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COMPARING FOREST COMMONS IN NORWAY AND SWEDEN PART I: WHAT IS TO BE COMPARED

Introduction

Institutions have consequences. The different institutions governing the use of forests resources, have different consequences both judged from a societal perspective (e.g. biodiversity, landscape quality, supply of timber) and judged from the perspective of the people depending on forest resources for their livelihood (e.g. work, pasture, fuelwood).

The complexity of various local constellations of users and institutions and the many efforts around the world to change and improve the management of common property resources in forests, makes the question of what is the best design of an institution a central task for social science. One strategy for learning about what works well and what does not work well enough, is to study cases with a long history of management.

The forest commons of Norway and Sweden have existed since premedieval times in one form or another. They have changed from being the open access "wastelands" around the local communities in pre-medieval time by way of being the King's commons open to be used by the people of the local communities, later to become the more or less personal property of the sovereign. The current system of commons in Scandinavia grew out of the struggle for control of the various forest resources among the King, the growing group of capitalists looking for investment and profits, and the local farmers. The shifting fortunes of monarchy, the industrialisation of the economy, and democratisation of the polity all affected the system of forest commons that emerged.

Today most students will concur that the common forests of Scandinavia are managed sustainably in the more limited sense of regeneration of the timber¹. And they appear to be healthy businesses operating to the benefit of those with rights of common and in service of the local community.

The long history of adaptations to shifting power constellations and resource interests has led me to the view that a closer study of the institutional structures of the various commons of Norway and Sweden will give some insights into how long-lasting and well functioning forest institutions may be designed.

¹The acid rain which may be threatening the survival of large forest areas are then left out of consideration.

Units for comparisons

A forest common may be conceived either as an actor system or as a non-actor system. In the latter case the commons is an arena where several actors engage in struggles or co-operative ventures concerning the values inherent in the arena, but no single actor can be said to be a "system-responsible" actor, representing the commoners as a collective.

As an actor system the commons must in some sense have incorporated itself. One of the actors with interests in the commons or some new body have taken on the task of representing the interests of the commoners in governing the commons and this is acknowledged in some way by the external community. In Norway and Sweden this is done in acts defining the system of governance for the various types of commons. The success of these commons units in their tasks depends on the political and economic environment as well as the local struggles among the commoners.

In describing the commons we should keep in mind the various ways the social and natural contexts and the internal conditions shape activities and outcomes for the various units. A commons as an actor in a social system can be described in at least 9 different ways.

EXAMPLES OF DIFFERENT TYPES OF DATA FOR COMPARATIVE STUDIES OF FOREST COMMONS

LEVEL	TYPE OF DATA		
	ABSOLUTE DATA	DISTRIBUTIONAL	RELATIONAL
CONTEXTUAL CHARACTERISTIC	acts enacted by parliament	degree of delegation of powers relative to other types of forest commons	openness in the government and parliament designing and enacting the acts
DIRECT CHARACTERISTIC OF A FORREST COMMON	size, profit,	size rank among the forest commons	number of and type of co-operative relations with other forest commons
CONDITIONAL CHARACTERISTIC	level of details in the bylaws of the commons	distribution of income according to source	ownership of subsidiary economic activity

What are the relevant variables differentiating types of commons?

Legal history and the jurisprudence of property rights are interesting. The specialised vocabulary now in use and the long history of applying legal categories and legal reasoning to a changing historical reality makes one wonder about how formal institutions interact with cultural precepts and how social constructions impressed on reality appears as concrete historical facts a generation or two later.

In designing comparisons of different units of common property we need to keep in mind the processes shaping the various instances of them. No legal entities have a

longer uninterrupted history in Norway¹. To understand them as human creations we need to understand their history.

The dynamics of law will have to be left out here, the present paper will be concerned with the current situation of those entities "encumbered with" rights of common. But it is assumed that the evolution of legal concepts will reflect deep social forces and thus be among the most significant indicators of variation.

Ultimately the focus is on the consequences of the institutional design: the consequences for the ecosystem and for people depending on the resources. To understand their consequences we need a precise description of their relevant characteristics and a theory of how these characteristics produce the consequences.

Schlager and Ostrom (1992)² identifies 5 different user situations recognised by the legal system. The various user situations imply an increasing number of legal rights and powers.

	OWNER-SHIP	LEASE-HOLD	MANAGEMENT	ALL MEN'S RIGHTS	OPEN ACCESS
access	*	*	*	*	*
removal of value	*	*	*	*	
quantity regulation	*	*	*		
denial of right to removal	*	*			
alienability	*				

The property rights regime called commons is usually defined as "owned by an identified group of people, which has the right to exclude non-owners and the duty to maintain the property through constraints placed on use"³ It is also noted that "Such regimes are often implemented for common pool resources, those which are difficult to divide or bound." (Hanna, Folke, and Mäler 1995, p.18)

Forests are not difficult to divide or bound in general, neither are the most important resources to which rights of common are defined: timber/ fuelwood, and pasture. The reason for the long history of common property in forest resources can hardly be found in technical resource characteristics.

¹ The legal history of the property rights regime of commons in Norway makes it fair to say that they are outstanding examples of "indigenous" knowledge applied to resource management. Students of the rights of common are unable to find any trace of foreign impact on the development of the rights of common. See e.g. Rygg, Ola 1972 "Forelesninger i allmenningsrett", Ås, Landbruksbokhandelen. The "odelsrett" institute has the same long history and also seems rather "indigenous", but its legal history is more variable.

²Schlager, Edella, and Elinor Ostrom 1992 "Property Rights Regimes and Natural Resources: A Conceptual Analysis", Land Economics, August 1992, 68(3),

³ Hanna, Susan, Carl Folke, and Karl-Göran Mäler 1995 "Property Rights and Environmental Resources" pp.15-29 in Hanna, Susan, and Mohan Munasinghe (eds.) 1995 "Property Rights and The Environment. Social and Ecological Issues", The Beijer International Institute of Ecological Economics and The World Bank.

In developing a research design for comparing the forest commons of Norway and Sweden it is apparent that the specific historical instances of "commons" are more various than either the definition allows or the analytical distinctions of various user situations presumes.

In legal terms the Norwegian commons are not directly "owned" by "a group of people", not even primarily "enjoyed" by a group of people. However, there is a group of people exercising rights and performing duties. These people remove value from the commons observing constraints to maintain its resources in good condition, and they guard it against illegal users. However, the linking of people to rights and duties of ownership, and the linking of rights and duties of ownership to resources are variables. Also the relation of owners to non-owners is a variable.

These variables are at the heart of the legal conception of common property as developed in Norwegian Law. They institutionalise the collective experience and historical adaptations of people depending on these resources, tempered by the perceptions of the legal profession and the lawmaker. Most of the variation has been introduced during the last 3-400 years and to a very large degree driven by case law as need for adaptations to new circumstances arose.

Two significant processes have shaped the development. The most important external impact for Norway is simply that the King began to sell off "his commons" in the 17th century. This, eventually, led to the creation of two new types of commons the "bygd commons" and the "private commons"¹.

Equally important have been the actions taken by the lawmaker to guard against the tragedy of the commons in the laws of 1687 and in 1857 and 1863. At both these points in time the badly regulated access to timber in the commons and good timber markets evidently led to overuse. In 1687 the right to take timber in the King's commons was limited to the needs of the farm, thus making it illegal for the ordinary farmer to take timber for sale. After the King's sale of "his" commons, the new owners did not quite have the power to enforce the rules and a similar situation developed. But to an even larger degree in the privately owned forests. In the 1863 law of forestry public control of forestry activities was introduced, not only for commons, but for all forest land.

In order to define the variables going into the definition of these we need more precise legal concepts. Their definitions we find in the history of land law in England. The problems of linking people to rights and duties of ownership, and of

¹ .These two types of commons were defined in an act from 1857 introducing a management system for commons forests. In an act from 22. June 1863 private commons were required to go through a land consolidation process dividing the forest area between the owners of the ground and the commoners. If an area was left with rights of common, it became a bygde-commons. All private commons where the rights of common included rights to timber are believed to have been dissolved in this way. However, there exists private commons with rights of common to pasture, fishing and hunting of small game. One such, Meråker almmenning, is discussed in NOU 1985:32,pp.36-38. Presumably there are more of them. How many is not known and the acts enacted since 1863 have to an increasing degree disregarded their existence, presuming their significance to be declining.

rights and duties of ownership to resources were apparently experienced also in England, and in some instances solved in similar ways to what happened in Norway.

Terminology based on English and American law¹

Property may be held by more than one person in several ways. Property rights may be **DIVIDED** among many persons. One person may own the timber, another person may own the fuelwood and a third person the pasture. Property rights may also be **SHARED**. The three persons owning timber, fuelwood and pasture may share the property rights to the ground and to hunting and fishing.

According to Lawson and Rudden (1982:82-84) English property law recognises two types of co-ownership: joint ownership and ownership in common. There are two important differences between them. One concerns what happens to the property on the death of one co-owner. **Joint ownership** implies that one joint owners interest accrues on his death to the other joint owners, while **ownership in common** implies that on the death of one co-owner his or her fractional interest passes to his successors². The other important difference is that ownership in common implies a specified fraction of interest in the object. Yet each owner in common, "no matter how small his fractional interest, has the right to possess the entire parcel - unless all the co-owners agree otherwise by contract" (Singer 1993:801). Joint owners also has the right to possess the entire parcel³. But they are required to have equal fractional interest in the property⁴. .

"Rights of common"

The distinction between ownership in common and joint ownership applies to co-ownership in general. To describe the forest commons in Norway and Sweden, we also need the concept of "Rights of Common". The "Rights of Common" is a variable bundle of rights called "profits" sharing the characteristic that they allow the holder to remove something of value from another owners property (originally "profits-à-prendre")⁵.

¹ Singer, Joseoh William 1993 "Property Law. Rules, Policies, and Practices", Boston, Little, Brown and Company;

Lawson, F.H. and Bernhard Rudden 1982 "The Law of Property", Second Edition, Oxford, Clarendon, Simpson, A.W.B. 1986 "A History of the Land Law" Second Edition, Oxford, Clarendon,

² Today it is concluded that the joint ownership situation is ideal for the functioning of trusts and is said to apply to the management of property while ownership in common applies to the beneficial enjoyment of property (Lawson and Rudden 1982, p. 83-84).

³ The right to the entire property for owners in common is often defined by the phrase "the co-owners hold undivided shares". It is the physical object of ownership which is undivided.

⁴ For historical reasons the English terms are joint tenancy and tenancy in common if the object of interest is land. Here we will use ownership in common and joint ownership also if the object of interest is land.

⁵ The standard treatments of the law of property (Singer 1993, Lawson and Rudden 1982) do not discuss "Right of Common". Profits are defined as a type of easement by the law of servitudes (Lawson and Rudden 1982:129-130); Singer 1993:367). In discussing profits Lawson and Rudden (1982:130) divides them into two types, one is type is seen as "survivals of old manorial customary arrangements, whereby the tenants of a manor had the right, for instance, to pasture their animals on the waste of the manor". This type of profits is linked to some tenement. The other type of profit exists "in gross", i.e. it belongs to a person. Rights of common is discussed by Simpson (1986:107-108).

Lawson and Rudden (1982,pp.127-35) defines a servitude as a relation between two units of land, the "servient tenement", which is burdened with a duty, and the "dominant tenement", for the benefit of which it exists. They list three types of servitudes: easements, profits-à-prendre, and restrictive covenants.

Simpson (1986:108-113) recognises three varieties of profits:

1) "profits appendant"¹: the right to the resource is inalienably attached to some holding or farm unit², 2) "profits appurtenant": the right to the resource is attached to some holding, but alienable, 3) "profits in gross": the right to the resource belongs to some legal person in ordinary ownership (Simpson 1986:107-114).

Both Lawson and Rudden (1982:130) and Singer (1993:405) distinguish between profits appurtenant and profits in gross. Singer considers profits to be a subclass of easements in gross and states that profits today are considered freely alienable. Lawson and Rudden say that only profits in gross are freely alienable. But both finds that some rights can run with the land.

Simpson's three kinds of "profits" are defined by a combination of two different variables. One is a distinction between a person holding a right and a farm unit holding a right. The second is between the rights being alienable and inalienable. The point of these legal technicalities is obviously to let the right of common run with the farm as part of the total resources available. For many farms the viability would depend on these rights of commons.

TYPES OF PROFITS

	Rights vest	
Rights vest in	inalienable	alienable
land	appendant	appurtenant
person	all men's rights	in gross

This attachment of the rights of common to some kind of recognised farming unit is important also in another way. It allows a reasonable way of limiting the use of the resource. In Norway, for example, it is the needs of the farm, not the farmer, which defines the extent of the rights of common for pasture and wood resources. This rule was introduced in Christian V Norwegian Law of 1687, probably as a response to an unfolding "tragedy of the commons" situation for timber caused by the rapidly expanding timber trade³. Thus one can say that even if it is the farmer who exercises the rights, it is the farm which "enjoys" it. This attachment will be called "quasi-ownership" and the farms will be labelled "quasi-owners" to distinguish them from legal persons⁴.

¹ Appendant profits was in England exclusively rights of pasture (Simpson 1986:111)

² If the holding was split up the appendant rights would also be subdivided (Simpson 1986:112).

³ See page 43-46 in Solnørðal, O. 1958 "Rettledning i almenninglæren.", Oslo, A/S Bøndernes Forlag.

⁴ See Berge and Sevatdal 1995. One may say that the right to use some resource is quasi-owned if it is **inalienably** attached to legal persons in their capacities of being residents in an area or citizens of a state or to estates in their capacity as a cadastral units. An estate is not a legal person, but the right to use some particular resource can be inalienably attached to an estate. The ability of estates to hold resources in quasi-ownership is the

The three types of "profits" does not contain any category where the right is inalienably attached to a person like citizen rights or human rights. In Norway and Sweden the "All men's rights" (Allemannsretten) in the outfields to such goods as right of way, camping, and picking of berries can be described as an inalienable personal profit. The all mens rights have no restrictions on who can enjoy them, but of course there are clear limits on how to enjoy them¹. Some other rights vest inalienably in persons as long as they are citizens of Norway, or are registered as living in a certain area or are members of a certain household. The right to fishing and hunting of small game will for example be an inalienable personal profit for all persons who are members of the households on the farms "quasi-owning" rights of common to hunt. Similarly all persons living in the "bygd", the local district of the state-commons, (no farm connection is necessary) hold inalienably the right to fishing and hunting of small game in the state-commons.

basis for calling them quasi-owners. The right to resources held in quasi-ownership may be annulled (extinguished), but not transferred independently of the estate. Selling the estate implies selling those particular rights as well. If the quasi-owner ceases to exist, the resource held in quasi-ownership will either also cease to exist or revert to the co-owners in case of joint quasi-ownership, not to any descendants of the estate. If two farm estates, both with rights to hunting in the commons, are joined, the new estate will not have the hunting rights of both the former farm estates, only the hunting rights of one quasi-owner.

¹ The principle of all mens rights as defined in Scandinavia is virtually unknown in the U.S.A. and England, but fairedly common - but with variations - elsewhere in Europe (Håvard Steinsholt 1995 "Allemannsrett - og galt", page 5-14, Landbruksøkonomisk Forum No 4/95). The struggle to keep and extend the rights of way tied to the system of foot paths in England is vividly described by Marion Shoard (1987; "This Land is our Land. The Struggle for Britain's Countryside", London, Paladin).

Table 1 Variables used by the legal system to distinguish between property rights regimes

VARIABLE	CATEGORIES
Type of commons unit	1) actor system 2) non-actor system
Resources	1) ground and remainder 2) pasture, timber, fuelwood, 3) fishing and hunting of small game (except beaver) 4) hunting of big game
Rights of commons	1) rights of common 2) no rights of common
Reindeer herding	1) rights of reindeer herding including rights of common to wood, fishing and hunting 2) no rights of reindeer herding
Co-ownership	1) joint, equal interest 2) in common, fractional interest
Owner units	1) legal person 2) cadastral unit 3) registered person (residence)
Alienability	1) inalienable (appendant) 2) alienable (appurtenant)
Quantity regulation ¹	1) internal 2) external
Powers of local choice	1) defined in bylaws 2) not defined
Economic activity	1) collective 2) individual
Profits to commoners	1) in kind 2) in cash 3) in kind and in cash
Duties to local society	1) no duties 2) maintenance of infrastructure
Professional administration	1) required 2) not required

FOREST COMMONS IN NORWAY

Profits refers to rights to remove something of value from another owners property. This means that somebody else owns the land burdened with rights of common. In this sense what Simpson discuss it as a kind of servitude. This

¹ The distinction between internal and external is more a matter of degree than of substance.

somebody else would in England be the manors. In Scandinavia it used to be the King. The commons were after all called "The King's commons". As long as this persisted the situation would be similar to England. For various reasons, however, the King began to sell off "his property"¹. Those with rights of common (or a subgroup of them) came to be owners of the ground as well as the remainder after the profits were accounted for. This seems to have come about in two ways:

- 1) either through the recognition that long use of a part of the King's commons in other ways than what was implied by the rights of common, defined property rights to the ground for the users, or
- 2) through buying of a part of the King's common.

The King could sell only what was his: the ground and the remainder. He could not sell the rights of common. If those buying the ground represented more than 50% of those with rights of common the unit have come to be known as "bygd-commons". If they were fewer than 50% they were called "private commons". The rest of the Kings commons are today known as State commons. These "new" types of commons were first defined in acts from 1857 and 1863. The denotation "bygd-commons", however, is older. Tank (1912) traces the expression to the middle of the 18th century.

Today we can describe a bygd-commons as a forest where the rights to the ground (and the remainder²) is **inalienably**³ "**quasi-owned**" **in common** by a majority of the farms with rights of common.

Two of the rights of common, the rights of pasture and wood, are held **inalienably**⁴ in **joint quasi-ownership** by the farms located in the "bygd"⁵. The right of pasture include rights to put up necessary houses for utilising the pasture. For both the rights to pasture and to wood the needs of the farm will define the extent of use. If the commons cannot supply all the farms according to their needs there will be a proportional reduction in what they are entitled to.

¹ The process through which the King came to regard the commons as his property and the degree of control implied is an interesting topic. It is however fairly clear that the Swedish king had more extensive control of "his commons" than the Danish-Norwegian king during the important 17th and 18th centuries.

²The most important of the remainder is today hydroelectric power, leasing of ground for cabins, and - perhaps - landscape and nature conservation.

³But of course there are some exceptions such as sale for conversion to agricultural land and leasing of building lots.

⁴Here there are no exceptions

⁵In the act "bygd" is defined as a geographical unit comprised of those farms which traditionally have used the area burdened with rights of common. "Bygd" is also recognized in Norwegian culture as some kind of local community independent of more formally defined units such as school districts, parishes, or municipalities. In Sweden the word would mean the same.

Resource specific property rights regimes in Norwegian forest commons

	ground and re-remainder	pasture, timber, and fuelwood	fishing and hunting of small game except beaver	hunting of big game and beaver	pasture and wood for reindeer herding
Rights of common	no	yes	yes	yes	yes
Co-ownership	in common	joint	joint	joint	joint
Owner units	cadastral unit	cadastral unit	registered persons	registered persons	reindeer herding unit registered in the local reindeer herding district
Alienability	inalienable	inalienable	inalienable	inalienable	inalienable
Use and quantity regulation	internal	internal	internal	external	internal
Power of local choice	yes	yes	yes	yes	yes

The rights of common to hunt and fish are held **inalienably** in **joint ownership**. This means that the right is attached to the person owning the farm unit (and his immediate family and household) and will follow this person if e.g. the farm is leased to some tenant. There are different rules regulating hunting of big game and small game as well as access to fishing.

The right to reindeer herding is regulated in a separate act. The rights entailed are held **alienably**¹ in **common** with **equal fractional interests** by all registered reindeer herders within a reindeer herding district.

At the constitutional level there are in Norway defined 5 resource specific regimes. Different rules circumscribing the powers of local choice are enacted for 1) ground and remainder, 2) rights of common to timber, fuelwood and pasture, 3) rights of common to fishing and hunting of small game, 4) hunting of big game, and 5) rights of reindeer herding. The implications for the collective choice level may entail different organisations to organise use of the different resources.

¹The right to reindeer herding is alienable in about the same sense as a Norwegian farm is alienable. In other words to buy you need concession from public authorities. But instead of the kin preference on the farm market, there is a requirement of ethnic and industrial attachment in the "market" for reindeer herding rights. Concession will be given only to Norwegian Saami who either themselves were active reindeer herders on or after 1. July 1979 or who have at least one parent or grandparent who were active reindeer herders on that date.

AN EXAMPLE OF WHAT A FOREST COMMONS IN NORWAY MAY BE LIKE: Romedal bygd-commons and the Hedalm companies in Hedmark¹

The example is not representative. Romedal is the biggest commons in terms of productive forest with some 20.000 ha. There are 746 farms with rights of common

Romedal is located close to two other large bygd-commons, Løiten² (15.600ha) and Stange (11.700ha)³. To protect and further of their ordinary forest activities these tree commons fairly early (1885-95) started their own saw-mills to process timber. They used to compete about who would be the most prosperous. And from the 1930's they owned part-interests in companies processing wood. In the early 1980 they all got into trouble. The saw mills were old and not competitive. In 1984 they decided to cooperate closely. In 1987 Romedal bought Anebyhus A/S, a company making houses. This precipitated the formation of Hedalm A/S where the 6 other bygd-commons of Hedmark joined them as co-owners. This company would be the owner of their timber processing facilities.

In 1987 they formed a subsidiary, KS Hedalm, which through A/S Hedalm Trelast and A/S Hedalm Bygg would organise their timber activities, as well as manage their interest in other ventures such as A/S Hedmark Treimpregnering, an older (1936) joint venture with several private investors and several of the commons Hedmark and Oppland.

Today KS Hedalm is one of the largest timber companies in Norway. I have not yet found out exactly the total volume of their economic activities. But Hedmark Treimpregnering A/S which recently changed its name to Impregnor had in 1993 a sales volume of some 100 mill. kroner and about 50-60 persons employed. The three bygd-commons own through KS Hedalm 25% of it.

FOREST COMMONS IN SWEDEN⁴

The Swedish forest commons were created during the years 1861-1918, partly as a result of state interest in developing viable local communities and timber suppliers and partly as an answer to problems remaining from the land consolidation process which had been going on since the 17th century.

The only rights of common defined for them (as defined here) are the rights of the Saami villages to the pasture, wood, fishing and hunting of small game they traditionally have enjoyed as reindeer herders. For the rights of common there is a special regime for the right to hunt big game.

¹ Source: Vevstad, Andreas (1994) " 'Saa sakl Alminding være...' ", Mesnali, Norsk Almmenningsforbund.

² In 1990 Løiten almenning started it own kindergarden.

³ Stange and Romedal today have a joint management.

⁴ Sources for the information in Sweden are Carlsson., Lars 1995 "Skogsallmanningarna i Sverige", Forskningsrapport 1995:22, Tekniska Högskolan i Luleå, Carlsson, Lars 1996 "Commons in Urban Industrialized Society", paper, Workshop in Political Theory and Policy Science, Indiana University, Act on "Häradsallmanningar av 18. April 1952", Act on "Allmanningsskogar i Norrland och Dalarna av 18 April 1952"

The rest of the resources of the forest commons are enjoyed as a consequence of being registered as an owner of one of the cadastral units to which ownership rights in the commons are attached. There are three different regimes governing their utilisation: 1) the ground and remainder, 2) fishing and hunting of small game and 3) hunting of big game. The most important of the remainder is timber and hydroelectric power. They generate fairly large incomes for the commons and are the basis of extensive and variable economic activities.

The ground and remainder is **inalienably** owned **in common** by the cadastral units. The rights of fishing and hunting are held **inalienably in joint ownership** by all persons registered as owners of the cadastral units quasi-owning the commons.

Pasture have never been important in the forest commons. The right to use the few patches from which fodder could be collected ("ströängar") have never been resolved legally.

Resource specific property rights regimes in Swedish forest commons

	ground and remainder (includes timber, fuelwood, pasture)	fishing and hunting of small game	hunting of big game	pasture, wood, fishing and hunting of small game for reindeer herding
Rights of common	no	no	no	yes
Co-ownership	in common	joint	joint	joint
Quasi-owner units	cadastral unit	registered persons	registered persons	Saami villages
Alienability	inalienable	inalienable	inalienable	inalienable
Use and quantity regulation	internal within limits	internal	external	internal
Power of local choice	yes	yes	yes	yes

AN EXAMPLE OF WHAT A SWEDISH FOREST COMMONS MAY BE LIKE¹ : "Ålvdalens besparingsskogar"

This is one of the largest forest commons in Sweden with almost 50.000ha productive timber land. Like the Norwegian example it is not representative for the average forest commons. There are 1600 quasi-owners with shares in the commons and 2300 persons are owning the quasi-owners.

¹ Source: Carlsson., Lars 1995 "Skogsallmänningarna i Sverige", Forskningsrapport 1995:22, Tekniska Högskolan i Luleå

Like Romedal it extends its economic activities by running a sawmill. More important, however, is the use of waterfalls to generate hydro-electric power. The waterfalls however, are owned by another commons the "socken" commons.

In Sweden the commons (as other enterprises) can own land with rights in the common. They are thus able to own part itself. More important though is that they through owning other land than the forest commons will own interests in the "socken" commons which owns the waterfalls and among other things maintains an extensive road system.

In Älvdalen the forest commons and the "socken" commons between them maintains 1100 km of roads.

COMPARING REGIMES IN NORWAY AND SWEDEN

The legal definitions of the commons of Norway and Sweden has pointed to two differences which might be of interest in an investigation of their ecological sustainability and economic viability. These differences are 1) that there are no significant rights of common for other people than the Saami, and 2) the voting rights in the system of governance. It is also of interest to note that in Sweden a resource like pasture seems without importance.

COMPARING PROPERTY RIGHTS REGIMES IN FOREST COMMONS TABLE I

ITEMS	SWEDEN	NORWAY	
REGIME TYPE	skogsallmanning	bygdeallmenning	statsallmenning administrert som bygdallmenning for virkesretten
	FOREST COMMONS	BYGD COMMONS	STATE COMMONS organised as bygd commons for rights to wood
other names used		parish commons ¹	
Geographical areas linking forest commons and cadastral units	"socken" (parish) and Saami villages	"bygd" and reindeer herding districts	"bygd" and reindeer herding districts
No of units	33	51	8
Type of unit	actor	actor	actor

¹ Sevattal, Hans 1995 "Common Property in Rural Areas in Norway", pp.91-104 in Berge, Erling and Nils Chr.Stenseth (eds) 1995 "Law and the Management of Renewable Resources.", ISS Rapport no 46, Trondheim, NTNU;

Rygg, Ola, and Hans Sevattal 1995 "Legislation concerning the Norwegian Commons", paper presented to the Fifth International Conference of the IASCP, Bodø, 24-28. May 1995

COMPARING PROPERTY RIGHTS REGIMES IN FOREST COMMONS

TABLE II

ITEMS	SWEDEN	NORWAY	
REGIME TYPE	skogsallmanning	bygdeallmenning	statsallmenning administrert som bygdeallmenning for virkesretten
	FOREST COMMONS	BYGD COMMONS	STATE COMMONS organised as bygd commons for rights to wood
legal variables			
owners of ground and remainder			title to the ground and remainder is held by the state
"quasi"-owners of ground and remainder	legitimate agricultural or forest units at the time of creation of the commons or units descended from those	title to the ground and remainder is held by a group of farms with rights of common	
co-ownership of ground	in common	in common	by STATSKOG SF in trust
alienability of ground	inalienable from quasi-owner	inalienable from quasi-owner	inalienable with exceptions
commoners	*inhabitants of Saami settlements	* rights of common are held by all legitimate farms in the "bygd", * reindeer herding unit registered in the local reindeer herding district	* rights of common are held by all legitimate farms in the "bygd", * reindeer herding unit registered in the local reindeer herding district
co-ownership of rights of common	joint	joint	joint
alienability of rights of common	inalienable from commoner	inalienable from commoner	inalienable from commoner
resource systems where rights of common are defined	there are specific rules governing * pasture and wood used in conjunction with reindeer herding	there are specific rules governing *buildings, *pasture, *timber, *fuelwood, *hunting of small game, *fishing * pasture and wood used in conjunction with reindeer herding	there are specific rules governing *timber, *fuelwood * pasture and wood used in conjunction with reindeer herding

COMPARING PROPERTY RIGHTS REGIMES IN FOREST COMMONS

TABLE III

ITEMS	SWEDEN	NORWAY	
REGIME TYPE	skogsallmänning	bygd-allmenning	state-allmenning administrert som bygdallmenning for virkesretten
	FOREST COMMONS	BYGD COMMONS	STATE COMMONS organised as bygd commons for rights to wood
management and responsible actor	organisational	variables	
	board elected by owners of farm units "quasi-owning" the commons	board elected by commoners	1) a board elected by commoners "allmenningsstyret" ¹ and 2) the local chapter of Statskog SF co-manage the wood resource
voting rights	according to fraction of interest	2 votes for each quasi-owner of rights of common	2 votes for each quasi-owner of rights of common to wood
professional administration	required	required	required
change of area	some restrictions	severe restrictions	severe restrictions
common economic activity	variable	variable	variable
profits for owners	variable	variable	variable
duties of board	represent the owners, management of resources, economic activity, support the activities of the owners and the improvement of the local community	represent both owners and commoners, management of resources, support the improvement of the local community	1) represent the commoners, co-management of funds designed to cover road maintenance, forest rejuvenation, etc., 2) represent the interest of the owner of the ground, regulation of timber felling

CONCLUDING REMARKS

The search for significant variables capturing the variation in various systems of common property uncovered several interesting distinctions. The most important may be the recognition of resource specific systems of rights and duties to some extent cutting across the social categories distributing the benefits from the resources.

The differences in voting rights between Norwegian and Swedish commons are of potential significance but further investigations of the relation to other differences such as rights of common vs ownership rights

¹ A board elected by the municipality ("fjellstyret") manages resources other than wood

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APPENDIX TABLES

Table 1 Outfields and highlands in Norway by ownercategories

	Outfields and Highlands	Productive Forest Land
Owner category	%	%
Persons	56	79
Other private owners	3	3
Limited companies	3	4
Municipal	2	3
Bygd-commons	3	3
State	33	9
Total in sq km	194.800	70.400

Source: Stræte, Egil 1994 "Eierforhold ved store utmarkseiendommer - hva kan EØS og EU bety", Rapport 2/ 1994, Senter for Bygdeforskning, Trondheim, Table 4

Table 2 Productive Forest Land in Finland, Germany, Norway and Sweden ca 1990

	Finland	Germany	Norway	Sweden
Total area in sq km	338 000	357 000	324 000	450 000
Productive forest land as % of total area	59	21	22	50
BY OWNER-TYPE				
private	63	34	82	49
Limited companies	9	10	4	24
state	24	56	9	19
other public bodies	4	-	6	8

Source: Stræte, Egil 1994 "Eierforhold ved store utmarkseiendommer - hva kan EØS og EU bety", Rapport 2/ 1994, Senter for Bygdeforskning, Trondheim, Table 5

Table 3 Cases of bygd commons and state commons managed as bygd commons

Name	County	Type	No of use rights	Productiv forest (da)	Highlands and mountains	Total area (da)
Bjerke	Akershus	bygd	216	23917	0	28449
Eidsvoll	Akershus	bygd	347	47447	0	53270
Gjerdrum	Akershus	state	220	25729	0	30378
Holter	Akershus	bygd	115	24482	0	30095
Nannestad	Akershus	bygd	186	24067	0	28055
Ullensaker	Akershus	state	554	11141	0	13213
Brøttum	Hedmark	bygd	223	18025	0	23075
Furnes	Hedmark	bygd	387	62760	18105	115917
Kolletholen	Hedmark	bygd	•	668	0	771
Løiten	Hedmark	bygd	634	160202	0	223818
Nes	Hedmark	bygd	324	50755	6302	72862
Ringsaker	Hedmark	bygd	549	57928	4921	88579
Romedal	Hedmark	bygd	746	201747	0	240200
Stange	Hedmark	bygd	593	116771	0	127303
Vang	Hedmark	bygd	514	70610	39500	220680
Veldre	Hedmark	bygd	306	34640	0	41160
Mjelde, Skipreide	Hordaland	bygd	•	3000	0	20000
Teigdalen	Hordaland	bygd	•	400	0	400
Flaksjø-Lillefjell	Nord Trøndelag	bygd	•	4524	0	14586
Frol	Nord Trøndelag	bygd	281	8325	13365	22795
Grønningen	Nord Trøndelag	state	•	14000	32900	60000
Kvernå	Nord Trøndelag	bygd	110	19400	8300	42820
Leksvik	Nord Trøndelag	bygd	255	35094	53292	100000
Skogn	Nord Trøndelag	bygd	392	19900	6000	52230
Strinde-Bøle	Nord Trøndelag	bygd	136	17336	14498	46094
Åsen	Nord Trøndelag	bygd	193	16849	0	23942
Brandbu	Oppland	bygd	433	51636	0	58091
Dovre-skogen	Oppland	bygd	•	8952	27000	36219
Eina	Oppland	bygd	47	12558	0	16251
Espedalen	Oppland	bygd	686	0	240000	240000
Fron	Oppland	state	686	19768	0	58598
Fron-Atnedal	Oppland	bygd	•	500	0	2000
Gran	Oppland	bygd	714	139330	0	177930
Jevnaker	Oppland	bygd	248	41447	0	52521
Joramo	Oppland	bygd	260	9827	50000	76731
Langmorkje	Oppland	state	426	110594	548835	685900
Lunner	Oppland	bygd	555	80500	0	93663
Nordherad	Oppland	bygd	•	500	0	2000

Name	County	Type	No of use rights	Productiv forest (da)	Highlands and mountains	Total area (da)
Resset	Oppland	bygd	•	866	193	1308
Skjåk	Oppland	bygd	318	76209	2000000	2106508
Stranden	Oppland	bygd	•	2866	0	3790
Tingelstad	Oppland	bygd	409	63057	0	89264
Toten lodd1	Oppland	bygd	680	26101	0	29369
Toten lodd2	Oppland	bygd	702	38640	0	53600
Toten lodd3	Oppland	bygd	650	58639	0	71719
Toten lodd4	Oppland	bygd	301	24193	0	35367
Toten lodd5	Oppland	bygd	210	27757	0	40937
Øyer	Oppland	state	297	39567	372483	439000
Feios	Sogn og Fjordane	bygd	•	450	0	700
Fjærland	Sogn og Fjordane	bygd	•	700	0	1100
Hafslo	Sogn og Fjordane	state	•	350	0	500
Leikanger	Sogn og Fjordane	bygd	•	1100	0	1600
Starheim	Sogn og Fjordane	bygd	•	1300	0	1300
Vik Tingastad	Sogn og Fjordane	bygd	•	1800	0	2500
Vik Viksøyri	Sogn og Fjordane	bygd	•	•	0	•
Byåsen	Sør Trøndelag	bygd	11	1022	0	1297
Hultsjøen	Sør Trøndelag	bygd	•	0	20000	20000
Horg Østre	Sør Trøndelag	bygd	112	27465	0	42660
Oppdal	Sør Trøndelag	bygd	499	0	650000	650000
Mo	Troms	state	41	100	0	1340
SUM			15566	1937511	4105964	6814455
		bygd-commons N=52				
		state-commons N=8				

Source: NOU 1985:32 "Revisjon av almenningslovgivningen", Universitetsforlaget, Oslo, Appendix 6.

Table 4 PRIVATE COMMONS AS A PROPERTY RIGHTS REGIME

ITEMS	NORWAY
REGIME TYPE	privat-allmenning
	PRIVATE COMMONS
other names used	
Geographical area linking commons and cadastral units	"bygd"
No of units	1 (but possibly more ¹)
Type of unit	non-actor
legal variables	
owners of ground and remainder	legal persons without rights of common, and/ or
"quasi"-owners of ground and remainder	a group of farms consisting of fewer than 50% of those with rights of common
co-ownership of ground	in common
alienability of ground	alienable
commoners	* rights of common are held by all legitimate farms in the "bygd", * reindeer herding unit registered in the local reindeer herding district
rights of common	there may be specific rules governing some or all of *buildings, *pasture, *timber, *fuelwood, *hunting of small game, *fishing * pasture and wood used in conjunction with reindeer herding
co-ownership of rights of common	joint
alienability of rights of common	inalienable from commoner

¹ See note on page 4