

## INTRODUCTION

by

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The theme of the conference is **Law and the management of non-private property**. In particular it concerns the management of the fish in the Barents sea and the range lands in Finnmark.

The fish in the Barents sea is a valuable resource in jeopardy. The range lands of Finnmark is also a valuable resource in jeopardy.

What these two resource have in common is at the very least that neither of them are private.

Around the world one finds non-private resources in jeopardy. And one finds private resource in jeopardy. But somehow public interest in the mismanagement of private resources is not quite as much in fashion as the mismanagement of the non-private.

Private or non-private or public, the concepts we use are not precisely defined. Some discussion of terminology might be in order, but before we look into the concepts we use, perhaps we should look at the problems we are facing. I think that getting some kind of understanding of the dynamic of a problem is necessary before conceptual generalizations will be useful.

I shall not try to give details of the problems faced, only the long distance view of them, as they appeared yesterday. Details were hazy and only the more significant features were visible - or so I hope. The contributions here will give a fresh view with more details.

### **Problems of Managing Fishing.**

In the North East Atlantic and the Barents sea there is a vast resource of fish, an ecosystem where big fish eat small ones and the small ones eat the even smaller life in the sea. Here seals and whales compete with

birds and men to harvest from the abundance, and all are subject to seasonal and long-term changes interacting with stochastic factors of ocean currents and climate to affect the volume and distribution of biomass across species as well as geography.

In the competition for the harvest, man has increased his power tremendously and rapidly during the last few decades. The possibility of depleting the ecosystem far beyond the point of profitable harvesting and possibly into no recovery has become real.

How can we avoid it?

The problem has several dimensions, international as well as national.

The interests of Russia, Norway, Iceland, Greenland and the Faeroes are more or less directly involved. Norway and Russia, and Norway and Denmark (Greenland) are involved in disputes about the border between their extended economic zones (EEZ). In the middle of the Norwegian sea and between Svalbard and Novaja Semlja there are regions not now within any nation's administration. And throughout these various jurisdictions the fish migrate back and forth.

Within each jurisdiction there are problems of legitimacy and justice in the consequences of regulations as well as repercussion throughout the ecosystem of the regulatory policies being chosen.

The problem is to improve our understanding of how the regulations affect simultaneously both the viability of the ecosystem and the qualities of the social system organising the appropriators.

### **Problems of Range Land Management**

Finnmark and Finnmarksvidda is the habitat of the reindeer herders of the Sami people and their herds. Throughout known history there have been long-term swings in the availability of some of the critical resources ensuring the survival of the reindeer during critical times. When the critical resource did not suffice, some of the animals starved, the herds were depleted, and conditions improved.

But both the Sami society and the Norwegian society have changed. Modern society has encroached on the habitat along the margins, modern technology has made it possible to follow the herds more closely, but this also necessitated larger herds to pay for the technology; and new households have added more herds. The overcrowding is visible, at least in the small regions of limited resources which most of the herds depend on during critical periods in the spring.

It may also be visible in the conflicts among herdowners and their anxiety about the future.

Is there nothing the reindeer herders can do to regain control of their future?

The problem has several dimensions. The Sami population is a separate people within the Norwegian state. They enjoy the rights of citizenship like every other citizen. But their status as an aboriginal population also gives them special protection according to the UN covenant on Civil and Political Rights (article 27) and the ILO Convention of 1989, Concerning Indigenous and Tribal Peoples in Independent Countries. The ILO convention indicates that rights of ownership and possession of the land indigenous and tribal peoples traditionally have occupied, ought to be recognised.

The precise content of these rights are so far unresolved, but many of the unresolved problems are tied to the problems of managing range lands. Both Sami and Norwegians acknowledge that Sami culture and national identity to some degree is tied to reindeer herding as an industry. But the implications of this for the management of the rangelands are unclear.

Also, among the Sami there are internal problems tied to the management of the range lands. If access to the range land has to be closed, which relations will the reindeer herders be able to maintain to the Sami population excluded from the reindeer herding industry, and how can the closure be done without jeopardising the Sami culture and identity?

The list of questions could be extended, but our first goal is to understand what is happening and why.

### **What are the dynamics of these problems?**

We know a fair amount of what happens to the resources and how it happens.

People make it happen. People do make their own history.

But here as elsewhere: they have not chosen the conditions under which they make their history. And if it is the conditions which dictates what kind of history people make, we need to ask if it is possible to give the choice of conditions to the fishermen of the Barents sea and the Sami people. Is it possible for them to affect the conditions shaping their choices? In other words: is it possible to shape the institutions governing the resource utilisation on the range lands in Finnmark and in

the Barents sea according to goals expressing the desired path of development for a social system?

The assumption - not to say presumption - of modernity is that it is possible and that science can give the answer of how to do it.

The goal then is to explore which conditions will give not only one reindeer herder, but all reindeer herders conditions where they in common can regulate the allocation of the critical resources of the range lands, and which conditions will give not only one fishing vessel optimal conditions, but allow all fishing vessels to catch their fair share of the harvest with a minimum of effort and without endangering the survival of the ecosystem.

### **A COMPARATIVE APPROACH**

While we know a fair amount of what happens to the ecosystems and why, we know considerably less about which conditions make people behave in a way where resources are used sustainably and even less about how to come from the present conditions to another set of conditions.

To disentangle the various factors affecting resource utilisation, we have chosen a comparative approach.

While the resource systems of Finnmarksvidda and the Barents sea are similar in important ways, the social systems involved in the management of the resources are very different. Of particular importance for the comparison of the situations are that on Finnmarksvidda the resource users are an ethnic group of aboriginal status, and in the Barents sea there are international considerations both in relation to the Law of the Sea, the status of the Svalbard territory and the signatories of the Svalbard treaty, and in relation to the geo-political and industrial interests of Russia.

To increase the scope of comparisons, we have turned to Africa for contrasting cases: to Mali for a look at range land management and relations between traditional and state regulation in a case where aboriginal status is not a salient issue, and to Namibia for a look at the management of fishing rights in a less complex international setting.

But productive comparisons require a standardised theoretical language to describe the various cases. This theoretical language we are beginning to find in the rapidly developing field of theories of property rights regimes.

I will not presume to instruct you in that particular field. But since not all of you are equally informed of what a "property rights regime" is, I would like to repeat some basic concepts.

## **SYSTEMS OF RIGHTS REGIMES**

Property rights come in a wide variety of disguises. Any one particular constellation of rights will be called a property rights regime.

A property rights regime is a complex constellation of rights and duties; privileges and rightslessness; powers and liabilities; and immunities and powerlessness, based on the norms and values of a people and its lawyers.

So far there is no one THEORY of property rights regimes, there are theories. This is not the time to review and evaluate the various theories.

Relying on Eggertsson's (1990) study of "Economic Behaviour and Institutions", we can speak of a "naive" theory of property rights which assumes that property rights will be defined and enforced in a way that will maximise the aggregate wealth of a society.

The "naive" theory may better be thought of as a prescription for how property rights ought to be defined and enforced by the omnipotent and totally good state, than as a description of how reality looks like. It is not hard to find evidence disproving it.

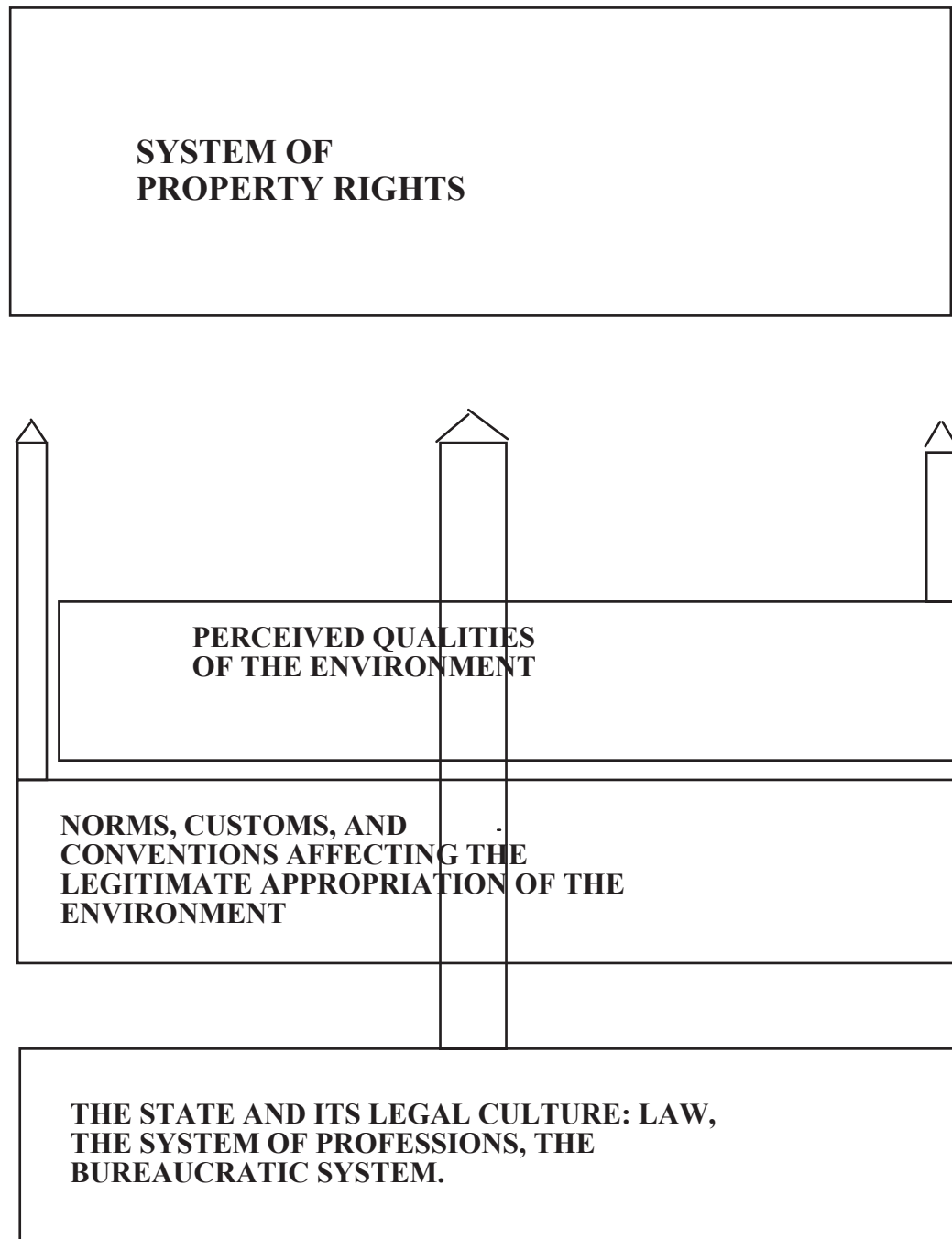
One strain of theory trying to improve on the naive theory have been called the "interest group theory of property rights". It could also have been called political economy. The political clout of occupational organisations or classes will determine changes in the legal system at the margin and thus cumulatively strengthen particular groups at expense of others and without regard to the overall efficiency of the economy.

Another development of the "naive" theory emphasises the nature of transaction costs and how these shape the activity of the state in relation to property rights.

The bottom line of all the theories, though, is that a property rights regime determines who **legitimately** can claim the benefits from which resources. A property rights regime is a real world system of action which affects the distribution of the various goods defined by the society as worthy of attention.

The significant word for a property rights regime is "legitimacy". The degree and source of legitimacy determine the kind of protection given by state and society to any particular holder of a right.

**FIGURE 1  
FACTORS AFFECTING THE SYSTEM OF PROPERTY  
RIGHTS**



The foundation of a property rights regime can be divided into three parts.

**1) THE CHARACTERISTICS OF A RESOURCE AFFECTING WHO CAN LEGITIMATELY APPROPRIATE WHICH BENEFITS AS PERCEIVED BY THE MEMBERS OF A SOCIETY,**

**2) THE BELIEFS AND NORMS AMONG THE ACTUAL RESOURCE APPROPRIATORS ABOUT WHO CAN LEGITIMATELY APPROPRIATE WHICH BENEFITS FROM THE RESOURCE, AND**

**3) NORMS ABOUT JUSTICE AND EQUITY AMONG LEGAL AUTHORITIES AS EXPRESSED IN ACTS AND THE INTERPRETATION OF LAW CONCERNING WHO CAN LEGITIMATELY APPROPRIATE WHICH BENEFIT FROM THE RESOURCE.**

One might imagine that a property rights regime was determined by the characteristics of the resource it is supposed to govern. But so far I think the evidence indicates that cultural factors take precedence over environmental factors. The role of the actual characteristics of a resource is more in the role of limiting the variation of regimes. Given such and such characteristics there are some constellations of rights and duties that will not work or will work only very poorly.

The values of a culture can be expressed in a variety of ways. If something is considered to be of great value or to be important for the daily effort to secure a decent living standard, the society will protect it in some way and to some degree. It may be through the norms and regulations promulgated in the everyday encounters or it may be through acts and regulations enacted by a state on behalf of the society and promulgated by a police and court system.

But statutory law also has to be interpreted. Among lawyers and law enforcement officers there also will develop systems of perception as well as norms about appropriate interpretations and suitable reactions to the perceived wrong doers. The legal sub-culture is an important part of the forces shaping an actual property rights regime.

## **1. CHARACTERISTICS OF RESOURCES**

The variety of characteristics of a resource may confuse us. Not many of them are of interest to the management regime. The significant aspects of a resource are its perceived qualities in relation to the goal it is assumed to contribute to fulfil. One important aspect for our concerns here is the degree of divisibility in time and/ or space. The distribution

problems of a society are very different for divisible goods compared to those with important indivisible aspects. If there are noticeable indivisibility's in the utilisation of a resource one has to look for other ways of managing the resource than granting individual physical shares to each user, if the distributional problem is to be solved.

The range lands of many pastoral societies will typically in important ways be indivisible. Optimal use of the range land will usually imply access to seasonal pastures as well as transport corridors between the various pastures. And if there is a stochastic component e.g. in where the rain falls, the pastures must be large enough to exploit this stochastic component. The possibility for dividing the pasture equitably may not exist.

Other important characteristics of a resource are those who are perceived by the members of a society to affect the procedures of appropriation (e.g. max sustainable yield, or externalities in consumption/appropriation etc.).

For renewable resource there exist upper bounds on the volume of extraction from the resource which must be observed if the resource shall maintain its ability to provide benefits in the future.

The process of appropriation and/ or consumption of a resource may create externalities (various types of crowding or queuing phenomena), the nature of which needs to be taken into consideration in the property rights regime in order to maintain the stream of benefits.

While the existence of indivisibility's is important to take into account one should not be blind to the many ways it is possible to divide resources like land. In some legal systems there are different rules for regulating access to different types of resources (arable, trees, water, pastoral land). In other legal systems there are different rules for “fee simple”, “usufruct rights”, “management rights” and the rights of “cestui que trust”.

## **2. CULTURE AND RESOURCE APPROPRIATION**

The culture we are thinking of here are the opinions, attitudes, beliefs, norms, and values within a population of actual resource appropriators about who can legitimately appropriate which benefits from the resource.

If somebody believes he has a right to utilise a resource in a particular way and everybody else of those who come to know about the utilisation concurs, it does not matter what the legal code says or what the “state”



wants. For so long as all people act in good faith the definition of the situation will be the reality of the situation. The problems arise at the point where someone contests the right to any particular resource utilisation, e.g. because it infringes on what this person believes to be his right. If the conflict is solved locally without recourse to the formal legal system we are within the bounds of a traditional management regime. But if it escalates the local resource users have to face the possibility that the state and its representatives may bring a new definition of the situation into the negotiations.

The academic problem now becomes where those who will decide the outcome of the dispute, will find their definition of the situation: their insight into what, accordingly, can be considered a proper resource utilisation, as well as which principles can be invoked to curtail uses incompatible with the principles of justice the definition of the situation implies (e.g. whether the resource is considered common property for the inhabitants of a community or state property).

History shows that the problems which traditional cultures have difficulties handling, are likely to arise in relation to

- exclusion and transfer,
- inheritance,
- exchange of rights, and
- long term interests in use, and
- decisions on joint use of resources.

### **The problem of exclusion and transfer**

The question of inclusion in or exclusion from the group of people allowed access to a resource is fundamental. How is membership in the group acquired and how is it maintained? A particular instance of this problem is inheritance.

### **Inheritance of rights.**

How do societies (pastoral as well as others) handle the question of succession and recruitment. How can a resource user ensure that his or her heirs will be able to enjoy the same quantity and quality of a resource? How is it possible for new households to get access to a resources? The role of inheritance can be tied in to the more general problem of how to secure long term interests in the resource utilisation.

### **Exchange of rights**

Both the problems of membership in a group of appropriators and inheritance are closely related to problems of transferring rights, privileges, powers and immunities (partly or totally) among group members for periods of time or for ever. If transfer is possible, the question is what kinds of restrictions are put on the transaction.

### **Long term interests in the utilisation.**

A property rights regime shapes in powerful ways the time horizon of the actors utilising the resource. The security of tenure (of any kind of rights) and how it is protected forms the possibility for long term investment in a resource.

### **Decision rules for resource utilisation**

Decisions on joint use of a resource require meta-rules about how to decide on joint use. The existence or not of procedures for establishing or changing the meta-rules is an important aspect of a property rights regime.

## **3. LAW AND LEGAL CULTURE**

Within the legal infrastructure and machinery of enforcement of the state, one finds norms about justice and equity expressed in laws and the interpretation of laws concerning who can legitimately appropriate which benefit from the resource.

The legal regulation is expressed in two ways. It is expressed in the form of acts and it is expressed in the judgements in the courts of law where the interpretation of acts and traditions establish a legal tradition, a legal subculture which of course has links to the common culture of the people.

### **Enforcement of rights.**

One problem for holders of claim-rights, privileges, powers and immunities is to defend their rights. Property rights are legitimate if public opinion says so and if some social power - the state or some other central or local institution - recognises the right-holder and is prepared to enforce his, hers or its rights. An important part of a property rights regime is the remedies granted rights holders feeling themselves wronged.

One important distinction in the legal tradition is the division of interests into public and private. Does the violation of a regulation affect only the private interests of a citizen or does it also affect the public interest? In the cases where it is a violation of public interests, the legal tradition will be affected by the system of enforcement since the resources and traditions of this system determine which violations will be investigated and brought to court.

The role of public opinion and the use of cultural means of enforcing rights are important aspects of a property rights regime.

### **The role of the remainder**

An interesting aspect of rights in traditional societies may be described as the problem of the remainder. If different actors control different resources within an ecosystem and their positively described rights are recognised, who controls the remainder (that which is left when everything positively described is accounted for)? The owner of the remainder will be the one to profit from new opportunities as they arise in relation to the resource.

## **DESCRIBING PROPERTY RIGHTS REGIMES**

As a baseline for studying property rights regimes each regime will have to be given a precise and standard description.

### **A precise description of the property relation**

For the group of actors (persons or groups of persons) allowed access to a resource the following points ought to be considered (see Hohfeld 1913, 1917):

- 1) What specific claim-rights does membership entail? and how are they exercised and defended against non-members?
- 2) Which privileges does a claim-rights holder enjoy in regard of the resource? Under which specific conditions can they be enjoyed? And what happens to anyone trying to interfere with the enjoyment?
- 3) Which powers (to create new types of property relations in regard of the resource) do a claim-right holder have? Which are the liabilities of the non-members?
- 4) Which immunities will a claim-rights holder have (legitimate customary and/ or legal protection) in regard of someone trying to usurp his powers? And how are they protected?

### **A precise description of decision rules**

For the rights defining a property relation one needs to know if the source of the rules is tradition or some legitimated decision of a recognised system responsible actor. For any system responsible actor one needs to know the rules governing the decisions on the property rules.

## **TYPES OF PROPERTY RIGHTS REGIMES**

By a natural or environmental resource we shall mean any physically bounded and identifiable entity recognised as a resource by some legitimate social actor.

A property right is a **legitimate** rule of appropriation for some stream of benefits from some resource. This suggests that it may be interesting to distinguish between different streams of benefits from the same physical resource.

Property rights regimes are usually divided into state, common, and private property rights regimes, sometimes with the absence of property rights, the open access regime, added on as a fourth type.

I think one ought to be more specific than this and talk about the property rights regime for a specific stream of benefits from a resource.

**A resource specific property rights regime then is all the rules and procedures which determine who can legitimately appropriate any particular stream of benefits from a resource.**

The major types of regimes seems to be determined according to number of appropriators on the one hand, and, on the other hand, who may legitimately claim an interest in the distribution of a particular stream of benefits from the resource.

The relevant distinction according to number of appropriators seems to be one individual, a recognised group or all members of a society. By a group resource is meant any resource where more than one independent decision maker, but not all members of a society, can claim legitimate rights to appropriate the particular benefit from the resource.

One may also distinguish between private and non-private resources according to who may legitimately claim an interest in the distribution of any benefit from the resource. By a non-private resource is meant any stream of benefits where legitimate interest in the decisions on the appropriation of it is a matter of interaction among the units of appropriation and other legitimate actors of the society. For a private resource nobody except the units of appropriation can claim legitimate interest in the stream of benefit.

One may argue for the public interest for instance out of the nature and extent of externalities created either by the process of appropriation or by the process of consumption. If such externalities are perceived to be few or of little importance, the legitimate interests in the utilisation are mainly private.

**Figure 2**  
**TYPES OF PROPERTY RIGHTS REGIMES**

For any particular resource:

Interests in decisions on use are mainly

Legitimate  
unit for  
appropriation  
is

PRIVATE  
(appropriator i.:  
few negative  
externalities )

NON-PRIVATE  
(soc. interests:  
many  
externalities )

INDIVIDUAL  
(the legal  
person)

ordinary P

state P

A GROUP OF  
INDIVIDUALS  
(contractually  
defined)

joint P

common P

All members of  
SOCIETY  
(symbolically  
represented by  
a monarch or  
government)

sovereign P

public P

**MODE OF ACTION**

Government

regulation

management

Citizen

management

consumption

## CONCLUDING REMARKS

The problems encountered in the utilisation of Finnmarksvidda and in the Barents sea have been addressed in two previous conferences (see e.g. Stenseth et al 1991).

Both Finnmarksvidda and the Barents sea belong to a class of resources which in most countries today are considered as common resources. Exactly what this entails varies enormously from situations where the resource for all practical purposes are nobodies property to situations where the resource is managed by a corporation as if it is ordinary private property.

Patterns of resource use tested by history and guarded by tradition will usually be sustainable. Today it is recognised that circumstances (technology, organisations, legal codes, cultural procedures, etc.) may have changed so much that the sustainability of the prevalent pattern of utilisation - whether traditionally enforced or enforced by a state - is an open question.

The problem we want to confront is how to change the regimes of utilisation in a direction approaching a more sustainable pattern of utilisation. To change a pattern of utilisation means changing the structure of property rights to the resources (if property rights are taken in their social science meaning of legitimate appropriation of the culturally necessary means of subsistence).

Before one can start the task of designing modifications to a property rights regime, the existing system of rights, both those recognised in a legal code and enforced by the state, and those recognised in a culture and enforced by traditional means, need to be known in detail. In particular one must know how the various parts of the system act in concert to produce the observed sustainable or unsustainable pattern of utilisation.

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