

RURAL DEVELOPMENT FORESTRY NETWORK

FROM THE FIELD

**The Swedish Common Forests: a common property
resource in an urban, industrialised society**

Lars Carlsson

**Canada's Model Forest Program – Bringing community
forest values into the development of sustainable forest
management in the Canadian context**

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in policy, practice and place**

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The Swedish Common Forests: a common property resource in an urban, industrialised society

Lars Carlsson

Introduction

Common forests are frequently associated with developing countries, where over-population, a lack of technical and economic resources, deforestation and a tension between central bureaucracies and local people contribute to forest loss and depletion. This paper focuses on a quite different situation: the role of common forests in an industrialised country. The Swedish common forests have survived for more than 100 years; no deforestation has been observed and the total amount of biomass is increasing. The forests are considered by experts to be well managed both in terms of efficiency and with regard to the preservation of biodiversity. At the same time their extent remains intact; in fact, only about 70% of the annual production of biomass is harvested. Compared to other types of ownership the commons have a very special organisation. The basis consists of 25,000 individual shareholders with property rights in the forests. This medieval pattern of ownership seems to survive; moreover it seems to be quite prosperous within the realm of modern society with its highly competitive forest industries. This paper explains why the Swedish common forests have survived as vital and competitive actors in the timber market. Three main explanations are discussed: the commoners' conscious attempts to reduce transaction costs, their general inventiveness in adjusting to changed circumstances, and their acclimatisation to present economic conditions.

Historical Development

Even before Sweden adopted its first written constitution in 1350, different types of commons were codified in the old county-laws. Two hundred years later in 1523, the country became independent and united under King Gustav Wasa. Huge areas

of land were confiscated from the nobility and from the church. The monarchy became hereditary; Lutheran Protestantism replaced Catholicism as the official religion, and a new Protestant State Church and a strong, national bureaucracy were created.

Under the monarchy, all ‘unclaimed land’ was declared to be the property of the Crown/State. This precipitated a process of land delimitation in the 17th century, which was followed by a process of land redistribution, which began in the middle of the 18th century. Both these procedures shared two common purposes: to create bigger and more productive farms (thus strengthening the local economy), and to widen the basis of taxation.

As a result of land delimitation, farmers were allotted their own, private forests – which to many at the time had only minor value. Arable land was scarce, the forest areas were enormous, and the farmers were not yet aware of the market value of their forest resources. In the early period of industrialisation, it was therefore possible for timber companies supplying sawmills to buy rights to harvest vast areas, and to sometimes possess whole villages. This situation called for State control, and it was suggested that one third of the lands allotted to the farmers should be detached and made into commons. Although this idea was not initially highly popular amongst farmers, the first common was created in 1861. One of the ancient medieval types of common was used as an organisational blue print for this new type of forest commons. Eventually, in a process which lasted well into the beginning of this century, 33 common forests were created, today encompassing a total forest area of about 730,000 hectares. These commons are regulated by a single law which has been virtually the same for 100 years.

The Concept and Organisation of the Common Forests

For purposes of taxation each farm was designated as containing a certain number of ‘assessment units of land’, based on the amount of arable land. These units were used as the base for each farmer’s share of the common. Only via ownership of ‘share holding farms’ (i.e. farms assigned rights to a common forest) can single farmers and other types of owners possess property rights in the commons. The only way an outsider can get access to a common forest is to buy, inherit, or in some other way acquire a share holding farm. Consequently, not only single

farmers but also groups of people, companies, the church, and even the State are legal owners, and thereby also shareholders, in the Swedish common forests. Currently, about 68% of the shares are in the hands of private persons; 18% belong to companies and the remaining 14% are possessed by the church, the State and other corporate owners.

A great number of the commons are located in sparsely populated areas, and about 20% of the 25,099 owners can be regarded as remote owners. The general management and financial administration of the common is the responsibility of a board, elected by the shareholders. According to the law, a professional forest manager must be attached to the common. This person, who usually is employed by the common, is responsible for forest management.

As is the case for all forest owners, the commons are subject to control from the regional State Forestry Board. In addition, the commons are controlled by the State County Administrative Board (although this is largely a formality). Today, many commons are run like big forest companies; the three largest each possess about 60,000 hectares of productive forest lands, and have a sizeable workforce and inventory of machinery. About half of the commons also run subsidiary companies or pursue commercial enterprises.

The benefits for a single shareholder are threefold. First, s/he is eligible to appropriate revenue from the forest – as annual cash payments – in accordance with her/his number of shares. Second, s/he may lay claim to monetary subsidies paid to the shareholders for draining, buildings, fodder, etc. Finally, the shareholders have benefits from the commons' general support to the local area, such as roads and fishing areas.

Combined Production and Provision of Goods and Services

The fact that Swedish common forests have succeeded fairly well in comparison with other big forest owners is more remarkable than might be first realised. Companies owning comparable areas of forests basically 'produce' timber. The costs of this production, and the provision of the products, are reflected in the timber price. The commons, however, also produce and provide public goods and services. They regularly subsidise farmers, build and maintain roads, support local

villages, and provide hunting and fishing areas. Accordingly, the commons have to pay attention to the costs related to the production *and* provision of *both* public and private goods (Ostrom, Schroeder and Wynne, 1993:73 ff.). They represent both production and provision units within one organisational body.

High Transaction Costs

We should note that the processes of production and provision are associated with different types of *transaction costs*. Consequently, a common engaged in producing and providing public and private goods faces *a broader set of costs*, compared to a forest company, which mainly engages in the production of timber for sale. In addition, the control of access, and the exploitation of forest resources, are generally more costly for a common forest than a private forest company. These high transaction costs – the costs associated with the exercise of property rights, i.e. to keep transactions going – are related to the collective quality of the common. Thus, for example, one would expect the regulation of access among thousands of shareholders in a common to be more costly than the management of owners in a private company. Similarly, one would expect it to be more expensive to regulate the exploitation of the forest resources of a common compared to a company. A forest company can probably keep up with technology more easily than a common, and is likely to have established channels for the gathering of market information (including about the competition), all of which is part of what we call transaction costs. In addition, it can be assumed that a company can more easily conform to rules and regulations connected to modern forestry; a good deal of competence and knowledge is needed to follow and adjust to the numerous laws and regulations governing Swedish forestry. How, then, do the Swedish common forests deal with this problem?

Means of Reducing Transaction Costs

It was assumed in the above discussion that all commercial actors, commons as well as forestry companies, are faced with the same types of problems – such as gathering information about rules, regulations, markets, competitors and forestry technology. In this section five concrete problems, related to these more general problems will be discussed.

1) The jeopardising of the share holding system

One problem with the Swedish common forests is the increased number of remote owners. People move from the countryside, but they tend to keep their farms and therefore also access to the commons. Moreover, an increased number of shares are owned by forest companies (in 1995 18% of the shares were held by companies). This jeopardises the intentions of the founders of the commons. In the last ten years, about 3,000 new shareholders have been added. Clearly there has been a widening of the access to the commons. What means and methods to solve these problems have been used?

The adding of new private owners is mainly an effect of inheritance. Under the current juridical system, this is hard to do anything about. In general, the commons have adopted the principle that every farm owned by more than two persons must appoint a deputy. This person votes on behalf of the others at the assembly meetings. S/he is also the recipient of the annual cash amounts or other types of support from the common to the single farm. This principle is based on law that is aimed at facilitating the relation between the State authorities and the farmers, *not* between the commons and their members. The commons have simply decided that the law is also convenient for their purposes.

The companies that have bought into the commons have a different situation. With the power of their shares – in six of the commons companies possess more than 40% of the shares – they have the legal rights to appropriate a significant part of the harvest. In none of the commons, however, do companies execute their rights in proportion to their holding of shares. Generally, in commons where the distribution of cash amounts is practised, the assembly of shareholders have made decisions to leave the companies without such endowments. It is also usual to avoid electing representatives from companies to the boards, although companies could succeed in doing so if they utilised all their shares. Even when companies have representatives on the board of a common, they never push their case, and generally hold a very low profile.

Company representatives explain this behaviour by referring to costs, but what they are verifying is that they must retain good relations with local people. If they do not, they risk problems with the purchasing of timber from private forest owners, the use of private logging roads, and so on. Their ‘voluntary’ abandoning of revenue from the commons is thus a rational decision.

2) Keeping up with rules and regulations

The commons have different ways of keeping up with rules and regulations connected to their forestry activities.

- a) Some rules are regarded as obsolete – that is, the commons simply do not follow them. The law regulating the common forests has not been changed since the 1950s. For example, the commons are still required to inform and send papers to the County Board regarding harvesting, economy, etc., but they neither do so nor are asked to do so. Other rules they simply evade. For example, some of the commons are not allowed to endow their individual shareholders with cash amounts but by renaming a cash amount a ‘general subsidy for forestry purposes’, the rule is circumvented.
- b) Significant information costs are connected to the fulfilment of the demands codified in the Natural Conservation Act and the National Silvicultural Act. The common forests have tackled this problem by building alliances with the authorities which are supposed to enforce the laws. They regularly purchase the services of authorities for forest assessment (crude estimates derived from cruises) before cutting. They also buy inventory services from the forest authorities, even paying them to carry out checks on their own shareholders. The latter requires an explanation.

About 74% of the commons distribute their residual income for communal purposes, or as direct ‘subsidies’ to individual shareholders, for operations on their own private land. A single farmer may be subsidised, for example, per number of cows possessed, trees planted, hectares of land drained, etc. Since all shareholders have an incentive to cheat or at least to over-consume, the system must be controlled. When it comes to forestry subsidies, the most common solution is to utilise the bureaucracy already built up for the control of State subsidies. State employed and locally stationed extension rangers are responsible for all forestry-related controls, and, for example, can easily also check whether a single shareholder has actually planted the number of pine trees for which he has claimed a subsidy from the common. In practice, no money is paid until the shareholder can provide a signed form from the local extension ranger.

By paying the authorities for this service, the commons do not have to bear the costs for maintaining their own control system. In addition, they also protect

themselves from future disputes with the authorities regarding demands for biodiversity, the preservation of protected biotopes, etc. Moreover, the commons externalise the costs of keeping up with rules and regulations related to these matters.

3) Keeping up with technology

When forestry was a manual enterprise, all commons had their own staff of loggers. Today there are virtually no manual loggers left in Swedish forestry. The commons have faced significant pressure to adjust to these changes. Only some of the largest commons have their own machinery operated by their own personnel. The largest common has 45 employees.

One method of dealing with technological change is to externalise the costs for its renewal. Thus, most commons practise stumpage sale; ten years ago timber auctions dominated. In this way, the buyer has to defray the cost of the technology, and of its development, improvement, and renewal. Where no market for stumpage sales exists, delivery agreement and renewable felling contracts are common. These agreements can be based on harvesting with the commons' own machinery, but generally most commons have kept their machinery ownership to a minimum, and externalised the costs to companies.

4) Conflicting claims on the rights of using the forests: the Sami population

The majority of all common forests are located in areas in which reindeer herding by the indigenous Sami people is practised. The Silviculture Act, §20 stipulates that consultations must be held with the Sami population before any logging can be performed on lands they use as all-year-round areas. The commons have solved the problem by negotiating with the Sami people before constructing roads, harvesting, etc. Since different groups of Sami have different historical locations, and patterns of moving their herds, one basic problem for the commons is to decide which groups they would regard as 'concerned parties', or stakeholders. They have solved this problem by letting the Sami people themselves decide which group they regard as concerned by a particular logging operation.

This 'co-management' with the commons seems to function quite well. Since 1971 there has been only one appeal against a logging decision made by a common. Another indicator of the relative harmony between the reindeer herders and the

common forests is how the Sami population treat the commons. The Sami population can quite legally, and independently of who owns the land, use the amount of wood they regard as necessary to build fences, shelters, etc. This right, however, is hardly used at all on common forest land; it is mainly exercised on State owned land. Finally, it has been observed that those Sami families who are shareholders in commons have not adopted any special attitude regarding the forest management. It is evident that the Sami population make a clear distinction between the privately owned land (companies and commons included) and State owned land, to which in different fora they lay historical claims (Bengtsson, 1994). Essentially, since the commons adjust their activities to the reindeer herding, the relation with the Sami is remarkably free from conflicts.

5) Hunting and fishing as a problem of access

One of the effects of industrialisation is urbanisation. This has also affected the Swedish common forests. When people move into cities, the commons gradually lose their base of local people. This is quite different from many other commons round the world, where the population instead increases, and as a consequence causes pressure on the commons. Paradoxically, however, although there is a decreasing number of farmers, the Swedish common forests are faced with increased pressure, because although the younger generations frequently live and work in the cities, they tend to retain some form of ownership in the share holding farms. This can be done in different ways such as splitting the farms and joint ownership.

The purpose of joint ownership is twofold. The main reason is to maintain the rights to hunting and fishing that are connected to the share holding. A second but probably almost as important reason is the desire to keep the social connection to the native districts (Blix, 1986). Consequently, the commons have to regulate the numbers of hunters; fishing is a minor problem. The problem is not a question of over-consumption, as exploitation is regulated by the State (moose hunting is licensed by the County Administrative Board). It is rather a question of who should be allowed access to the system.

The commons have tried to solve this problem by creating rules to regulate hunting. These rules always reflect local circumstances. For example, there are commons where only local citizens and their children are allowed to hunt, while other commons have developed more generous rules. Some observers have found it odd

that shareholders can spend significant time and mental energy discussing access to hunting, while the same people do not engage themselves in financial issues, which represent millions of dollars. If one appreciates that the access to the commons – and by this also access to one's native district and to hunting – represents significant, non-monetary value, this behaviour is quite logical.

Criteria of Performance

Clearly the commons have endeavoured to address each of the five problems above, but is their way of solving the problems good, efficient, etc.? In this section, the assessment of institutional performance developed by Ostrom, Schroeder and Wynne (1993), is used to evaluate the Swedish common forests. Five different criteria are applied: *economic efficiency*, *fiscal equivalence*, *redistribution*, *accountability*, and *adaptability*.

A rough estimate of the *economic efficiency* of the common forests can be made by answering two questions: Are the forest resources managed in a sustainable manner, and does the economic output of the forestry exceed the resources that are spent to run the commons? The answer to both questions is yes. The commons do generate a 'residual' which is used for different purposes, but this is not paid by decreasing the biomass of the forests; only 70% of the annual increment is harvested.

Fiscal equivalence is the idea that those who benefit from an institutional arrangement also ought to bear a proportional burden of its maintenance. This is not the case with the Swedish common forests. There is no direct flow of resources from the single shareholders to the commons. The shareholders have all the benefits of being members of the system, but they make no direct contributions to the commons. The only way they contribute is indirectly – in that the cost of maintenance of the commons is already deducted when the shareholders receive their endowments. Since the share holding companies do not receive economic resources in accordance with their amount of shares, it can be argued that they have to contribute proportionally more than they gain. Taking these observations together, the fiscal equivalence can be regarded as fairly low.

The same is true for *redistribution*. There is no policy allowing the redistribution

of resources among the shareholders; everyone is supposed to be endowed with cash amounts in proportion to his/her share holding. The fact that the companies do not receive economic resources proportionate to their shares might indicate a policy of conscious redistribution from rich to poor, but as indicated from the discussion above, this would be an over hasty conclusion. Since shareholders are subsidised for activities such as planting, draining, etc. (carried out on their own private land), resources are allocated to active farmers. This, however, is a reflection of a local economic policy to strengthen the district, which prevailed when the commons were created. In general, it cannot be argued that the Swedish common forests have adopted a conscious strategy of redistribution.

The degree of *accountability* depends on the quality of the connections between those who are making decisions and the members of the commons, i.e. the shareholders. Accountability varies according to local circumstances, but at the organisational level, it is generally high – with two assembly meetings per year, open elections, free access to records of the meetings, transparency in financial aspects, and legal rights to appeal.

Logically, high accountability should be related to high community activity. For example, do shareholders attend meetings, or do they try in other ways to influence the decisions made? However, the matter cannot be assessed quite so simply.

- ! Some commons have a significant number of elderly people, who rarely attend the assembly meetings. In these commons forming groups competent to make decisions can be problematic, although this is not necessarily indicative of a lack of shareholder interest.
- ! There are many local variations of the organisation of the commons. Two of the commons practise an administrative system retained from the first part of the 17th century. In these commons the geographical area is divided into 'rotar' with a responsible farmer in each one of them. This person is elected by the farmers. On behalf of the commons s/he keeps track of all the changes in ownership and share holding in his/her 'rote', and also distributes the cash amounts in the area. As a consequence, these commons have very good records of their owners, which is not necessarily the case in other commons in the same district.
- ! One of the commons (in a high mountain area) does not have assembly meetings at all. The villages elect representatives who form a mini

assembly which in turn elect the board. The representatives are held responsible at local village meetings.

- ! The northern-most common forest is collectively owned by ‘all the people in the community’. Today this is interpreted as the ‘municipality’. Thus, this common is regarded as a branch of the municipal affairs, comparable to the public bus company.

Although the above discussion indicates the complexity involved in assessing accountability, it must be concluded that the commons score well on this criteria of performance.

The *adaptability* of the commons is demonstrated by both present activities and historical research. When the common forests were created, Sweden was an agricultural nation. Therefore, the income from the commons was designated to support agriculture. Soon the commons began to support a general mechanisation of the farms, the establishment of dairies and insemination stations, renewal of farm buildings, etc. The fact that the commons still exist as vital producers of timber is an indicator of their capacity to adapt to changes in the environment. Over time, there has been a clear and gradual shift from policies supporting agriculture to policies which support forestry. Today the main part of all subsidies are designated for forestry.

Another example of the commons’ adaptability is the modernisation of their forestry sector. This is primarily reflected in mechanisation, and a reduction in personnel. Harvesting techniques used by the commons are as good as those used by other forest owners who possess comparable amounts of land. The larger commons also utilise digitised maps, computerised accounting systems, and so on. The commons have adjusted to different demands arising from different policies regarding natural conservation and other environmental concerns. The same is true concerning the adaptation to certain types of formal rules related to taxation, accounting, labour welfare, social services, and so on.

Finally, as noted earlier, the commons have utilised the formal rules that regulate them with significant discretion. Furthermore, the commons have voluntarily adopted State regulations which were not primarily designed for application to the commons.

Conclusion

Despite facing the problem of combining production with the provision of goods and services, and the high transaction costs associated with this, the Swedish common forests survive as vital and competitive actors in the timber market. Indeed, they score high in three out of five criteria used for assessing institutional performance.

In this concluding paragraph, it is instructive to consider briefly the ‘life’ of the commons within industrialised society, and in particular their relations with the State. An important point to note is that the State cannot be conceptualised as a unity (Ostrom, 1985:14; 1991:41). In its relations to the commons, *different* units of ‘the State’ have established commercial and political as well as juridical relations with the commons. State forest boards sell their services to the commons, ‘the State’ provides the juridical framework, controls the commons, and uses them as tools to promote local economic policies. The Swedish common forests are neither completely managed by local people, nor composed solely of individual shareholders. Furthermore, as providers of private goods, the commons have also (and simultaneously) developed close relations – felling contracts, stumpage sales, etc. – with private companies. In addition, as providers of public goods, the commons have also developed systems of co-management with local public institutions – schools, non-profit making organisations, etc.

A final conclusion drawn from the Swedish example might be that the commons have survived as prosperous timber producers and providers of public goods, not only because of their conscious reduction of transaction costs but also because this reduction has been made possible by a general fragmentation of the centralised State, playing its multiple roles. This fragmentation has provided a local ‘opportunity structure’ which the commons have utilised. This has been possible because the commons, their forest managers, boards and assemblies of shareholders still possess sufficient local, current knowledge to be able to adjust the commons to industrialised society. The main lesson to be learned from the Swedish common forests might be their successful integration, rather than their separation, from the logic of the negotiated economy and industrialised society.

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