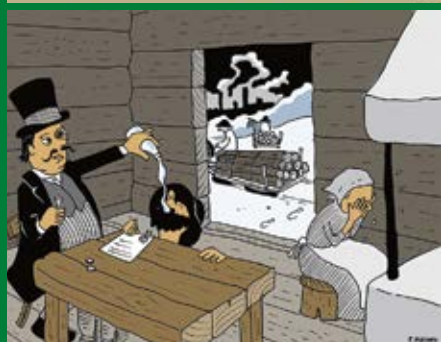


From common to private ownership

Forest tenure development in Sweden 1500–2010



Sweden's tenure system requires open dialogue between forest owners and stakeholders considering multiple user rights. Private ownership of forest has contributed to the success of the *Nordic forestry model*. Experiences from the tenure development in the Nordic countries have a broad application for global forest policy.



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in Sweden 1500–2010



1813–2013

Summary

Tenure reforms accompany the ongoing re-evaluation of forest natural resource management around the globe. If programmes for landscape transformation and restoration are to succeed on a large scale we must learn from failures as well as successes. The different phases of the historical development of Swedish forest tenure presented in this report can be recognised in other countries all over the globe, although the length of the phases varies widely depending of the country's natural conditions, history and governance. The Nordic model, with stable institutions, markets and clear rules for the actors based on a democratic system and a multi-functional dialogue, creates a stable ground for the development of a successful tenure system. This report highlights the great importance of strong tenure rights for the peasants, the importance of the awareness of the values of forest products as well as other lessons learned during the development of a sustainable tenure system.

Failures as well as successes during the last 500 years

This issue of the journal of the Royal Swedish Academy of Agriculture and Forestry (KSLA) summarises the forest tenure development in Sweden with failures as well as successes during the last 500 years. Different actors and stages of the tenure development are presented using possession rights and non-exclusive user rights as a point of departure.

The interplay between Peasant, Crown and Company interests

Decisive for the tenure transformation process in Sweden, starting in the late 17th century, was a theme successively growing stronger: the interplay between Peasant, Crown and Company interests. Up till the end of the 19th century, the Crown was exercising some kind of *dominium directum* over all forestland. Noblemen, companies and tax farmers held *dominium utile*-style user rights. After a century-long transition period, around 1900, the idea of inviolable private ownership, or *dominium plenum*, had gained general acceptance, whereas the late 20th century saw a re-emergence of *dominium utile*-style claims by external stakeholders.

The current structure reflects the objectives two hundred years ago

The driving forces of privatisation in Swedish forestry are seen in relation to the modernisation of society. The current forest ownership structure reflects the objectives of privatisation of forestland two hundred years ago. The Crown wished to provide every homestead with enough forest to cover its subsistence needs for major and minor forest products. Seeing to the number of stakeholders, the

most important privatisation process concerned the partitioning of the commons. The privatisation process gained momentum around 1800, well before the industrial revolution gave forestry commercial value. As there was little use for the vast timber resource, other than for household purposes, the Crown initially did not bother to define exact user rights.

An exploitation of the natural resource

Companies became significant for the development with the introduction of industrial forestry. The privatisation of forest preceded the profound change in mode of production with the introduction of steam-power saw milling from 1850. The period from 1850 to 1900 was highly turbulent when the full consequences of the transition from forest commons for subsistence to an exploitable natural resource became obvious. The demographic development accentuated the conflict between time-old perceptions of everybody's right to products and benefits from the forest and new ideas of exclusive usufruct by a legally registered owner. Alienation of peasant land, regardless of whether it occurs through economic change or after expropriation for public use, tends to be socially disruptive.

The law lagged behind

As this partitioning process went on and private ownership in the modern sense de facto took form, the law lagged behind. Many corporate law infringements, dubious affairs, fraud, and exploitation of peasant landowners occurred, and much of the accessible forestland was temporarily ruined. The efforts to settle the interior were largely unsuccessful, and the homesteads were abandoned due to the extent of labour required to exploit and later restore the vast forests.

A huge restoration and reforest process

Once secure in their tenure, the peasants started exploiting the now valuable timber resource, then, more reluctantly, began to employ modern management methods in spite of the extremely long investment horizon in northern silviculture. The Swedish forests and landscape have gone through a huge restoration process and key success factors have been a strong collaboration between researchers and practitioners as well as a continuous dialogue and well organised education of the farmers.



A large class of land-owning peasants created political stability

The concept of exclusive forest ownership took root rapidly once subsistence economy had been replaced by a market economic system. The existence of a large class of land-owning peasants created political stability in a situation where the number of rural landless grew rapidly and urban industry could not absorb the surplus of labour. Forest work on company and Crown land provided a basic income for the rural population well into the second half of the 20th century, when mechanisation drastically reduced the labour force required. Government policy had achieved two goals; one of fiscal consolidation by increasing the number of taxpayers, and the other of securing political stability. The outcome was the creation of a quarter million homesteads with 10 million hectares of forest, all with legal title to their land.

A clear framework adapted to multidimensional interests

Today, the forestry framework is well organised, including environmental measures and clear markets. This implies that the ownership structure and the roles of the actors are well defined. It is clear that private ownership of forest is a contributing factor to the success of the Nordic forestry model. A closer look reveals a partly dramatic transition from the tenure forms of traditional society into present-day forms, and today's ownership model is again contested. At the early 21st century, several actors heavily influenced the policy resulting in a need of forest governance with informative dialogue platforms adapted to handle swift changes with multidimensional interests. Thus, future successful forest policies ought to take into consideration the different objectives of land ownership to different categories of owners, and that user rights concern several recognised users.

The different phases can be recognised all over the globe

The different phases of the development presented in this report can be recognised in other countries all over the globe, although the length of the phases varies widely depending of the country's natural conditions, history and governance. It has taken 400 years, and failures as well as successes, to reach the current status of the Nordic model, whereas for example China aims to reach the same maturity through tenure reforms within 40 years.

Keywords: forest certification, forest governance, forest ownership structure, forest policy, forestry legislation, partitioning, property rights, restoration, Sami land use, tenure.

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Foreword

The interest in rehabilitating degraded forests has increased radically. One reason for this is the growing interest in furthering the role of forests as a sink for CO₂. Reduced deforestation is the hottest topic at the moment, but the interest to rehabilitate degraded forests is increasing fast. Successful worldwide rehabilitation, potentially affecting 1–2 billion ha degraded forests/vegetation, would be good for mankind, but could prove to be a challenge for millions of poor people utilising these areas. This concerns both intensive industrial plantations and small-scale farm forestry.

Forestry actually took Sweden out of poverty. If programmes for restoration are to succeed on a large scale we must try to learn from failures as well as successes. This is the reason why the Secretariat for International Forestry Issues (SIFI) during the last years has been inviting several international organisations to discuss lessons learned from the developments in different parts of the world, e.g. Austria, Brazil, Canada, Chile, China, Finland, Indonesia, Kenya, Peru, Portugal, Russia, Sierra Leone, Tanzania, USA and Vietnam. It has been clear that the interest to learn from failure and success in the development of Swedish forestry is great. The Swedish forests and landscape has gone through a huge restoration process. The transition from common to private ownership has been a successful path for Sweden, although not always straight as an arrow.

The Nordic model, with stable institutions, markets and clear rules for the actors based on a democratic system, creates a stable ground for the development of a successful tenure system. The strong tenure rights for the farmers have been of great importance.

This issue of the Academy's journal describes the tenure development in Sweden, using mainly Swedish-language material previously unavailable to an international readership. The pictures illustrating the development are specifically produced for this report. The aim is to identify different actors and stages of the development using possession rights and non-exclusive user rights as a point of departure. The report is built upon the temporal development and could be used to study the lessons learned from the different phases of the transition from common to private ownership.

Professor Jan-Erik Nylund has been working with forest policy research at the Swedish University of Agricultural Sciences (SLU), Helsinki University and several universities in Africa and South America. Dr. Fredrik Ingemarson has experiences from forest policy research at the Swedish University of Agricultural Sciences, Peking University and the European Forest Institute in Bordeaux. Their experiences and view upon the development of Swedish forest tenure from an international perspective should be very useful for an international audience.

Reidar Persson
Prof. SLU and SIFI

1

The premise of the report

If programmes for transformation and restoration of landscapes are to succeed on a large scale we must learn from failures as well as successes from all over the globe. Experiences from the historical development of Swedish forestry, with a history of degraded forests and a doubling of the standing volume in the forests, have lots to offer an international audience. Sweden's long experience in managing forests and the resources they provide illustrates the importance of the Nordic forestry model, based on a democratic system with stable institutions, markets and continuous training and dialogue with scientists and stakeholders. This report highlights the great importance of strong tenure rights for the peasants, the importance of awareness of the values of forest products as well as several other lessons learned during the development of a sustainable tenure system.

The forest – a cornerstone in the development of Swedish society

The forest sector has been one of the cornerstones in the development of the Swedish economy and is currently the largest net export earning sector. Sweden has about 1 % of the world's commercial forest area, but still provides 10 % of the world's sawn timber, pulp and paper. Swedish enterprises have been at the forefront of national and international certification schemes for the forestry sector, as part of the drive to promote timber as a sustainable raw material. The Swedish University of Agricultural Sciences has recently been evaluated and ranked as first class in several important areas of forest research.

Formerly, firewood, charcoal and tar were extracted from the forest, whereas today the majority of raw material is used for producing

pulp and timber. Sweden was a poor country until the 20th century, marked by centuries of war on the European continent during the 17th and 18th centuries. The tenure reforms were a prerequisite for the increase in Swedish prosperity during the last 150 years. The forest owner structure resulted in a large number of small-scale private forest owners enabling an increased prosperity in the whole society, not at least in the rural areas. Today, the majority of the forest land is privately owned. Forests in Sweden are usually divided into four groups according to ownership status: private forests, state-owned forests, community forests and company forests. Company forests are the most extensive in the North, whereas in the South private forests dominate.

Large forests characterise Sweden

The population of Sweden is about nine million and the area is similar to Spain's or California's (450,000 km²). Sweden is characterised by its large forests, long coastlines, and numerous lakes. The forest covers 50 % of the land surface, dominated by coniferous forests (*Picea abies* and *Pinus sylvestris*), but in the South often mixed with deciduous trees, such as aspen (*Populus tremula*) and birch (*Betula pubescens* and *Betula pendula*). Other hardwoods such as oak (*Quercus robur*), beech (*Fagus sylvatica*), linden (*Tilia cordata*), maple (*Acer platanoides*) and elm (*Ulmus glabra*) are found up to the border of Norrland (*Limes Norrlandicus*). North of this line, the landscape consists of large forests and river valleys, hills and mountains. This land is today used for both forestry and reindeer husbandry, which is of particular importance for the Sami culture. The southern part of the country has a varied terrain of fields, hills and lakes. Sweden is situated on the border between the more temperate Atlantic climate zone and the more extreme continental climate zone.

Sweden has large numbers of moose (*Alces alces*), roe deer (*Capreolus Capreolus*), foxes (*Vulpes vulpes*) and hares (*Lepus timidus* and *Lepus eurapeus*). Moose hunting is not only important from an economic point of view, but also from cultural aspects, especially in the North. Hunting is strictly regulated and many species are fully protected. The numbers of wolves (*Canis lupus lupus*), bears (*Ursus arctos*) and lynx (*Lynx lynx*) are increasing.

In 1910, Sweden was the first European country to establish National Parks to protect sensitive natural scenery and cultural heritage. In Sweden, everyone is entitled to visit forests and fields picking mushrooms and berries, under the customary right of common access (Ingemarson 2004).

The tenure development

Land tenure regimes are intimately coupled to land use forms, and tenure reforms accompany the on-going re-evaluation of forest management around the globe (Garforth and Mayers 2005). In public debate, the Nordic countries, particularly Sweden and Finland, appear to have reached an age of maturity regarding forest ownership (Palo 2006). However, a closer look reveals a partly dramatic transition from the tenure forms of traditional society into present-day forms, and today's ownership model is again contested. The present report aims at describing these processes in Sweden, using mainly Swedish-language material previously unavailable to an international readership.

This issue of the journal of the Royal Swedish Academy of Agriculture and Forestry summarises the forest tenure development in Sweden during the last 500 years. Different actors and stages of the tenure development are presented using possession rights and non-exclusive user rights as a point of departure.

Interpreting the historical development

Forest tenure concepts in a European context are analysed by von Below and Breit (1998), whose views are a starting point for the account below. Bekele (2003) summarises the classical contributions to the subject by Locke, Marx, and Mill, and the modern theorist, Bromley, with particular reference to a traditional society, Ethiopia, meeting modern perceptions and political change. A recent study by Fritzbøger (2004) discusses a similar transition in Denmark over a much longer period, from 1150 to 1830. The present study is mainly narrative, and the interested reader is referred to the cited works for a theoretical framework. However, the dis-

inction between on the one hand formal and exclusive possession rights and, on the other, various non-exclusive user rights, as discussed by von Below and Breit (1998, pp. 4 ff.) is a key concept for interpreting the historical development of tenure rights in Sweden.

Two themes are evident in the development of forest tenure in Sweden. The first one concerns the substitution of the older views on tenure for modern ownership concepts. Up till the end of the 19th century, the Crown was exercising some kind of *dominium directum* over all forestland, evident both through the oak re-

gale and its claim to one-third of the commons. Noblemen, companies and tax farmers held *dominium utile*-style user rights. After a century-long transition period, around 1900, the idea of *inviolable private ownership* or *dominium plenum* (cf. Fritzbøger 2004) had gained general acceptance (except by the far left), whereas the late 20th century saw a re-emergence of *dominium utile*-style claims by external stakeholders, albeit that term is no longer used: various “public interests” were recognised as limiting exclusive property rights while formal ownership rights are maintained.

2

The process of modernisation in Europe

In pre-modern Europe, the land itself was understood as a gift of God, as nobody can create more or less of it, and hence it could not be owned like man-made artefacts, only used. However, cultivated land was a result of hard labour, and man has right to the fruit of his labour. This view was a starting point for both Locke and Mill (cf. Bekele 2003), but has far older roots (cf. von Below and Breit 1998). Hence, cultivated land could be held with strong tenure rights, and transferred through inheritance or commercial transactions. Conversely, extensively used land (e.g. forest) had no distinct owners and was kept as commons by villages or larger local communities. Little time was invested in maintenance of land outside the fences, and only commodities produced by Nature's bounty were harvested, in the form of grazing, tree felling or collection of minor forest products.

Commons or property of the sovereigns

Eliasson (2002) adds to the view of traditional land tenure being based on the concept of a *moral economy*. According to this, everybody has a fundamental right to satisfy basic needs, and consequently have an equitable share of common resources in the rural society. Accordingly, parts of the land resource were to be managed as common property, open to all in the local community, whether landed or not. This age-old view was considered to be supported by the Bible.

Against the peasant perspective is the view that all land is the property of the sovereign or the ruling classes, a view most clearly expressed in the classic feudal system, in its strict meaning (cf. Cornell 2005). The Roman Empire

with its highly developed civil law never made claims of general state ownership of conquered land (although parts could be confiscated for settlements), but instead focussed on the right to tax collection. Cornell (2005) deduces the origin of the feudal social order from the collapse of Empire in the 5th century and onwards, when new, mostly Germanic, conquerors established their dominion over already settled land. The new rulers considered themselves the ultimate owners of all the new territories, and the peasants (peasant etymologically meaning 'people already living in the country') were according to the conquerors' opinion using the land only by permission.

Later takeovers, such as the state-building by Charlemagne around 800, or the Norman conquest of Britain in 1066, entrenched this view; all land belonged to the King, who delegated control to his magnates, who in turn delegated it to their vassals. Ultimately, where feudal control was strong, the rural population was reduced to serfdom with few formal rights. In other parts of Europe, a class of free peasants survived, subject only to the ruler. Thinly populated forests and rangelands rarely passed under strict feudal control.

Ownership and user rights

Legal specialists at the emerging European universities in the 13th century tried to solve the conflicting views by seeing land tenure from two complementary rather than opposing perspectives (von Below and Breit 1998, Fritzbøger 2004). The political power had *dominium directum*, a formal ownership right, including rights to sell and bequeath the lands. However, to this came a *dominium utile*, a user right, or rather many non-exclusive user rights, which could be customary or well defined by written agreements and upheld in court. In the less usual case, where the two *dominia* were united and a single person had exclusive ownership and user rights, the term *dominium plenum* was applied (cf. Fritzbøger 2004). The holder of a *dominium directum* could not legally nullify a *dominium utile*, although numerous conflicts arose when powerful landlords wished to evict rural residents whose livelihoods depended on the user rights. During the 15th century, such conflicts arose in England with devastating social consequences; these were exposed by Thomas More in his famous work *Utopia* (1516). The English Forest Laws (e.g. *The Black Act* of 1723) became notorious for their extreme harshness even in

case of minor infringements, while the peasant population still harboured notions that they had been deprived of ancient rights to forests and rangeland.

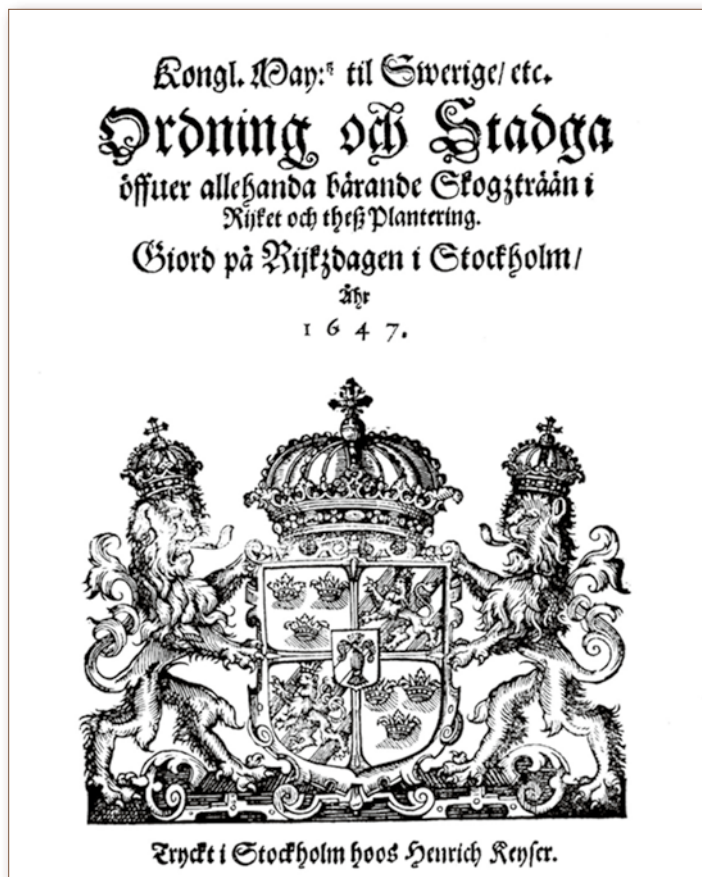
From common to private ownership

Privatisation of forest in Europe started later than privatisation of agricultural land and improved pastures. Large-scale reforms were initiated in France and the German lands in the wake of turbulence created by the French revolution and Napoleonic wars. von Below and Breit (1998) dedicate their study to the conflicts ensuing the transition from common to private ownership. That is also the background to Bekele's (2003) study of the transitions between tenure regimes in Ethiopia during the 20th century.

Writing about the Swedish reforms of forest legislation after 1970, Professor of Law Per Stjernquist (1993) refers to Renner's (1949) views that property rights have different significance to different categories of owners. To a present-day investor, land ownership may have no importance beyond its direct and indirect economic benefits. To the partners in a housing co-op, access to a suitable dwelling is central, while any possible gain when selling the apartment is secondary. To peasants all over the world, farming is a deep-rooted personal and social identity, land tenure being an indispensable part of it. Furthermore, in traditional society, the fruits of labour were accumulated over generations in the cultivated land, and holdings were frequently conserved within a family, a clan or a similar social group. Alienation of peasant land, regardless of whether it occurs through economic change or after expropriation for public use, tends to be socially disruptive. The lifestyle connection explains why real

or perceived infringements of individual or collective tenure rights are such a sensitive issue. Stjernquist (1993) remarks that these observations are in no way novel to rural development sociologists, but they tend to remain neglected in legislation, where equal application of the law is essential. A court cannot rule differently with respect to the social profile of the litigant, lifestyle peasant or commercial forest farmer. The late 20th century implied a successive rationalisation in agriculture towards

economically sound units in many countries, making land ownership less of a lifestyle in some units and more of an economic business. Conversely, exclusive private ownership of forest, contested in the first half of the 19th century, again became an issue in the wake of conservation and other public interests after 1970; it is currently a matter of growing controversy all over the globe, not least in the United States of America (study the background in Olivetti and Worsham 2003).



The first pieces of regular forest legislation in Sweden were passed in form of two forest ordinances in 1647 (original source material from the Library of the Academy); one dealing with carrying trees, including oak and ship building, and the other concerning restricting wasteful logging practices and shifting cultivation in high forest.

3

(-1650)

Traditional land tenure in Sweden

In Scandinavia, the feudal system gradually took root in the south and greatly influenced forest tenure conditions (Fritzboøger 2004). The Jutland Law, codified in 1241, stated (in section I:53), that of the commons, the King owned the land but the peasants the trees, whereas the Swedish Ostrogothia Law (1350: section JB1) stated that the King could sell a common to the peasants, implying a *dominium directum* over the land (Hoff 1997, p. 255 ff.). Such royal claims were obviously contested, Hoff (1997) comments, as the Scania Law stated that a council of local stakeholders could authorise the establishment of new settlements on previously uncultivated commons, no royal rights were mentioned. Similarly, Eliasson and Hamilton (1999) examine the situation in the Swedish lands. This section is based on their narrative.

A weak government

The Swedish central government was weak until the ascendancy of the Wasa dynasty in 1523, and the nobility consisted of great land-owning families rather than the feudal nobility of continental model. This meant that in the beginning of the early modern era (around 1550), land tenure was primarily regulated under the *peasant perspective*. Tilled land users fell into three categories: freehold farmers paying tax to the Crown, crown tenants paying fees not vastly different from the taxes, or noble families holding tax-exempted land (and frequently taxed land as well) tilled by peasant tenants paying dues (the estates were rarely managed directly by the owner with hired labour). Tax land and tax-exempted land could be sold, mortgaged, bequeathed and divided, whereas crown tenancy contracts were normally passed on to the next generation. Many tenants on the nobility's tax-exempted estates were, in theory, crown tenants

paying dues to the nobleman instead of to the Crown; however, the noble owners tended with time to consider themselves as true owners of the land. Perhaps more than a quarter of all homesteads had previously been held by the church, but most of these holdings were taken over by the Crown as a result of religious reform during the 16th century. In line with established Swedish terminology, the word *Crown* is used for the state in its capacity as property owner and fiscal agent, while *Government* is used for the state as the Executive and policy maker.

Forestland held in common

Rural settlements were organised into villages, where the agricultural land was split up in numerous plots, the demarcation of which was recognised by the community. The surrounding forestland was held in common, with right of

access to household timber and firewood, grazing, etc., for both landed and landless local people. The commons were recognised as belonging to villages, parishes, legal districts [*bärad*] or even provinces (Eliasson and Hamilton 1999). In less densely settled areas, they were not demarcated.

In the far North, the Sami population had distinct tenure rights to most of the highland areas. In the inland and mountains, Sami people hunted and herded their reindeer under customary regulation of their land use, paying tax to the Crown.

A rapid expansion of agriculture

Much of the North, as well as forest areas in the southern and central parts, were sparsely settled, and the Crown from time to time invited colonists, familiar with shifting cultivation methods, from the Finnish parts of the realm

to settle in sparsely populated forest areas. The Helsingland Law (codified in the early 1300s), valid in the sparsely populated northern two-thirds of present-day Sweden, specifically stated that anyone had the right to settle and open new farmland in no-man's land. Practically all forest land in the southern provinces up to river Dal was claimed by a community as commons, but sparsely settled regions still existed where demarcations were missing, and shifting cultivation was practised. Further to the north, commons of various types existed, mainly near settled areas on the coast and along major rivers. Due to intensive settlement, and the addition of former Danish provinces in the South, the number of rural households tripled over two centuries. Table 1 provides data on land owning households in Sweden about the year 1500 (estimates) and 1700 (census data), and illustrates the rapid expansion of agriculture.

TABLE 1. ESTIMATED NUMBER OF RURAL HOUSEHOLDS IN SWEDEN

	Year	
	1500	1700
Land-owning households <i>tax farmers</i>	35,000	60,000
Crown tenant households <i>crown farmers*</i>	20,000	67,000
Tenant households on tax-exempted nobility estates	12,000	60,000
Total landed households	67,000	187,000
Landless rural households	n.a.	48,000
Total population (individuals)	n.a.	1,780,000

*) By 1500, 16,000 of these tenants were cultivating Church land, to be secularised a few decades later.

Sources: For 1500: Heckscher (1935). For 1700: population statistics from all parishes, compiled in several issues of *Statistisk Tidskrift* around 1900. Fiscal statistics are available from 1870, whereas reliable area statistics on landholding were only obtained during the first property inventory in 1927–1928, at about the same time as a first national forest inventory was compiled.

4

Leading actors in Swedish forest tenure policy

In contrast to general European developments, the Peasants as a social group retained their political freedom and a strong influence on politics. Of the four Houses of Parliament, Nobility, Clergy, Burghers and Peasants, the King frequently favoured the Peasants to counter the ambitions of the Nobility. During the majority of the 17th century, the Nobility struggled to control the Government and expand their fiefs, but were thwarted in the 1680s and consequently played little role concerning forest tenure. Also King Gustavus III used the peasants' support in his struggle with the nobility and thereby gradually relaxed regulations in 1789 (main deregulation) and 1793 (beechness) (Enander 2007). All holders of tax land and crown tenants, who in this regard were just as enfranchised as the landowners, were entitled to elect their representatives to Parliament. Once the Estates were disestablished in favour of a two-chamber parliament in 1866, the Estate of Peasants was transformed into a political grouping, later to become a regular political party, which only lost its character in the late 20th century as a main vehicle for the political interest of landowning farmers. This politically important group will henceforth be referred to as Peasants; the term is not to be taken as connoting a rural proletariat. The factual material in this section is derived from Eliasson & Hamilton (1999) and Kardell (2003); however, the political interpretation is that of the authors.

The interplay between the actors

Starting in the late 17th century, another theme was successively growing stronger: the interplay between Peasant, Crown and Company interests. Until recent times, Peasants represented a social group with distinct lifestyle values, and the Companies stood for organised commercial groups representing a modern, monetary economy. In this perspective, the Crown acted in its own interest, striving to strengthen reve-

nue and maintain political control of the country. While the socio-political development in Britain, France and Germany can be seen as a struggle by the Burghers to gain dominance over the Nobility, a strong theme in Sweden was (and is) the struggle of the Peasants to control the ambitions of the Crown. With the advent of the 20th century, a new group, the Workers [*arbetarrörelsen*], gained ascendancy on the po-

litical arena, and were replaced at the end of the century by a much less organised and nebulous urban middle class.

The ambitions of the Crown

The principal ambitions of the Crown have mostly been political stability and maximal revenue. Control of land has not been a goal in itself; rather the governments, regardless of whether royal authoritarian or democratic parliamentary, have striven to increase tax income. This could be derived from mining or farming, and later from saw milling and pulp- ing industries. In earlier times, timber resources could be allocated to mining and metalworking, as Sweden was Europe's only large supplier of copper and a major supplier of iron. Forestland could be used for new settlements that would pay taxes or tenants' dues later. However, the Crown had a direct interest in the forest as a source of oak and mast wood for shipbuilding, and heavy beams for construction. To obtain this, it maintained regale rights to such timber wherever it was found, except from the Nobility's tax exempted land. During the 20th century the governments strove to protect and increase forest resources and even tried to force forest owners to fell in order to supply the important forest industry with feedstock, as in the 1970s.

The goal of the Peasants

The Peasants' primary long-term goal was to free their land use from governmental control. Up to the 19th century, the peasantry showed

no interest in changing the form of tenure, as forest products were mainly used for subsistence purposes. However, a few decades before the forest attained commercial value, growing individualism prompted landowning peasants to want to privatise forest commons along with re- figuring their agricultural land. Once secure in their tenure, the peasants first started exploiting the now valuable timber resource, then, more reluctantly, to employ modern management methods in spite of the extremely long invest- ment horizon in northern silviculture.

The Companies' interest

The Companies' interest in the forests was for a long time indirect, as they wished only to procure sufficient pit props, fuel wood and charcoal for mining and smelting. The technology was extremely wasteful, and smelting works had to be located where timber, not ore, was available. From the second half of the 17th century, the Crown *reserved* forest areas to support smelting works, transferring forest commons and adjacent tax and tenant farms to support this, taxes and fees were payable in the form of wood and charcoal deliveries to the Companies as a form of state subsidy. With the introduction of industrial forestry, the new Companies, now having wood as a principal feedstock rather than as an accessory, had better motive to control their feedstock resources in the form of full owner- ship of forestland. For the entire 20th century, Company forests had a predominant role in forest economy, but land ownership appears less of a key asset at the end of the century.

5

Introduction of private ownership of forest land

The transition from common to private ownership started with the unsuccessful settlement programme provided by the 1683 forest ordinance and progressed slowly during the 18th century. New holdings were established on forestland in the interior and the north. As there was little use for the vast timber resource, other than for household purposes, the Crown initially did not bother to define the exact user rights that the settlers could exercise.

(1650–1800)

Customary tenure arrangements

Tenure arrangements up till the reforms in 1800 can best be understood through the “two dominions” philosophy. The Crown made its influence over the forest felt in several ways, best interpreted as a tacit *dominium directum* over all forestland. Corresponding claims were never made on tilled land, where ownership rights of peasant and noble freeholds were unquestioned. Most notable in its consequences was the *regale*, mentioned above, or royal claim to ownership of all oak trees (and some other trees), as well as to large size coniferous stems suitable for masts and major public works, on all land except for the Nobility’s holdings. Freeholders as well as crown tenants could be compelled to take part in extraction and transport of this timber. This regulation, valid just into the 1800s, caused opposition from rural people and continuous conflicts with the Crown’s forest guards, and resulted in widespread destruction of oak sap-

lings. Even if the saplings grew on the tilled land, they could not be removed according to the *regale*. The oak issue is discussed in detail by Eliasson (2002).

Restrictions on traditional user rights

The first pieces of regular forest legislation in Sweden were passed in form of two forest ordinances in 1647; one dealing with carrying trees (including oak and ship building) and the other concerning restricting wasteful logging practices and shifting cultivation in high forest (see picture p. 15). Heavy opposition was weathered during parliamentary debates with the argument that these ordinances infringed on property rights and the same arguments were raised two centuries later preceding the 1683 forest ordinance. Several royal commissions worked during the second half of the 17th century with the main task of demarcating Crown

land, but also to regulate the peasantry's user rights in the crown forest (Nylund 2009). The Crown felt entitled to allocate forestland for use by mining companies that were in need of wood and charcoal for their operations. Although taking place before 1683 the allocations were regulated by an ordinance of that year (also allowing regular partitioning of Crown land for settlement). This implied that companies obtained a non-exclusive *dominium utile* within portions of forest commons, as existing user rights of the population were not restricted. Furthermore, with the allocations freeholders and crown tenants were directed to pay dues to the company, which regularly requested payment in kind, as deliveries of wood and charcoal, rather than cash.

With increasing population of rural people using the forest for cultivation, grazing and collecting of firewood, together with an intensified timber use by the mining industry, fears grew throughout the 18th century that forest products would not suffice all uses. Various restrictions aimed at timber conservation were introduced and enforced by the forest guards. In effect, these restrictions clearly infringed on traditional user rights, as did the ever-growing use of wood by the mining industry. However, later evaluations (Kardell 2003) indicate that timber scarcity and degraded forest stocks were mainly a local and regional phenomenon in southern Sweden, albeit much used as a political argument. This concern was general all over Europe, and exploited for political purposes by various actors wanting to bring the forestlands under stricter control (von Below and Breit 1998).

With the ordinances of the late 17th century, the Crown initiated a process of partition and settlement that continued until 1926. Kvist (1988) comments that the ordinance of 1542, stating Crown ownership of all unsettled land,

aimed to open up the vast inland forest in the northern part of the country for settlement, despite being claimed as commons by coastal communities. The partitioning created a need for demarcation, which in turn designated some land as exclusively owned by the Crown. However, subsistence use of forest products was permitted on most lands, the rules varying locally and with time as to the extent of marking required by forest guards before felling.

Slow privatisation progress

The privatisation of forest preceded the profound change in mode of production, which took place with the introduction of steam-power saw milling from 1850, and gave the forest commercial value. As the history of silvicultural legislation highlights (Nylund 2009), institutional change followed societal and economic changes. The driving forces of privatisation in forestry can thus be seen in relation to the general modernisation of the Swedish society.

The privatisation started with the unsuccessful settlement programme provided by the 1683 forest ordinance and progressed slowly during the 18th century. New holdings were established on forestland in the interior and the north. Large areas, many hundreds of hectares, were demarcated, as the new farms were to have animal husbandry as their main income, and patches of grazing land was widely distributed in the forest. Early instructions mention 150 to 400 ha, and 350 to 700 ha on weaker lands. Actual property sizes ranged up to several thousand hectares. As there was little use for the vast timber resource, other than for household purposes, the Crown initially did not bother to define the exact user rights that the settlers could exercise. The efforts to settle



Illustration 1. The privatisation started with the unsuccessful settlement programme provided by the 1683 forest ordinance and progressed slowly during the 18th century. Subsistence use of forest products was permitted on most lands, the rules varying locally as to the extent of marking required by forest guards before felling. The royal claim to ownership of all oak trees led to a widespread destruction of oak saplings.

the interior were largely unsuccessful with unclear tenure rights, and the homesteads were abandoned due to the extent of labour required to exploit and later restore the vast forests. Seeing to the number of stakeholders, the most important privatisation process concerned the partitioning of the commons. The early phases of this process are obscure, due to the lack of sources (Eliasson and Hamilton 1999). The Forest Ordinances of 1647/1664 order intensified demarcation of Crown land from commons. The ordinance of 1734 §19 discusses the use of

not partitioned common land in terms assuming that individually held forest also did occur, but, to our knowledge, there is no positive written evidence of such land other than that of the new settlements. However, Eliasson and Hamilton (1999) report, that the members of the Estate of Peasants had requested that partitioning of village commons should be authorised in the 1734 ordinance, but did not gain enough support. And reading §11 of the 1647 *Ordinance on the Forests of the Realm* closely, the legislator actually deals with the establishment of crofts

on individually held land – land that no rights of other shareholders could be infringed upon. Private forest tax land must have existed in some form even then, as it is mentioned in the legislation, but there does not appear to be any empirical evidence of private forest tax land.

The legal terminology in older forest legislation is not consequent. The two Forest Ordinances of 1647, republished in 1664, were acts of the Parliament, and addressed only specific issues such as demarcation, shifting cultivation, mining companies, and *carrying trees*. The 1683 legislation was issued by the Sovereign only. The ordinance of 1734 was a parliamentary act and aimed at addressing a wide range of issues. The Forest Ordinance of 1793 and 1805 were also wide in scope, but issued by the Sovereign without assistance of the Parliament. The very decisive legal text of 1789 (see below) was technically only a royal instruction regulating the conversion of Crown tenancies into tax land.

Law lagging behind

Starting around 1750, a major process of reallocating farmland [*Storskiftet*] had been initiated (first royal directive 1757), mainly on landowner initiative, and following similar processes in other European countries. The traditional settlement pattern meant core villages surrounded by fields, where each household had its parcel of land, implied serious fragmentation. The reform initially aimed at creating larger cultivation units, but in 1773 records from Karvia in the province of Ostrobothnia tell us that timber

forest was included in one partitioning process (Palo, *pers.comm.*). Partitioning maps from the province of Nyland show parcels of forest distributed with the farmland between 1781 and 1802 (Tasanen 2006). Systematic research into the archives would probably reveal many more cases.

In 1800, the land reform went into a second phase [*Enskiftet*] with the explicit goal of uniting all land of one farmstead into one continuous unit. From then on, land from the forest commons was included in the demarcation, and hence privatised. Nonetheless, parts of the commons continued to exist, for which detailed procedures and regulations were stipulated in 1805. (For more information about the present-day commons, see chapter 9.)

As this partitioning process went on and private ownership in the modern sense de facto took form, the law lagged behind. Yet, in 1789 a royal directive allowed crown tenants to gain freehold or strictly speaking tax land status by paying a fee. In this connection, it was essential to specify which rights the freehold status implied. §2 states that forestland should be included in the property demarcation, and that the forest could be freely used by the owner, §3 that it could also be sold. These rights were immediately understood to apply to all other tax land as well. The 1793 Forest Ordinance confirmed the new policy, which was again confirmed in *clara verba* in the ordinance of 1805: “...§18. *So may a tax farmer use his individual, legally demarcated or partitioned forest and land [sic] with the full right of ownership and disposal...*” (authors’ translation).

6

(1800–1850)

Accelerated privatisation of non-partitioned forest

In Europe in the period after the Napoleonic wars, there was a fundamental move towards a new economic liberalism. For about a century, this view dominated the Swedish political landscape. The demographic development also accentuated the conflict between time-old perceptions of everybody's right to products and benefits from the forest and new ideas of exclusive usufruct by a legally registered owner. Forest tenure and forestry regulation were regularly voiced during the sessions in Parliament during the first half of the 19th century. In 1823, the discussions culminated in a series of decisions. The reform was enthusiastically supported by the parliamentary Estate of Peasants, the Burghers were moderately positive, and the Nobility and Clergy were negative (Arpi 1959). Privatisation of non-partitioned forest accelerated with the advent of new legislation [*Lagskifte*] 1827, and 65,000 ha out of 160,000 ha registered forest commons were distributed to peasant owners, followed by a second stage of the reform aimed at liquidating the Crown land ownership.

Private initiatives

In Europe in the period after the Napoleonic wars, there was a fundamental move towards a new economic liberalism, long advocated by the ascending power of Britain, and away from government-directed economic policies. For about a century, this view dominated the Swedish political landscape, regardless of other political preferences. According to the liberalist view, private initiatives – individual or corporate – were seen as more efficient than state management of the national forests. While previous reforms aimed at transferring common forest to private ownership, a second stage aimed at liquidating the Crown land ownership

(except for military and residential purposes) as a matter of principle.

At this time, novel ideas of active and sustainable forest management were spreading from Germany. A first Forestry Institute was established in 1828 in Stockholm by I.A. af Ström, an enthusiastic advocate of the new thinking. However, the long political struggle aimed at reducing state regulation of private land use, and rendered any kind of forestry legislation unthinkable during the rest of the period. Instead, the small but growing corps of professional Swedish foresters provided the Crown with forest management plans, inspired by the forestry

thinking of the Continent, aiming at sustainable timber production and multi-functionality. As the companies' holdings became larger, they modelled their forestry organisations after the State forestry organisation, with districts and sub-districts headed by professional foresters (Nylund 2009). All claims to the Crown's partnership in the commons were withdrawn. The Crown's exclusive rights to oaks and other strategic timber had already been gradually relaxed, with the last regulations being removed in 1830

(Eliasson 2002, p. 181). Out of 70,700 ha actively managed Crown forest in 1824, 45,400 ha were partitioned up to 1850 (Kardell 2003, p. 117). The *redemption* of the Companies' forest allocations should be seen in the light of this policy change. From 1811, it became possible for Companies to *redeem* their forest allocations into tax land with normal property rights. Under these legal provisions and until the law was abolished in 1898, 330,000 ha were transferred into corporate ownership (Gadd 2000).



Illustration 2. While private ownership in the modern sense de facto started to form, the law lagged behind. The demographic development accentuated the conflict between time-old perceptions of everybody's right to products and benefits from the forest and new ideas of exclusive usufruct by a legally registered owner. The transition in the north of Sweden is one example where the state did not foresee an uprising conflict.

Exponential increase of property prices

Whether privatisation would have proceeded as it did is open to speculation, especially if anybody had been able to foresee the developments after 1850, as illustrated by an anecdotal example (reported around the year 1900 by the politician C. Lindhagen; quoted by Morell 2001, p. 124): The peasant Olof Jonsson in Härjedalen (southern Norrland) sold his homestead in 1781 to his son Jon for 67 Swedish dollars [*riksdaler*]. In 1811, Jon sold the property to his son Per for 267 dollars, who in 1840 sold it to his son Jon for 1,100 dollars. After that, Jon received title to 2,250 ha forest through the privatisation of previously non-partitioned land; in these areas, there had not been any demarcations of forest before. In 1864, Jon sold the forest property for 40,000 dollars. Subsequently, the property passed through several owners in a short time, and was acquired by the Voxne-Ljusne Company for 300,000 dollars in 1872. Even at this price it was a windfall, as the estimated standing value of high-class timber on the land was 2.5 million at the time of the acquisition.

Accentuated social conflicts

The short-term beneficiaries of privatisation were the growing numbers of freehold owners, some of which had owned their farmland for generations; others were crown tenants redeeming their farms, and settlers in the interior and the north. The reform implied increased limitations of customary use of forest resources by the landless. In 1750, the number of landless households was 25 % of that of landed households (including tenant farmers). While the number of landed households did not increase substantially up to 1850, the landless households (including

crofters) increased four-fold, mainly because of population growth from 2 to 3 million (discussed by Gadd, 2000). The demographic development accentuated the conflict between time-old perceptions of everybody's right to products and benefits from the forest and new ideas of exclusive usufruct by a legally registered owner.

A number of European historians have searched for hard evidence of social conflict. von Below and Breit (1998) quote E.P. Thompson in Britain describing the struggle against the fencing, i.e. privatisation, of the commons in Hampshire in the 18th century, and the harsh Black Act of 1723, which stated death penalty for some 50 different property related offences and infringements. Britain was early with rural privatisations, starting with the conversion of commons into sheep grazing land in the 16th century that caused severe rural proletarianisation (cf. More 1516), unrest and violence. Sahlins (1994) described social unrest in the French Pyrenees following privatisation of nominally royal domains in 1827.

In Germany, several researchers (von Below & Breit [1998], Blasius [1978], Radkau [1983 and other works] and Mooser [1984]) have studied various aspects of the same process. Blasius (1978) worked with statistical evidence on convictions from tried cases of *forest crime*. Eliasson dedicates a full chapter in his book *Skog, makt och människor [Forest, power and people]* (2002) to the discussions on forest crime. In Sweden, the illicit use of forest was an issue in every Parliament session between 1809 and into the 1870s, when company driven exploitative logging and take-over of peasant land became the issue of the day.

In Prussia (northern Germany), privatisation and new silvicultural ideas led to a rapid exclusion of large numbers of people from the forestland. As rural people were still dependent on the resource, regardless of tenure reform, the number of forest crimes escalated. Court statistics give evidence of 1,000 convictions per 100,000 inhabitants in 1836, and nearly 2,500 at the peak in 1860 (Blasius (1978)). This high figure reflects a violent social conflict when the feudal-style land-use patterns were replaced with strict private ownership.

The corresponding figures on court convictions in Sweden were much lower. A cross-county analysis shows median values of 38 convictions per 100,000 inhabitants in 1830–1834, 19.5 in 1850–1854, and 9 in 1870–1874. Eliasson (2002) reviews the public debate, and notes that tolerance to illicit use of forest successively decreased. The declining conviction

figures indicated that social control brought with it a reduced delinquency in this.

Some county data provides evidence of a higher conflict level. Skaraborg county in central south Sweden stands out with a very high frequency (422 convictions per 100,000 inhabitants during 1830–1834, 134 during 1850–1854 but only 21 during 1870–1874) compared with the national medians quoted above (all figures quoted from Eliasson [2002]). Skaraborg was not a region of early commercialisation, so the data may express a social conflict over changing forms of land ownership. Figures were relatively high in other reasonably well-forested southern counties, but not in the ones with the smallest forest resources. In these counties, people may have become accustomed to restricted availability of forest products for a long time, as existing resources were controlled by owners well before the early 19th century.

7

(1850–1903)

Full consequences of the transition

From the mid-18th century, the saw milling and pulp industry entered a phase of rapid expansion. The total use of timber rose from 21 million m³ in 1850 to 40 million m³ in 1900. This period was highly turbulent when the full consequences of the transition from forest commons for subsistence to an exploitable natural resource became obvious. The character of forest crime changed from adherence to subsistence forestry on common lands to modern, economically motivated criminality. Many corporate law infringements, dubious affairs, fraud, and exploitation of peasant landowners occurred, and much of the accessible forestland was temporarily ruined. Illegal loggers operated with paid labour, forest fires were lit to cover up their operations and as acts of revenge against landowners denouncing offenders to the authorities. Simultaneously, the future value of forest and forest industry became widely recognised and finally led to the breaking of political blocks and the introduction of adequate and successively stricter silvicultural legislation, starting with the first Forestry Act, of 1903.

Social consequences for the peasants

Besides the negative consequences for the condition of the forests, the public debate at the end of the 19th century was particularly concerned about the social consequences of the loss of peasant forestland, especially in the northern parts of the country. At that time, the vision was for prosperous farmers settled in Norrland to till the soil during the summer and work in the forest during the winter. This is also the idealistic picture of Norrland given in 1906 Nobel Prize winner Selma Lagerlöf's novel *Nils Holgersson's wonderful journey*. However, efforts to settle the interior were largely unsuccessful, and the homesteads were abandoned due to the extent

of labour required to exploit and later restore the vast forests. Forest work on company and Crown land provided a basic income for the rural population well into the second half of the 20th century, when mechanisation drastically reduced the labour force required and caused regional emigration to the urban centres along the Norrland coast and the southern parts of the country. The social catastrophe feared by many never fully materialised, but the general sufferings of the settlers and the conflicts between *the little man* and *the heartless Company* became a common theme in lore and literature.

Economically motivated forest crime

Over time, the number of convictions declined in the South, including Skaraborg, indicating an increased acceptance of the new order, in spite of the growing number of landless. With the booming industry in the North, forest crime increased in the two northernmost counties, Västerbotten and Norrbotten, in the 1870s, but here the issue was economically motivated crime, not social protest. The rural public's concept of common rights to forest is illustrated by the widespread opinion that illicit use of forest goods and benefits was not seen as dishonourable.

To provide a basis for new legislation, the 1855 Parliamentary Forest Committee conducted an enquiry into all county administrations. One question was how rural people viewed the illicit use of the forest. In traditional society, theft was considered highly dishonourable. However, the replies indicate that illicit use for private needs, at least on crown and common land, was considered acceptable, particularly by the landless and was not considered dishonourable as theft was. The individual answers showed a high degree of social awareness and concern, whereas illegal logging for commercial purposes was considered as theft and thus criminal. As later history shows (cf. Enander [2000] on the debate on the 1903 Forestry Act), the concept of exclusive forest ownership took root rapidly once subsistence economy had been replaced by a market economic system at the end of the 19th century. The character of forest crime changed from adherence to subsistence forestry on common lands to modern, economically motivated criminality.

Increased sawn goods and pulp export

From the mid-18th century, sawn goods from water-powered sawmills in the southern part of the country were exported in increasing quantities. The total volume, requiring 75,000 timber trees per year (Kardell 2003 p. 205), was small compared to the size of the resource, and it did not make the forest commercially valuable. The first steam-powered sawmill was established in 1849, in southern Norrland, and ten years later, the saw milling industry entered a phase of rapid expansion; from a total production of 1.4 million m³ in 1850, it peaked in 1900 with 12.8 million m³.

Production of mechanical pulp for paper-making started in 1857, and chemical pulp started in 1872. In 1900, there were 65 paper mills in the country (public statistics quoted by Kardell 2004). In the first phase of expansion from 1890 to 1920, the output rose from 0.15 to 1.1 million tons. The quantity of timber required can only be estimated at around 2 million m³ in 1900, but was over 10 million at the time of the first national forest inventory (1926–1930). The total use of timber rose from 21 million m³ in 1850 to 40 million m³ in 1900, and remained slightly above that level until 1950. From this quantity, the household consumption remained at 16 to 20 million m³ into the 1930s (data on timber consumption are from Arpi [1959]).

Companies buying rights from the peasants

Logging operations were organised by sawmills and logging contractors, much of the capital coming from foreign investors (Kardell 2003). During the early years of saw milling expan-

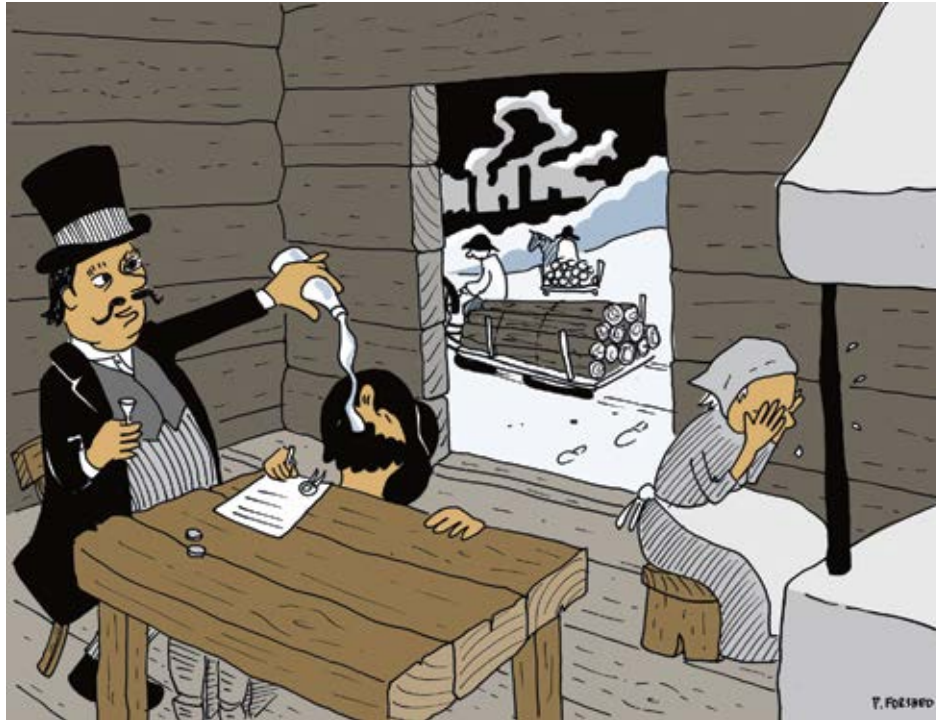


Illustration 3. During the second half of the 19th century, with an increasing value of the forest, companies approached the peasants with recent titles to extensive forest domains. Many corporate law infringements, dubious affairs, fraud, and exploitation of peasant landowners occurred, and much of the accessible forestland was temporarily ruined.

sion, the companies approached the peasants with recent titles to extensive forest domains, which up to now had no commercial value and were used for grazing and winter fodder collection. In that situation, it was easy for the companies to buy logging rights to all trees above set dimensions cheaply, and for periods of twenty to fifty years. The price paid was often well below timber value, even in cases where it appeared fair at the date of contract. New waterways were cleared by both companies and the Crown for floating, thus opening up pre-

viously inaccessible forest resources. The land was heavily cut, and neither the landowner nor the company had any incentive for any silvicultural action on the residual forest.

Just as the illicit use of the former commons was intensively debated by the public between 1809 and 1860, this new ravage of the forest resource and the plight of the forest owners now received as much attention. In 1890, the longest lease period was restricted by law to 20 years, in 1905 to only five years, as frequent cases of fraud were reported.

Once the industry had achieved greater economic stability, and partly in response to the frequent litigation over logging rights, companies started to buy land. This frequently took the form of the company acquiring the entire homestead, and then separating the agricultural land and reselling it to the original or another owner. This became a problem especially in Norrland, where at the same time settlements continued to be established on former Crown land, and in some cases quickly passed to company ownership.

The political climate was still in favour of economic liberalism, and even the peasants' political representation was against any limitations of landowner's right to sell to whom he/she pleased. In the debate (cf. Enander 2000), it was argued that restrictions on company acquisition of land would lead to drastically falling property values. Finally, the negative consequences of the companies becoming monopoly owners of non-Crown forest in northern Sweden became obvious, and a *stop law* to prevent further company acquisitions in Norrland was introduced in 1906. Although the problems had never been serious in the South, as the peasants' forest holdings were much smaller and there were fewer industries, the stop law was extended to the whole country in 1926.

In response to the rapidly increasing value of the forest, the Crown changed its previous policy of selling land (except for settlements in inner Norrland) and started buying back land in the southern part of the country. In 1870,

the total area of managed productive state forest was down at 0.4 million ha; in 1946, with ownership distribution being stable for several decades, state forest comprised 5.6 million hectares, including vast areas in the interior of the North that never passed out of Crown ownership and were not demarcated or managed in 1870.

Stop law also in Finland

In Finland, which was until 1809 a fully integrated part of the Swedish realm, privatisation proceeded as it did in Sweden, but the growth of the saw milling and pulp industry started a few decades later. Consequently, company acquisitions were slower, and the negative experience from Sweden made the legislators to pass a corresponding stop law in 1925, when only 7 % had passed from private to corporate ownership. At this time, family holdings accounted for 51 % of the productive area and state forests for 40 % (Ilvessalo 1927). As the Nordic countries, in particular Finland and Sweden, socially and technically were similar in the 20th century, the resulting differences in forest ownership structure and the functioning of the forestry sector have been small. Thereby the Nordic model is characterised by the forestry sectors in Sweden and Finland. Most of the empirical examples in this report were built upon Swedish experiences, but in the past Finland was an integrated part of the Swedish policy development.



(1903–1950)

Foundation of the Nordic model

The turbulent period with unsustainable forestry during the 19th century provided an impetus for stronger forestry research, improved forestry education, a national forest inventory (the first in 1923–1929), and restoration and reforestation, the full benefits of which became obvious only in the 1980s. Based on the future value of the forest successively a stricter silvicultural legislation was introduced, starting with the first Swedish Forestry Act, of 1903. The legislation required the forest owners to replant after final felling. From that year, legislation and institutions were developed gradually, striving to utilise the full timber producing potential of the forest land. This is considered to be the starting point for the sustainable Nordic model, although the tenure development still had a long way with a restoration process before reaching maturity. The Government also achieved its two goals with the tenure reforms during this period; one of fiscal consolidation by increasing the number of taxpayers, and the other of securing political stability.

Exclusive forest ownership

The concept of exclusive forest ownership took root rapidly once subsistence economy had been replaced by a market economic system at the end of the 19th century. When the owner distribution had stabilised around 1930 the result of the tenure reforms was the creation of a quarter million homesteads with 10 million hectares of forest, all with legal title to their land. The Government had also achieved its two goals for the tenure reforms, one of fiscal consolidation by increasing the number of taxpayers, and the other of securing political stability. This was particularly so, as the parliamentary Estate of Peasants and the Peasants' Party had political influence during the entire period.

The owner distribution

The ownership structure of productive forestland according to the first comprehensive property inventory in 1927–1928 appears in Table 2 (*Statistisk årsbok* 1931). By then, most reform work was complete, colonisation in the north had ceased and companies were prevented from buying more peasant land. Thus, the outcome was the creation of a quarter million homesteads with 10 million hectares of forest, all with legal title to their land. Approximately one quarter of the national forest area had passed into company ownership, the majority of which was originally unsettled Crown lands in the six northern counties, distributed free of charge to peasants and then resold at variable prices to

TABLE 2. TENURE OF PRODUCTIVE FOREST LAND ACCORDING TO THE 1928 PROPERTY INVENTORY

Property type	Northern Sweden			Southern Sweden	Whole country
	Norrbottnen Västerbotten ¹	Jämtland Västernorrland ²	Gävleborg Kopparberg ³		
Peasant homesteads, etc.	36,145	26,575	39,820	175,869	278,409
mean holding, ha	62.4	69.1	35.2	25.1	35.6
Other private holdings	–	–	22	1,319	1,331
mean holding, ha	–	–	1,117	538	552
Peasant forest, 1000 ha	2,255	1,838	1,402	4,414	9,909
Other private, 1000 ha	–	–	25	710	734
Company, 1000 ha	1,135	2,087	1,266	1,380	5,868
State, 1000 ha	2,966	449	396	538	4,349
Other public bodies, 1000 ha	363	14	229	216	821
Total area	6,718	4,388	3,318	7,257	21,682
Peasant forest %	33.6	41.9	42.3	60.8	45.7
Other private %	–	–	0.7	9.8	3.4
Company %	16.9	47.6	38.2	19.0	27.1
State	44.1	10.2	11.9	7.4	20.1
Other public bodies %	5.4	0.3	6.9	3.0	3.8

1) Norrbotten, Västerbotten: Forested inland settled by ethnic Swedes only after 1850.

2) Jämtland, Västernorrland: Ancient nuclei of settlements in otherwise forested land.

3) Gävleborg, Kopparberg: Mainly forested but engaged in mining industry for centuries.

the companies. The company acquisitions in the South (1.3 million hectares) mainly comprised privatised peasant commons and were assumed to have changed owners at more normal market prices. No available records show the total number of homesteads partly or entirely taken over by companies (Arpi 1959; Eliasson 2002).

According to the 1928 property inventory (*Statistisk årsbok* 1931, Tables 99 and 100), more than 4.5 million ha of productive forest in Norrland and Kopparberg counties were in company hands after being bought from peasants, whereas 5.5 million remained as peasant holdings. A majority of these 10 million ha

were *unused* (besides Sami use and the commons of the old coastal and river valley settlements) in the sense of royal claims of 1542 and 1683; now the Crown was left with 3.8 million ha in Norrland and Kopparberg. In Värmland county, another 0.6 million ha passed into company ownership, and the areas in the South were smaller. In the whole country, the forest sector companies now owned 5.5 million ha, other companies 0.3 million ha, larger estates 0.7 million ha, the Crown and other public owners 5.2 million ha, and peasants 9.9 million ha.

Government goals achieved

Government policy had achieved two goals, one of fiscal consolidation by increasing the number of taxpayers, and the other of securing political stability. The rural population and the area of agricultural land reached a peak in the period between the two World Wars. During the entire period of settlement, forest was seen as a necessary complement to farmland and pastures. The peasant labour force worked in the forest during the winter, ideally getting both the stumpage value and the income from felling. The forest policy during the first half of the 20th century began with the assumption that the normal rural household combined farming and forestry for its sustenance. During this period, Sweden's population rapidly increased: in 1750, it was 1.8 million, in 1810 it was 2.4 million, in 1860 it was 3.6 million, and in 1930 it was 6.1 million. The later increase occurred despite the fact that 1.4 million people emigrated between 1860 and 1930. The number of landed households (freeholds, crown and estate tenants) rose from 178,000 in 1700 to 278,000 in 1928. This expansion did not solely account for the population increase, but with at least 2 million people having landowning households

(assuming six persons per household; no household census data are available for the period), political stabilisation was achieved. This was particularly so, as the parliamentary Estate of Peasants and the Peasants' Party had political influence during the entire period.

Restoration by means of motivation

Once secure in their tenure, the peasants started exploiting the now valuable timber resource, then, more reluctantly, began to employ modern management methods in spite of the extremely long investment horizon in northern silviculture. The Swedish forests and landscape has gone through a huge restoration process. The Act of 1903 focused on replanting forests, but also restoration of depleted forests. Examples of issues to solve along the restoration process were deforestation and extensive forest grazing in the South, poorly stocked forests and poor regeneration in the North. The success factors of the positive development have been a strong collaboration between researchers and practitioners as well as well organised education of the small-scale forest owners.

Management of company land and the poorly stocked peasant forests needed consolidation after decades of exploitation. Starting around the 1920s, education by motivating the forest owners to improve forest management was primarily made by the County Forestry Boards (the origin of the current Swedish Forest Agency) familiar with the local conditions. Coercive and punitive action was only used as an ultimate corrective to deliberate law infringement (Nylund 2009). The County Forestry Boards also supported the restoration process by organising information campaigns and distribution of tree seeds. Public enlightenment was an important part of the success story, especially

among schoolchildren. Approximately around half a million children planted and sowed forest land with restoration needs during the first half of the 20th century. The forest management activities were done on a voluntary basis as well as on a governmental decree (Sjöberg 2011). The increasing awareness among the forest owners regarding the values of forest products facilitated the work of the County Forestry Boards and the forest owners associations, which successively played a decisive role in guiding and organising the small-scale forest owners (see next chapter).

Selective cutting had been the dominating silvicultural system in the North until the mid-20th century. During this time the Crown and the forest companies decided to restore large areas by clearing of old degraded stands and planting of the new ones. These restoration efforts proved successful and thereafter the clear-felling system came to dominate the forestry model in Sweden. This was also the starting point for an intensified collaboration between researchers and practitioners. These factors were of great importance for the future impressive increase of the standing volume in the Swedish forests.

9

(1950–2010)

Multi-dimensional interests

From 1950, new patterns of societal change took place in Sweden; strong opinions formed among certain stakeholders and values among the rural population changed. Over the coming decades, mechanisation was introduced in large and small-scale forestry. The user rights became stronger and the limitations of owner rights followed the political climate with swift changes during the second half of the 20th century. The increased number of actors heavily influencing the policy and new values among the forest owners resulted by the end of the period in a forest policy reoriented towards multi-functionality.

Swift policy changes

By 1950, private forest ownership with far-reaching, almost exclusive user rights had been the accepted norm for two generations. Since 1903, forestry legislation had imposed limitations on owners' management options, but the Forestry Act of 1948 marked a turning point regarding owner's freedom of action, and during the coming decades user rights became stronger. The limitations of owner rights followed the political climate, with an increased claim for socialisation of forests; even private forest ownership was occasionally questioned during the second part of the 20th century.

In 1950, the countryside was well populated and normal holdings were small, combining farming and forestry. During the coming decades forest technology developed rapidly and mechanised harvesters were introduced. Kardell (2004) points out that forest operations have lagged behind the development in other sectors for a long time, the result being a rap-

id transition with deep social consequences. By 2000 mechanisation had led to lower employment in forestry and the non-resident, non-farming had become an increasing part of the owners. During second half of the 20th century, living conditions and values of the rural population approached those of urban people. Income from forestry comprised a smaller proportion of the owner's total income and many forest owners also lived in the cities (Ingemarson 2004). Therefore, the word *peasant* has been superseded by *small-scale private forest owner*.

From the early 1970s, freedom of action was restricted by external stakeholders' demands for yield production in accordance with the Forestry Act 1948, amended in 1974 and notably tightened 1979/1983, and at the same time, a series of amendments to the 1964 Conservation Act contributed to further restrictions. After these years, trends changed swiftly towards a more liberal political climate, and within ten years

forest owners' user rights went from highly limited to less restricted rights regarding timber production. At the end of the 1980s, global organisations started to set the limitations for the owners' rights in Sweden in different ways. This, along with higher public commitment towards the environment, strengthened user rights. From the early 1990s, the forest policy was reoriented towards multi-functionality and a broader definition of sustainability, including more equal economic, social and environmental aspects.

Voluntary areas of joint operations

Politically, the Peasants' Party and the Workers' Social Democrat Party had collaborated for some time, and continued to do so. In 1952, groups within the Social Democrats started campaigning for collective management arrangements, or even outright socialisation of the private forest. Their argument was that small-scale owners did not manage the forest efficiently. As the claim was not supported by empirical references, the National Forest Inventory was asked to investigate the situa-



Illustration 4. By 1950, private forest ownership with far-reaching, almost exclusive user rights had been the accepted norm for two generations. The forest owners' organisation started assisting members with education and management, voluntarily forming areas of joint silvicultural operations. The Nordic forestry model is based on locally anchored mutual understanding.

tion. The results showed that both companies and individuals had quite large areas of poorly stocked and unproductive forest, especially the small-scale owners. The survey prompted an intensification of restoration efforts. Particularly, the forest owners' organisation started assisting members with education and management, voluntarily forming areas of joint silvicultural operations. This was necessary, considering the fragmentations of the holdings and that the main argument of the Social Democrats was small-scale private holdings were too small for the necessary mechanisation and other rationalisation of forest work (Enander 2003).

The environmental movement

The environmental movement strengthened during the 1960s and a series of amendments to the 1964 Conservation Act contributed to further restrictions for the forest owners. The State began assigning large areas for nature conservation and recreation. Limitations in owners' rights were solved through voluntary collaboration and compensation for infringements, but compulsory acquisition for conservation purposes was made possible. From the early 1970s, owners' freedom of action was not only suppressed by new Forestry Acts. The customary right of common access to private land entitled the public to collect berries and mushrooms on any forestland. Previously, this had been seen as a concession to non-owners, not involving economic loss for the landowner. Now, the right was conceived as a claim on the owner to grant certain services to the public. In consequence, the use of fertilisers or pesticides was not allowed as it damaged the quality of berries and mushrooms, and felling and soil preparation was frowned upon as it made the forest less pleasant for the public.

Stronger public rights

New entertainment activities, such as snowmobiles, mountain biking, canoeing, and the collection of reindeer moss (lichen) for fodder were added to the common access agenda. The customary right of common access had a wide political support and emerged even stronger at the end of the 20th century (Kardell 2004). Access for commercial gain has always been viewed as requiring a formal agreement and usually compensation to the owner, but the limits of this non-codified right are increasingly challenged, even in court. Tour agencies arranging rafting, canoeing and horse riding on a regular basis on private land resisted all claims for compensation. At the same time reindeer management expanded in the North. Several conflicts ended in court, and were mostly decided negatively towards the land owners. Even so, the customary right of common access was never questioned (Kardell 2004). Crucial for the understanding of the tenure development of common access to private land is the awareness that property rights have widely differing significance to different categories of owners (Stjernquist 1993), e.g. small-scale private owners, forest companies, communities and the Crown.

Maximal production oriented policy

The socialisation initiative had never had wide support, and had been impossible considering the political collaboration between the Peasants' and Social Democrat parties. However, in the early 1970's, the forest industry experienced a short-lived boom resulting in an over-establishment of new industries. Accordingly, political and company representatives repeated concern over the small-scale forest owners not delivering enough feedstock to the industry. Coercive

measures were again discussed, this time by a public committee that saw the forest exclusively as a raw material resource that should be developed maximally, any other interests being secondary. The committee's radical recommendations were considered extreme and were rejected by the government, but the concept of maximising value production was expressed in a set of new legislation (the 1979 and 1983 Forestry Acts), implying regimentation of forest owners' action. Maximum and minimum limits to felling, obligations for restoring low-productive forest, compulsory management plans, etc., were not detrimental to the owner who shared the goal of intensified management. In some instances, regeneration and road building were subsidised, but the compelling laws meant considerable limitation of the owners' freedom of action. The role of the County Forestry Boards changed from a participatory approach to hierarchical steering of the owners (Appelstrand 2012). The owners complied, but dissatisfaction was widespread, particularly among owners with different management ideas than those prescribed by the authorities. During the 1980s, production-oriented forest policy reached the same regulation level as in 1780 (Enander 2003), but trends changed swiftly and one decade later the policy was more liberal.

User rights of the hunters

The development of the modern forest industry in the 1960s and 1970s, with an increased area of young forest, increased the supply of food resources for the Swedish deer population. During the 1970s, the moose population increased dramatically. Towards the end of the 20th century, the moose and roe deer populations were so large that their grazing influenced the landscape, for example with respect to the

mix of different tree species. Hunting created excellent conditions for recreation, and the meat was valuable; however, the damage caused by deer on the roads and to the forest industry was a problem. The consequences for forest owners with a high population were a limited choice of tree species and high costs for damage to plants and young forest and for taking deer preventive measures (Ingemarson *et al.* 2007). Since the end of the 1960s, moose hunting has been regulated by the County Administrative Boards, but they only give recommendations and the hunters collaborate with the local forest owners on the level of shooting for moose reduction. The relative strength between the two parts has led to conflicts and even in 2010, owners' rights were still weaker than the user rights of the hunters, who had strong support from hunting associations having their own political agenda.

Shared responsibility

At the end of the 1980s, the emphasis on regulation for maximal production was relaxed, following a more liberal political climate. Conversely, regarding tenure, global organisations started to set the limitations for the owners' rights in Sweden in different ways. This, along with higher public commitment towards the environment, strengthened user rights. The policy was reoriented towards multi-functionality and a broader definition of sustainability; including more equal economic, social and environmental aspects. The changing attitudes were politically manifested through new forest, environmental and property legislation. The new Forestry Act became valid in 1994, balancing economic, ecological and social interests. For the first time in forest policy, biodiversity and economical objectives had equal legal importance. Detailed regulations of operations

were replaced by increased owner's responsibility with target-oriented rules; the private forest owners had to take responsibility and set voluntary areas aside for conservation, not restricted according to the law. The political pressure claimed that nature, cultural conservation, and different user right ought to be taken into consideration during all forest management planning (Ingemarson 2004). During previous legislation, many private owners had disobeyed regulations while sharing the goal of high production, mostly to the benefit of biological and scenic diversity (Kardell 2004). Now this behaviour received official approval by the County Forestry Boards that again changed the policy back to a participatory approach.

From an international perspective, the Swedish 1994 Forestry Act was of a high standard, and built upon a stable framework, e.g. the Brundtland Report and the UN Conference in Rio de Janeiro in 1992. When the 1994 Forestry Act was passed, the National Board of Forestry began developing work with green forest management plans; simultaneously other organisations worked with corresponding plans. In the green management plan, every compartment is assigned a goal class describing the direction of the long-term goals aimed at production or conservation, in accordance with the Act (Ingemarson 2004).

Increased NGO influence

With changed emphasis of the national legislation, another strong external factor restricted the freedom of forest owners' action in the form of pressure from local and global non-governmental organisations, sometimes with their own political agenda (Sörlin 1991, p. 233 ff.). Some environmental organisations have a his-

tory of limiting forest ownership rights and criticising the Swedish silvicultural model. The lack of environmental consideration during forest management were criticised by several environmental organisations during the 1980s resulting in improved consideration for conservation, smaller clear-cuts and limited use of chemicals. Another result was a reoriented policy towards a broader definition of sustainability; including more equal economic, social and environmental aspects. By the end of the studied period, the state had set aside 3 million hectares of protected forest areas for nature conservation and 25 % of the total forest area was exempted from forestry (*Skogsstatistisk årsbok* 2012).

The current model for protecting forest biodiversity is a combination of designated protected forest areas and general environmental consideration in the day-to-day management (e.g. buffer zones and group of trees) (KSLA 2009). Although the environmental movement has been critical, the international perspective of Swedish forest owners' responsibilities and obligations is that they stand on a high level.

Third party (independent control) forest certification schemes are examples of non-governmental policy tools, partly market driven, developed to set standards at a higher level than legal ones in an open negotiation process. Forest certification could be seen as one of several external influences on the forest owners' right. Thereby certification is a complement to the national laws but a result of action from stakeholder groups dissatisfied with the national laws. The phenomenon of public decision making where organisations and interest groups outside the formal democratic system strongly influence the outcome, is further analysed by Habermas (1996).

Third-party forest certification schemes

Forest management certification should promote sustainable forest management from an environmental, economic and social perspective. Swedish enterprises have been at the forefront of national and international certification schemes for the forestry sector, as part of the drive to promote timber as a sustainable raw material. Two international third-party certification schemes came into force in Sweden during the last decade of the 20th century, covering about 11 million hectares of forest: the FSC (Forest Stewardship Council) system and the PEFC (Pan European Forest Certification) scheme. These two are similar with regard to forest management, but the FSC system is more transparent and had a wider non-owner stakeholder interaction during the development of the standard. The environmental and economic requirements are also similar, but there are differences regarding social issues. The FSC system demands further consultations with indigenous people and local villages, whereas PEFC demands a certificate for the contractors. The forest owners associations were active during the creation of the national FSC standard, but decided to leave the collaboration to follow the European scheme PEFC. The Swedish government was not involved in the process, as certification was seen as a non-state market driven tool, although the green management plan was developed by the National Board of Forestry in accordance with the requirement of the FSC system. A certification code ensures the market that the wood comes from sustainably managed sources, but whether the certification systems are market driven is questionable, as Non-Governmental Organisations (NGOs) use the market mechanisms to promote the schemes. A

third-party international certification scheme requires certain conservativeness to become trustworthy, and has to address recognised global issues. In a society with a mature forest economy, and a high level of legal compliance by landowners and contractors, development might be more rapid and graded than a certification scheme can handle.

Owner associations and commons

By the end of the 20th century the forest owners' associations in Sweden had their own saw mills, investments in the energy sector, and the largest association had its own pulp industry. Although it has been questioned if it is suitable to assist the forest owners with both a selling and a buying organisation the owners' associations were well organised. Ninety thousand holdings, including 6.3 million ha of forest (54 % of total small-scale privately owned productive forest land), belonged to an association in year 2000 (*Skogsstatistisk årsbok 2000*), representing a considerable political power.

The present-day commons are an institution that has survived for hundreds of years, despite the many changes in rules and regulations. At the end of the last century, the commons covered some 730,000 ha and the share of productive forest was 2.5 % of the Swedish forest (Carlsson 1995). The present-day's commons do not operate as companies, have their own legal regulations, and are based on private ownership, as the joint owners' own different shares that can be passed on to the next generation. Common forestlands are often well integrated in local society and the main goals are for sustainable return and to use profit to support the local infrastructure.

Changes in the ownership groups

In public statistics, forest ownership in Sweden was classified into four groups: private forests, company forests, state-owned forests, and community forests. The proportions between the groups have not changed since the 1928 property inventory; however, within the groups notable changes have taken place.

The Crown recently placed (1994/2001) most of its productive land in a state owned commercial company, Sveaskog, producing timber for an open market with nearly 5 million ha of forest. This land includes the Crown parks, acquired in the 19th century, and land that was never settled. Direct state ownership applies only to land with cultural, environmental or military interest, that is 0.9 million hectares. The public expects the state-owned company to maintain a higher environmental and social profile than any other owner, reflecting the ideals from the 19th century where the Crown parks were supposed to lead silvicultural development.

The private company holdings, 3.4 million ha, have been subject to land exchange in order to create more rational units. The merges have resulted in just three large owners besides Sveaskog: Stora Enso, SCA and Holmen. In 2004, Stora Enso together with a smaller company, Korsnäs, placed their land in a public company, Bergvik, thus separating pulp, paper and saw milling from silviculture. The community forests encompass 1.7 million ha, and include forestland belonging to church parishes, municipalities, public foundations, and some non-partitioned regional commons. Municipalities increase their holdings with land for future expansion plans and for recreational purposes.

During the second half of the 20th century, the total forestland area of the small-scale pri-

ivate forest owners remained unchanged. In 2000, private holdings encompassed approximately 50 % of the total area of productive forest in the country, some 350,000 owners of about 238,000 holdings, with an average area of about 45 ha of productive forest per holding, totalling 11.4 million hectares. One third of the small-scale holdings had non-resident owners, and this did not differ over the country. Slightly more than 40 % of all holdings had more than one owner, with an average of 2.2 persons per holding. Of single owners, 28 % were non-resident, while 43 % of the multiple owners were non-resident (*Skogsstatistisk årsbok* 2000). Most owners had inherited the holdings and the number of female owners is constantly increasing, reaching nearly 40 %. These data illustrate that owners prefer to keep the property in the family and do not want to split it, even when moving away, presumably into towns. Most small-scale forest owners live in the South and control a majority of the timber production in the country, while state and company forests dominate the North. In the South, private holdings are smaller, with greater diversity and productivity compared to those in the north of the country (Ingemarson 2004).

Value shift among small-scale owners

The structure of small-scale private forest ownership underwent profound changes during the second half of the twentieth century, which resulted in new approaches in forest policy (Hugosson & Ingemarson 2004), following the economic development in Europe as well as in the United States (Fischer *et al.* 2010). One major factor was the rapid rationalisation in agriculture. Between 1964 and 1992, the number of farms decreased by 60 %, mainly due to fusion of holdings, and between 1928

and 2000 the number of forest holdings fell by 15 %. The proportion of farm holdings with forest slightly increased from 65 % in 1964 to 71 % in 1992. During this process ploughed land was separated from forest. In the early 1950s one-third of the forest holdings had less than 2 ha grazing or farmland. At the end of the period, in 1992, the corresponding figure had risen to 72 % (*Skogsstatistisk årsbok 1951–2010*). The slow starting rationalisation of for-

est operations accelerated rapidly in the 1960s. Income from work in the forest was important to the farmer during winter when agriculture was less demanding. Today, the typical forest owner, farmer or not, does not participate in thinning and final felling, but leaves that job to contractors.

During the last decades of the 20th century, reforms in legislation regulating the acquisition of farmland and forest allowed non-residents

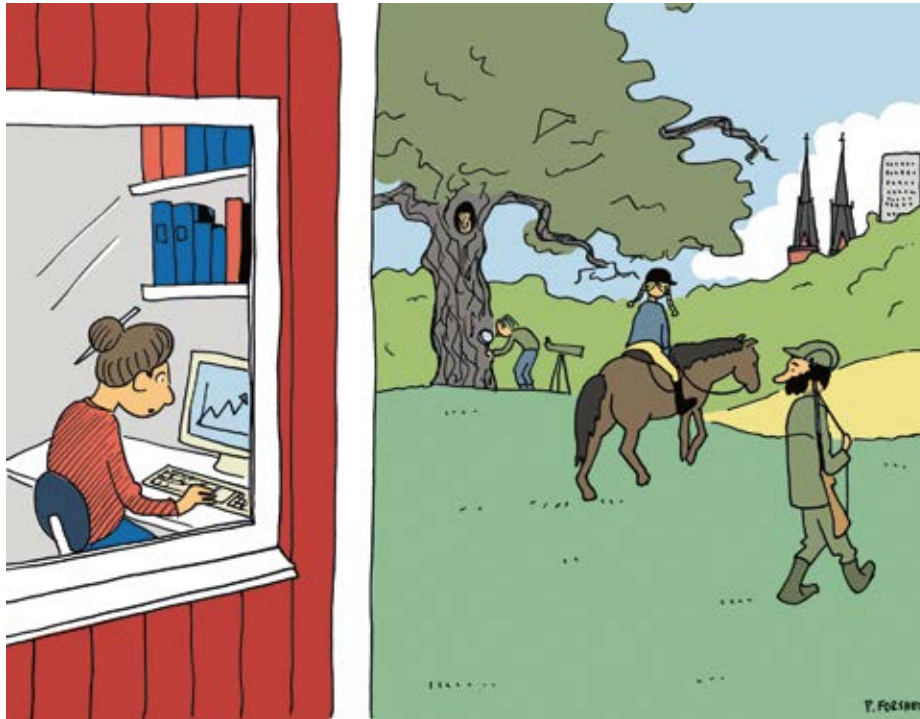


Illustration 5. The user rights strengthened during the second half of the 20th century. New entertainment activities, such as mountain biking and canoeing were added to the common access agenda. A shift in values also took place among the forest owners and other interests, such as hunting, tax planning and quality of life in the countryside, raised the prices of properties.

and non-farmers to buy forests. Previously, property transfers were tightly regulated by the Agricultural Boards, strictly pursuing a policy of agricultural rationalisation through the creation of larger holdings. Membership in the European Union resulted in lower agricultural activity among farmers, and during the end of the century farm owners strictly performing forestry activities were in majority. The value of the forest previously corresponded to the return from the forest, but other interests, such as hunting, tax planning and quality of life in the countryside raised the prices of properties (Ingemarson 2004). Average farm prices and forestland nearly doubled in the last ten years of the century (*Skogsstatistisk årsbok* 2000). The open market for forestland created new objectives among the small-scale owners, from pure economic efficiency towards nature conservation and amenities (Hugosson and Ingemarson 2004), and forest owners are differentiated by their objectives into five types according to Ingemarson *et al.* (2006): the economist, the conservationist, the traditionalist, the multi-objective and the passive owner. This confirms that a shift in values took place during the 1980s and a sole emphasis on economic benefits was not desirable for a majority of forest owners.

The current model is again contested

The challenges of the 21st century, with a growing mobilisation of rural people, infrastructure development, global change, resources scarcity and a rush for land influence natural resource management all over the globe (KSLA 2012). The integration between global, national and local stakeholders is expected to be fully developed in a mature tenure system, but the Swedish case shows that this is not an easy task to fulfil. During the early 21st century, several actors heavily influenced the policy, resulting

in a need of forest governance with informative dialogue platforms adapted to handle swift changes with multi-dimensional cross sectorial interests. The Nordic countries, particularly Sweden and Finland, appear to have reached an age of maturity regarding forest ownership.

However, a closer look reveals a partly dramatic transition from the tenure forms of traditional society into present-day forms, and the current ownership model is again contested. This was amply illustrated when a leading daily, *Dagens Nyheter*, published a highly critical series of articles on Swedish forestry in the summer 2011. Another example is the Swedish Committee on Environmental Objectives that developed a strategy for the long-term sustainable land use in Sweden during this period. Nilsson (2012) carries out an evaluation of the existing forest policy with an international outlook. The establishment of a national programme, taking a holistic view of forestry and the forest sector (the sector policies incorporated with the forest policies), and interaction with the society at a broad scale, is suggested to improve the Swedish forest policy.

A mature model involves diversified policy tools such as regulative instruments and informative dialogue platforms that should be able to handle a broad participation and interact with different stakeholders. A multi-purpose tenure model should also be able to implement the forest policy through silvicultural practices adapted to the different objectives of the forest owners. Hörnfeldt and Ingemarson (2006) show that currently used practices handle the economical objectives well, but cannot fulfil the requirements considering other policy issues, such as amenities and conservation objectives. The result shows the need of evaluating and developing alternative silvicultural practices through research in close collaboration with the policymakers.

10

The transition in the North and Sami tenure

The transition in the north of Sweden is one example where the state did not foresee an uprising conflict, as forestry, farming and reindeer herding were considered to co-exist. Some 17,000 people in Sweden are recognised as Sami, an indigenous ethnic group with legal minority status. Today, all Swedish Sami are fully integrated in the society. The Sami suffered most during the transition process, and their past and present tenure and user rights to northern forests and uplands continue to be subject of controversy. There are several different perspectives on this, which are further developed in Nylund and Ingemarson (2008).

Sami rights

Sami rights to hunting and annual husbandry were recognised in medieval royal decrees and traditional law. By the beginning of modern times (after 1500), the Sami people paid tax on a village basis for the use of wide, demarcated tracts of upland in the north, and their tenure rights were recognised by the Crown in subsequent tax reforms. At the end of the 18th century, reindeer husbandry was the main livelihood for most Swedish Sami, occupying uplands in summer and lichen-bearing forest in wintertime. The move to colonise the North accelerated during the 19th century and was bound to conflict with Sami tenure rights. At a time when ethnic Swedish peasants obtained modern ownership rights to forest land, based on customary user rights, the county authorities, administering the partitioning, disregarded the corresponding user rights of the Sami, ignor-

ing the tax and tenure arrangements previously acknowledged by the Crown. No royal or parliamentary decisions to this end were issued; instead, it is assumed that the county administrators, unopposed, saw the *overriding interest* of the nation opening the North to farming as a guideline. Tenure conflicts concerning tax land redistribution ought to have been settled in the district courts; however, the partitioning process was handled by the County authorities, a procedure used only when Crown land was involved exclusively (Korpijaakko 1989). Ethnic attitudes undoubtedly prevailed; however, any Sami who wished *to settle* had the same rights to a homestead in the partitioning as everyone else. (In the European overseas colonies, indigenous tenure rights were normally not recognised by the new rulers as anything but temporal arrangements, with the exception of the

highly developed India.) The plight of the Sami was increasingly brought to public attention, resulting in the Act of 1886, which established specific user rights of recognised Sami villages. This legislation has been updated to some extent, but the basic tenets are still valid. At the same time society in general, the Sami community, and the reindeer husbandry underwent major changes. Several issues prevailed at the early 21st century: ownership rights, reindeer herding rights and indigenous peoples' rights.

In a major legal process, "*Skattefällsmålet*", the Crown's ownership of a wide upland area was contested by some Sami individuals. Even if the Supreme Court decided (in 1981) to uphold the Crown's claims in this specific case after ten years litigation, more cases will be brought up. The basic issue is whether it can be justified that customary tenure rights are converted into modern property rights for ethnic Swedes, when corresponding rights are not recognised regarding ethnic Sami. On the other hand, *restitution* would imply handing over vast tracts of land to the few Sami able to prove their claims, without redress to the rest of the community.

Reindeer herding rights

According to the 1886 legislation, reindeer herding rights, including rights to winter grazing in 25 % of Sweden's productive forests regardless of ownership, are exclusively held by recognised Sami villages. However, only some 2,500 people out of the 17,000 in the Sami community are members of these villages, and membership is not readily conceded to non-family newcomers. Established members have the decisive vote in each individual case of ap-

plication. Efforts to redress the injustice of the general partitioning through extending a different kind of user rights have resulted in creating only a favoured minority.

As lichens growing on trees are essential as winter forage for reindeer, the 1886 Act entitled the reindeer keepers to herd their animals in lowland forest designated as the reindeer management area, regardless of ownership. This area comprises about the northernmost 1/3 of all productive forestland. The law expects conflicting interests to be settled by negotiation. In the beginning, when both forestry and reindeer husbandry were less intensive, few clashes of interest occurred. Over time, they have become more frequent, especially during the second half of the 20th century. Recent Government reviews (SOU 1999:25 and 2006:14) have dealt with some aspects of the issue, as forestry and reindeer husbandry has adopted modern technology and intensified the use of the natural resources. The forest owners are obliged to consider the needs of the reindeer husbandry during forest management and to accept reindeer on their properties, even though the herds sometimes cause damage to the forest regeneration. Both international agreements, expressed in ILO convention No. 169, and certification requirements, as expressed by FSC, are becoming contradictory on the conservation profile and social rights. In a situation where non-reindeer owning forest owners (regardless of ethnicity) may suffer considerable intrusion and even damage because of present rights, and where the privileged reindeer owners represent only a minor part of the indigenous ethnic group, it is not self-evident that reindeer owners' rights should be further extended.

11

Lessons learned from the transition in Sweden

The different phases of the development presented in this report can be recognised in other countries all over the globe, although the length of the phases varies widely depending of the country's natural conditions, history and governance. The first tenure reforms aimed at transferring common forest to private ownership, and the second stage aimed at liquidating the Crown land, following the political development in the rest of Europe. Decisive for the tenure transformation process in Sweden was a theme successively growing stronger: the interplay between Peasant, Crown and Company interests. The Government had two goals for the tenure reforms, one of fiscal consolidation by increasing the number of taxpayers, and the other of securing political stability. The population increased rapidly during the transition from common to private ownership between 1683 and 1950. Alienation of peasant land, regardless of whether it occurs through economic change or after expropriation for public use, tends to be socially disruptive.

A balance between possession and user rights

Up till the end of the 19th century, the Crown was exercising some kind of *dominium directum* over all forestland, evident both through the oak regale and its claim to one-third of the commons. Noblemen, companies and tax farmers held *dominium utile*-style user rights.

After a century-long transition period, around 1900, the idea of *inviolable private ownership* or *dominium plenum* had gained general acceptance, whereas the late 20th century saw a reemergence of *dominium utile*-style claims by external stakeholders; various public interests were recognised

as limiting exclusive property rights while formal ownership rights were maintained. At the early 21st century, several actors heavily influenced the policy resulting in a need of forest governance with informative dialogue platforms adapted to handle swift changes with multi-dimensional interests. Thus, future successful forest policies ought to take into consideration the different objectives of land ownership to different categories of owners, and that user rights concern several recognised users.

Social conflicts and economically motivated crimes

As the partitioning process went on, private ownership in the modern sense de facto took form, and the full consequences of the transition became obvious, the law lagged behind. Many corporate law infringements, dubious affairs, fraud, and exploitation of peasant landowners occurred, and much of the accessible forestland was temporarily ruined. Alienation of peasant land, regardless of whether it occurs through economic change or after expropriation for public use, tends to be socially disruptive. The first phase of the settlement programme was not successful and progressed slowly with many failures. The efforts to settle the interior were largely unsuccessful with unclear tenure rights, and the homesteads were abandoned due to the extent of labour required to exploit and later restore the vast forests.

Landowning peasants a political power

The forest ownership structure in Sweden today reflects the main objective of the privatisation of forest land two hundred years ago; to provide every homestead with enough forest to cover its subsistence needs for major and minor forest products. The redistribution of the forest commons and Crown land occurred before the forest had commercial value, which industrial forestry created just a few decades later. In a hypothetical situation of commons and Crown land remaining intact up to 1870, the State could possibly have retained a larger share and favoured the creation of fewer and larger private forest estates. Then, perhaps a major part of what is now private forest would have urban owners, e.g. *conservationists*, according to Ingemarson *et al.* (2004). In reality, what hap-

pened was that the existence of a large class of landowning peasants created political stability in a situation where the number of rural landless grew rapidly and urban industry could not absorb the surplus of labour. The forest policy during the first half of the 20th century began with the assumption that the normal rural household combined farming and forestry for its sustenance. The parliamentary Estate of Peasants and the Peasants' Party also had political influence during the entire period. The peasants in Sweden have from an international perspective retained their political freedom and a strong influence on politics and forest governance. They have seen the value of the forest resource and have been able to organise themselves, representing a considerable political power. For the forest industry, the situation could have developed less favourably, where over half of the timber production capacity lay in smallholdings, with owners whose main income was from agriculture and later industry wages. A comparison with the United States shows that the potentially very productive pinelands in the Atlantic South East, where there are numerous individual landowners with little interest in improving the timber production, are less of a forestry area than the Pacific North West is, which is dominated by public and corporate owners enhancing the interest in forestry among individual owners.

Inspirational instruments

The situation in Sweden (and Finland and Norway with their similar development of forest tenure) is a different one, with high standards in both the 250,000 private holdings and the institutional forests. Once secure in their tenure, the peasants started exploiting the now valuable timber resource, then, more reluctant-

THE RIGHT OF DECISION OVER THE FOREST RESOURCES



The right of decision over the forest resources has changed swiftly during the centuries following the political and economic development in society.
From: Eliasson (1997).

ly, began to employ modern management methods in spite of the extremely long investment horizon in northern silviculture. The Swedish forests and landscape have gone through a huge restoration process and key success factors have been a strong collaboration between researchers and practitioners as well as well organised education of the farmers. This testifies to the success of the work of the County Forestry Boards, with its concept of small stick and large carrot in supervision and extension to private forestry. During the early 21st century the Swedish Forest Agency still played a pivotal

role in the implementation of the national forest policy, particularly among the small-scale forest owners heavily supported by co-operative movements. Following the same pattern, private timber purchasers also offered management packages, including counselling and management plans adapted to multi-objective forest owners. Without these instruments to inspire and guide the forest owners, progressive forestry legislation would not have achieved the success of today's forest production, 100 million m³ growth and 90 million m³ actual cutting on 22.6 million ha of productive forestland.

Well defined roles

The concept of exclusive forest ownership took root rapidly once subsistence economy had been replaced by a market economic system. Today the Swedish forestry framework is stable and well developed. The ownership structure and their roles are well defined. The well-established institutions require that partners can foresee the consequences of their actions, and thereby trust the agreements made. Continuous dialogues with stakeholders and clear market channels contribute to a sustainable tenure system. The forest land use activities are surrounded by far-reaching rules and regulations that are mature in the sense they can handle the swiftly changing trends in society. However, attitudes among stakeholders towards owner and external stakeholder rights have changed with the trends in society. Thus, future successful forest policies ought to take into consideration the different meanings of land ownership to different categories of owners, and that user rights concern several recognised users. A closer look reveals a partly dramatic transition from the tenure forms of traditional society into present-day forms, and today's ownership model is again contested. At the early 21st century, several actors heavily influenced the policy resulting in a need of forest governance with informative dialogue platforms adapted to handle swift changes with multi-dimensional interests.

Globally recognised phases

The Nordic forestry model is mainly shaped by the Nordic countries' natural conditions and constraints, their history, the knowledge, governance and experience of the forest owners and the tradition of locally anchored consensus policies based on mutual understanding (KSLA 2009). It should be mentioned that this model is constantly criticised by certain stakeholders, in full accordance with a mature model that should be able to handle a broad participation with multi-dimensional interests. Thus, future successful forest policies ought to take into consideration the different objectives of land ownership to different categories of owners, and that user rights concern several recognised users. The authors share the view of Palo (2006), that private ownership of forest is not only compatible with but a contributing factor to the success of the Nordic forestry model, and that the experiences from the development in the Nordic countries have a broader application for forest policy globally. The different phases of the development presented in this report can be recognised in other countries all over the globe. It has taken 400 years, and failures as well as successes, to reach the current status of the Nordic model, whereas China, for example, aims to reach the same maturity through tenure reforms within 40 years.

A note on sources

For the general narrative, some standard Swedish works have been consulted, listed below. As they largely overlap, reference is only made here. Other references are shown as usual in the text.

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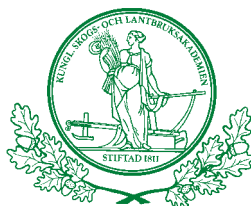
To learn from failures as well as successes is crucial if programmes for landscape transformation and restoration are to succeed. The Nordic model, with stable institutions, markets and clear rules for the actors based on a democratic system, creates a stable ground for the development of a successful tenure system.

This issue of the Academy's journal describes the tenure development in Sweden during the last 500 years, using mainly Swedish-language material previously unavailable to an international readership. The aim is to identify different actors and stages of the development, using possession rights and non-exclusive user rights as a point of departure.

It is clear that private ownership of forest is a contributing factor to the success of the Nordic forestry model. A closer look reveals a partly dramatic transition from the tenure forms of traditional society into present-day forms – and today the ownership model is again contested. Once secure in their tenure, the peasants started exploiting the now valuable timber resource, and later, more reluctantly, began to employ modern management methods in spite of the extremely long investment horizon in northern silviculture.



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Royal Swedish Academy of Agriculture and Forestry

P.O. Box 6806, SE-113 86 Stockholm, Sweden
(Visiting address: Drottninggatan 95 B, Stockholm)
tel +46 (0)8-54 54 77 00
www.ksla.se, akademien@ksla.se

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