). Some investors have also established JOFs; these are not based on the relationship between shareholders but on defined goals regarding management of the joint property (*Elonen, 2020; MMM, 2011b; MMM, 2012; see also Yhteismetsä Tuohi, n.d.*).

## 4. Discussion

### 4.1. Forest Characteristics

The development of the system of JOFs in Finland has many similarities with forest commons in Europe and particularly in Sweden. However, several features are peculiar to the Finnish JOFs and the most recent legislative reform distinguishes them from European forest commons. In assessing the Finnish JOFs in the context of European “community forest arrangements” the typology created by *Lawrence et al. (2021)* provides a good framework for comparisons.

Lawrence's research team recognised a wide range of variations in forest size, with no predominance of large or small forests. In the Alpine region forest commons were larger because these areas had remained undivided over long period (see e.g. Merlo, 1995). In Sweden forest commons were parcelled out from state lands between 1861 and 1918 and these commons are large in size compared to other European commons. The average size of Swedish forest commons is more than 16,000 ha; in contrast, the largest case in the study of Lawrence's team, excluding Swedish cases, was in the Community of Ampezzo forest common in Italy, established in the thirteenth century (16,000 ha). In eight of the studied countries the forest area varied from tens of hectares to one thousand hectares (Holmgren, 2009; Lawrence et al., 2021: pp. 452-453, electronic supplementary material).

Until the turn of the millennium societal and political objectives were tightly connected to the establishment of JOFs in Finland. During the first phase in the early twentieth century, the leading aim was to settle the landless population and diminish political unrest (Siiskonen, 2020). Many JOFs established in the southern agricultural regions of Finland were only a few hundred hectares in the early twentieth century (Vuorinen, 1981). It was soon recognised that shares in JOFs were too small to provide noticeable revenue for their owners but more often caused quarrels between shareholders. After the Second World War, JOFs were again established for societal and political reasons relating to resettlement of the population evacuated from the areas ceded to the Soviet Union from the mid-1940s. Having learned from previous bad experiences, shares in JOFs allocated for single farms were larger than during the first phase but in many cases still too small, which caused discontent among the shareholders (Vuorinen, 1981; Palojärvi, 1982).

JOFs established to implement the Great Redistribution of Land Holdings in northern Finland from the 1930s to the 1960s corresponded better to the Swedish forest commons. They were much larger than other JOFs in Finland and were established in sparsely populated remote areas, like the forest commons in Sweden (Rytteri, 1996; Siiskonen, 2020).

The Jointly Owned Forest Act of 2003 meant a reversal in Finnish JOF policy. Shares in a JOF became marketable and in principle open for all interested in this form of forest ownership (VPA, HE 240/2002; SA, 2003/109). During the ongoing fourth phase, JOFs are formed voluntarily, but their establishment has been encouraged by generous public incentives. These "new" JOFs have usually been formed within families or between relatives. They are small and do not form continuous management areas. Most of the recently established JOFs have diverged from the goals of previously established JOFs and from the general principles characteristic of European "community forest arrangements" (Maanmittauslaitos, 2020; Virtanen, 2020; Elonen, 2020; Lidestav et al., 2017).

## 4.2. Community Characteristics

Lawrence et al. (2021: pp. 453-457) (electronic supplementary material) paid at-

tention to the great range of legal structures for membership in community forest arrangements. Situations varied quite a lot between countries and depending on the age of the forest common. Conditions under which individuals acquire membership in a forest common involve complex rules and mechanisms to protect and conserve membership. In five cases membership was closed or semi-closed and in nine, open or semi-open. The most frequent ways to become a member were either buying or inheriting a property with shares in the common.

In Sweden as well as in Finland membership in a forest common or a JOF entailed anchorage of shares in a forest common/JOF to the original estate. The shares could not be sold separately from the original estate (SA, 1925/184; SFS, 1952/167; Holmgren et al., 2007). However, in both countries, structural change in society and particularly the mechanisation of agriculture and forestry accelerated rural to urban migration from the 1960s. As farmers aged, original estates were distributed and shares in forest commons were divided between inheritors. Societal and structural change in Finland led to a situation in the early 1980s that less than 60% of all JOF shareholders earned most of their income from agriculture and forestry or lived on the original estate (VPA, HE 97/1990; see also Lidestav et al., 2017). Since the late 1960s transfer of shares in JOFs/forest commons to non-farmers, e.g. companies or foundations, due to selling of the original estates has been characteristic of both Finland and Sweden (MMM, 1978; Kolehmainen, 1983; Holmgren, 2009).

The revision of the Jointly Owned Forest Act in 2003 made shares of JOFs in Finland freely marketable disconnected from the original estate (VPA, HE 240/2002). This was a radical change in the rules of JOF membership in Finland and a departure from Sweden, where membership in the forest common has remained connected to the original estate. The present Finnish system is also more distant from the principles of European forest commons. Purchasing pure shares was not possible in any of the cases studied by Lawrence et al. (2021) (electronic supplementary material). The recently established JOFs in Finland are closer to private property management units than the original idea of a forest common. The long-term framework for establishing JOFs in Finland has led to a situation in which the goals and membership structure of the “old” and “new” JOFs differ noticeably from each other.

### 4.3. Relationship between Community and Forest

The most noticeable difference between the Finnish JOFs and forest commons in Sweden and elsewhere in Europe is related to their role in enhancing cohesion in the surrounding community (Carlsson, 1999; Lawrence et al., 2021). Lawrence and Ambrose-Oji (2015) point out the significant role of community woodlands in the UK in construction of social capital within the surrounding community – the woodlands activate community members by delivering social, economic and environmental benefits. In Sweden community cohesion is written into the Act Relating to Collectively Owned Forests in Norrland and Dalarna of 1952. Each

individual shareholder gets annual revenue from any operational profit of the forest common according to the number of owned shares, but only part of the surplus is allocated directly to shareholders. They can apply for subsidies from the forest common to make improvements on their own private lands, e.g. to develop agriculture and forestry. In addition, forest commons participate in local development by contributing funds to development projects, and supporting non-profit organisations, such as sport and hunting clubs (SFS, 1952/167; see also Carlsson, 1999; Carlsson, 2001; Lidestav et al., 2017).

In contrast, there have been no mentions in Finnish legislation about the social responsibility of JOFs towards the surrounding community or other shareholders. The assembly of shareholders makes decisions concerning the use of the operational profit and possible collaboration with the surrounding community. Normally part of the surplus is invested to improve the timber production capacity of the JOF, e.g. by ditching peatland forests, building new forest roads and maintaining older ones, or extending the JOF by buying new forest (see e.g. SA, 1925/184; SA, 1969/485). From the very beginning, the leading objective of Finnish JOFs has been generation of income for shareholders in relation to the owned shares. Allocation of the surplus to shareholders based on a means test as in Sweden has been uncommon in Finland (Siiskonen, 2020).

When broadening the examination to relations between forest commons and the surrounding society, non-members of the forest commons had some access rights to forests in all the cases studied by Lawrence et al. (2021: pp. 456-457) (electronic supplementary material). In most cases community forests provided ecosystem services, recognised to varying degrees at a local or regional level. From the first, Finnish legislation has not called anything into play about collaboration of JOFs with the surrounding community (see e.g. SA, 1925/184; SA, 2003/109). Collaboration is based on voluntariness and is dependent on decisions made by the JOFs. However, public rights of access provide all citizens with the possibility to enjoy many ecosystem services (free wandering, berry picking, use of forest roads) in Finnish JOFs (see e.g. Hautala, 2016; Annanpalo, 2008).

#### 4.4. Relationship with the Community and Wider Society

Forest commons do not operate in isolation from society. Public institutions' involvement in forming and supporting of forest commons varies greatly, and relationships between the state, private and civil society actors are complex. Lawrence et al. (2021: pp. 456-459, 459-460) (electronic supplementary material) recognised that in seven cases support by public institutions was considered noticeable and in five cases, irrelevant. In legislation the status of forest commons varied between different countries, which complicates recognition of common features in the relations between forest commons and the wider society.

In the Nordic context the initiative for establishment of forest commons/JOFs came from the state, except for the new JOFs established in Finland after 2003.

The relation between state and society has undergone only small changes in Sweden and the same was true of Finland until the turn of the millennium. According to the 2003 Act (SA, 2003/109) new JOFs are established based on voluntary collaboration with landowners, and monitoring of JOF management by forest authorities is moderated. The free transaction of shares in JOFs introduced with this legislation was the most radical change in the policy of co-ownership of forests in Europe. It brought them closer to investment funds.

The grand idea behind the radical change in the JOF policy in Finland was to promote co-ownership of forests and stop the undesired fragmentation of forest estates. The National Forest Strategy 2025, National Forest Programme 2015 and previous corresponding policy papers had paid attention to the continued fragmentation of forest estates and addressed the economic and environmental benefits provided by long-term systematic management of large continuous forest parcels (MMM, 2019; MMM, 2011a).

Therefore, it is reasonable to ask whether the new Act met the original expectations of forest authorities and politicians. Many “new” JOFs consist of several smaller parcels, often located in different parts of the country. Of the 497 JOFs at the beginning of 2020, 195 (39%) had possessions in several municipalities (Maanmittauslaitos, 2020). Compared to “old” JOFs, the scale advantage advertised in policy programmes is not yet realised in many “new” family-based JOFs. Shareholders in “old” JOFs were selected by authorities responsible for re/settlement, but most of the shareholders in “new” JOFs are family members, relatives or know each other in some other way. An important objective of JOFs established around families is to retain the forest property and transfer it undivided to the next generation (see e.g. Elonen, 2020; Virtanen, 2020).

## 5. Conclusion

Recent comparative research on “community forest arrangements” in Europe has revealed great diversity between but also within countries (see e.g. Short, 2011; Živojinović et al., 2015; Lawrence et al., 2021). National legislation and terminology connected to the unique histories of “community forest arrangements” have made comparisons between several European countries challenging. These constraints were encountered also in this study.

In Europe, common-pool resource regimes have performed well with regard to public and private resource management institutions. To learn from good practices developed in different kinds of “community forest arrangements” it is essential to create tools to compare them systematically. The typology introduced by Lawrence et al. (2021) provided a method of assessing the Finnish JOFs in the context of European “community forest arrangements” in order to recognise the common and distinctive features of the Finnish system in relation to other countries in Europe, and particularly to Sweden.

The history of JOFs in Finland is a good example of great variation within one country. The leading causes for the establishment of JOFs in Finland from the

1870s to the 1950s were societal and political. They were connected first to settlement of landless population in southern Finland and after the Second World War to resettlement of evacuees from areas ceded to the Soviet Union. The establishment of large JOFs to northern Finland between the 1930s and 1960s completed the Great Redistribution of Land Holdings there. Like in Sweden, JOFs were established in Finland on state lands or lands acquired by the state for settlement purposes until the end of the last century.

The fourth and ongoing phase of establishing JOFs in Finland differs noticeably from the previous ones. Since the turn of the millennium, forest policy programmes have encouraged landowners to voluntarily establish new JOFs or to incorporate their forests to older ones, supported by incentives from the state. At the national level the leading goal of the present JOF policy is to prevent fragmentation of forest estates. This recent development has distanced Finnish JOFs from other European “community forest arrangements” and brought them closer to investment funds.

Another noticeable difference between Finnish JOFs and other European “community forest arrangements”, particularly Swedish ones, is related to communality between shareholders and to collaboration with the surrounding community. Throughout their history, Swedish forest commons have supported cohesion between shareholders and the surrounding community by means-tested distribution of part of the surplus to single farms to develop agriculture and forestry on their private lands, while another part of the surplus is allocated for promoting the wellbeing of both members and non-members of the forest common. In Finland the recently established JOFs appear as property management units, without any defined social obligations towards other shareholders or the surrounding community.

The most notable change that separates the present Finnish system of JOFs from Swedish and European “community forest arrangements” was the reform of the JOF Act in 2003. Before the law reform Finnish JOFs and European “community forest arrangements” had mainly supported agriculture and livestock husbandry by providing funds for investments through commercial cuttings, wood for domestic purposes, and grazing land for livestock. However, the growth in farm sizes and commercialisation of farming in Finland diminished the importance of the share in a JOF for an individual farmer since the 1980s. Furthermore, many shareholders worked outside farming. Instead of supporting agriculture, the role of JOFs has been since the law reform to support implementation of forest policy. In the national forest strategy JOFs are now expected to prevent fragmentation of forest estates. The present system of JOFs in Finland has distanced far from its original goals and from European “community forest arrangements”.

### **Conflicts of Interest**

The author declares no conflict of interest regarding the publication of this paper.

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