

A SURVEY OF SOME THEORIES OF, AND SOME LEGAL TECHNIQUES USED IN DESIGNING, PROPERTY RIGHTS TO NATURE IN SOME EUROPEAN COUNTRIES¹.

Environmental degradation is one of the most pervasive political problems of the contemporary world. Since Carsons wakening cry of the «Silent Spring» a rapidly growing number of scientists have voiced concern about the longterm viability of our usage of nature. From a somewhat different angle affluent urban populations have voiced new concerns and emphasized new values in their relations to forest resources and wildlife in their countrysides. This has led societies around the world to attempt to formulate or develop rights and duties of citizens and corporations towards aspects of nature which historically have been unknown or uninteresting. These range from the biodiversity of the microorganisms to the public good of a well tended cultural landscape. Declining biodiversity from species extinction and genetic monocultures, ecosystem stability, and landscape conservation represents new challenges for collective choice and political action.

At the same time as new ways of perceiving rights emerge, the ancient rights and duties developed to regulate usage of and distribute the benefits of known goods such as wood, pasture, and wild game clearly affect the new concerns. The new institutions developing needs to take account of old. They need to be consciously designed to correct for the impact of, or to incorporate interactions with, old institutions. This requires detailed information on way the old institutions work before designing the new ones.

Devlin and Grafton (1998) recognize two paradigms in the studies of how to mitigate the problems: the private property rights paradigm and the public regulation paradigm. Yandle (1998) adds a third: the common law approach. All approaches are in use and all may contribute towards a solution of the problems. But more needs to be know of how they work and interact in practice.

The goal of the present paper is to explore some legal techniques used in assigning property rights to nature, particularly how rigst to renewable resources located in uninhabited lands are conceived and enacted.

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The problem

If property rights are the rights defining the legitimate appropriation of a stream of goods, we are led to ask:

- who are the actors entitiled to appropriate?
- what are the goods they appropriate?
- how do they go about appropriating?
- what are the actors allowed to do with the good appropriated?

A first approximation to the question of who, is the distinction between individuals, collectives, and the state. This distinction is behind the classification of property rights into private, common, and state property rights regimes which further have been associated with private goods, common pool goods and public goods.

Type of Actor	Type of Good	Property Rights Regime
Individual	Private	Private
Collective	Common Pool	Common
State	Public	State

This one-to-one correspondence of type of actor, type of good and property rights regime is neat. But how close is it to the empirical reality of property rights?

The classification of goods into private, common pool, and public is often supplemented by the category «club good». This type of good is characterised by non-rivalry in consumption (non-subtractable) and excludability from benefit.

Table 1 Typology of goods

resource is	appropriators are:	
	excludable	non-ecludable
subtractable	PRIVATE	COMMON POOL
non-subtractable	CLUB	PUBLIC

Source: adapted from Ostrom and Ostrom 1977

I have argued elsewhere that this typology of goods gives us analytical categories which may describe aspects of the utility of real world products. And moreover, there is considerable room for political choice about the degree to which some real world product shall be treated as private, common pool, club or public, or as a mixture (Berge 1994)².

² Thus I disagree with McKean's (1998) position that the nature of a good in general is a physical fact given the technology. This is only part of the story. The nature of the good is also open to political choice and symbolic manipulation, sometimes with a vengeance if the physical characteristics of the good is disregarded.

Several recent studies of property rights emphasise their embeddedness in a political system and emergence from a political process (Brouwer 1995, Sened 1997, Hann 1998). Thus the definition of property rights as being one or another type is an interesting fact in itself, and should be expected to vary among societies. It is usually taken for granted that private property rights include all the claim-rights, privileges, powers and immunities³ recognized by (mature) legal systems (Honoreé 1961). However, the discussion of private property rights is usually focusing on the right of exclusion which is presumed closely tied to the right of alienation either in bequeathing or in trade⁴. Without the right of alienation and exclusion the bundle of rights seem to be theoretically uninteresting for the (private) property rights paradigm. However, a right, even if in itself inalienable and only partly or conditionally excludable, may give rise to a valuable stream of goods, some of which may be alienable. And in between the alienable and inalienable there are all the possible variations of the conditionally alienable. These rights can be as private as any completely alienable and excludable good⁵. The problem is not alienation or not, but monitoring and enforcement of whatever rights there are.

In discussing state property rights it is focused on their public character. They are by some seen as being held in trust for the people and should be managed by the wise and well intentioned state bureaucrats for the greatest good of the greatest number of people. By others it is focused on the inherent difficulties in

³ Hohfeld's (1917, 1917) conception of legal relations applied to the relation between owner and non-owner in relation to an object also contains the negation of this relation as seen from the owners position:

	RELATION OWNER	NON-OWNER	ITS NEGATION
Use aspects	claim-rights	duties	no-rights
	privilege	no rights	duties
Exchange aspects	powers	liabilities	no-powers
	immunity	no-powers	liabilities.

⁴ The focus on alienation is probably a consequence of the «Coase Theorem» (1960) stating that in a neo-classical economy «free» trade in assets will always lead to an optimal resource utilisation. Hence, assignment of property rights do not matter for efficient outcomes, while any restriction on trade will be detrimental to it. However, Coase also recognized the limitations of this theorem. The assumptions require that all actors are rational and possess complete information about all other actor's preferences and strategies, and that transaction costs are zero. Recognizing this, the conclusion is that politics, institutions and distribution of rights do matter. The impact of restrictions on alienation is far from obvious.

⁵ McKean (1998) points to the problems flowing from our use of «private» both for a type of good, a type of actor, and a bundle of property rights. We lack a precise technical language for the discussion of property rights and institutions. Buck (1998:2-5) demonstrates how technical terms in law and political science can convey different meanings.

designing rules to do this even in the best of circumstances, and the many examples of states with corrupt servants making state property into something best described as open access or even their own private property should warn against too much faith in the state.

In between the discussion of private and public property, the common property rights are by some seen as the ideal combination of private and state aspects of property, and by others as getting the worst combination of the two. It is well within the probable that all arguments about the virtues and shortcomings of common property may be true in some specific context and with some specific combination of rights and duties as defined by some specific political system. It is impossible that all arguments can be true in general.

Given the dependence on political systems, it would seem interesting to investigate empirically how property rights are defined and how they are distributed. This is no small task. To make it more manageable it is here limited to property rights to renewable resources (timber, pasture, wildlife, fish, etc) and the ground on which these are found. Also all which is located below the ground is excluded. The areas of interest will be called «uncultivated lands» and will include what others have called rough lands, wilderness, mountains, forests, etc. The discussion will be limited to legal techniques used in assigning property rights. The question of distribution has to be dealt with later.

Bundles of rights.

Rights seldom come one by one. Usually they are defined generally and will be thought of as bundles in the sense that the general description of them will allow for some kind of specification into «elementary» rights. The rules of specification, however, may vary. This leads to a conception of different bundles of rights.

The rights and duties of an owner of some particular resource is defined in several ways:

- customary behaviour towards the resource as defined by the local culture
- legislation defining the rights and duties of a holder of the particular resource
- public legislation on environmental protection and resource management
- ideas of equity in dealing with competing interests in the resource

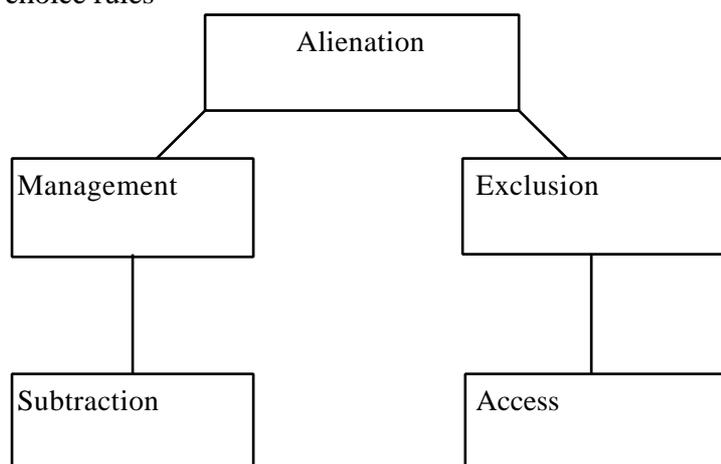
Rights are often defined in an inclusive hierarchy where each category implies the rights in lower level categories (Schlager and Ostrom 1992). Rights of alienation implies rights of management and exclusion. Rights of exclusion implies rights of access and management, and rights of management implies rights of subtraction (Figure 1). Theoretically the five rights can be combined into five packages containing more and more extensive rights. They are often

seen to correspond to some particular role in the social system managing a resource (Table 2).

The definition of «owner» in table 1 corresponds to the view holding that only right of alienation and exclusion will constitute «real» private property. Is this in fact the preferred way for legal systems to define owners? To what extent does the law prohibit, allow or proscribe some way of breaking up this hierarchy?

Figure 1 Hierarchy of rights

Collective choice rules



Operational choice rules

Source: Schlager & Ostrom 1992

Table 2 Bundles of rights associated with positions in the resource management system.

	Owner	Proprietor	Claimant	Authorised user	Unauthorised user
Alienation	X				
Exclusion	X	X			
Management	X	X	X		
Subtraction	X	X	X	X	
Access	X	X	X	X	X

Source: Schlager & Ostrom 1992

The bundles of rights defined by table 2 can be said to represent an action oriented specification of rights. It emphasises what an appropriator may legitimately do with whatever is owned. But this is not the only approach to specification of rights relevant for resource management. If we take the standard ownership position as given, one may further think of two other ways of specification of rights to resources. One is the specification of the resources to which the rights apply as illustrated by the case of Norway below. The other is the specification of rights developed in the trust institution. If the hierarchical specification in table 2 is called action oriented, the trust specification can be called utility oriented in the sense that its origin was the problem of securing the longterm utility of some resource for a specified group of persons.

Trust ownership

In the English and American jurisprudence the trust institution allows separation of legal, managerial and beneficial ownership rights in a way different from what is stipulated in table 2. In a trust the owner according to law and equity has a package of rights put together differently from the hierarchical system of table 2 (see table 3). For land trusts the owner, called trustee, will usually only have the power to alienate the land and enough of the other rights to exercise the right of alienation in conformity with the trust put in him or her. The beneficiary of the trust will retain the rest of the rights and duties. But rights of management may be delegated to some professional while the beneficiary has access and withdrawal rights to the net utility of the property: the net stream of income and other goods it generates. Then the rest of the rights of exclusion, management, subtraction and access are shared according to what needs the manager has and to the benefit of «cestui-que-trust»⁶.

The flexibility of this system and its ability to address new concerns also in resource management is evident in the development of public trusts such as «The National Trust for Places of Historical Interest and National Beauty» in England.

⁶ For technical terms it is referred to Black's Law Dictionary

Table 3 Bundles of rights as defined by the trust institution.

	Trustee	Cestui que trust (beneficial use)	Manager (managerial use)
Access	(X)	(X)	(X)
Subtraction	(X)	(X)	(X)
Management	(X)	(X)	(X)
Exclusion	(X)	(X)	(X)
Alienation	X		

Again one can ask about how legislation in different countries recognizes the various rights and duties of ownership and which combinations are allowed. To what degree do rights and duties come in fixed bundles, often without specification, and to what degree can they be specified and distributed to different actors? And how do the allowed bundles go together in relation to the various kinds of resources?

As a point of departure for these investigations I will describe property rights rules for renewable resources in uncultivated land in the case of Norway. The choice of Norway is based purely on accessibility. It is the case I know best.

Norway

The most ancient distinction of property in Norway is probably the distinction between the private holding of the family (the infields of the farm) and the rest of the land (the uncultivated lands) used in common with the other households in the community. In most of southern Norway the more productive forest land and pastures have through a historical process become extensions of private farms, groups of farms or it has become the resources of business corporations. The bulk of the more remote of the uncultivated lands in Norway, the mountains and remote forests and pastures, are defined as some form of state property called state commons.

For the uncultivated lands Norwegian jurisprudence have traditionally divided resources into the following categories:

- timber
- fuelwood
- pasture⁷
- wildlife (with further distinctions of big game and small game)
- freshwater fisheries (with further distinctions of anadrome fish (salmon and brown trout) and other fresh water fish)
- lakes and streams
- ground and remainder.

⁷ The right to gather fodder (cutting grass, collecting moss and leaves etc.) have been important, but are not explicitly dealt with in the acts on commons. However, such rights are mentioned in the act on land consolidation (Act of December 21 1979) §36.

The categories appear in the law code with different rules. The owner has different rights and duties in respect of this particular resource (see Table 4). The rights to utilise these resources can be held by two types of entities: legal persons and cadastral units.

The major categories of rights holders recognised are

- the state
- municipalities (primary («kommune») and regional («fylke») municipalities)
- Statskog SF⁸
- citizens and other legal persons
- the Saami
- farmers
- farms⁹

The state, the regional governments and Statskog have clearly different rights and duties in holding property for the public interest. But we should also note that they can hold ordinary private property. The interesting distinction is thus not their definition as state, municipality or government corporation, but the purpose for which they hold property.

Table 4 Resource specific property rights regimes in Norwegian forest commons

	ground and remainder	pasture, timber, and fuel wood	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
Unit holding rights	cadastral unit	cadastral unit	registered persons	registered persons	reindeer herding unit registered in the local reindeer herding district
Use and quantity regulation	internal ("owner decision")	internal ("needs of the farm")	internal ("owner decision")	external ("publicly decided quotas")	internal ("needs of the industry")
Alienability	inalienable	inalienable	inalienable	inalienable	inalienable
Power of local choice	yes	yes	yes	yes	yes

Source: Norwegian statutory law. See references for «Act on»

⁸ Statskog SF is a corporation 100% owned by the state and possess among other things title to the ground in all state commons. It is charged with the duty of utilising the resources in the state commons and other state lands profitably. (see <<http://www.statskog.no/English.htm>>)

⁹ To label the farm as a type of «owner» is not conforming to current legal terminology in Norway or elsewhere as far as I know. As long as the rights are inalienably attached to the farm they are considered to be part of the estate held by the farmer. However, for the analytical purposes here it has seemed useful to introduce the distinction between the farmer and the farm since the distinction in the legislation is used systematically for different types of resources.

The main principle organising the system of rights and duties is the ownership of the ground. If nothing is said in statutory law or established by custom the owner of the ground also owns other resources attached to the ground or flowing over it (wildlife, water, fish). But for the uninhabited lands there are old usages establishing rights of common. These were made statutory in the Royal law code of Magnus Lawmender of 1276, last revised in 1992. New types of commons were enacted in 1857, and in 1997 a government commission proposed legislation of a new type of commons tailored to the Saami communities in northern Norway (NOU 1997:4)

We see here that different rules regulate who can appropriate which goods from the different categories of resources (table 4). There are regulations of the means they are allowed to employ (technology). Some rights and duties are conditional on residence requirements. Those living close to the resource are given more extensive rights than others.

In Norway public legislation affects the scope of rights in forests, wildlife and fish by rules on application of technology, by limiting time of harvesting, by ruling on which species may be harvested, and by setting aside particular areas with more restrictions than the surrounding areas (protected areas).

A second organising principle is that many of the important rights of common run with the land, the farm. The stipulation that farms may hold rights is embedded in the legal code even though farms are not recognized as legal actors. A resource, such as pasture, held by a farm is in general inalienable from the farm where it is considered to be necessary for the viability of the farm seen as an economic enterprise. Two principles used in stinting of the usage of the commons are closely related to this. One is to limit the rights of timber to the timber needed on the farm (sale of timber taken in the commons is illegal). The other is to limit the number of livestock on pasture to the number fed on the farm during the winter (beasts «levant et couchant»).

When ground-owner and user of a resource are different persons the relation can be organised in several ways, and it may be different for different classes of resources. It may be that

- the right of usage is attached to a particular property (a farm), or
- the right of usage goes with a particular person or household;
also
- the right of usage may be inalienably attached to either the land or the person, or
- the right of usage may be tradable in a market.

But between the inalienable and the alienable there are rules of renting land and resources. Farmland, timberland and pasture cannot be rented for more

than 10 years. Farmland is not unconditionally alienable in Norway. Permission is required both from municipal authorities and from possible successors as these are defined in the law of allodial rights.

Table 5 Links Between Rights of Harvesting Resource and Resource Holder

	Rights vest		
Rights vest in	inalienable	alienable for a maximum of 10 years	alienable on conditions
land ¹⁰	TIMBER, FUELWOOD, PASTURE, GROUND	SMALL GAME, BIG GAME, FISH,	
person	ALL MEN'S RIGHTS	TIMBER, FUELWOOD, PASTURE, SMALL GAME, BIG GAME, FISH,	GROUND

The person holding the best title to the ground is called landowner. But this does not imply more than a right to some kind of tax or ground rent. Timber trees, fuelwood, pasture, wild game, and fish may all in principle have different owners. The «remainder» which goes with the ground, is more important. Any new uses of the land, not conflicting with established uses, will fall to the ground owner. And if conflict with established uses occur these may sometimes be bought off. But today we begin to be concerned with the part of the «remainder» which so far has seemed without (economic) value or even have not been perceived at all. At the outset the legal system would consider it to be the property of the landowner. But for instance the fate of wildlife other than game has been uninteresting to the landowner. The water quality of lakes and rivers has been a concern as far as it affected the life and quality of the fish, but in general the concern has not been framed in terms of property rights. The dominant approach in Norway has been public regulation. Acts on wildlife, and environmental pollution have set standards which everybody has to follow.

One can see this as the negation of property rights according to Hohfeld's paradigm. There are only duties and liabilities for everybody, no claim-rights, no privileges, no powers, and no immunities. The public regulations are a layer of duties and liabilities put on top of existing property rights. Presumably their efficiency to some extent will depend on how they interact with these.

Conclusions on Norway

Ownership of the ground has during several centuries been growing in importance for the organised usage of various kinds of resources. In the land consolidations during the last century one repeatedly encountered situations

¹⁰ In this case the terminology may be confusing. Rights vesting in land will here mean that the cadastral unit is seen as a «subject» capable of holding rights like we are used to see a legal person do.

where the resources of an area was subdivided in a way that for example gave the pasture to A, the pine timber to B, the deciduous trees to C while the fuel wood, fishing, and hunting were held in common by the three. Nothing was said about the ground. The way this has been interpreted by courts in our century is to see the three persons as owning as much of the ground as the individually owned resources needed (see Austenå 1965). In the absence of other evidence, no one in particular is to be considered the owner of the ground before others (but there was a long debate and many cases of inequitable divisions before this view emerged).

The comparative lack of interest in the ground itself in the customary law of Norway is understandable. There was no use for the ground itself. The important goods were the pasture, the timber and the wild game.

In feudal society the ground itself became an organising principle. It became a symbol of the lord's control of the ground, his property rights in the land (the *dominium directum*) as distinct from the use and profit from the soil (*dominium utile*). The kings of the first modern states (Sicily, Normandy and England; see Berman 1983) claimed property rights in the ground of their countries. Thus ground ownership was at the core of the formation of modern states. A contemporary state could have used the *dominium directum* thesis of the Crown as a legitimation of public regulations. But for this it is no longer needed.

Its current importance is probably due to its inclusion in the property rights theories gaining political power in the 17th and 18th century. The most profitable way of organising property rights was believed to be to join the ground and all the resources within an area in the same estate, the *dominium plenum*. This was thought to be the ideal situation for economic development. From this theory came the many arguments for enclosure which was vigorously pursued by Denmark-Norway, Sweden-Finland and England from the 18th century (but particularly England started much earlier). In Norway not much happened until the middle of the 19th century.

Thus the interesting things about Norway is first the continuous existence of extensive areas owned in common, basically governed by the same legislation since the 12th century. The enclosure policies did not get going until it was too late. The second interesting thing is the way rights of common and landownership has been codified and included in a system of land ownership by the use of ground ownership as an organising principle.

England

The legal techniques available in England seems to encompass all those found in Norway and then some more. Particularly the trust institution should be mentioned.

Historically the same distinctions as those used in Norway are found.¹¹ The rules about pasture and fuelwood are more detailed and more varied, probably signifying that it was more scarce. The complicated divisions of property rights is illustrated by Rackham(1989) in his investigation of the the history of the Hatfield Forest. Around 1550 the king gave all his interests in Hatfield Forest to Lord Rich. Part of the Forest was already owned by the Barrington family. In 1592 the Rich family sold their interests in it to the Morleys of Great Hallingbury. In Rackhams words:

«The Forest had been the Crown's, and the manor someone else's, for much of the middle ages, and this had led to disputes; but the new separation was different. Lord Morley had bought not only the Forestal rights (by now reduced to little more than the rights to keep deer) but also the soil of the whole Forest and the trees in the western two thirds. Barrington already had the trees (but not the soil) of the north eastern third and the right to pasture animals throughtout the Forest; he now bought the manorial jurisdiction over the whole Forest, including the right to hold courts and to fine offenders (including Lord Morley) against the by-laws. As lord of the manor he now had to deal, not with distant and complaisant Royal Forest authorities, but with a resident owner of the Forest eager to enforce his claims. There was plenty of room for the two lords to dispute which rights each had acquired, and for high-handed commoners to play off one lord against the other.»(p.97)

The separation of ground from the rest of the resources was clearly important. The one with title to the ground was the landowner. For a non-historian it is startling to observe that one could buy «the manorial jurisdiction over the whole Forest». But reading Bloch's (1940) account of the fragmentation of social power (military, political and economic) during the feudal ages one should not be surprised. Instead we here see one source of the local and regional variation of property rights: the local or manorial judicial powers to define and enforce rights and duties in relation to local resources.

Neeson (1993) in her account of 18th century English rural society extends the picture of a property rights system with elaborate distinctions for those resources that mattered, and where most of it, also fractions of pasture for one animal, could be rented and sometimes sold. But limitations on alienability are ubiquitous. Pasture was usually inalienable. Where pasture was of ancient origin, it was defined as a *profit à prendre appendant* (see Table 6) and attached to the land (or rather the cottage), just as important rights of common in Norway are attached to the farm. More recent rights of pasture created by contract were called *profits appurtenant*. Depending on the phrasing of the contract some of them became inalienable. If the contract defined the rights in terms of beasts «*levant et couchant*» they could not be separated from the

¹¹ For detailed documentation on the 18th century see Neeson 1993.

cottage. But if it was defined as a specific number of beasts the rights were alienable. Once they were severed from the cottage they became common in gross. (Neeson 1993:82-83).

Even more varied and ingenious were the ways in which grazing on the commons were stinted. The commoners were very sensitive to overstocking and devised through the manorial court by-laws to guard against it. Time frames for grazing, area accessible for grazing, prohibition of agistment of out-parish stock, and number of beasts allowed to graze were variables used in a constantly changing configuration. New by-laws were in many manors promulgated twice a year. One of the strongest arguments for enclosure was overstocking. Neesons (1993:86) observes «The threat to common pasture came less from the clearly defined rights of cottagers than from the larger flocks and herds of richer men.»

Table 6 Ways of holding Profits-à-prendre (rights of common) in English Land Law

	Rights vest	
Rights vest in	inalienable	alienable
land	appendant	appurtenant
person		in gross

Source: Berge 1998:125

Conclusions on England

One interesting question about England is the degree to which the historical possibilities for defining property rights survive. Technically I think they do. But after enclosure was completed the particular distinctions of various resources were not needed. However, the legal techniques developed remained. And these became important for the kind of capitalism developed in England.

Macfarlane (1998:112), citing Stein and Shand 1974, sees the English common law tradition of treating bundles of rights rather than the total dominion of the thing (as in the Roman law tradition) as being more open to the developments of new rights necessary for capitalist development. The most sophisticated expression of this may be the trust institution (see above). In Canada the trust institution is used as baseline for developing new forms of forest management in something they call an «ecoforestry land stewardship trust model» (Banighen 1997).

In addition to this I would suggest two other aspects of English law as important: the courts of equity, without which the trust institution could not have been developed, and the strong tradition for developing customary law into common law. Neeson's (1993) account of how the manorial courts were used to regulate and enforce usage of property rights gives a fascinating testimony to the versatility of the customary law tradition. It created variety and tailored usage to local conditions. Berman (1983:325) observes that in the

medieval society «..., lawmaking itself was regarded as a process of deliberation and discovery. Laws were considered to be either true or false, either just or unjust, and therefore the making and administering of them were not sharply distinguished from their application in case of dispute.» The common law approach to legislation is a continuation of this tradition.

Sweden¹²

In Sweden rights to resources are closely tied to ownership of the ground. Rights in the commons are tied to ownership of some land to which rights in the commons is attached. Only the rights of reindeer herding Saami are rights of common of the profits-à-prendre type. Their rights to pasture, timber and fuelwood, fishing and hunting of small game are, as in Norway, independent of the ownership of the ground as long as they are exercised as part of their traditional industry.

The uncultivated lands and their resources are owned by

- the state
- municipalities
- companies and private citizens
- the Saami
- farmers
- farms

Most of the uncultivated land is owned privately or by the state. But some of it is owned in common. From old on most of it was local or regional commons («Härads» commons, «Socken» commons, and «Lands» commons) but through the promulgation of the property rights of the Crown in 1542¹³ and systematic legislation of enclosure («storskifte») the commons are now extensively reduced. But new commons have also been created.

The Forest Commons of Sweden 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. They are all located in the north of Sweden, in Norrland and Dalarna. In the rest of Sweden similar rules exist for «Häradsalmenningar» (municipal and parish commons).

¹² Sources for the information on the situation in Sweden is primarily Lars Carlsson's (1995) report on the Forest Commons in Norrland and Dalarna in Sweden (see Carlsson 1996 for a summary) supplemented by Österberg 1998, Undén 1969, and the acts on "Häradsallmänningar av 18. April 1952" (Municipal commons), and on "Allmänningsskogar i Norrland och Dalarna av 18 April 1952" (Forest Commons in Norrland and Dalarna).

¹³ Declaration of Gustav I Vasa of April 20, 1542, p. 228 in Zitting and Rautiala 1971.

All grounds of the commons are inalienably attached to some farm (the cadastral unit). For the resources of the commons the legislation recognises different rules for three types of resource:

- the ground and remainder,
- fishing and hunting of small game and
- hunting of big game.

The most important of the remainder is timber and hydroelectric power. They generate fairly large incomes. For the commons these incomes are the basis of extensive and variable economic activities.

The only rights of common (profits-à-prendre) defined for Swedish commons are the rights of the Saami villages to the pasture, wood, fishing and hunting of small game they traditionally have enjoyed as reindeer herders.

The right to hunt and fish is tied to ownership of the ground. The rights of fishing and hunting are held inalienably in joint ownership by all persons registered as owners of the cadastral units «owning» the commons. There are special rules for the right to hunt big game. The difference from hunting small game is that public regulation determines the quantities which can be harvested. Fishing is often separated from groundownership, particularly for the larger lakes.

Table 7 Resource specific property rights regimes in Swedish commons

	ground and remainder (includes timber, fuel wood, 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
Use and quantity regulation	internal within limits	internal	external	internal
Alienability	inalienable	inalienable	inalienable	inalienable
Power of local choice	yes	yes	yes	yes

Conclusions on Sweden

In Sweden the importance of the ownership of the ground for organising the rights to the renewable resources is the same as in Norway. But there is one obvious and big difference: the general absence of rights of common (profits-à-prendre). Only the reindeer herding Saami have rights of common. Rights to resources in the commons run only with the land. Only those who own a

cadastral unit have rights to use the commons. These rights are in general (conditionally) inalienable in the same way as in Norway. Purchase of the cadastral unit will give access to the attached property. Two further differences should be noted. The big timber companies are allowed much more freedom to buy forest land and as a group they own a much larger area compared to Norway.

Finland¹⁴

Until 1809 Finland was a part of Sweden. From 1809 until 1917 it was ruled by the Russian tsar but have from 1809 been able to enact its own legislation. It should be noted that within Finland the Åland Islands (Ahvenanmaa) has its own legislation. The situation there has not been investigated.

The long period of legal history common with Sweden makes the legislation on resources in Finland very similar to Sweden. This includes a strong link between ground and other resources (including water and rights of hunting, and fishing). Some forests, pasture, and fisheries are owned in common. Many of the forest commons were created after the new act on forest in 1886. As in Sweden the right to ground and resources in the forest commons is inalienably attached to some farming unit. The same applies to pasture commons. On the state lands in the northern part of the country there is rights of common to pasture, fuel wood, hunting and fishing for the local inhabitants who keep reindeer (both Saami and non-Saami).

At customary law people have rights of way and can pick berries, flowers, etc. as long as this does not cause damage to the landowner.

Resource specific rules are found for

- forests
- pastures
- wild game (with further distinctions of big game and small game)
- freshwater fisheries (with further distinctions between salmon and other fresh water fish)
- lakes and streams
- ground and remainder.

Types of owners

- the state
- farmers
- farms

Hunting rights belong to the owner of the ground. On the state owned lands there are special rules of allocating rights. The local population and the state

¹⁴ Sources here are Uimonen (1998), Zitting and Rautiala (1971), and Haataja (1947)

administration of the lands have preferential rights. If the rights of these and the condition of the game population allows it, other may also rent hunting rights for a maximum of 10 years.

Both lakes and streams and pastures are to some extent common property. Rights run with the cadastral units of the local community. Rights of fishing are to some extent separate from ownership of land and lakes. Some are servitudes. There is often local rules about fishing rights on state lands. The old Crown Regalia Fisheries have given the modern state extensive rights to salmon in streams and lakes as well as in the sea. Also private rights to fish in other peoples waters exist. Both the states rights and private rights are defined as servitudes. Since 1895 it has been prohibited to create new such servitudes (Haataja 1947:219-220).

Regulation of hunting and fishing include rules about technology, rules about protected areas and certain periods of the year where fishing or use of certain technologies is prohibited.

Some differences from Sweden can be noted. Corporations, associations and foreign citizens are more restricted in their ability to own ground. Unlike Sweden for example, timber companies cannot in general acquire timber land without permission of the state.

Denmark¹⁵

From the common origin, and long history of the dual kingdom of Denmark-Norway (1398-1814) it is no surprise that in general the legislation of Denmark is rather similar to the Norwegian legislation. But since the amount and character of the uncultivated land area is rather different, some differences are also to be expected. It should also be noted that Greenland and the Faeroe Islands have their own legislation. The situation there has not been investigated.

In Denmark the importance of ownership of ground seems very similar to the Swedish case. And the amount of commons rather similar to England. The enclosure acts of April 23, 1781, on tillage, September 27, 1805, on forest land, and December 30, 1858, on peat land, left very little for common ownership. Only patches like gravel pits, roads of the village, and some pastures were left.

Forest is recognized as a resource class with special legislation. Besides this public regulation of wildlife and nature is strong. The state enacts regulations of which species can be hunted, technology to be used and time periods for hunting and fishing.

¹⁵ Source her is the introductory text by Knud Illum (1976) «Dansk tingsret», København, Juristforbundets Forlag. The legal texts have not been consulted.

Rights of fishing in freshwater and hunting belong to the groundowner (but on the remaining common lands it belongs to the municipality). Like in Norway their alienability are limited (a maximum of 10 years for hunting and 25 years for fishing rights). In medieval times, however, both hunting and fishing are presumed to have been rights of common for all. But fairly early they became tied to the ground (Civil code of Denmark of April 15, 1683). Some of the fisheries are still held in common not tied to groundownership. Some were sold by private persons, some by the King, and some were made private by prescription.

Presumably all other rights in other peoples lands are treated as servitudes.

Except for the privileged position of the state, and the usual positions of citizens, corporations, farmers and farms no specific information on different categories of owners can be found.

Portugal¹⁶

The medieval origin of the Portuguese state and the feudal land tenure system adopted would seem broadly similar to the system developing in England at the same time. In the 18th century a process started transforming the tenure system in the direction of the Roman Law conception of dominium plenum. The civil code of 1867 was based on a distinction between public things (*res publicae/ coisas públicas*), communal things (*res universitatis/ coisas comuns*), and private things (*res singulorum¹⁷/ coisas particulares*). From this all land was assigned either to the state, to municipalities or to individuals or private corporations. The medieval commons, the baldios, were thus assigned to the state and its institutions. The distinction between the state, the municipalities and the local communities (villages), is important. The state was centralised but largely not present in the countryside. The municipalities (the «concelhos») were dominated by the large landowners and/ or by religious or military bureaucrats. The local communities (the «povos») were self-governed by their «conselhos». From the mid eighteenth century the central state increased its power over the municipalities. The longstanding system of selfgovernance of the «povos» through their own elected officials like judges and overseers, and their own by-laws, seems largely to have been ignored. Apparently they did not get any legal recognition in the 1867 civil code.

The 1867 civil code inaugurated a century long effort at privatising the commons. From 1926 force was used to transfer land to the forest service for reforestation. In the civil code of 1966 the concept of communal property was

¹⁶ The conclusions reported here are based entirely on the material presented by Roland Brouwer (1995a) in his study of state formation and afforestation of the commons in Portugal (for a summary see Brouwer 1995b).

¹⁷ «Res singulorum» as used on pages 8-9 by Brouwer (1995) would seem to correspond to «res privatae». Black's Law Dictionary (1991) does not mention «res singulorum».

removed. They were assigned as the private lands of municipalities and parishes¹⁸. However, for some of them usufruct rights remained (logradouro comum). The longterm drive towards extinction of the commons were reversed in 1976 after the downfall of the authoritarian regime in 1974. The commons (baldios) which since 1926 had been taken over by the Forest Service were restored (Decreto-Lei 39/76), but the concept of baldio has not yet been reintroduced to the civil code. The large areas of commons, most in the south and least in the north, enclosed before 1926 remain private lands.

Today the uncultivated lands of Portugal are owned by four types of actors:

- the state, particularly through it forestry service
- municipalities/ parishes
- private citizens/ corporations
- local associations of commoners

The areas owned by the local communities, called baldios, are owned jointly (not in common) by the inhabitants of the local areas where they are located. Rights to the benefits from the baldios are determined strictly by residence. The local organisation of users is charged with the duty of keeping an updated census of the commoners.

The current law on baldios was enacted in 1993 (Lei 68/1993 of 4 september 1993, see pp. 347-358 in Brouwer 1995a). The law does not distinguish between any of the specific resources in the baldios. Presumably the local management has full freedom to regulate all aspects of the resources of the baldios. The only aspect of the baldios different from purely private lands are probably

- restrictions on alienability
- rules about delegation of power to manage the areas, including rules about co-management with the state
- rules about extinction

Conclusions on Portugal

Brouwer does not cover all the aspects of resources in uncultivated lands, which I am interested in here. Partly this may be because the variation I am looking for does not exist. Ownership of the land seems to imply not only ownership of the ground but also all the goods attached to the ground. It is ownership in the «dominium plenum» tradition. This way of owning may of course apply equally to private citizens and to associations of commoners.

The management of wild game is the responsibility of the forest service. The status of other wildlife is unknown.

¹⁸ In 1878 the parish became an official administrative subdivision of the municipality. After the 1936 their administration was modeled on the pre-existing structures of the village «conselho» (council) and «zelador» (elected responsible manager of the commons).

Some reflections at the end of an unfinished paper.

Reading through the cases covered so far suggests that there is in general a strong tendency to organise ownership into the hierarchical model of private property. Great efforts have been expended on the enclosure process to take apart the bundle of older rights and put together a new one where ownership of the ground goes together with ownership of all that is attached to or flows over the ground. No country has succeeded completely. Norway is perhaps the one country with least success. England has in one way succeeded. But England has at the same time immediately moved beyond this total «unity» of rights by applying the trust institution to the ownership of uncultivated lands.

Another striking feature is the creation of new commons. In 1857 the last enactments on «Forest» enclosure occurred in England. The same year Norway enacted new types of commons as well as reaffirmed the old commons. A few years later Sweden and Finland were creating new forest commons and in 1976 Portugal made an effort to recreate the old village commons called baldios. England did not try to recreate any of their old commons. But with the legal techniques developed they could create something new, the public trust, owning and managing land, not in common, but for the benefit of the new urban commoners.

Finland (Åland islands), Denmark (Faeroes, and Greenland), Norway (Svalbard) and of course UK, have regional legislation (in the sense of geographical separate legal systems). The regional variations within countries can of course be explained as remnants of our feudal past. But differences between countries are more difficult. Somewhat surprisingly they do not seem to even merit an explanation: on the one hand they are -presumably- «natural» consequences of the cultural differences and the autonomy of the nation state, or on the other hand, they are mere political distortions of the ideal situation of complete private property. This lack of a comparative perspective on the various ways we use and enjoy nature is to me in itself a puzzle.

What little evidence I have been able to survey do not support the disappearing differences hypothesis, neither does «naturalness» of the variation among nation states seem obvious. My hunch so far is that local variations in geophysical conditions, and an economic organisation tailored to particular local resources has much to do with the stability of property rights, and hence the persistence of their differences. Property rights are kept unchanged because the major political players find them useful as they are (North 1990).

- In the new commons created, no new «rights of common» have been defined. (Norway may be an exception, for example fishing rights for children) Why?
- Common property - ubiquitous until the 18th century, from then on enclosure rose as a modernisation effort. Why?

- And why is trust ownership so good for capitalism in UK, but not in Norway?

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