

Emotional links to forest ownership. Restitution of land and use of a productive resource in Põlva County, Estonia

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Our survey among new land and forest owners in Põlva County in southeast Estonia focuses on the owners' different motives for obtaining land and forest property through restitution and privatization from 1992 on. In the light of the historical context presented, two clear-cut motives for obtaining property appear: emotional and economic. Based on the results from the survey we conclude that the emotional non-economic factors have been most influential for a majority of the landowners, regardless of if the actual property was restituted or purchased. The emotional bonds to landed property are related to the aspiration to regain and repossess family property and thereby related to a certain place affiliation. Another interpretation concerns the restrictions with regards to the spread of modern commercial forestry among the – foremost small-scale – property holders for which the actual possession is around 12 ha each.

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Introduction

In spite of its limited size of around 45,000 km² and a population of roughly 1.3 million, Estonia's relatively large forest assets turn the country into an interesting case in point for studying post-socialist property changes. More than half the country's land area or 2,284,600 ha, is denoted as forest. If we exclude unstocked areas and bush the productive forests constitute 47.3 per cent of the country's total land area (Aastaraamat Mets 2005). Estonia, together with Finland, Latvia, Sweden, Norway and Russia, belongs to the group of European countries that have more than 1 ha of forest/wooded land per inhabitant. This is however a quite recent phenomenon in Estonia where most forests grow on previously agricultural lands, which were naturally reforested or planted beginning in the 1950s. The current state-owned forest area, which will remain state property, basically corresponds to the 850,000 ha held by the state during the interwar statehood. After Soviet annexation in 1940 and the subsequent forced collectivization during the peri-

od 1947–51, many chose to leave the countryside. Natural reforestation took place as an outcome of the large-scale Soviet agriculture, which left previous pastures and remote fields uncultivated. While interwar Estonia's forests were marked by their balanced stock and well developed forestry management, the post-war forests' stock became extremely diversified (Dahlin 1999).

The changes associated with the Agricultural Reform Act of 17 October 1991, in force from 1992, are essential for understanding the post-1991 redistribution of land and forest. Restitution of land and assets has presupposed claims from a legal person and approval from a governmental authority. When claims have been approved, land and forest have been returned to previous owners or their heirs free of charge. In cases in which privatization has been applied, property has been shifted by means of auction directed by the state. The same goes for land and assets for which no claims have been raised (Järvinen et al. 2003). An understanding of individuals' motives for obtaining land or forest must therefore take into account different

driving forces that are present in a transforming society like Estonia. For example, the size of the holding places restraints on the economic returns, and the non-economic or "intangible" values differ between owners (Toivonen et al. 2005).

It has been suggested that a great physical distance between the property and the owner's place of residence, or the lack of emotional and economic bonds to the place of the property, affect both management and maintenance. These ideas, relating to the importance of place for an individual's decisions, emanates e.g. from Tuan (1974); Allardt (1975); Relph (1976); Entrikin (1991) and Stjernström (1998). In more recent studies, Lindgren et al. (2000) have discussed the important relationship between land use and the forest owner's place of residence. Pettersson (2002) also investigated post-productive forestry, which includes the entrance of new entrepreneurs and alternative incomes from the forests (Pettersson et al. 2002). According to Allardt (1975), place attachment can be divided into four different categories: economic, social, cultural, and material. Economic and material attachments relate to local job opportunities, possession of land and real estate, while social attachment relates to having close relatives and friends. Cultural attachments express identification with the local culture, for example dialect and local traditions. Allardts' (1975) classification was an early attempt to conceptualize place attachment into different categories. This enabled to develop other parameters in mobility and migration studies and in studies of regional development. In this regard, human capital as a regional resource can also be considered as a production resource which to various degrees, is connected to the actual place or region.

A major outcome of the first ten years of restitution in Estonia after 1991 was the return of the interwar property relations, implying a resurrection of many small farm holdings below 10 ha of land or forest. Hardly viable in a market economy but important as transitional solutions, these subsistence holdings provided both basic foodstuffs and firewood during the initial years of hardship (Jørgensen 2004). In 2004 when Estonia joined the European Union, the property structure of forests had developed into the following ownership categories: state forest, 36 per cent; private forest, 38 per cent; and forestland subject to further privatization, 26 per cent (Aastaraamat Mets 2005).

When the land reform and privatization processes draw to a close, the share of private forestry

is expected to increase to around 60 per cent of the total forest area. However, both restitution and privatization have been circumvented by insecure legal arrangements such as a lack of documentation, resulting in numerous issues of fraud and mismanagement. Well-defined and secure property relations were not established at the same pace as the new Estonian owners began exploiting their land and forests in the 1990s. It has been shown, for example, that: "It is evident that the high share of illegal logging is directly caused by individuals who are exploiting the weak legal and enforcement system with a desire to gain quick profits" (Hain and Ahas 2005).

Like modern farming, modern forestry is multi-functional and the altered property relations have also affected management. In addition to logging, recreation and hunting offer additional income possibilities, which place a focus on issues like environmental protection concerns, biodiversity and sustainable development (Järvinen et al. 2003). However, 60 to 70 per cent of the Estonian forest owners live far from their relatively small holdings, which in 2004 were around 12.4 ha per unit (Ministry of Agriculture 2007). The liberal Estonian forest policy, based on the Forestry Act of 1998, is an attempt to resemble the West-European legislation, in which a large share of the decision-making power is handed over to the individual owners. However, since many new owners lack personal experience of forest management or necessary forestry education, it is not uncommon to find widespread distrust of the government as well as weak law-abiding attitudes (Hain and Ahas 2005).

The aims of this article are twofold. The first aim is to place the land restitution and forest privatization processes in Estonia after 1991 in a historical context, and the second is to provide empirical insight into these processes, derived from a survey in Põlva County in Southeast Estonia. At this stage of investigation, the analysis is devoted to explaining the actions and motives among the new private forest owners and their relationship to their landed property, or more specifically the different motives, objectives and apprehensions of land and forest ownership. With regard to the processes of restitution and privatization, two motives are discernible. The first is based on economic rationality and is related to the expected future economic gains from property. The second is driven by non-economic issues. Here, specific emotional and historical values are at the centre of the owner's aspiration to own property. In the context of regained independ-

ence and the post-socialist transformation, the interlinked laws on property restitution and privatization have therefore been crucial.

Hypothetically speaking, we assume that the present landowners in Estonia are motivated by two major rationales, either a) emotional bonds to land or b) the immediate or future economic returns from their landed property. The first part of this hypothesis relates to what we call the *emotional filter hypothesis*, implying that emotional relationships to property have different meanings. On the one hand, a certain size of property can be aspired based on what can actually be managed by a single owner or his/her family. On the other hand, the legal openings provided by restitution allow for repossession of previously expropriated land for which the motives are embedded in historical and symbolic values. The emotional rationality is related to family history and the symbolic meaning of place (sense of place). For smallholders without any previous experience of forestry, the motives for forest ownership or interest in forest management may be weak (Toivonen et al. 2005). We therefore assume, on the one hand, that among certain land and forest owners the emotional bonds to the specific property can have a restrictive impact on modern forestry, e.g. volumes of felling and forest management since the economic gains are subjugated to the emotional ones.

On the other hand, in the context of the extreme liberalised Estonian post-socialist transformation process and its associated property reforms (land reform and privatisation) the economic rationality of the owner must also be seen in relation to the forest industry demand. Estimations made in 2000, e.g. concluded that the large volumes of timber cuts made in private forests, which at this point constituted around $\frac{3}{4}$ of the total cuttings, would increase further. This would not only imply a severe reduction of total forest stock, but also generate severe alterations with regards to the diversity of forest. The cutting of old spruces could therefore, as it was said, not be "compensated by the increment of middle-aged birch stands in drained swamps" (Kuuba. 2001). Therefore, the initial years of Estonia's transformation, which were characterised by insecure property relations, insufficient forest legislation, absent controls, auditing and suitable enforcement mechanisms, can provide a different and more short-sighted interpretation of the owner's economic rationality. From the perspectives of the introduction of modern and efficient forest technology, the demand for timber

from Multi National Forest industry Corporations, and Estonia's integration in the global market, it is likely to assume that the owner's possible initial long-term ambitions of returns from forestry can have been overridden by short-term profits.

Concerning the impacts from emotional bindings to property, which we denote the emotional filter hypothesis, it aims to reflect that land-use decisions taken by the property holders not only are related to market rationality but also to the property holder's own values and experiences. The property holder may prefer an alternative land-use strategy to maintain family bonds, contribute to ecological preservation or emphasising other aspects that are related to the affiliation of the place.

In order to explore these relations we start by presenting the methodology and the survey, followed by a discussion on property reform and the historical context, which provides the framework for an overview of the key problems related to property changes. Thereafter we turn towards describing the relevant forest macro-data. Finally, we discuss some tentative results from the questionnaires that will constitute the basis for a concluding analysis.

Property relations in Estonia

While most of the Estonian forests were state property during the interwar independence, the total forest area grew at the expense of agricultural land during the Soviet period (1940–1991). Owing to this fact, the restitution of interwar holdings since 1992 has provided the main entrance into forest ownership. If claims from individuals have been absent, privatization has been used instead. In comparison to the land restitution process for which the symbolic relationships between land and identity have been crucial, forest privatization has been a less sensitive political issue. According to the former Minister of Social affairs, Arvo Kuddo, a main factor behind the decision to carry out restitution after 1991 was the search for justice. Restitution was therefore a means to compensate previous owners for their suffering under Soviet rule (Kuddo 1996). When restitution was chosen as the first priority, it implied that claims at the local municipality level needed to be discussed and solved before privatization could proceed. The sluggishness of the land restitution process and its associated legal impediments has, however, also

affected the forest privatization process. Five years after independence, only 10 percent of the Estonian forests were managed privately (Roosmaa 1999).

Property restitution and privatization are essential features of the post-socialist transformation process, and have had far-reaching effects on the agrarian property relations and associated production activities. Property rights, however, do not presuppose a system based on private property. It is rather a case of a bundle of rights, stretching from access – or use rights – to ownership rights to a specific resource. Important, however, is that functioning property rights legitimize the relationship between the person/persons who dispose a resource and those affected by this. Property rights are therefore dependent on the specific context in which they are exercised, implying that both time and space matter (Widgren 1995).

In the context of privatization, the role of both formal (codified) and informal (cultural) institutions are important. In contrast to the legal codified rules, the informal institutions are sluggish by nature and often need a certain period of adjustment before they are broadly accepted among the public. Well functioning institutions can reduce transaction costs, for example that of carrying out and controlling an exchange of property (North 1990). However, the initial property changes in post-socialist states often took place in a kind of legal vacuum, which opened up for exploitation. Low transaction costs are therefore dependent on adequate and sufficient information, functioning institutions and efficient enforcement mechanisms. A general problem associated with restitution is destruction. Since the 1940s many properties have been destroyed or divided, or have simply vanished. The general neglect of maintenance has also turned restitution into a lottery process or numerous compensation solutions (Rabinowicz and Swinnen 1997).

The current property structure in Estonia can be understood from the different turns taken during the radical shifts during the 20th century. These shifts are related to the achievement of the first independence in 1918, the dependence and subjugation during the Soviet period 1940–91, and the build-up of market economic relations in the post-1991 period.

Estonia reached its first independence in the aftermath of the Russian revolution and the dissolution of the Tsarist Russian Empire in 1920. The radical land reform of 1919–1926 gave full prop-

erty rights to 140,000 peasant proprietors. Only 4 percent of the land area was left intact after expropriation and redistribution. The properties of the major landowners, the Baltic-German nobility, were henceforth fully redistributed. However, the interwar governments chose to keep most forests in the hands of the state, partly as a currency reserve (Lipping 1980; Köll 1994; Jørgensen 2006).

The second major property shift came after Soviet annexation in 1940, which ended the short period of independence. Interrupted by a German occupation during 1941–44, the *ad hoc* Soviet command economy turned towards a full-scale planned economy after the war, followed by forced collectivization after 1947 (Köll 2004). Within the Soviet Union division of labour, Estonia's role was to specialize in agricultural production. Forestry was of secondary importance and parts of the stock therefore remained untouched during the Soviet period, during which Estonia's forest areas more than doubled. Between 1958 and 1991 the annual increase was in fact 19,300 ha (Põllumajandus ministerium 2007b). These forests grew on land considered less significant for large-scale agriculture. In areas where post-war felling was substantial, uneven stands, with regard to both age and species, developed. Because of the low economic priority of Estonian forests until 1991, large areas of forests were also transformed into national parks or recreation areas, which of course was gainful from the perspective of biodiversity. Forest Management was divided between different administrations: the state forestry administration 60 per cent; *kolkhoz* and *sovkhos* 38 percent; and military units and other 2 per cent (Dahlin 1999).

In the second half of the 1980s *perestroika* and *glasnost* nourished profound changes in the agrarian areas. Starting from the informal agrarian reforms in 1987, based on the experiences from the relatively successful private plot production, some private farmers could apply to lease land from *kolkhozes* and *sovkhos* on an eternal basis. This was legally sanctioned beginning in 1989; however, due to Soviet Law, formal property rights could not be obtained until after independence in 1991, when the regained independence led to a process of profound economic-political and social restructuring along free market economy lines (Jørgensen 2004).

The major problems in the forestry sector around 1991 were related to the lack of appropriate management and forestry infrastructure, together with the lack of market institutions. Another problem

was the dissolution of large-scale agricultural kolkhozes and sovkhoses, which in general had a negative impact on rural development during the first ten years of independence. The less important role of forestry in total employment meant that fewer problems appeared from the dissolution of forest-oriented kolkhozes and sovkhoses. However, since many kolkhozes were functioning as municipalities, they provided services far beyond agricultural activities; the dissolution of large-scale farming thereby affected all kinds of rural activities (Unwin 1997). The transfer of management and supervision in Estonia of privately owned forests has therefore not been free from friction.

Modern forestry in Estonia

The first draft of a new Forestry Act was presented in 1993, which paved the way for a new perspective on forestry. In 1997, when the share of privately owned forests had increased substantially, the first Forestry Act was adopted by the Estonian Parliament. Since then forestry has faced increased problems of a juridical character, partly due to the step-wise adjustments to European legislation in which, e.g., conservation of biodiversity and sustainable development are emphasized. Forests, however, can generate different kinds of added values in other sectors. For the new holders, owing not least to the fact that reconstruction of the agricultural sector has meant the loss of markets and several legal impediments, the additional forest resource has contributed to the average farming

household's investments and to regional development (Järvinen et al.).

Besides the incomes from felling and recreation, tourism can create additional income for the new Estonian forest owners. Even though large shares of pine and spruce stands had been deforested by the early 1960s, which severely reduced the total forest volume and gave an unbalanced stock, the present rich biodiversity is one factor of importance (Dahlin 1999). On the one hand, in the context of the Soviet planned economy, Estonia's role was to be that of a major agricultural producer and several rare species were thus preserved in the less productive and peripheral areas. The forest developed its richness as a biotope due to the lack of exposure to modern forestry cultivation. On the other hand, obvious to anyone travelling through Estonia, the rich biodiversity also means that many forests suffer from a lack of appropriate thinning. Tall and weak stands on a poor site cannot produce internationally competitive timber or wood.

The most common species in the Estonian forests are pine, birch and spruce, but the distribution between these species has altered greatly over the past 50 years. From 1958 to 2004, the percentage distribution changed drastically. The stock of Pine decreased from 42 to 35 percent, a decrease was also visible in the stock of Spruce from 33 to 19 percent, and the increase of Birch went from 19 to 26 percent (Aastaraamat Mets 2005). Natural reforestation thereby mostly took place when agricultural land was left aside; this was the case not least for marshlands, which are common in Estonia (Table 1).

Table 1. Land category areas in Estonia (ha) (Aastaraamat Mets 2005: 2).

Land category	Total land area *		State forests		Other owners	
	1000 ha	%	1000 ha	%	1000 ha	%
Forest land	2284.6	52.3	859.9	78.7	1425.7	43.5
of which stocked	2138.5	48.9	806.3	73.9	1332.2	40.6
of which unstocked	146.1	3.3	52.6	4.8	93.5	2.9
Bushes	70.9	1.6	2.3	0.2	68.6	2.1
Agricultural land	1314.3	30.1	8.4	0.8	1306.0	39.8
Bogs	250.8	5.7	163.1	14.9	87.7	2.7
Inland water bodies	100.6	2.3	13.9	1.3	86.7	2.6
Urban settlements	155.2	3.6	0.1	0.0	155.1	4.7
Roads	50.0	1.1	7.5	0.7	42.5	1.3
Tracks	58.3	1.3	21.2	1.9	37.1	1.1
Mineral extraction sites	34.2	0.8	14.2	1.3	20.0	0.6
Other land	50.9	1.2	2.1	0.2	48.8	1.5
Total	4369.8	100.0	1091.6	100	3278.2	100.0

* Total land area does not include Lake Peipsi

The Forestry Act of 1997, in force from 1998, generated a ten-year development plan beginning in 2001. Here the objectives were to maximize “the contribution of the forestry sector to national economic and social well-being on a sustainable basis”. The basic regulative and monitoring systems that were implemented implied a separation between the state’s regulation/authority function and the ownership and administration of the state’s forests (FAO 2000).

In 2004 the Estonian forests covered 2,284,600 hectares (more than 52 percent of the total land area) with a growing stock of around 456,075 m³ corresponding to 200 m³ per ha. Out of this 92.4 percent were considered as available for wood supply. Around 172,000 ha were classified as protected forest with high natural values and these areas are therefore excluded from commercial forestry (Aastaraamat Mets 2005). The changes in property and market structures after 1991 have induced further increases in the amount of forestlands. Thus the re-forestation trend, initiated during the Soviet years, has continued. Private forestry is estimated to increase up to around 60–65 percent in the nearby future.

Methods and data

This article is based on forest statistical data, current academic research and compilations from our survey among forest owners in Põlva County. In May 2006, the Põlva County land register or *cadastre* contained 14,324 properties comprising one ha of land or more. Smaller properties and those in urban areas and villages are excluded from this study. The cadastre provided access to data such as size of property, date of registration, identification number, name of municipality and village, but neither names nor addresses to the legal owners. After making a random selection of 800 properties we contacted the Estonian Cadastre Registration Authority, from which we obtained name and social security number for the owners of the 800 landed properties. By matching the social security number with the population register in Põlva County we then found the owners’ addresses. The questionnaire focused mainly on the landowners’ economical, social and emotional bindings or relations to the property. The respondents were asked to evaluate different statements regarding the reasons for their ownership, the importance to regain or to maintain family property, the pros-

pect for economic returns from the property and the future use of the actual property. The actual and possible future land-use is essential in this matter. The questionnaire also brought up issues like occurrence of illegal logging and the owners’ attitudes to forestry cooperation, which however will be presented in a forthcoming article.

The mail survey was based on a total of 770 questionnaires sent out in August 2006. Five weeks later, after a reminder, a second questionnaire was mailed. At the end of December 2006 the survey had resulted in a response rate of 36 percent ($n = 276$). Considering the widespread public scepticism towards authority practices and questionnaires of this kind, we find the response rate acceptable. Since it is common for many properties to have several owners, often within the same family, a single household may also have received two or more questionnaires. The Chi2 test shows that the results from the questionnaire are representative in comparison to the total register data with regard to the respondents’ sex and age distribution. The results are, however, less representative for the size-distribution of respondents’ holdings. It is possible that the propensity to respond to the questionnaire is related to the owner’s property size. Fewer respondents among larger land and forest owners and overrepresentation of small-scale owners can, for instance, indicate that smallholders, finding the non-economic incentives for property more important than the larger property holders and thus small-scale owners are more likely to respond. This will be discussed later in this article, which is limited to the compilation of results from the first part of our survey. This first part of the survey provides the empirical data related to motives and driving forces for obtaining land and forests. Thereby, we scrutinize the new landowners’ relationships to their properties, looking at the emotional bonds to landed property on the one hand and the economic bonds on the other.

The Põlva County survey 2006

Põlva County makes a suitable case for investigating the role of land and forestry among new private proprietors. It is one of 15 Estonian counties based on 13 municipalities and one town area, which cover 2,164 square kilometres or 5 percent of Estonia’s total area (Fig. 1). Most of the 32,000 inhabitants, or 73 percent, are rurally based and 27 percent live in towns. The county borders on

Table 2. Distribution of forestland area in Estonia and Põlva County in 2005 (Aastaraamats Mets 2005: 4).

	Commercial forest: ha and %		Protection forest: ha and %		Protected forest: ha and %		Total: ha	Forest available for wood supply: ha and %	
	1000 ha	%	1000 ha	%	1000 ha	%	1000 ha	ha	%
Põlva	95.8	84.9	13.9	12.3	3.1	2.8	112.8	109.7	97.2
Estonia	1578.9	69.1	533.2	23.3	172.5	7.6	2284.6	2112.1	92.4

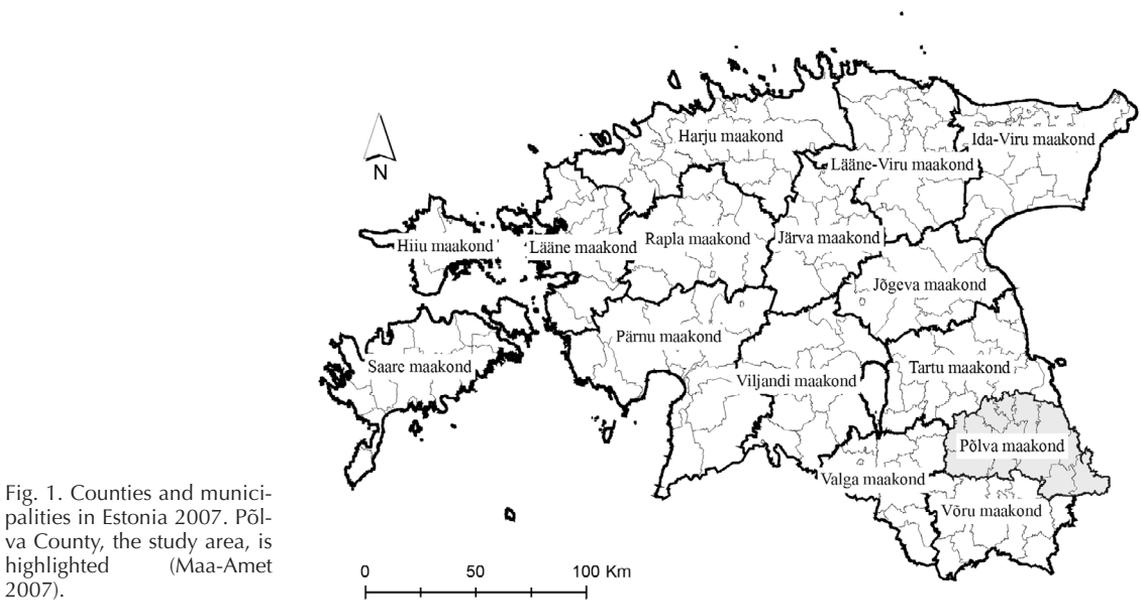


Fig. 1. Counties and municipalities in Estonia 2007. Põlva County, the study area, is highlighted (Maa-Amet 2007).

land and across the great Lake Peipsi to the Russian Federation. More than half the county is forested. Its growing stock of 217 m³/ha places it among the top three Estonian counties, with a national average of 200 m³/ha. In relative terms, Põlva County has the highest amount of commercial forests and wood supply in Estonia. However, as can be seen in Table 2, much less of the county's forested area is devoted to nature protection (Aastaraamats Mets 2005).

According to Table 3, almost half of the registered properties in Põlva County possess less than 10 ha of land and forest. Fifty-seven percent of the holdings have forests and the other 43 percent only possess agricultural land. Six of eight forest properties are smaller than 10 ha, which means that a majority of holders possess rather small forests while 3.3 per cent of the forestland can be found among properties containing 30 ha or more. From the cadastre it is possible to analyse the

progress in the ongoing land restitution and privatization process. The year of restitution mentioned in the cadastre marks the year when the property was legally re-established.

Table 3. Size distribution of property among owners possessing one ha or more of forestland in Põlva County in 2006.

Size in ha	Frequency	Percent
1.00–9.99	6538	45.6
10.00–19.99	983	6.9
20.00–29.99	222	1.5
30.00–39.99	90	0.6
40.00–49.99	47	0.3
50.00–	341	2.4
Total	8221	57.4

(Põlva County cadastre registers 2006)

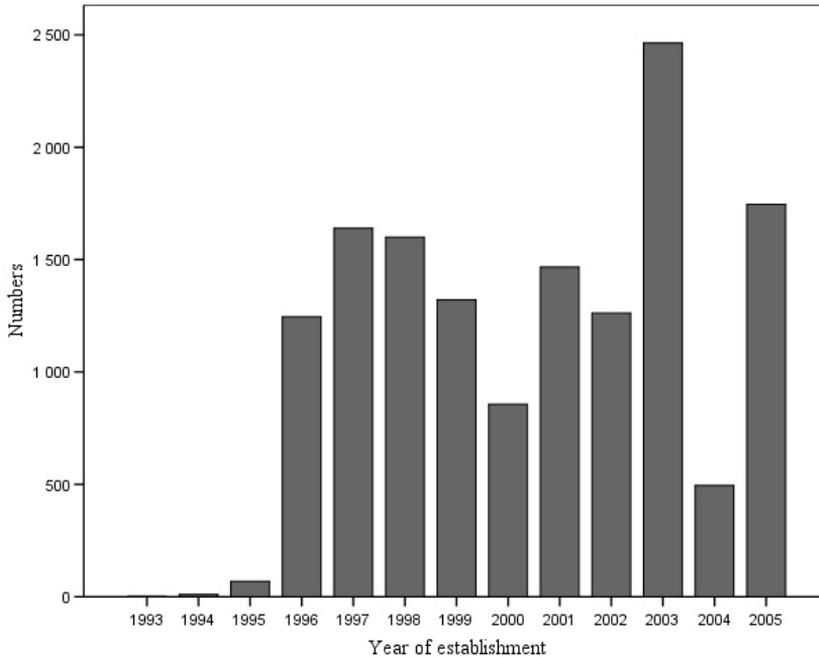


Fig. 2. Numbers of restituted and privatized properties in Põlva County 1993–2005 (N = 14195) (Põlva County cadastre registers 2006).

Figure 2 shows the annual development of establishment for restituted and privatized landed properties in Põlva County from 1993 to 2005. The slow pace of restitution and privatization up to 1995 followed a national pattern due to several legal and administrative difficulties, e.g. too few land engineers in relation to the number of claims for restitution, which in many parts of the country exceeded the amount of land available. The increase of cases closed in 2001 and 2003 was due to the extra effort placed on the processes of restitution and privatization in the light of a forthcoming EU accession. When EU membership was considered to be within reach after 2002, this spurred investments in land and property, driving land prices up and contributing to a better functioning land market (Jørgensen 2005). In 2001 the European Commission stated in their report that due to the lack of administrative capacity at a local level, 1.6 million ha of land still remained to be registered, of which around 1.1 million ha were to be subjected to restitution or privatization (Commission of the European Communities 2001).

Results

In our survey, 47 percent of the respondents were female and 53 percent were male. As Table 4 indi-

cates, the share of elderly above the age of 64 was 30 percent, which should be compared with the national share of 15 percent according to the 2000 census (Statistical Office Estonia). Sources of income seem to be distributed normally among the respondents, except for the share of elderly who have their main income from pension (Table 5). While the elderly constituted 30 percent of the respondents, the share of pensioners was almost 40 percent. This indicates that many landowners are either early retired or disabled. A clear minority of respondents stated that their main income was derived from agriculture or forestry.

Thirty percent of the respondents stated that they had higher education (here, implying university) (Table 6). This corresponds well to the national Estonian average of 29.6 percent for those be-

Table 4. Age distribution among respondents in Põlva County, Estonia 2006.

Age distribution in classes (n = 276)	Frequency	Percent
20–34	33	12.0
35–64	159	57.6
65–	83	30.0
No answers	1	0.4
Total	276	100.0

Table 5. Respondents' main sources of income in Põlva County, Estonia 2006.

Types of income/Incomes from (n = 276)	Frequency	Percent
A Own property	19	6.9
B Own business	24	8.7
C Employment in agriculture or forestry	10	3.6
D Public sector	32	11.6
E Private sector	51	18.5
F Pension	108	39.1
G Study loans	2	0.7
H Unemployment benefit	1	0.4
I Other	26	9.4
J Total	273	98.9
Missing	3	1.1
Total	276	100.0

tween 20 and 64 years of age, but it is also much higher than the EU average of 20.9 percent for the same age group (Riigikogu 2007). In the survey, however, respondents above the age of 65 constituted a much larger group than its share represented on a national basis.

The respondents and their land

After the initial years marked by the restitution and privatization processes under the legal influence of the government, open market sales and inheritance have become more frequent. The 276 respondents in our survey, who possessed one ha or more in 2006, represents this entire spectrum of owners. Thirty-seven percent owned two properties, another 13 percent had three properties and less than 6 percent had four registered properties

Table 6. Educational levels among respondents in Põlva County, Estonia 2006.

Level of highest education among respondents (n = 276)	Frequency	Percent
University	83	30.1
Secondary school	134	48.6
Primary school	53	19.2
Total	270	97.8
No answer	6	2.2
Total	276	100.0

or more. Almost one-third (30 percent) of the respondents stated that they shared ownership of the property with close relatives such as spouses, children or siblings. The others owned their property alone.

The relationship between the owner's place of property and place of residence is described in Table 7. Almost 30 percent of the respondents lived permanently on their property, 26 percent returned regularly for longer or shorter visits and more than 30 percent stated that they had family history linkages to the specific property, as a former place of residence for either themselves or close relatives. Only 10 percent of the respondents lacked any family ties to the place of the property, which supports the importance of emotional bonds to the property.

Altogether the survey comprised 433 landed properties, of which close to 25 percent were restituted. In contrast to the property changes concerning agricultural land, which foremost has been subjected to restitution after 1991, a majority of forests in this survey have been privatized and sold at market price. With regard to property 1 – denoting the owner's first piece of forest property – 30 percent obtained this property through restitution. First refusal and purchase of properties were additionally important factors in explaining the possession of property for around 33 percent of the respondents. However, more than 35 percent stated that their main (or single) property had been obtained either as a gift or through inheritance. This can be somewhat questioned based on the

Table 7. Relationship to property and place of residence among respondents in Põlva County, Estonia 2006.

Owner's residential connection to the property (n = 276)	Frequency	Percent
A Permanent residence on property	81	29.3
B Returning for longer visits to property	25	9.1
C Returning for shorter visits to property	47	17.0
D Previous residence in the neighbourhood	40	14.5
E Family roots	45	16.3
F No bonds	28	10.1
G Total	266	96.4
H * No answer	10	3.6
Total	276	100.0

Table 8. Respondents' ways of obtaining land and forest in Põlva County, Estonia 2006.

		Respondents' ways of obtaining land and forest (n = 276)					
		Property 1		Property 2		Property 3	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
A	Restitution	83	30.1	20	18.7	6	15.8
B	First refusal	28	10.1	28	26.2	7	18.4
C	Purchase	63	22.8	21	19.6	10	26.3
D	Inheritance	67	24.3	3	2.8	5	13.2
E	Gift	30	10.9	21	19.6	6	15.8
F	Parcelling	1	0.4	12	11.2	4	10.5
G	Other	1	0.4	2	1.9	0	0
	Total	273	98.9	107	100.0	38	100
	Missing	3	1.1				
Total		276	100.0	276	100.0	276	100.0

* Owners can possess more than one property (Property 1, Property 2, etc.). Only a few respondents declared possession of more than three properties.

fact that we can assume that the landed property was initially restituted to elderly or deceased relatives. It is thus likely that the share of restitution cases is higher than the percentage distribution in Table 8 indicates.

Motives for obtaining property

In order to reflect the owners' motives for obtaining landed property, the respondents were asked to evaluate a number of motives (Table 9). The responses support the hypothesis that emotional factors play an influential role but also one anomaly, which concerns the second most important factor in the survey: the importance of having access to wood for heating and construction. Considering the relatively high energy prices and the insecure

incomes in rural areas, it makes sense to use firewood from one's own forests. In fact, most old farmhouses in the countryside are heated purely by wood and the option to use wood for heating in many city apartments provides a further incentive. For most owners, the least important factor seemed to be the possible incomes to be derived from the forest. In other words, support for the emotional hypothesis can be found, when not taking into account the possibility to substitute costs for heating. Thus it seems to have been less important to acquire land for additional income possibilities than to regain family property and reconnect to the place where, e.g., cultivation of the land provides a certain meaning.

The results in Table 9 also support some of the findings from Table 10. Emotional factors, together

Table 9. Respondents' valuation of motives for obtaining property in Põlva County, Estonia 2006.

Most important motives for obtaining property. 1 = most important, 5 = not at all important. (n = 276)			
	Numbers	Mean	Std. Deviation
Regain family property	189	2.1376	1.56834
Access to wood for heating and construction	220	2.3136	1.43243
Access to second home	174	2.4770	1.52704
Re-establish contact with family home district	177	2.4859	1.57071
Access to arable land for own use	213	2.5634	1.52401
Income possibilities	191	2.7644	1.44440

with some of the economic factors related to the household's economic status, are to be considered as the most important. The statement "preservation of nature", in Table 10, is held by the respondents as the most important while "regaining former family land" is valued lower in Table 10 than in Table 9. This can be seen not only as a problem of consistency in the respondents' answers, but also as the result of how they judge the relative importance in relation to other statements in the questionnaire. The high ranking of "preservation of nature" can be interpreted as an indicator supporting the idea that emotional motives and reasons for land ownership are more important than economic gains. However, it can also be interpreted as a mirror of common environmental consciousness. Notably, the statement regarding the possibilities of "economic benefits" from the forest is ranked relatively low. In this regard it would be interesting to take a closer look at the individual landowners who stated that they had some income from the forest.

After the respondents ranked the list of statements, they were asked to pinpoint the primary, second and third most important statements. Around 44 percent of the respondents pinpointed "access to wood and timber" for heating and construction as the most important factor among the statements. This time only four percent of the respondents ranked "preservation of nature" as the highest ranked factor, which could reflect the difference between the individual's private interest and the general public interest. From the outset, many owners show an interest in environmental

protection and nature conservation, but when it comes to the individual's private interest or choices, other factors such as limits on household support and income become more important.

Forest incomes

Even though the survey supports the assumption that emotional reasons play an important role for the new landowners in Põlva County, and are seemingly more important than economic reasons, the economic gains from property are not absent. In the questionnaire, respondents were asked whether or not they had forestland. Almost two-thirds (63 per cent or 172 respondents) stated that they owned forestland, which implies that the rest of the respondents could not have any such income. The size of forest properties was generally small, and almost half the respondents (45 per cent) had forest properties smaller than 10 ha. Not very surprisingly, 60 percent of the respondents stated that they did not have any income whatsoever from forestry. A reasonable assumption from this is that the size of property matters and larger forest property holders need to have higher incomes from forestry. However, the number of respondents in our survey is too low to confirm this assumption.

Only ten respondents stated that they in the last three years had incomes from forestry corresponding to 25 percent or more of their total income (Table 11). Among those with less income, 40 percent stated that they had had some income from their forests during the past three years. It is in fact

Table 10. Respondents' valuation of land and land ownership in Põlva County, Estonia 2006.

	No.	Mean	Std. Deviation
Access to wood for heating and construction	210	1.8095	1.09015
Access to berries and mushrooms	181	2.1934	1.14560
Economic benefits from the forest	170	3.0941	1.35981
Land for recreation	166	2.3373	1.22378
Preservation of nature	164	1.7866	0.83457
Land for hunting and fishing	155	3.9226	1.30700
Possible future place of residence	154	3.3831	1.49596
Work possibilities	152	3.7829	1.30672
Investment possibilities	151	3.2185	1.35102
Land for pasture	150	4.6533	0.75072
Regaining former family land	147	3.0884	1.61722

Table 11. Respondents' percentage incomes from forestry and size of property, Põlva County, Estonia 2006.

Size class (n = 172)	Distribution of incomes from forestry in percentage classes							Total
	0%	0.5–4,99%	5–9.99%	10–14.99%	15–19.99%	20–24.99%	More than 25%	
1–9.9 ha	78	7	5	5	2	0	2	99
10–19.9 ha	19	3	5	6	3	2	0	38
20–29.9 ha	6	1	4	4	1	2	3	21
30–39.9 ha	0	0	3	2	0	0	2	7
40–49.9 ha	0	0	0	0	0	0	0	0
50 ha–	1	0	1	2	0	0	3	7
Total	104	11	18	19	6	4	10	172
%	60%	6.4%	10.5%	11%	3.5%	2.3%	5.8%	100%

possible that more forest owners had income from forestry, but this income was unevenly distributed between different years. Since the questionnaire was limited to incomes covering the past three years, it may have had an impact on the responses from smaller forest owners, which do not harvest on a regular basis. From a five-year perspective, 27 percent of the forest owners have sold timber, on average 419 m³, which seems to be a rather modest volume before the number of small forest properties is considered.

Emotional versus economic bonds

The differences between forest owners who have regained property through restitution and those who have purchased their property in open market sales can be explained in terms of emotional and economic motives. A majority of the so-called emotional-categorized owners have obtained most of their property through restitution, inheritance or gift, while the economic-categorized owners mainly bought their land on the market. The significant difference between the two groups is due mostly to the expectation of additional incomes from the property among those in the latter category.

With regard to accessibility to wood (for heating purposes), accessibility to arable land, and land for the possible location of a second home, no significant difference can be found between the two owner categories. However, the possibilities of regaining former family property and re-establishing family ties have a significant importance for the emotional category. When it comes to incomes from forestry, it is reasonable to believe that forest owners who have bought their land or forest need

to have incomes from the properties to a larger extent. However, the survey shows that the share of forest owners with restituted property declaring incomes from land or forest property is higher than that of those who have bought their property on the market (Table 12). The share of owners who reside on their restituted – regained – property is also higher than that of owners who bought their land. As indicated by Table 13, the relationship to a specific place – the place of property – seems to be more important for owners who have regained former family properties.

Owners with restituted property consist of individuals who are much older than the group that has purchased their land. The average age in the restituted group was 59 years (median value is 62 years), while the average age for the other group was 52 years (median value 49 years).

Discussion

The multifaceted property system developing in Estonia after 1991 shows the existence of different rationalities for obtaining landed property. This is due to the experiences from shifting property relations during Estonia's first independence 1920–1940 and its associated land reform, which ended with the Soviet nationalization and forced collectivization after 1940. Bearing this in mind, our overall hypothesis, discussed in relation to the survey results, is based on the emotional bonds to land versus the future economic gains from landed property. The "emotional filter hypothesis", based on the different emotional relationships to property, implies that while a certain size of property can be aspired to, e.g. on the basis of calculations on

Table 12. Respondents' estimation of incomes from property. Respondents representing those who have obtained land through restitution (emotional owners) or purchases (economic owners) Põlva County, Estonia 2006. Questionnaire study.

Transfer of property	Important	Neither	Not important
	Income from property (n = 166)		
Restitution	37%	29%	34%
Purchase	45%	16%	29%
Access to wood (n = 195)			
Restitution	71%	11%	18%
Purchase	61%	10%	29%
Access to arable land (n = 186)			
Restitution	53%	10%	37%
Purchase	62%	12%	26%
Access to second home (n = 149)			
Restitution	57%	8%	35%
Purchase	62%	16%	22%
Regain family property (n = 162)			
Restitution	88%	6%	6%
Purchase	38%	6%	56%
Re-establish family connections (n = 151)			
Restitution	77%	6%	17%
Purchase	34%	14%	52%

Table 13. Income, place of residence and place relation among restituted and non-restituted landowners in Põlva County, Estonia 2006. Questionnaire study. (n=234)

Transfer of property	Income from own forests	Living on the Property	Place-relation
Restitution*	74%	50%	100%
Buying**	61%	28%	71%
Total (number)	241	234	234

* Restitution also includes inheritances and gifts

** Buying includes buying land on the market or at auction

how much land can be managed by a single owner or household, the legal opening provided by restitution also allows for repossession of previously expropriated land. In this later sense, historical and symbolic values nourish an emotional strategy related to family history and the symbolic meaning of place (sense of place).

Hypothetically speaking, it is possible that if the owner's economic incentives are weak at the expense of emotional bonds this can have a negative impact on the volumes of felling when too many owners consider the non-economic factors to be

more important. On the other hand, the initial insecure property arrangements during transition also opened up for frauds and illegal logging. However, needless to say, both the emotional and the economic rationales are stylized and must be regarded as two kinds of extremes. The economic motives, which comprise both financial gains from the property as well as certain costs for maintaining and preserving the same property, e.g. taxes, maintenance and investments need to be regarded as long-term motives too. Yet, in the re-established Baltic market economies there are reasons to discuss both the emotional and economic motives for obtaining property since it is in the light of the historical circumstances and the strong symbolic values circumventing landed property that we need to understand the property reforms. When the illegal Soviet confiscation of property was ended by restitution, it thus gave legitimacy to the previous owners and/or their heirs. Hereby, the regained family property materialized the owner's relationship between family and geographical origin which then expressed the recognition of the years of unfairness. One example is e.g. the destiny of the Estonian-Swedes, which left Estonia in great

numbers in 1944 and after 1991 applied to have their former property restituted (Grubbström 2003).

Restitution in itself is – and has been – a relatively complicated process. If land cannot be returned because of destruction or city expansion, the claimed land must be compensated with land somewhere else. An additional problem is the relatively split ownership structure characterized by small lots. Most forest properties are relatively small and the number of forest owners is quite high, which requires cooperation among the small-scale owners in order to maintain rational forestry. It is also conceivable that restitution has created a group of involuntary forest owners, which increase the probability of a worsened silviculture through a lack of genuine interest and knowledge. Another consequence concerns the distance between the owner's residence and the location of the forest property, which can have a negative impact on the actual property.

The emotional motives or bonds to property are often stronger than the economic ones. In our survey the owner considers the economic returns from the property as being subjugated to the importance of place and a vertical support through generations. The owner is familiar with the land and finds the routes and paths, attends to the cultural and nature heritage, etc. To compensate for a public requirement of private land by replacing it with land located somewhere else is not always free from complications. While the economic losses can be compensated for, the emotional values are harder to both define and evaluate; it is hard to replace the affiliation with a certain sense of place with property located somewhere else.

The results from our survey go in two directions. On the one hand, we find significant emotional bonds among those who bought land in comparison with landowners who received land through restitution. This does not imply that the emotional landowners are uninterested in monetary returns from their property. In fact, we cannot say how much of the restituted land that was sold or parcelled out for site leaseholds for second homes or for other purposes. However, it goes without saying that landowners starting with restituted property might have ambitions to expand their possession from buying neighbouring land. Others claim to see additional incomes from tourism, hunting and fishing activities.

An interesting aspect of emotional ownership is to what extent it can affect the supply of wood if

the economic returns from modern rational forestry are subjugated to emotional ownership. Thus, if large shares of forest owners are guided mainly by emotional bonds, it may affect Estonian forestry in a negative way. This implies, on the one hand, that we may have an "emotional filter" linked to the ownership, which can aggravate the implementation of modern forestry methods. On the other hand, the emotional factor also enhances for the preservation of the rich forest biotope Estonia developed during the Soviet period when forestry was not a main economic activity. Thus in the long-run there may appear restrictions on the supply of timber for the Estonian forestry-based industry.

It is possible that many small-scale land and forest owners, in order to meet the demands of the forest industry, either try to sell off their property or to establish efficient co-operation with other property holders. During the past ten years, huge efforts have been put into developing forest-based industry like modern sawmills furniture industries, wooden houses, etc. This rapid development within the forest industry sector has caused a growing demand for timber, which also has had an effect on imports, mainly from Russia. Thus, environmental concerns, efficiency in forestry and the possibility to meet demand can be regarded as signs of this development. In this context the emotional filter hypothesis functions as a supply barrier that can have both positive and negative effects. One of the positive effects is related to environmental pressures, especially when the demand is high and the forests are more likely to face environmental problems like over-logging and monocultivation. If the small-scale forest property structure is dominated or at least affected by emotional property concerns, it can have a protective effect on the forest resource as a whole, on the one hand. On the other hand, a small-scale forestry sector is not unique to Estonia. Sweden and Finland are also closer to this property structure. However, in Sweden and Finland the context differs from the perspective of the market institutions. In both cases, producers' cooperative associations are essential to both maintaining high productivity and reducing transaction costs.

It is sometimes more important to be a property owner than to have economic gains from a property. This is in line with the "emotional filter hypothesis", supported by, e.g., Lidestav and Nordfjell (2005) and Mizaraite and Mizaras (2005). However, Lidestav and Nordfjell (2005) also show

that owners of restituted forests have more income from forestry than those who bought their properties on the open real-estate market. We would expect to find stronger economic motives among those who bought land on the market than we actually did, which makes some of this study's findings a bit contradictory. But it is necessary to stress that the families' ties to the place of property are much stronger among restituted landowners than among others.

Conclusions

This study explores attitudes to forest property among forest owners in Põlva County in South-East Estonia. Even though our survey only covers One County it is likely to expect the existence of similar attitudes to ownership in other counties due to the relative size of Estonia and its historical property relations. It is however necessary to mention that there are profound differences in the demand for land, e.g. when comparing Põlva County with the Tallinn area and the coastal region. The historical settings and distance to population centres are some factors which affect land-use. In the coastal regions it is clear that there is a higher demand of land for second homes and recreation and in these regions the market demand affects both the price of land and job opportunities (Grubbström 2003). However it is reasonable to believe that one general feature is constituted by the emotional ties to regained family property. Thus the respondents in our survey provide specific understanding of land-use in present Estonia, not least with regards to emotional bonds to property.

The emotional filter hypothesis expressed by the owner's ambition to maintain the regained family property and thereby recreating family history continuity – in which other land-uses than modern forestry, e.g. nature and nature preservation has a pronounced role – have formed the general idea of this study. The results of the study partly support the idea that the emotional bindings to the property are strong and may give a negative impact on felling volumes. While it is difficult from this study to foresee the importance of the price elastics among forest owners' and their willingness to implement rational forest methods it is however clear that the restitution process has been important for forming symbolic meanings of the importance of individuals' vertical place relation. Around 50 %

of the forest owners who regained land through restitution also live on the actual property. Furthermore, all restituted owners have family connections to the actual area or property. This feeling of having regained land – to possess – is also more important than any other factor, such as getting more land for economic use. It is also clear that many of the regained owners of small forest properties seem to value the preservation of land higher than having economic returns from the property. The property holder in general regards the land as "safe" and many of them show very restricted intentions to turn towards commercial logging. One explanation may be that the properties are too small in order to create any significant contribution to the household economy. However, the market demand in the last years has also been somewhat exceptional. With regards to the construction boom, accompanied by significant exports of wood, this came to a halt in Estonia in 2007. In a long-term context we need to consider that since the Post-Soviet property reforms began, a relatively short period has passed. Writing in the midst of the financial crisis of 2008 and the expectations of several years of negative economic growth in Estonia, parts of the emotional rationale seem to make more sense. Today the relationship between emotional and economic motives for forest ownership is perhaps not only a matter of emotional links or possible earnings from wood, but in as much related to the short-term impact from a down-ward business cycle. At least with regards to illegal logging and general demand, the current market situation may provide us with different interpretations in the forthcoming years. This may imply that the emotional ownership not only will continue to remain important in the future but also perhaps enable for the Estonian forests and forest owners to be better prepared for changes in demand in the years ahead.

Figure 3 is an attempt to summarize and present an overview of the factors affecting the emotional ties to forest property in our study. Emotional ties can also be expressed as different approaches to place attachment. In Nordic migration research, place attachment is used as one explanation for the obvious stability of residence among the Nordic populations. Most people do not move often. A majority of the Nordic population remains settled in the same region throughout their life and those who once moved away are often inclined to return to their region of origin (Stjernström 1998, Garvill et al. 2002). In the context of the past fifteen years

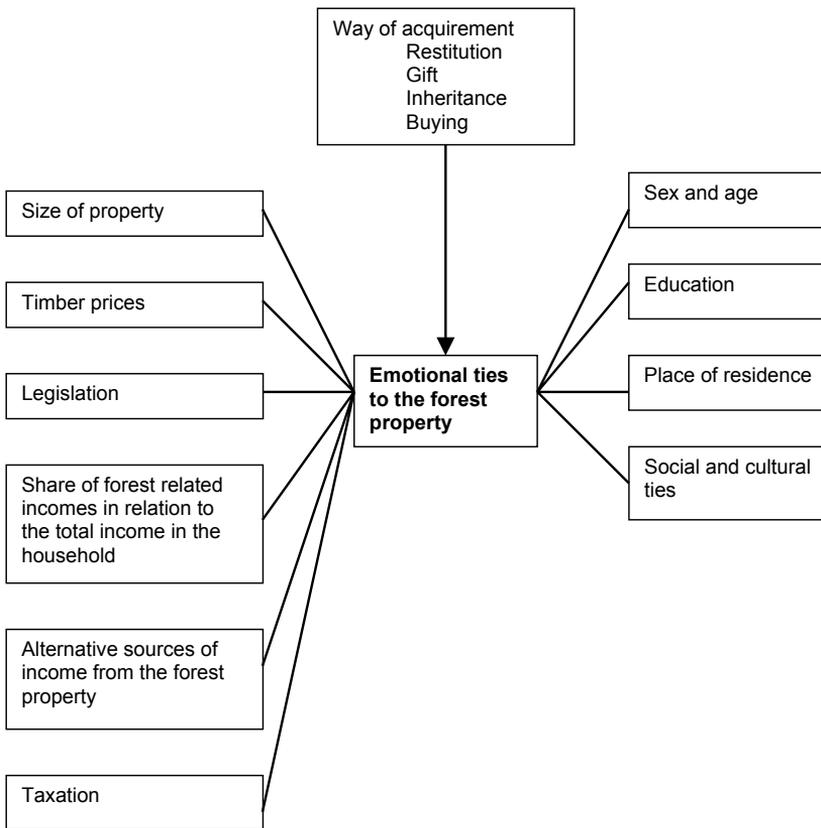


Fig. 3. Conceptual model of factors influencing emotional ties to a forest property

of transition and property reform there are certainly more motives than simply economic ones to consider in Estonia. Emotional ties, which to some extent can express the attachments established by previous generations, remain important. For many people it is also a strong symbolic action to reclaim the regained land that used to belong to their family.

If emotional factors are important in the ownership of land and forests, one might suspect that the present small-scale owner structure may be inconsistent with rational forestry. The result in this study points in more than one direction. In other national contexts (Finland and Sweden), small-scale forestry has proven to be possible to combine with highly rational and productive forest industry development. In a forthcoming article, we will therefore explore and discuss the role and function of the producers' co-operative associations for this development. The case of Estonia will here be elucidated from the perspective of the relatively low impact of co-operative structures in the post-1991

development in relation to the important role held by the producers' co-operative associations, foremost in agriculture, during the interwar independence.

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