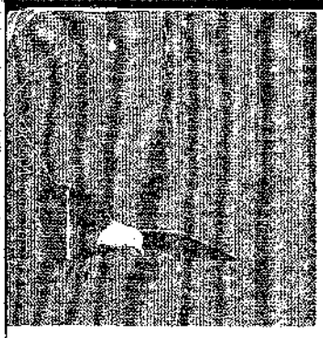

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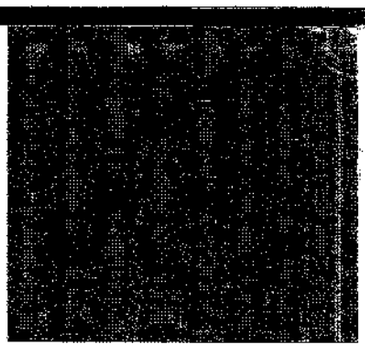

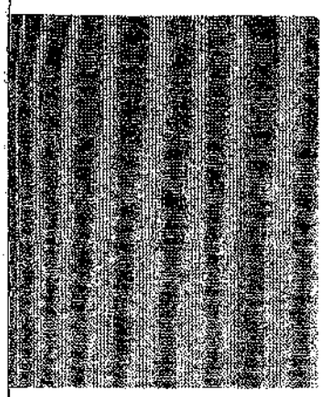

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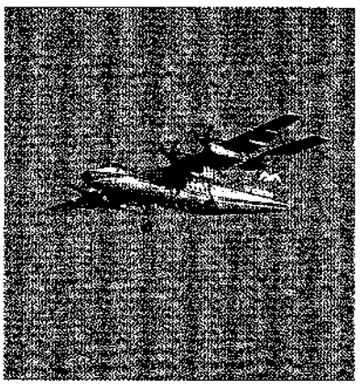

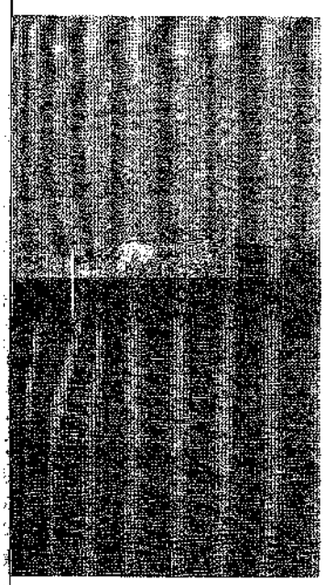

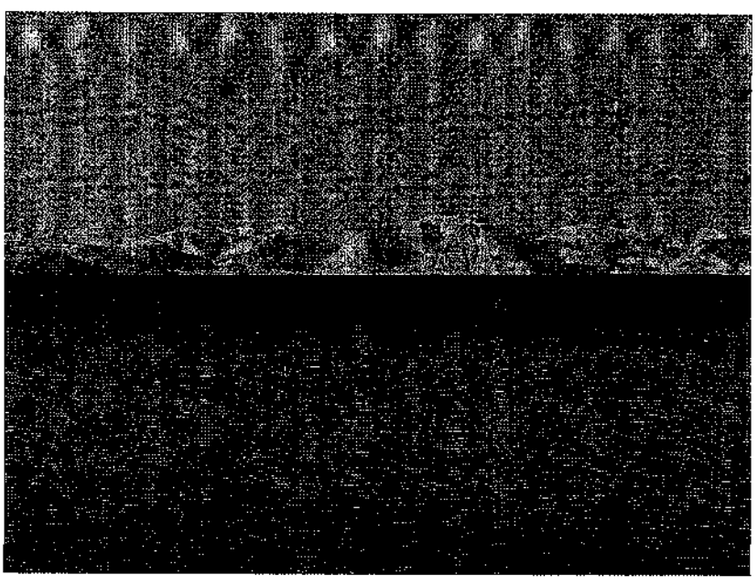

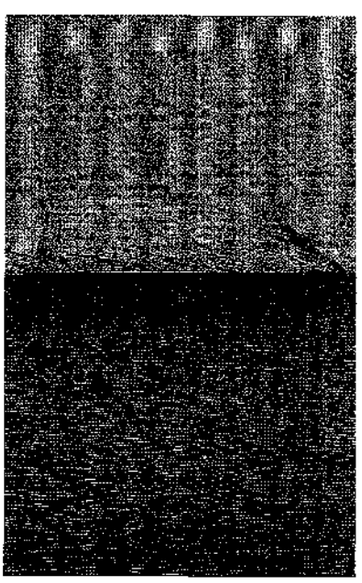

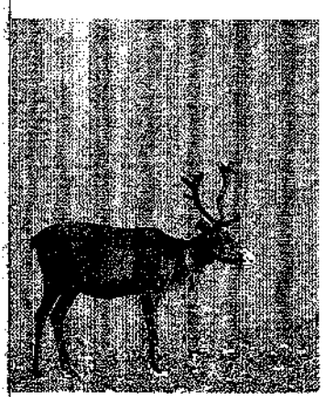

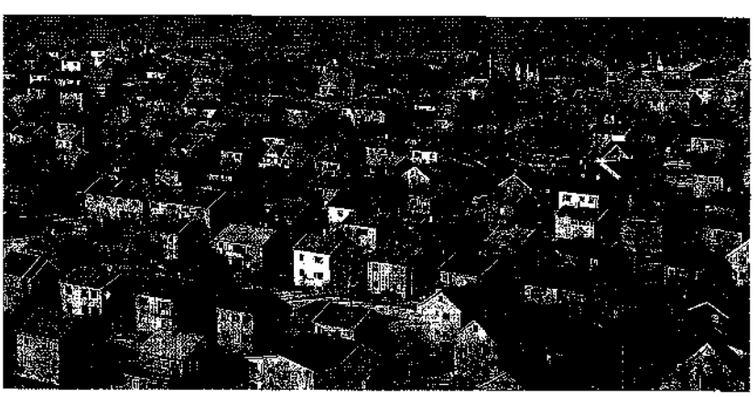

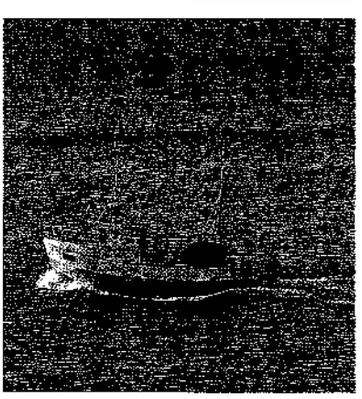

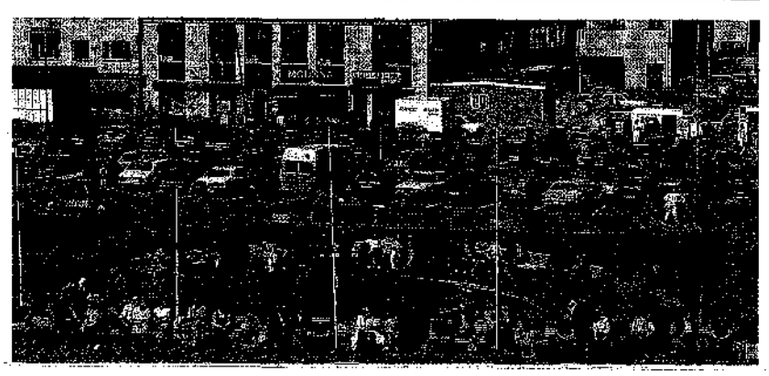

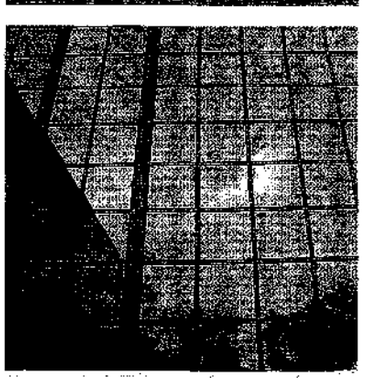

LOS I NORD-NORGE

LOS i Nord-Norge er et program i regi av Norges forskningsråd som ble startet opp i 1992. Det skal etter planen gå fram til 1995. Programmet dreier seg om kunnskapsgrunnlaget for næringspolitikken i nord. Hvilke forståelser ligger til grunn for tiltak som blir iverksatt, og hvordan harmonerer disse med landsdelens «egentlige» problemer? Ulike virkemidler har forskjellige virkninger for næringer og regioner, fordi de legger ulike føringer på aktørenes strategier. Spørsmålet er hvordan næringspolitikken i Nord-Norge utvikles og gjennomføres. Hvem er de sentrale premissleverandørene? Hvilke typer kunnskap og forståelseshorisonter dominerer?

Notatserien vil bestå av arbeid som kommer til i løpet av programmet. Det kan være arbeidsnotater, forelesninger eller annet materiale som har relevans for temaet. Hensikten med notatserien er å synliggjøre arbeidsprosessen for omverden. Med dette kan også ulike prosjektmiljø og prosjektmedarbeidere holde seg orientert om pågående delprosjekter. Det samme gjelder den brukerorienterte referansegruppen. Notatserien er således også et forsøk på å åpne for kommentarer, kritikk og korreksjoner underveis.

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NOTAT NR 40

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Preamble

In recent years both governments hierarchical resource management regimes and marked-based regimes for utilising natural resources have been increasingly attacked for lack of efficiency, lack of legitimacy, lack of control and lack of sustainability. Against this has been advocated a "third way" - the self-governed group of resource users that exercise self-discipline and self-control and thereby guarantee sustainable use of their "common property resource" (Ostrom 1994). Intensive research around the world shows that several thousands of such self-governed regimes in forestry, ground water, fisheries, sea-birds' eggs, irrigation, grazing, gathering, etc. are efficient ways of managing peoples utilisation of resources without depleting them. Research has also shown that in order to work properly, the institutional rules of such regimes have to be fairly complex and the amount of preexisting social capital has to be substantial. Further it is shown that more often than not it is government tampering with such self-evolved institutions and erosion of the invested social capital that produce outcomes labelled as "tragedies of the commons". This report examines some of the preconditions in the modern world for such self-governed resource utilisation groups - or purposely designed institutions based on such principles - to function and to take over management tasks from state buraucracies. It is also raises questions about three aspects of the relationship between the common property regime and the society at large - basic questions that tend to be overlooked in the common property debate:

- What kinds of authority need to be transferred from government to self-governed groups of resource users for them to be able to utilise their accumulated social capital?
- How can the border problems, i.e. marginalisation, exclusion and inclusion, be handled without depleting the resource and eroding the social capital?
- How are such groups able to handle the symbolic value that property rights to resources have to the larger group of society members?

A European Debate Revisited.

In the later part of the last century a number of great scientific debates took place that has since set the agenda for the development of modern sociology. The debates centred on the three major questions of the time: *the social question, the labour question* and *the agrarian question* and involved most of the "classic" social scientists as well as politicians and clergy - especially the catholic church. The controversies and the passions aroused by these debates - in men like Emile Durkheim, Karl Marx and Max Weber - produced most of the constitutive concepts of the discipline and are still the foundation for Sociology as it is taught in thousands of sociology courses around the world.

When approaching the modern problems of "sustainable governing of natural resources" with the tools of sociology, we do, however, find that these are inadequate. Indeed we find that some of the intellectual poverty in the subdisciplinary field of "Environment and Society" also produces political impotence in dealing with the grave environmental problems of the world. The environment lacks the conceptual vehicles necessary to communicate its problems to the decision making mechanisms of the hierarchies and the markets (Luhmann 1989). In many ways modern sociology lacks the sharp concepts needed to deal with the relationships between people and natural resources, between persons and things - or as Bromley correctly puts it; between one person's relationship to the thing or the natural resource and other persons' relationship to it (Bromley 1991). It is typical for this that the human development index developed by the UNDP has not managed to adjust the HDI to reflect a country's environmental performance. It concludes that "for the time being, there does not seem to be sufficient agreement on which indicators would be appropriate or how this might be done." (UNDP 1994).

Whether one adheres to a Lockean or a Kantean explanation of the origin of property rights, it is in most of the modern world the Justinian *ius in re* ; "law of things", that has been one of the most persistent agents of social change (Berman 1983). The notion of the supremacy of individual property rights over collective property rights inherent in Romanist legal teaching, has during the last 2000 years been refined through the extreme subjectivism of the Franciscans, the cult of individualism of Rennaisance humanists and the theology of economic individualism of the scholastic theologians of the sixteenth century (Grossi 1981). From the official culture and juridical culture of the Enlightenment this notion has penetrated the institutions governing the resource use in most "western" countries. To the extent that society itself becomes the object of its own legal mechanism (Luhmann 1985), it is important to be aware of the close relationship between the basic legal norms in western culture and the constitutive

layers of the institutions vested with the task of managing environment and natural resources. The massive comparative works of Max Weber aimed at this kind of fundamental analysis of the role of basic ideas and doctrines to the economic performance of the various large cultures of the world (Weber 1968). Only recently has this ambition of early sociology been followed up by the sweeping and penetrating analysis of Douglass North, who empasize the crucial role of the ideas underlying basic property rights in explaining the various paths of economic and social development (North 1981, 1990)

Thus it becomes neccessary to reach back to the classic debates of the last century in order to repair some of the weaknesses of modern sociology in relation to what in the modern world has been termed "sustainable governing of resources". In a related way this was also pointed out by James S. Coleman in his analysis of the growth of multinational corporations and the replacement of primordial associations by purposively designed organisations. There is a need for a "New Social Science, appropriate for a new social structure" (Coleman 1990). But somewhere along the path of disciplinary development, sociologists lost touch with parts of the intellectual battles of the times, especially the debates under the heading: *the agrarian question.* This also meant weaker ties with disciplines that had been crucial to early sociological analysis; law, legal history, economic history and etnology. To start work on the reconstruction of this part of sociology, it could therefore be useful to pay a brief visit to one of the great debates of the last century, this is a debate that ran parallel to and in the shadow of the great marxist/liberal debate around the labour question and which on the surface seems to have had only minor influence on modern sociology.

Through the combined forces of the Great Romanist tradition, the official culture of the Enlightenment and the individual freedoms won by the Great American Revolution and the Great French Revolution, the stage was set for an eon of individual freedom. For our purpose here, this can be summarized into the "western" maxim: *Nemo in communione potest invitus detineri* (No one can be kept in co-proprietorship against his will). Thus the question of the form of possession has been transformed from a functional realm to an ideological realm; the way things are possessed is valued more than their existence. When individual property became an instrument of the individual's sovereignty, it also became an extension of his personality, his dignity and capacity to act. This is the basis of a new and modern concept of liberty, which is conceived as an expansive and dominating force - and which is very different from the medieval concept of *libertas* with its emphasis on independence and autonomy (Grossi op.cit.).

This hegemony of the modern liberty was challenged by a great debate, which started around 1850, peaked in the French *Académie de Sciences morales et*

politiques in the years 1880-95 and died with the outbreak of the first World War:

After the enclosures of the farming areas of Europe were to be completed - partly in order to facilitate the progress of the industrial revolution - a number of studies appeared that shocked the intellectual western world. From the Celtic culture, from the Slavonic culture, from Scandinavian cultures and especially from the german cultures studied at length by the German Historical School, there appeared schoolarly heavyweights that pointed to alternative forms of ownership. Studies of the Celtic customs by d'Arbois de Jubainville (1881), Haxthausen's studies of the Russian *Mir* and the thorough analysis of the German *Markenverfassung* of Georg Ludwig Maurer all paved the way for new insights into the basic constituting elements of rural society.

The *Mark,* which was traced back to the basic principles of the original Germanic constitution, was by Maurer identified as the communitarian organism - of primordial character - that programmed the economic life of the *Genossenschaft* (Grossi op.cit.).

In addition to these, Henry Sumner Maine, analysed all the disturbing facts about strange and different ownership institutions that poured into England from the various colonies in Asia, Africa and America and conducted his own research in India. In the celebrated and influencial study *Ancient Law,* he pulls together all this with the contrasting experience from the enclosure movement in England and the different forms of land proprietorship in continental Europe (Maine 1861). The major achievement of Maine was to demystify the doctrines of property in juridical classisism. Following his great treatise, individual and collective property could be considered as equals and as the foundation for **possible functional choices** made by a society in relation to the demands of its own structure (Grossi op.cit.).

The intricacy of the debate need not occupy us here - with new entrants on the scene in a number of countries: the follower Emile de Laveleye in Belgium, the fierce opponent Fustel de Coulanges in France and the destructive popularizer Henry George in North America. In essence it became a debate between the defenders of collective property rights as the original form of ownership and the defenders of the individual property right as the original form of ownership. But it also took on many related appearences, that between "Lockeans" and "Kanteans" in philosophy, between the "collectivists" and "individualists" in the political and moral debate and the debate between "romanists" and "germanists" in legal history. Suffice to state here that for empirical Social Science a milestone was reached with the entry of the German *Mark,* the Russian *mir,* the Javanese *dessa,* the Indian *village,* the British *township,* the Swiss and Scandinavian *Allmend* and the Slavonic *zadruga* into the realm of judiciary, historical and

enthographic science. A major achievement was also made in demonstrating that these forms of ownership were as much part of the "western heritage" as the romanist legal tradition, maybe even closer to the various cores of Indo-European origins.

The trained resource manager will immediately recognize the significance of the basic elements in these debates and see the relevance for modern dilemmas in the governing of resources. This not the case with social scientists bred in the traditional way. To some extent the sociologist has a trained incapacity to deal with peoples' relation to things; they are often considered too fundamental to be included in the analysis. Or they are considered too much an effect of the societal evolution itself to be awarded a place in the causal chain - especially since the ninetenth century when "for the first time in universal history, legal changes by legislation became an immanent constituent of law itself (Luhman 1985). If we watch the influence on early sociology of this part of the great debates, we might perhaps be able to trace some of the reasons for this incapacity. In the larger picture, this is part of the ongoing effort to repair the failure of classical beginnings of the sociology of law to deal with the positivity of law (Luhman op.cit.).

What is then the contribution of the founders of modern Sociology to the debate on how to use social science to design a sustainable governing of resources? One of them, Emile Durkheim, was in terms of time and place the "classical" sociologist in the best position to be close to the debate between the "individualists" and "collectivists" in the great debate on the *agrarian question.* Disappointedly he does in his major work on the "Division of Labour in society" only make scant use of the comparative cultural insights of Henry Sumner Maine in the ancient laws of the world. Thus he misses the important point made in other disciplines that towards the end of the last century the world had in a dramatic way become culturally more diverse than the French and the German society.

Furthermore Durkheim limits the use of these insights to his historical analysis of the role of the various forms of ancient penal codes in relation to "mechanical solidarity" (Durkheim 1893):
In the evolution from segmental differentiation to functional differentiation, the role of the "law of persons" changes: **Repressive** sanctions that seek to revenge the injury to the collective consciousness are typical of the "old order". In the functionally differentiated society with "organic solidarity" the sanctions are typically **restitutive,** i.e. they only seek to eliminate damage in order to reconstitute the functionality of the parts (Luhman 1985).

But this is only one part of a sociology dealing with the development of law from traditional societies to modern societies as a *movement from status to contract* (Maine 1861). Thus there must be similar changes in the "law of things". The changes in the relationship, not between persons and things, but between one person's and another person's relationship to a thing - or a resource (Bromley 1991), is also a fundamental part of modernisation - or the movement from primordial corporate actors to New Corporate Actors (Coleman 1990). Here interesting traces are found in Durkheims posthumous publication "Lemons de sociologie" which has never been translated to English (Durkheim 1950). These are revealing on part of the founder of French sociology and explains much of the later developments in mainstream sociology. In the three lectures on property rights, Durkheim tries to develop a theory of property rights that is neither Lockean - where property is the inalienable right to possess the fruits of own labour, nor following Kant or Rousseau - where property is the result of first occupancy, but sanctioned by a collectivity, whatever this might be.

Durkheim first argues that the nature of the property rights cannot be determined by the nature of the thing to be owned, everything - ranging from mountains to copyrights - can be owned. But the property right is only a formal right which leaves the content of the right undecided, certain things are not more suitable to be owned in certain ways than in other ways. So far this is in line with recent analysis of the nature of property rights to resources; there are no such thing as "common resources" - resources that by their nature are common, they are either state owned, communally owned, individually owned or owned by no one (Bromley op.cit.).

Durkheim then goes on to argue that the nature of the property rights cannot be determined by the characteristics of the owner, because the owner can take on a wide variety of forms - ranging from one individual to a multitude of individuals, from an organisation like a family or a clan to a commune or a state. All that a sociological definition of property can state is then according to Durkheim :

> "the nature of the relationship that link the appropriated thing with the subject who appropriates it - and disregarding all traits of both. The sociologist must therefore look for the social facts that distinguishes the property relation from other relations - like the free access, the user right etc."(Durkheim op.cit.).

The nature of the property relation is then characterized by exclusiveness : what is property can only be used by the owner and the property right is the right of a subject to exclude from the use of a specific thing other individual or collective subjects:

> "A thing which I hold property rights over is a thing that only serves me. It is a thing that is withdrawn from common usage, in order to be used for a specific purpose. I might not be able to enjoy it at full liberty, but no one but me can enjoy it" (Durkheim op.cit).

The only exception to this general definition is according to Durkheim that the "collective individuality called the State" can enforce alienation of private property for public use. This follows from Durkheims theory of the State, where the state is the collateral and guarantor of individual rights - and where growth of the significance of the state **and** the increased importance of the individual rights are both part of an evolution of forms of social life.

This emphasis on the relational, individual and exclusive character of property rights, places Durkheim and much of later development of sociology well within a romanist paradigm for design of rights. Contrary to the rediscovery of a multitude of forms of property rights by Henry Sumner Maine, sociologists have a tendency to treat ownership as a dichotomous variable : either you own or you don't. It is only individual or "corporate" property rights that counts; property rights must be total in the "Justinian" conception of law or "dominium" in such a way that the owner shall enjoy "the thing" in full liberty. And even if "I might not be able to enjoy it at full liberty, [but] no one but me can enjoy it".
This meant that shades of ownership, common property arrangements and less than a full set of property rights was not "dominium" and could not be classified as a "property relation" in the sociological sense.

But this also means that other legal paradigms, e.g. the "germanistic" legal traditions underpinning the european *Markenverfassung* or *Allmend* were not continued into modern sociology. Neither were ideas of "divided property rights" or horisontal layers of property rights; where e.g. the king and the farmers owned the ground together, but exercised specific rights for specific purposes (Robberstad 1963). This is an important point, because the social sciences does not only build on the social facts it studies, but they also establish the social facts through the use of scientific concepts and categories. Thus both classical and modern sociology has contributed to the growth of individual property rights as a measure of individual freedom comparable to a "human right" - and continues to contribute fuel to the "World Enclosure movement" that now sweeps most developing countries.

To return to Durkheims fundamental contribution to modern sociology's concepts of ownership, it is easy to see the influence of Fustel de Coulange in Durkheims work with property rights. Durkheim might disagree with Fustel on the point that the original form of property right was the individual ownership; he seems to be of the opinion that the original form of property right was the collective

ownership of ground. But like Fustel, also he traces the origin of the collective ownership of ground, not to a functional choice or purposive design, but to religious causes. The owned thing and the holy thing are both separated from the public domain, thus there is a "space" around both the owned thing and the holy thing that keeps unauthorised individuals at a distance. And "since the effects are identical, they must with a high degree of probability, have causes of the same kind." His main disagreement with Fustel seems to be the size of this space, e.g. how much of a field around a shrine or a family tomb was dominated by "holiness" and where did "profane" ownership take over (Durkheim op.cit.). Durkheim held that this space was substantial and that the original occupancy of land by European clans - and the resulting land property rights, were totally impregnated with religiousness. The proof of this is according to Durkheim found in the strict rules against **alienation** of clan ground - it should "until eternity" belong to the same family (0sterberg 1983).

According to this view, the religious protection is the real content of property right:

> "Through ritual sacrifice a moral bonding is established between humans and the Gods of the ground - and since there already exists such a bonding beetween the Gods and the fields, the ground is thus tied to the humans by a holy tie. This is the origin of property rights. The property rights of humans is only a surrogate for the property rights of the Gods. It is only because things are naturally holy at the outset, i.e. owned by the Gods, that they can be owned by profane humans" (Durkheim op.cit.)

Originally, it was thus not an extension of the respect for the human individual to the things - here the ground - that protected the property, the source of respect was quite different - outside the person who owns the thing. It is not until the amount of movable property reaches such proportions that it could be liberated from its previous tie to ground property and starts to play a separate social role, that property looses it religious content. Individual rights to movable property is then according to Durkheim a basically new form of property right, which, once created, becomes an autonomous factor in the economy. But individual property rights to moveable things is also the fundamental precondition for the establishment of individualism, "for the individual property is the material precondition for the worship of the individual" (Durkheim op.cit.).
Still, in this chain of evolutionary steps, it is the holiness of the ground, and the "space" this creates in the minds of the unauthorised, which is the fundamental precondition for the establishment of individual property rights to moveable things - and thus for individualism itself.

It was a social fact that this kind of development had taken place, and for Durkheim there was no "Justinian plot" or Canonic mastermind behind the course

of history, although other writers indicate that there were at least some masterminds (Berman 1983). In Durkheims thinking, "modernisation" was the survival of societies with the "fittest" social institutions, and individual property rights seemed at the time more "fit" than collective property rights. That such an evolutionary bias is behind the notion of the supremacy of a functional differentation and the accompanying organic solidarity is hardly surprising - given the developmental optimism at the end of last century. But we should recall that Durkheim issued the following warning: - the accelerating division of labour would give rise to this new kind of solidarity if, and only if, it at the same time produces a law and a morality (Durkheim 1933). Thus, depending on the eyes of the analyst of crisis of morality in the modern age, we might still not have achieved the stage of organic solidarity, but are still dependent on the rules of conduct rooted in the same religious haze as the collective property rights to the ground.

The weak point in Durkheims theory of property rights, is the use of non - alienability as a proof of the religious character of the original ownership of the ground - especially since he distances himself from Fustel de Coulange in claiming that the original form of ownership of ground was *collective.* In one translation he claims "that this taboo on alienation is the strongest form of isolating property from *common* use, and that this is a typical characteristica of religious things" (0sterberg 1983). This might bear on difficulties with translation from French; Georg Simpson, who translated "The division of Labour in Society" reports on difficulties with Durkheim's interchangeable use of "collective" and "commune" when referring to types of conscience (Durkheim 1933). He decides to make both of them read as "common".

But both "collective" and "common" are blunt concepts when it comes to categorising forms of ownership - especially in making the important distinctions between no-one's property *(res nullius),* state or public property *(res publica)* and the common property of a group *(res communes)* .They might all be collective forms of ownership, but only one of them is "commune" in the sense that a group holds it in joint ownership and have designed rules on how to share and maintain the thing or the resource. And one of the fundamental rules found in all common property institutions in all cultures is the ban on alienation of "one's part" of the common property. This "taboo" is not in fact a form of isolating the property "from *common* use", but is a logical consequence of the continued committment of the members of the group to hold the property in **common** i.e. not to privatise it and not to let it become public property or no-one's property. That such rules in many cultures is dressed up in religious terms should not surprise us, institutionalisation has always used the instruments and symbols close at hand. But religion can in itself hardly be viewed as an independent

cause, even in societies dominated by collective conscience it is the use of religious symbols by groups and individuals that has social significance.

Thus it must be the common use to the group that is the cause of the isolation of a certain property (i.e. ground property) from public use - and the cause of the ban on disruption of the "commons" by privatisation, i.e. alienation of "one's part" of the common property. It cannot be the other way round.

For private property on the other hand, which is "dominium" in the Justinian sense and thus has become fully alienable, the "space" created by analogy to religious or "sacred" things, might have played a significant role in establishing social acceptance for the difference between "mine and thine". But also here, Durkheim himself points to the obvious alternative; that the king - or the state - as the guarantor of individual rights against the suppressive secondary groups (clans, villages and guilds), might have objective interests in tying loyal subjects to himself - or itself - by pledging to protect their individual property rights against thiefs or commoners who intrude to share in the riches. Thus we do once again return to Kant, who Durkheim tried so hard to disprove. Kant held that only socially accepted property rights are *de jure* property rights and that all property rights are derived from decisions by collectives - and not from a hazy religious or collective consciousness (Bromley 1991). And as collectively designed institutions they are means to reach certain ends and can be changed if this is considered to be desirable for the collective or those with influence within the collective (Sandberg 1993).

Thus we also return to Henry Sumner Maine, who saw the great variety of forms of property rights in the contemporary world of the 19th century as an indication of the freedom of choice that societies in principle have - also in relation to deep constitutional matters like fundamental property rights. That property rights are institutional designs - and that such designs have functions as incentive systems was a radical breach with both the God-given status of Natural Rights and with the idea of total and individual property rights as the "modern outlook". The reason why the "collectivists" de Jubainville, Maurer, Maine and Laveleye was fiercly opposed by "individualists" like Fustel de Coulanges and to some degree also Emile Durkheim, was not the contemporary fear of a return to "primitive communism", nor the fear of what was to become state collectivization of land in the sense of state communism. No, it was - if possible, more fundamental than that - a fear that what had been won in terms of civilization and individual rights and freedoms by the Corpus Juris Civilis and the Enlightenment, would be lost to the romantics of primitive communitarianism: The Corpus Juris from around 500 AD acknowledges only as property rights to things "total" and all-exclusive rights, and at one time there can be only one property right to a particular thing. A thousand years later the central idea of the freedoms won by the Enlightenment

with relation to property rights is captured in the maxim: "No one can be kept in co-proprietorship against his will".

In their rejection of "a different way of owning" in the coming of the modern age, they did not only deny the social choice of property as function, but also revealed the strong ideological flavour of the romanist position (Grossi 1981). The ideology of "dominium", total ownership, individual ownership and alienable ownership has since had hegemony both in mainstream economics and sociology and has become one of the constituting ideas underlying the institutions of the "western world".

But the hegemony has not been total; in legal history, in ethnology and in social antropology, other ideologies have prevailed, mainly because these sciences have been working with an empirical reality where non-romanist institutions have survived or are re-created. Thus, within the larger family of social sciences, there are theories and tools that enable us to deal with a larger variety of property rights based institutions - both of non-european origin and of indo-european origin - as contrasted to the typical "western origin". If we then return to the basic ideas of Henry Sumner Maine's research program of "property as function" and as an institutional choice - also for modern societies, social science possesses the tools neccessary to analyse non-total property rights and divided property rights (Ostrom and Schlager 1992, Robberstad 1963). As we shall see below, after 1500 years of pressure form the Great Romanist Tradition, we still today find a variety of forms of property rights in most Indo-European cultures; in the Scandinavian Almend, in the Slavonic Zadruga, in the Catalanian Fishing Fraternities. And we find a vast variety of forms of property rights in Asia, Africa, Oceania and the Americas, from the ancient and intricate irrigation commons in Nepal, the indigenous rights to land and water in Arctic Canada to the "New Commons" of the rainforests of Brazil (Diegues 1995).

In Western Europe, much damage to this debate was done by the usurpation and vulgarization for political purposes of certain positions within the great scientific debate. The "germanists" was for a long time the leading opponents to the "romanists", tracing the basic legal structures of the German, Swiss and Scandinavian "tribes" back to some common germannic core, i.a. to be found in the celebrated book by Tacitus from year 100 A.D. The works of great legal historians like Maurer and von Amira was, however, gravely misused by the german nazi political party in its efforts to create an ideology for the supremacy of the germannic race. The existence of an ancient "supergermannic" center of origin fitted very well with these objectives but discredited the heritage of the whole German Historical School. In much of the post-World War n period this scholarly heritage has therefore been rejected and neglected - and the indo-

european cultural and legal structures has been "westernised" with the eager aid of modern social science.

An unfortunate reaction to the discrediting of the German Historical School was an approach that disclaimed all ancient and common legal structures in North European Societies; all evolved rules have been only local and based on customs fitted to the particular environment (Sandvik 1989). Thus all legal structures were created by the kings and the church, with basis in Mosaic and Roman law and as part of an emerging and truly international "western" legal tradition - often termed Canon Law.

Today a third approach seems more realistic. This holds that there was indeed a substantial and common legal heritage - in fact several common Indo-European legal heritages in European Folklaws. But from around 500 - 700 A.D. something new happened, when Germannic peoples, Celtic peoples and Slavonic peoples started to come into contact with the Catholic Church and Roman Law (Berman 1983). From then on, Christian missionaries could equip the kings with written laws which were skilful blends of useful elements from the church laws and customary law based on local - or tribal - legal heritage (Frostatingslova 1994). This follows from the simple fact that the relatively weak kings during the age of the great migrations and the middle ages could not risk a challenge to their legitimacy by disregarding this legal heritage.

Thus, in all modern and "western" societies, the ancient tribal heritage lives on in the basic institutional structures - and constitutes part of what has been termed the "positivity of law", i.e.legal structures that were so heavy that they could not be changed by the kings and only with great difficulties can be changed by modern legislatures. But in terms of property rights and institutional designs, there is an increasing number of indications that it is the heritage from European Folklaws, not from Roman law, that offers the institutional alternatives needed in the age of "High Modernity" (Giddens 1990).

The World Enclosure Movement and Anti-movement.

It is worth noting that a 100 years after the Great European Debate, there is a renewed interest on a world scale in the ideological and institutional underpinnings of various forms of property rights. This includes the relationships between ideology/religion and property rights/basic social institutions. It also includes the relationships between the institutional set-up and economic growth and "modernisation"(North 1991). And with a large number of traditional agrarian societies drawn into the process of international trade and

industrialisation, the *"agrarian question"* is again on the agenda, but now on a global scale.

A number of development strategies have been launched since decolonisation, mostly because "lack of development" was percieved as a problem among the ruling elite and among foreign economic experts. Most overall development strategies have aimed at industrialisation of the new nations, both of the 2nd. and the 3rd. world, with the accompanying strategy of increasing the marketable surplus production of food and the consequential strategy of removing a "surplus" agricultural population. The modernising impacts of these strategies has often taken a perverse form: Rationalisation in the form of huge intransparent national and international bureaucracies, accelerated urbanisation in the form of swelling *favelas* and division of labour in the form of mass unemployment.

Especially after the "Green Revolution" and the World Bank's "Poverty Emphasis", the process of "modernisation" of traditional agriculture took on a global character. The two most important elements in this process was the rapid integration of small peasants into the global food-market and the "world enclosure movement" that concentrated property rights to smallholds on fewer hands and transferred "commons" into state lands or individualised property. The magnitude of these processes, involving hundreds of millions of peasants, and their close link with massive bank lending targeted towards the agricultural sector and the "poor", is amply documented in a number of studies in the 80s and 90s (Rich 1994). The fundamental rationale behind these processes is the Keynesian belief in the state as a problem-solver at the national level and the belief in the suprastate bureaucracies established after Brettons Woods as a problem solver on the global scale (Rich op.cit.)

During the last three decades a number of scientists from both development countries and "developed" countries have pointed to the negative effects of the "World Enclosure Movement" spearheaded by the World Bank and other aid organisations. These represents as different disciplines as institutional economics, human ecology, anthropology, sociology, political science and various branches of resource management science. This "World Anti-Enclosure Movement" started off as a scientific reaction to the myth created by G. Hardin's 1968 article on "the tragedy of the commons" (Hardin 1968). His game-like logic that inevitably would lead to the destruction of the commons, provoked counterattacks from a large number of both theorethicians and empirical fieldworkers, especially as they had experienced an increased activity among government economists to advise legislatures to privatise remaining commons in order to "avoid further tragedies." The works of Vincent and Elinor Ostrom (Ostrom 1990, Ostrom 1991 and Ostrom 1994), of Robert Netting (Netting 1981), of Bonnie McKay (McKay 1987) and of a host of other researchers, show

that tragedies are not inevitable and that self governed common resource management systems are not only possible in thousands of cases, but also that they are long-enduring, legitimate and implies a sustainable use of the resource. These scholars, with a whole generation of graduates following their initial groundbreaking, now forms a sizeable professional counterweight both to the "privatisers" and the die-hard believers in state ownership and state control.

Thus "The question of the Commons" has turned out to be not only one of cultural relics: a question of preserving for the generations to come the remaining commons as evidence of "the old ways." In the academic discourse, the question of the commons has become one of "institutional design and institutional choice" akin to Henry Sumner Maines provoking question of property as "functional choice" more than a hundred years ago. Among the many reasons put forward for the choice of commons as a feasible "institutional design" in face of grave resource management problems, is the low transaction costs, the internalisation of externalities and the high social legitimacy of this kind of property rights institution.

In areas with institutional vacuum or where central authority is weak, commons are often created spontaneously by resource users themselves. This is the case in parts of Amazonas tropical rainforest, where latex collectors and other harvesters of natural forest resources have set up commons-like institutions. Apparently this serve two purposes; it ensures a sustainable use of the resource through a binding of its members to commonly agreed rules and through this, it regulates the entry of newcomers and protect the group of users against the state and external "developers" (Rich 1994, Diegues 1995).

But also where commons have been eroded by privatisation or overrun by state intervention do we find increased activity to reclaim the commons. Especially in developing countries where large scale development efforts have failed, we find political struggles that are not the defence of an existing commons, but the reclaiming of those commons that have already been enclosed, or in other cases, struggles to take over state territory on which to restore commons needed by the community. In Kerala, where aid-induced fisheries development had resulted in anarchic and destructive fishing of commercial trawlers in coastal waters, the struggle for "Aquatic Reform" incorporated local action to "rejuvenate the coastal commons". Through revival of age-old practices like the creation of artificial fish sanctuaries and artificial reefs on the coastal sea-floor, the coastal commons was both enhanced and physically protected against trawlers. In addition the creation of "Peoples Artificial Reefs" (PAR) became a means by which local people could reaffirm the value and legitimacy of their own local knowledge of their marine ecosystem. Thus the creation of PARs spread like a

movement in Kerala and took on the strong symbolic significance of the fishers' struggle to "green their coastal commons" (Ecologist 1993).

One should think that in the industrialised world, empirical Commons - and "their lack of individual freedom", was safely placed on the garbage heap of history - and that privatisation and state enthrenchment were the only remaining institutional choices . Not quite so, also in modern nations there are well functioning "survival commons" as well as political struggles to "reclaim lost or stolen commons", and there is active community innovation of "new commons". An example of the latter is the Community Supported Agriculture Movement (CSA) spreading in Europe, U.S.A. and Japan. This kind of "new commons" aims at reclaiming the market for food products and securing the quality and contents of the products. In this the local community or a group of people agrees to share the risks and the responsibilites of of food production with one or more farmers in the area. When farmers thus have their income guaranteed by the local community, they tend to grow a much wider variety of produce, encouraging integrated cropping which makes crop failure less likely and minimises the need for pesticides, insecticides and artificial fertilizers. In creating these "New Commons", the Community Supported Agriculture movement also tend to "reclaim the market" in the sense that this kind of cooperation gives the community the power to avoid the heavy overheads paid to monopoly agricultural corporations, the profits paid to retail chains and the increasing consumer taxes paid to government bureaucracies (Groh & MacFadden 1990).

Thus we can so far conclude that commons exist and even thrive in the age of High Modernity. In some areas commons in decline under the the pressure from markets and states, while in other areas they are being protected, reclaimed or reinvented as sustainable institutional solution to the problems people experience in their everyday life.

To shed some more light on the situation for "survival commons" in European societies, it is instructive to analyse more in detail the workings of a small "untouched" commons, the egg-collecting institutions of the coast of Northern Norway. Despite their nutritional and economic insignificance today, institutions like these can be shown to take on new kinds of significance in the late modern age.

All our Eggs in one basket

In the western world most of the earlier institutions of collective property have given way to individual appropriation and possession. As mentioned above this can be seen as a consequence of the advancement of romanist legal doctrines during the last 2000 years. During the last 200 years, however, this process has been further accelerated by the emerging nation-states to such an extent that the state has become instrumental in the institutionalisation of individual rights. When, despite these massive social forces, institutions based on collective rights still persist in parts of the western world, it is analytically important to investigate these and their relationship to social identification processes in what has been termed the age of High Modernity (Giddens 1991).

Some insights can be achieved by utilising materials collected by ethnologists studying "survivals", and re-analysing these with the eyes of the "common property researcher" undertaking "field experiments" - in order to sort out institutional "design elements" that work. But more insights can be won by studying working institutions in the contemporary world, and the degree to which their contents change with changing times. One category of such institutions are the egg-gathering and egg-sharing institutions of the North-Norwegian Coastal Communities - whereby all the members "belonging" to a community get a taste of the fresh spring eggs of the wild sea-birds of the coast.

- We can guess that these institutions stem from a hazy pre-saga period - long before the keeping of domesticated birds - where the religious symbolism and fertility blessings of the eggs were significant.
- We can follow these institutions through the medieval and industrial ages when a scarce source of animal protein in springtime had to be divided equitably- and the resource base had to be managed in a sustainable manner. And we can learn from these complex institutions evolved through hundreds of years - lessons that can aid us in the purposeful design of more efficient resource governing regimes for economically more significant resources.
- We can also view such institutions in the light of a late modern era where the heavy symbolic content of the collective act of gathering eggs provides the individual with a sought for identity as members of a coastal community. With an increasing globalisation of daily life - also in the High North - and a dispersion of community members to nearby cities, the annual egg-sharing "ceremony" has no longer a significant nutritional value, but is above all a cultural event which confirms the "belonging" of the property right holders to a certain community.

All egg-sharing communities are today parts of Nation States - this is one of the most fundamental character of modernity; for the last 400 years increased effort

to achieve self-governance will after a certain point only drive such a coastal community into the arms of a neighbouring state. The important role of the Nation-State in reducing the role of collective property rights in the governing of resources has therefore both a power aspect and a moral dimension:

For the centres of power in the state, it was believed to be advantageous to limit the degree of self-governance for these northern communities by suppressing collective property rights and to ensure the loyalty of the subjects to this particular state through state guaranties of private property rights (Sandberg 1994 a).

On the moral dimension, the strengthening of individual property rights has since the age of Enlightenment been seen as a process of emancipation - as we have seen above, freedom was expressed clearly in the "western" maxim *Nemo in communione potest invitus detineri* - "no one can be kept in co-proprietorship against his will" (Grossi 1981). Thus the significance of the State and the power of the individual seems to have grown concurrently through history - a kind of development that should lead us to infer that there is no contradiction between the growth of the state and the strengthening of individual rights. Also Durkheim pointed out the common fallacy of contradicting the individual rights of Natural Law with a State that is assumed to be external in relation to the individuals, and thus arriving at such a contradiction. This is not correct, he argues, because the institutionalisation of individual rights is the work of the State itself - "it has on the whole been the activities of the State that has liberated the individual" (Durkheim 1990). This is an important point - that although Durkheim rejected the Benthamite model where a social order is produced automatically out of the self-interested actions of rational individuals, in his theory of the State, Durkheim does not downgrade the individual to society's puppet, (see also Douglas 1987).

For our discussion of the role of egg-sharing in coastal communities in the age of late modernity, it is important to note that also Durkheim admitted that every society was basically despotic - also the collective closest to the individual had tendencies towards despotism. The small coastal communities, like the Russian *mir* or the city guild with close surveillance of individuals, forced all members to do like everyone else, to act in mechanical solidarity. For individuality to appear, it was therefore necessary with a common centre of power, above the secondary groups and which could represent the interests of the larger society against those of the secondary groups. The individual was believed to require the opportunity to escape from his or her closest collective and to seek freedom in the greater society, this then became something more than the sum of the secondary groups.

But there were also countervailing forces, which prevented the state itself from becoming despotic. According to Durkheim, this was the activities of the secondary groups themselves (Durkheim op.cit). In postulating this, he carried

the heritage of de Toqueville (Toqueville 1945) and the teachings of the Catholic church on the *social question* (Rerum Novarum) into modern sociology . In other works he argued for the increased emphasis on guild-like organisations and a regeneration of the "corporate society" in order to proceed to a state of organic solidarity, but without specifying what conditions must be met for collectives to have such an influence on the state (Durkheim 1953). However, in an analysis of the downfall of the corporations of the Roman Empire, he hints that the state authorisation of the corporations and their usurpation of public functions resulted in their destruction. The State's co-optation of the corporate groups transferred the elements of state coercion to the relation between the collective and its members - who then became mere contractors for the imperial powers. Thus, when the Empire crumbled, the corporations crumbled with it - they no longer constituted an independent base for a civil society (Durkheim op.cit.).

In the modern age there is renewed attention to the fine balance of the opposing forces of co-operation and mutual control between the state and the secondary groups, and a growing awareness that an independent basis for these secondary groups must be secured. This means that their basic mechanisms for binding members to the collective must not be undermined by the very state who is depending on these intermediate associations for its own long term legitimacy. Their fundamental incentive structures or property rights must be protected by objective law which is above the arbitrary and short term considerations of the State (see also North 1990).

To complete this macrososiological backscreen for the local egg-sharing institutions of the North-Norwegian coast, it is of fundamental importance to understand the changed role of the state in the modern age - also in relation to the governing of some major resources that these communities are depending on:

Generally it appears that as the welfare obligations of the modern state has increased, the state has also assumed increasingly more of the responsibility for the economic activity, employment and livelihood derived from utilisation of natural resources. This was once seen as a necessary rationalisation of resource management, but is now a field where the overburdening on the state and the social costs to the communities are becoming visible:
The government production quotas and the support programs for agriculture and reindeer pastoralism has created a privileged group of state-authorised reindeer-ranchers and state authorised dairy-farmers. The pastoralists' associations and the farmers' associations have accepted an effective closure of the trade, thus the individual member gets a larger share of the total quota and the total support, while the association gradually looses members and political influence in relation to the state. An unexpected consequence of this is that an increasing number of land-owners in rural areas are no longer state-authorised farmers, a social fact

that in the future will affect the deep constitutive processes regarding the distribution of rights within the communities.

The limited number of government boat quotas in fisheries has created a privileged group of state authorised fishers which have contributed to a closure of fisheries to new entrants. As we shall see in a later chapter, this can be seen as a refeudalisation of resource use. Here the state has assumed increasingly more of the management rights regarding the resource base and offers protection against other fishers for the privilege holders. The incentives inherent in the individual quota has reduced the need for fisher cooperation and the importance of the various intermediate associations of fishers. These are also decreasing their membership as a result of a concerted action with the state to "weed out" non-serious" fishers. Thus the single, privileged fisher is increasingly facing the state - or the European Union - alone. This means that the local community, neither as a collective nor as a political entity *(kommune)* has any control with the utilisation of major local resources. And it also means that there is no longer a local identity produced by a certain local resource utilisation. This makes it all the more important to study the "survival commons" where local community has control with the utilisation of local resources. The design principles of such commons might become useful for other resource management "designs" in the case that the burden on the State becomes too havy to carry.

In the modern society, there is also a strong tendency towards specialisation in resource use. The traditional flexible, self reliant and multitasking Northerner has lost out to the specialised, educated, technology-intensive and capital-intensive state dependant resource user. This is not all due to "technology drive", an important cause is the compartmentalisation of state resource management - with separate departments, separate laws and separate professional cultures related to forestry, farming, reindeer pasture, salt water fishing, aquaculture, game hunting, salmon fishing and tourism. While the community - or local government *(Kommune)* is systematically kept out of all governing of resources - because it has no property rights - there is no single state agency that handles all resource questions for a particular community. The different permits, quotas, subsidies and expert advice has to be sought in different offices and community members have to acquire the codes of the different professional cultures in order to "get their rights".

When discussing this kind of western rationalisation of resource management in the age of high modernity, it is important again to remind the reader that the typology "western" contains many conflicting trends and a multitude of cultural heritages. In relation to property rights to natural resources, one only has to scratch the surface in most "western countries" to discover a Celtic tradition, a Slavonic tradition, a Germanic tradition and a Romanist tradition. And in the

"laws of the land" in the different European countries, one can find the traces of the ongoing battles between the various legal principles originating within these different cultures which all claim to be "western". In essence, such battles are usually over the composition of individual property rights relative to collective property rights in the basic legal structure.

This is the point of departure for this analysis of the egg-collecting institutions of North-Norwegian coastal communities. For the local community, the traditional egg collection *(rekking)* is part of the gathering activities of the farmstead and the property rights to eggs are closely tied to the property rights of the farmstead *(ból)* in the Commons.
To the state, however, the eggs of wild birds are classified as belonging to the game hunting sector and there are regulations issued that reverses the traditional order. Previously the local northern community could harvest of the surplus in eggs and sea-birds regardless of specie, the long term fluctuations secured the flexible harvester a steady supply of eggs from some species. In the modern game hunting sector, the principle of endangered species is the dominant doctrine - thus the state has in principle protected all species of sea birds - and has then positively permitted

- "proprietors or authorised users in Northern Norway to remove eggs from the nests of Herring Gull, Great Black Backed Gull, Common Gull, Kittiwake and Goldeneye in the period up to June 14."

- "proprietors or authorised users to remove eggs from the nests of eider in the period up to June 1."

- "proprietors or authorised users to remove downs from the nests of eider during the summer, but after the hatching of the eggs." (DN 1988)

This has meant that the collection of eggs from auks and puffins are no longer permitted. This prohibition has not meant a breakdown of the egg-collecting institutions, as the eggs from Gulls and Eider have always been the important ones. But for the nutritionally and commercially important trapping of Auks, Puffins and Shags, the new doctrines implied an end to ancient traditions. The art of trapping large quantities of these fat-bearing birds were refined to such an extent that a special breed of dogs was developed, which could enter the narrow caves of the Puffins and pull them out *(Lundehund).* Also fish nets and huge landing nets were used to catch the birds (Myrberget 1958). During the Second World War as much as 200.000 salted Puffins were exported from the small islands of R0st (Lofoten) every year - in barter for firewood and potatoes from the mainland. Traditionally "several thousand" Puffins were in addition taken for local consumption, their feathers and downs were also an important trade item

(Baines & Anker-Nilssen 1990). This was part of ancient systems of trapping sea birds common to most coastal communities of the North Atlantic - systems that are now disappearing due to pollution, lack of food for sea-birds, pressure from environmentalist activists and state conservationist measures. In addition there is hardly a commercial market for the traditional salted Auks, Puffins and Shags in the modern European food markets.

Although there are 1.2 million Puffins on the R0st Islands today, and they seem plentiful to the local population, these are 25-30% of the total Norwegian Puffin population which is considered an endangered specie. The scientifically accepted reason that the Puffin is threatened is the lack of herring fry and tobis in the sea, this is due to overfishing of herring in the 1960s and the long-term crash in the herring stock - together with continued large scale industrial fisheries for small fish which is used as flour and fodder for the expanding aquaculture industry. Consequently the Puffins have been unable to provide sufficient food for their chicks in most breeding seasons from 1969 to 1988. Only the 1974, the 1983 and 1985 seasons were successful, and from 1990 onwards the herring fry was back in sufficient quantities for some years while in 1995 the situation seems more uncertain. Still the Puffins are considered an endangered specie and the local community that hosts this rare concentration of Puffins was forced to give up their traditional trapping despite the local abundance. At the Island of R0st, this was met with massive local opposition, first in the form of continued traditional - but now illegal - trapping. Then the Puffin Trapping and the cultural symbols attached to it were used in a political mobilisation in the R0st Community for greater local control over all kinds of local resources. It was mainly mobilized against the state, who on the one hand permitted, even subsidised, large scale industrial fisheries which starved out the puffins, while it on the other hand applied conservationist strategies that deprived local communities of their traditional rights and cultural icons. At present the main lines of the conflict between local and central authorities is over property rights; Who has the rights of access and harvest rights to the bird rocks - is it only the owners of the ground and on certain conditions, all national citizens, or is it only (and all) members of the local community (Ellingsen 1995).

This shows how vulnerable even a well-balanced resource harvesting community is to the influence of external forces, i.e. the depletion by industrial fishers of migratory stocks of shoaling fish and the concern by international environmental groups with specific endangered species. Thus the bird trapping institutions of most Atlantic coastal societies have virtually been starved to death. To some extent they have been replaced by bird-watching tourism, which often has an economic significance far above the subsistence value of the meat of sea birds.

The egg-collecting institutions, on the other hand, has a different kind of resilience. Because the eggs of the common Gulls are as valued a delicatessen as the eggs from more rare birds, there are in most years sufficient egg-lying birds to support the institutions. As most birds have the capacity to lay additional eggs if some are taken, a regular and intensive collection of eggs can actually increase the sustainable harvest of the islet and prolong the collecting season considerably. The old institutions also contained rules that on a certain day to be decided each year all egg collection has to stop - in order to allow the birds to have strong chicks before the autumn comes. Furthermore, the egg-collecting has been of such an insignificant economic importance that the State has rarely bothered to interfere with the institutions governing these activities. Not even in cases where the King - and subsequently the State - held private ownership right to an estate which included egg-rights on adjacent rocks, have the egg-collecting institutions been much tampered with. In areas where the property rights to birds islands were sold by the Crown to foreign investors early in the 17th century - as part of a large sale of Crown estates, these owners never acquired full control over the egg-collecting. One reason was that it was the feathers and downs of sea-birds that was of commercial value, the fragile and perishable eggs were necessarily consumed by the households.

Another reason was that for the skills required for climbing the Kittiwake-rocks or the presence required for intensive Gulls' egg collection (every 3rd. day), the estate owners were dependent on the commoners. These were often the fishermen fishing in the areas around the islets and skerries, who could combine the two activities without incurring additional costs. Thus a number of estate owners settled for a "taxation system", whereby he got 1/10 of the eggs collected by the commoners (Bratrein 1983). But in both these cases and in the case of more ordinary "Egg commons" for a fishing hamlet, it was left to the commoners to devise their own operational rules for the actual egg-collecting.

Thus these institutions has for most parts "grown naturally" out of the need of the different communities and been tailored to their specific ecological circumstances and local cultural heritage. This "hands off approach on the part of the state is important, because eggs are virtually the only northern resource where the state has kept its hands away - all others have been tampered with. Usually the objective of the state has been to maximise the foreign exchange revenue or the internal revenue from resource utilisation - or through property rights to secure national control with the territory of local communities. Only very recently did the state become preoccupied with "sustainable resource management" and with "preserving biodiversity".

With birds' eggs there was no scope for state revenue; the season was too short, the subsistence element in egg consumption was overwhelming and the costs of state control would be prohibitive. Thus the egg-collecting institutions were left

alone to be developed by the coastal communities themselves - and as such they represent a natural laboratory for experimenting with various forms of collective property. But as such, they also represent a refuge for property rights systems different from the mainstream "romanistic" legal tradition based on individual property rights - which has been pushed onto Scandinavian communities since the 16th century (Sandberg 1994a). With a renewed interest in alternatives to state or market solutions in the governing of resources - also in the "western" world, these kinds of institutions assumes a special importance as learning pieces and a field for natural experiments with design principles of common property resource governing regimes.

However, some words of warning should be issued to the excited reader. Also the resilient local egg-collecting institutions are threatened by external forces: One is the activities of the international environmental organisations and the resulting protective treatises - which tend to be far too general to allow for the continuation of local practices - no matter how environmentally sound they might be. For instance did the European Union issue a "Directive on Birds' Eggs" which prohibited the collection of all eggs from all wild birds - in order to protect endangered species like eagle and falcon. It was only through intense diplomatic activity that Norway managed to obtain an exception for its "traditional and local egg-collecting practices along the West Coast and the Coast of Northern Norway." This shows how vulnerable local resource governing institutions are, not only to changes in the national political environment, but also to fads in the international political environment.

Another force is urbanisation - and the centralisation of the coastal population to larger cities and administrative centres. This often means that inherited egg-rights on islets, rocks, cliffs and skerries develop into "absentee landlords" during the short spring breeding season, the proprietors cannot partake in the maintenance of the egg-collecting institutions and the monitoring activities. On the R0st Islands of Lofoten it is reported that a large portion of the people with inherited rights in the various "Egg Commons" have moved away from the Islands, while a number of the newly settled fishers here do not have such rights. There are many reasons why these "absentee landlords" will not give up their rights, some of them have great explanatory value and are dealt with below. But the effect of the absenteeism is the decay of the traditional institutions, into a situation where virtually everyone can collect eggs from most islets and there are no sanctioning mechanisms. With increased tourist traffic, including foreign leisure sailing vessels and kayakers, this open access situation is now seen as a threat to the resource. It is therefore initiatives taken in the municipality to establish new institutions for governing egg collection in R0st.

The scope of this report does not permit a full treatment of the variety of egg-collecting institutions along the North-Norwegian Coast. But generally there is a gradient of proximity between the "Egg Commons" and the homestead as one moves from the North to the South. In the northern areas (Northern Troms & Finnmark), this distance is often huge, thus egg-collection is often organised on an expedition base (Bratrein 1983). In the southern areas (Helgeland, Lofoten, Vesterålen) the nesting areas are closer to the homesteads and the egg collection and monitoring can more easily be carried out as part of daily activities during May and June. In these "core-areas" the interaction between birds and humans are also closer, as for instance between eiderducks and islanders. There are many examples of human activities that improve the nesting places of eider-ducks and enhance the stock - in return for eggs and eiderdown, and conversely of a decline in eider-ducks when outlying islands are no longer settled.

One typical egg-collecting institution is found at "Bleik" - between the northern area and the southern area. Here the bird-rock "Bleiks0ya" is within surveillance distance from and belongs to the community of Bleik alone - a fairly concentrated community of 600 inhabitants. Before the Protestant reformation this was the archbishop's estate - with fishers and crofters. Later it was confiscated by the Crown and given to the Supreme Judge in Bergen, Axel Fredrikss0n as his "free estate". From this he received the customary tributes and taxes (in 1600 AD as much as 40 *vag* (= 720 kg) of dried cod annually). It remained the property of the Bergen judgery until the 19th century, when the farmer/fishers living here were able to take over the agricultural land and all the rights in the outer fields (utmark) and on the islands and skerries belonging to the former estate (Vold 1981). Parallel to the takeover there was a significant increase in population, a series of enclosures of the farmed fields and a rapid subdivision of what is now individually owned farmsteads. While the estate Bleiksgården (*matrikkelgården)* in 1838 consisted of 5 assessed farms, this had by 1865 increased to 13 farms and by 1950 to 156 farms - a number of which were homesteads without farming potential. Because of the increased population and the increased farming activity, Bleik experienced a serious shortage of winter hey, firewood, building materials and turf (for heating) - these were resources that even after enclosure were held in common. According to old people, these common resources became more and more difficult to manage and the enclosure of these was demanded by the people themselves. In 1895-97 and in 1903 to 1909 enclosure was introduced also in the commons (*utmark)* (Vold 1981).

It is possible to analyse this kind of privatisation of the *"mark"* in various ways:

- in terms of prevailing ideologies of individual property in western thought at the beginning of this century,
- in terms of the introduction of modern banking and credit which often required private and transferable property relations,

- in terms of increasing importance of capital investments in commercial fishing etc.

The important point here is that a number of resources were **not** privatised during this period when the situation in agriculture was changed to the extent that "people could not think collectively any longer, but were forced to act in accordance with private needs and operational plans" (Vold 1981). Thus the result of the enclosure processes were a ruling that reads as follows: [the] "Trapping of Puffins, the Egg Commons, the Sea Weed Beach of Bleiks0yen is to remain in common for all owners and with a share according to the old assessed value *(skyld)* of the farms" (Vold op.cit.). Likewise the Salmon Fisheries and the grazing of animals were to remain in common as before.

To understand the egg-sharing institutions that were designed in ancient times, but were formalised at the time of enclosure, it is fundamental to understand the two guiding principles:
The Principle of Common Action and
The Principle of Simultaneous Action.

Even if each shareholder has a property right to a certain share of the egg harvest, the rules prohibits individual initiative in the collection of this share. The eggs have to be harvested within a certain time period (between May 7 and June 1), on set days (usually every 5th day) and by all share-holders together. The days (usually 5 collections during the season) are set by the "Islet King", an informal leader - and transportation for the whole group is arranged collectively. On a typical day 1.300 eggs are collected - only fresh eggs from nests where egg-laying has just started. The "King" knows at which altitudes and at what exposure the various nests are fit for harvest and he orders the collectors about. Some young lads with ropes climb the highest peaks where the Kittiwake is nesting - these have recently become very numerous at the expense of the more accessible Herring Gulls. All the eggs of the Bleik community are carefully put in a shallow hole in the ground and the complex egg-sharing operation can begin. The old assessed value of the farms had the estate Bleiksgården divided into 6 parts that according to tradition were equal - even if this cannot be proved by assessment documents (Vold op.cit.). In 1915, when the population increase was threatening the whole egg-sharing institution, a new system was designed by the users themselves, whereby 1/2 of the estate i.e. 3 parts, collected one year and the other 3 parts collected the next year. Both the equalisation of the parts and taking of turns between the two halves of the community are design handlebars that made the old institution work in face of increased population pressure.

The eggs are first divided into 3 equal parts, which also keeps track of a mathematically just distribution of eggs from the various species of birds. But

first the Boat Part is taken away - that is usually 25 eggs to the skipper. Then the 1/5 of the Kittiwake eggs is given as collectors part *(jekkarpart)* to the brave young lads who climbed the high peaks - this is an example of an institutional invention spurred by the return of great numbers of Kittiwake. The 3 parts *(vag)* are identified by the name of the original farmer and every member in the community knows which *vag* he or she has part in. Another smoothing rule is now applied. Each of these 3 *vage* is now subdivided into 6 equal parts *(halvpund skyld* =1/6 *vag),* also taking into consideration a just distribution of eggs from the various species. Thus the whole Bleik community (6 *vage skyld)* can be seen as consisting of 36 parts *(halvpund),* of these 18 collect eggs every year. These parts have names of living community members, who do not own the part themselves, but only on behalf of their lineage or their family. On the same typical day this part was totally 72 eggs, consisting of 39 Kittiwakes' eggs, 20 Gulls' eggs and 13 Shags' eggs. These are then subdivided internally within the lineage, with many siblings in 3 generations the part can be split to the extent that only 3-4 eggs might reach the single family member.

The principles used in governing this common property is the reference to "the old assessment of farm value" at the two first levels of the egg-sharing institution By appeals to a hazy traditional age when distribution of wealth was more equal than at present, the legitimacy of the Egg Commons is maintained. At the third level the lineage or the family is the distributive principle. Although this creates large inequalities on part of the final egg-consumer, it is still perceived as a just principle - it secures the right of all family members to taste sea-birds' eggs. Thus this resource governing institution achieves two objectives:

- It governs the common Sea Bird resources in an ecologically Sustainable way
- It distributes and redistributes the property rights in a just way

Family members who live outside the Bleik community does also get a taste of eggs through the family network. By applying the family principle at the third level, the number of property rights holders to one of the few remaining Common Property Resources of Bleik, is expanded considerably. In the age of urbanisation and weakening of the social fabric of the small communities, this large number of loyal "Bleik ambassadors", who are tied to the community by invisible property rights, are real assets for the community. This may add to the maintenance of the ancient egg-sharing institution and will certainly work against efforts by local entrepreneurs who would want to try to commercial egg-collection as part of a local tourist industry.

One final point remains. The ethnologist who did the original field work at Bleik, noticed that the symbolic value of participation in the egg-collecting was higher that the nutritional value of the 3-4 eggs (Vold 1981). With the many instances of

burning engagement among North Europeans in resource questions in the 90s, this symbolic significance has not decreased. But as we have showed above, the modern utilisation of agricultural resources and fishing resources, based on state administered quotas, does no longer produce identity with certain communities or localities. This leads us to the conclusion that in the age of High Modernity, property rights to Common Property Resources like Birds' Eggs can assume a form of symbolic capital which is utilised to confirm an identity as inhabitant of the community of Bleik - or originating from, and still belonging to this community (Bourdieu 1982). The search for self-identity is one of the major social and economic forces in the modern western world. The idea that a modern urban dweller, through lineage connections, owns a little bit of a natural resource that identifies a particular community and that the fruits of this property is distributed to him or her through recurrent ceremonies every year - is therefore a very powerful symbol, even if it is overlooked in much of the debate on institutions for resource management. In the long run this symbolic power might be a stronger force in shaping future resource management institutions than repeated claims of the environmental supremacy of Common Property Regimes.

Community Fish or fishing Communities ?

From a small and economically insignificant type of resource like birds' eggs, it can be instructive to move to the largest and economically most significant renewable biological resource of Europe - the sea-fish of the North Atlantic Ocean. This is the arena for some of the World' most important commercial fisheries - both within the 200 mile economic zones of the coastal states, in the "loopholes" between such zones and on what is called the "High Seas". Here the economic interests are so heavy and the technology drive is so hard that without powerful international instruments in place, the existing fishing fleet can wipe out the fish stocks many times. One such typical Common Property Resource problem is the resource challenge to nation states of the open territorial access to transmigratory regulated fish stocks which coastal communities depend on. The challenge has been perceived as so large that a specific UN conference has been struggling with the design of appropriate instruments for many years.

Another approach to the Common Property Challenge is taken by the European Union in its effort to create a Common Pond as part of the Common European Fisheries Policy. In the Common Pond fishers from all member states can fish without being discriminated against, and the centrally administred quotas system should guarantee that fishing is conducted with the highest possible economic efficiency.

The basic idea here is that it is naive to believe that a much wanted social dimension in the Common European Fisheries Policy is something that can be crafted onto the existing bio-economic paradigm; In order to avoid confusion and double-talk a social dimension would have to be an integral part of a new or a revised Common Fisheries Policy from the outset. And that this can only come about as long as it is carefully specified to whom the fish resources are common. This idea is substantiated by a brief analysis of the different incentive systems operating in European fisheries and the degree to which these produce viable fishing communities which are able to craft the local institutions necessary to supplement the community-wide or nation-wide institutional frameworks in such a way that control, sustainability, recruitment, retirement, justice and legitimacy are taken care of.

The mounting pressures on the common fisheries policy (CFP) of the European Union take on many appearances. Taken all together these pressures should make whatever uniform fisheries policy the union might have had, crumble long before the magic year 2002:

- The empty quotas ("paper fish") of the North Sea,

- the serious deterioration of the European coastal and marine habitats,
- the destruction of a somewhat balanced European fish markets by the breakdown of the Russian fish market while local fish stocks were low (and prices should be high),
- the overinvestment in Distant Ocean Fishing Vessels while distant waters were increasingly closed off by adjacent coastal states,
- the dangers of organised crime filling an institutional vacuum resulting from an introduction of the CFP in the Mediterranean Area,
- the socially motivated overinvestments of Structural Funds in fisheries dependent regions.

Social scientists have a tendency to concentrate their analysis on what destroyed the "traditional" system of managing a resource. This might yield some valuable insights into the mechanisms of past social change. But the real challenge for social scientists is to study what it is that destroys the purposely designed resource management systems of the age of High Modernity (Giddens 1991). It is necessary to take up this challenge and to ask what social scientists can offer in terms of analysis for a new or a revised Common Fisheries Policy.

All the pressures mentioned above are part of the "crisis" of European fisheries. And if we follow Schumpeter, it is during such times of crises that the inventive restructuring is done. It is now the basic incentive structures can be changed by conscious collective action, but it is also now that entrepreneurs grasp the opportunities offered by the misfortunes of the unlucky ones - or "the non-competitive actors" - and shape the future themselves (Schumpeter 1934). To the extent that the CFP produces an institutional vacuum at the local level, it is in this vacuum that entrepreneurs shape the future - so that the year 2002 becomes *a fait accompli* - and there is no "going back to the traditional ways", nor to the good intentions of the purposely designed Common Fisheries Policy. In such a fluid situation the social scientist tend to objectivise the fisherman, his strategies are often analysed and interpreted both by economists and other social scientists within the current political environment and the current incentive structures. Who is "efficient" and "competitive" is always relative to the "rules of the game" - or institutional structures of a given society and a given historical epoch. Therefore an analysis of the formation of a new fisheries policy also requires objectivisation of the social scientists, what is her interests, what is her frame of reference, what is her ability to see beyond the prevailing institutional establishment (Bourdieu 1992)? More often than not, fishers can - individually or collectively - offer self-reflections that go beyond the theoretical paradigm of the social scientist, but "being trapped" in the struggle for daily income, they cannot act otherwise. It is here the professional and social duty of the social scientist to explain the relations between the institutional set-up and the outcomes of the actions of fishers.

One fundamental relation is identified by asking the simple question: "To whom are the fish resources common ?" If they are common to the whole European Community (now Union), the resulting institutions produce a certain set of strategic choices from fishers. If it is common to a Nation State or a Region within a State, the resulting institutions produce different strategies from fishers. If the fish resource is common only to one or several coastal communities, this implies very different social institutions and very different strategies and outcomes of the actions of fishers. By asking this simple question, on can avoid the fallacy of creating a necessary connection between a "Common Fisheries Policy" for the EU and a "Common Pond" for the EU. Logically there is no such neccessary connection and there is consequently no contradiction between a "Common" Fisheries Policy and institutional arrangements that would allow fish resources to be common to smaller units within the European Union, e.g. regions and coastal communities.

Fishery activity has always been dependent on politics. During the Roman and the Medieval times, the channels of influence of fishers to emperors and kings and to clerical and feudal lords shaped the governing conditions for establishing European fishing harbours, for using forests for boat building, for obtaining privileges necessary for the marketing of fish towards European cities. In fact it is politics that has shaped the entire pattern of fishing hamlets along the coasts of the Atlantic Ocean, the Mediterranean Sea and the Baltic Sea - out of a concern about the relations between fishers and other agents in the society. For instance remained the whole northern part of the Norwegian Sea a prohibited area with *farbann* for foreign fishers and traders from the Viking age and until the liberalisation of the 18th century - initially because it was in the King's interests. What we today call "traditional fisheries" is thus produced by the political history of Europe.

After the first liberalisation of the 18 th. century and the accompanying doctrine of the "freedom of the seas", the advancement of sophisticated fish finding and fish gathering equipment brought in a new relation that became the major concern of the state - that between "their national fishers" and a limited and reproductive resource which could be exhausted. While marine resources through the centuries were believed to fluctuate and migrate haphazardly, the states now saw a new role for themselves, that of managing the resource directly, like a herd of cattle - for a Specific Specie Maximum Sustainable Yield - to be managed for the benefit of the balance of trade and needs of the national Treasury. But the stock-properties of real life were different from the nice equilibrium models, and both states and intergovernmental organisations experienced fundamental problems in securing a steady flow of each specie of fish from the "managed" stocks of the European waters. Especially on the highly productive Northern

Continental shelves the ecosystem tends to be basically unstable. It is "natural" with dramatic changes in these ecosystems, this is one of the main reasons why these kind of ecosystems in some years can give such enormous amounts of fish. It was thought that rational and sophisticated multispecies modelling and management techniques could secure at least a steady flow of some sort of palatable fish - an Any Specie Maximum Sustainable Yield. But except for a fragile agreement among biologists and fish managers that a large and stable stock of herring is the backbone of any viable multispecie ecology, there is little scope for human management of the seas for a stable maximum yield and maximum economic and social benefits for coastal communities. In many respects, it is the official belief in a management rationale that did not - and probably never can - produce a predictable future, that is the deep cause of the social crisis in many European fishery dependent regions.

When the present resource management system thus is depicted as a confluence between this obsolete rationale of a wholly manageable future and a preservation of the politically convenient "relative historical stability of quotas", it is possible to identify the strong social forces that work towards an institutional breakdown in a multitude of coastal communities. The logical strength of these forces are of such a magnitude that it warrants the opening question: Is there an inescapable choice that has to be made between "Community fish or fishing communities?" Is it so that If you choose the one alternative - a "Fishing Commons" for the whole European Union, you cannot simultaneously choose to have "Fishing Communities". And if Community Fish is the choice, are there feasible designs of management regimes that can work without fishing communities? And if it is technically possible to replace fishing communities with company or industry designs, do these have lower transaction costs than the fishing community design? And finally - is this line of development socially desirable?

To shed some light on these fundamental questions, let us go to the factor of property rights, which by many is considered to be the basis for all incentive systems (North 1991). Here there is a massive conceptual confusion - also among academics - which tend to blur the debate on necessary institutional changes. The theory of common property always require us to specify to whom the property is common, who belongs to the group of proprietors with certain rights and duties towards the resource (Ostrom 1991). If the resource is "Common to everyone" - a "Community or Union Pond" - it is really a public property where no group of proprietors have any rights and duties towards the resource, but where the Nation State or a "Union State" is the owner and issues "access rights" and "harvest rights" to "authorised individual fishers" and "authorised fishing companies". The property rights are thus not privatised, they remain in the public realm - the realm of the state. It would therefore be more correct to define a system of historically stable quotas extended all the way down

to the level of the individual fishing enterprise as a system of **privileges** - a state or union protection against other potential fishers. In some countries the distribution of such privileges is relatively stable, in other countries they can be accumulated, transferred or lost. Thus the strange combination of "Community Fish" and "historically stable quotas" in many respects implied a **refeudalisation** of the coastal areas of Europe.

Part of the social crisis in European Fisheries is the decreasing value of these privileges. Because of the conceptual confusion, quotas have to some extent been treated as quasi-property rights (really "imitated property rights") and have been entered as securities for loans far above the real financial value of the privilege. In much the same way as privileges became empty under the threat of state bankruptcy during the decline of feudalism (North 1981), the privileges of fishers have gradually been eroded. This is one of the factors that destroys the purposely designed resource management system of the age of Late Modernity. There are two ways of analysing this erosion:

- One is the linear analysis; when there are too many privileges issued relative to the size of the resource, each privilege looses its value and the holder risks financial bankruptcy. The linear solution is to reduce the number of privileges, i.e. reduce overcapacity so that the remaining privilege holders can make a decent living. This means using interventionist instruments to close the fishing sector and actively remove superfluous fishers from harvesting activities. This "thinning" of the fishing communities runs the risk of drying up the professional fishing-culture of the fishing communities so that they get progressively "thinner" by each successive downturn in the natural stock fluctuations, and finally disappear as active fishing communities.

- The other is a dynamic analysis of the function of the protective element in the privilege itself, and the relationship between this and the basic incentive structures. Despite a display of massive micro-economic engineering effort in the construction of quota-systems, the States or the Union have not been able to protect "their fishers" against other fishers fishing on "their" stocks outside the 200 mile EEZ. In addition, the quota system has created an institutional vacuum at the local level that renders the fishers unable to protect against themselves. And the privilege gives no protection against the activities of other fishers working through the market. Thus the value of the protection element in the privilege is also eroded, and only a steadily increasing control effort and substantial financial support - with mounting public expenses for the benefit of a dwindling number of fishers - guarantees the temporary survival of the system of state property rights and fishing privileges.

Taken together, the absolute uncertainty of the financial value of the privilege and the erosion of the protective element of the privilege, undermines both the internal and the external legitimacy of the refeudalised system. It is surprising that also in periods of upturns in certain fish stocks, like in Arctic cod in recent years, the substantial earnings by the reduced number of privilege holders tend to reduce the legitimacy of the system. Unemployed youth in coastal communities cannot accept the "closure of fishing" and the restrictions of "superearnings" to a few while there obviously would be sufficient fish to give all a decent share. Some sophistication of the quota system - like the Norwegian "recruitment quota" and "periodic group quota" can dampen the social effects of a rigid privilege system, but will always remain inferior alternatives to the individual fisher as long as a boat quota or an ITQ is in force.

It is important to understand that it is the "sticky" character of even imitated property rights that creates the rigidity. Experience shows that once a quota system is in place, it is very difficult to add new quotas units for a particular species of fish which has an upswing, thus creating more fisher employment in a particular fishery. Existing quota holders will claim that they are justified in keeping a good year's catch for themselves as compensation for all the poor years in the past - and maybe also in the future. In the same way, it is very difficult in the short run to take away existing quotas from fishers who often have invested on the basis of what they thought were secure harvesting rights. The stickiness is increased even further by the various rules imposed by the different states on their privilege holders; very often participation in the poor year's fishery is a prerequisite for the extension of the privilege into future years.

If both the idea of a "Common Pond" and the idea of "historically stable quotas" - and especially the combination of the two - are heavily responsible for the current social crisis in European fisheries, what would then be the alternatives open to decision-makers and "designers of European institutions"?
Would a clearer definition and a recognition of **Fishery-dependent Regions** within the Union's regional development programmes provide a more positive role for State or Union intervention in fisheries than the present attempts at unitary regulations for the whole CFP-area, i.e. - should the Union adopt a policy that acknowledges and encourages social and institutional diversity?

To give a clear answer to such fundamental questions require penetrating analysis, and it should be pointed out that these are not simple one-dimensional questions which can be satisfied by one dimensional answers. Some aspects of European fisheries policy, like for instance pollution control, total allowable catches for pelagic or migrating stocks offish, the institutional framework for a smooth marketing of fish etc., have to be determined at an international level. Other aspects of European fisheries policy, like the actual distribution of fishing

rights, the recruitment to fishing and retirement from fishing can most efficiently be handled at the local level.

It is necessary to take the time necessary to do such thorough analysis of the interactions between modern incentive systems and the traditional norms and values and not to press ahead with unitary regulations in all European waters. It is therefore encouraging that the Mediterranean Sea is not made a Common Pond, pending a more thorough analysis of the consequences of the incentive structure inherent in the present CFP.

As a modest contribution to such an analysis, we shall look briefly at some aspects of the incentives that constitute the institutional design of European fisheries. At the risk of making sweeping statements, we shall treat the CFP of the European Union, the basic regulatory institutions of the Nordic countries and of the Eastern European countries of the Baltic Sea as containing basically the same kind of incentive structures: National or Union Common Seas, Extensive mobility for fishing vessels and stable historical quotas extended down to the individual fishing unit.

One of the basic requirements of a balanced incentive structure is that there should be an approximate correspondence between the rights of fishers to harvest in the coastal areas of Europe and the duties European fishers have towards maintaining the productive capacity of coastal waters and the supporting social infrastructure of the coastal communities.
If there are substantially more rights than there are duties, the fish resources are likely to be exhausted within a short span of time. Distant fishing near the shores of other fishing communities have this typical character of fishing rights without accompanying duties.
If there is poor correspondence in the distribution of duties and rights, the resource management institutions will crumble from within because of lack of legitimacy. Here fishers will often "take back their rights", and "black fishing" and "black trading in fish" will flourish and the government's control expenses will mount. One way of analysing the lack of correspondence of rights and duties is to subdivide what we conveniently call property rights into its five distinguishable elements: the right of access, the right to harvest, the right to manage, the right to exclude and the right to alienate (Sandberg 1993). The imitated property right of the usual individual quota is then a bundle of rights that contains only two of these rights; the right of access and the right to harvest, and the light duties to behave on the fishing ground and to refrain from overfishing the individual quota. While the crucial responsibilities for the survival of coastal communities are mostly contained in the right to manage and the right to exclude - which fishers as resource users, or fishing communities as collectives, do not have.

These kinds of rights are vested in a national or in a union governing body which has to spend large resources on controlling that fishers do not exceed their limited rights. From empirical data we have during the later years learned that the institutional arrangements that tend to have the best correspondence between rights and duties are institutions based on collective rights, where the group to which the resource is common is not everyone, but a limited group that is bound to each other in some form of network of obligations or in a social contract - and which also has the right to exclude and to manage. Compared to a government run system with state-authorised fishers, such collectives tend to have considerably lower transaction costs and would therefore in the long run provide more efficient institutions (North 1991). From a government point of view, the social capital of such collectives is still underutilized.

Another important part of the incentive structure, is the temptation and opportunity to **protect** the "fishing profession" from newcomers and intruders. This has to be balanced by the incentives to secure new **recruits** to the group of fishers and to maintain necessary dynamic social processes in the coastal communities.
If the degree of protection achieved by "state-authorised" fishers becomes too strong, recruitment will suffer, coastal communities will become rigid and vulnerable and fisheries will loose legitimacy as an important employment factor on the coast.
If, on the other hand, the degree of protection from intruders becomes too weak and recruitment becomes too large in a Europe of mass unemployment, the social conditions of fishers will rapidly decline and the "poor fisher" will again be a common category in coastal communities. And poor fishers tend to fish harder when prices becomes lower, thus constituting a pressure towards increased fluctuations of the fish stocks even further.

A third part of the incentive structure is the temptation and opportunity for the various groups of fishers to be **flexible** and/or **mobile** in their fishing operations. Until recently there was some balance between the extremely mobile, but specialised ocean fishing vessels and the versatility and flexibility of the more localised coastal fisher. Due to changes in both technology and institutional conditions, the modern ocean fishing vessels have now achieved a high degree of flexibility while maintaining their extreeme mobility. The traditional coastal fisher, on the other hand, has experienced dramatically increased rigidity. Both the pressure towards capitalisation in small scale operations and the increasingly rigid single specie quota systems has eroded his earlier advantage of flexibility in harvesting operations. He can no longer switch easily from fish stocks in decline to fish stocks on the increase. If it is desirable to continue having coastal fishers and fishing communities in Europe, the basic incentive system must therefore be

changed so that the coastal fisher again can reap the advantage of his flexibility. A "free adaptation" to fishing in coastal waters within a system of regionally defined collective rights to a multitude of species would be one way of reclaiming this advantage in harvesting operations. But as we have shown earlier! reclaiming the coastal common may be a necessary prerequisite for utilizing fully the social capital of the coastal institutions.

However, this would also require a "partitioned fisheries management regime" with an efficient resource protection of coastal fishers from the highly mobile - and now also flexible ocean fishing vessels. For such local and regional incentive structures to work properly, this kind of resource protection, and the necessary control measures, would have to be more efficient than the case is with the present "coastal fisheries boxes". Provided an efficient resource protection is achieved, an incentive system based on "free adaptation" and "switching flexibility" would require a certain "overcapacity" in fishing communities, thus reducing the social problems resulting from government interventions aimed at a one-dimensional reduction of the overall harvesting capacity in these communities. In sum, a deal between the state - or the union - and fishing communities, could here be that the state transfer some more property rights to the fishing communities (adds for instance the management rights and the exclusion rights to the existing access rights and the harvesting rights), in return the fishing communities and their households takes upon them to absorb more of the fundamental ecological uncertainty connected to the harvesting of wild fish.

There are several additional reasons why such ways of designing incentive structures in coastal communities now are more feasible than at the beginning of the industrialisation of fisheries. One is the growth of aquaculture in most European coastal communities, and the development of commercially viable farming technologies for gradually more species of fish. This will to an increasing extent enable the coastal communities to achieve yet another form of flexibility; that of stepping up the farming of species of fish which are in decline in the wild stocks (Sandberg 1991).

But even with an efficient resource protection and more efficient institutions that allows a more flexible use for the coastal communities of "their" adjacent resources, these kind of incentive structures cannot protect the fishing communities from **competition** from the world's mobile ocean fishing fleet **through the markets.** Neither national protection, nor European protection can avoid the abundance of certain species of fish at certain times when some natural stocks are in an upswing somewhere on the globe. With the atomistic structure of fishing communities and small, uncoordinated POs, the incentive will be to compensate a decrasing price in one specie offish with increased catches of this specie. The various compensatory measures that contains minimum-prices,

withdrawal-prices and government subsidies to freeze-storage of surplus fish, does not alter the basic incentives, when fishers learn to speculate against these systems, it might even amplify the inherent tendency to fish harder when the price goes down.

An alternative incentive system, which might contravene the official EU doctrine that Producer Organisations shall not have a dominant place in the market for fish, would be to allow cartel-formations among co-operating PO's. At the regional level, POs that are able to "pool" the quotas of their individual members, can today operate more efficiently in the market for fish (Thomesen og Mariussen 1994). *** Co-operative efforts among a number of PO's who would otherwise compete with each other, can thus channel the correct incentives from the market to the fisher, so that he switches to another specie when the price is becoming too low. Both for the resources in the sea and the resources in the national treasuries it would be an advantage that the non-marketed fish is still alive, and swimming, rather than withdrawn and destroyed.

In a way of conclusion, the answer to the opening question is that the continuation of a CFP based on a "Common Pond" eventually will produce a 100% industrialised fishery and an extinction of the "fishing community" as we know it - but simultaneously an extinction of the social problems directly related to fishing. If we want to have fishing communities in the future and utilise the capacity that ordinary people have to govern themselves the resources they are depending on, there are a number of basic elements in the incentive structures that need to be changed - and these are changes that will meet with intense opposition from organised interests within the industrialised part of marine harvesting.

But as we have tried to show, it is also possible to craft a Common Fisheries Policy that acknowledges and encourages institutional diversity suited to the multitude of ecological and cultural settings on the European coasts. And that such a diversity will offer a governing of marine resources that are more transaction cost efficient than a rigid system of unitary regulations from the Aegean Sea to the Arctic Coasts.

It should then be possible to design a more positive role for intervention of the European Union in fisheries. Such an intervention should aim at a relocalisation of management decisions and decisions concerning the design of institutions to the level of the "Coastal Community" or to the level of a "Fishery-dependent Region". This would be a Common Fisheries Policy where the decisions are taken - and the designs worked out at the level closest to the ones affected by the

outcomes of the decisions and the workings of the institutional arrangements - in line with the original meaning of the subsidiarity principle.

A remaining question is whether such a relocalisation requires a prior renationalisation of the CFP. That is a wholly new research agenda which there is no room to embark on here. But one relatively safe hypothesis is that nation states, who are as vulnerable to pressures from organised industrial interests in fisheries as the Union, are no guarantee for a smooth transition to more localised or regionalised fisheries management.

And all the things we did not esteem.

We have seen how insignificant resources - like birds' eggs - can be governed by the resource users' own institutions - and that these often possess the necessary resilience to adapt to fluctuations in both resource size and human population. But we have also seen how these local institutions at the same time are highly vulnerable to external impacts beyond the domain of the local community. And we have seen how grand institutional designs for major resources - like the European Union's "Common Pond" - has a tendency to crumble from within because of lack of legitimacy. And we have seen how the very scale of large institutional regulations produce rigidities that decrease the resilience of the resource use system against the kind of environmental shocks that are typical of biological resources.

If it is a general trend that large scale institutional set-ups fail for internal reasons, while small scale local resource use systems fail for external reasons, the task facing modern governments seems difficult indeed. But before we draw any conclusions about the challenges that the biological resources pose to modern governments, we shall discuss briefly the position of some other resources which are not surrounded by a "harvesting culture" and therefore have not caught the general awareness of the academic community. By analysing these with the same theoretical tools as utilised for fish, forests and mountain pastures, new insights can be obtained into the relationship between resource users and nation states (Sandberg 1993). These resources are

- The Coastal Resources - the clean, healthy and diverse environment of the North Atlantic Coasts
- The Hydropower Resources - the water cycle, the multi-year storages and the kinetic energy of falling water.
- The Claw-ware - the predator resources of the North, which are crucial for the wilderness attraction and the maintenance of biodiversity in the forests and

mountain areas and at the same time are a serious threat to the economic viability of sheep-farming and reindeer herding.

Most of these resources have got little attention, because they were always there. They were thus not esteemed in such a way that local institutions were designed to govern their use. When there was no demand for institutions, the property rights to these resources were largely left undefined. Thus the state could use the doctrine : "what nobody owns, belongs to the king" - and claim ownership over both coasts, hydropower and predators.

For the local communities of the North, the coasts were not regarded as a resource - it was merely an arena from where the harvesting activities of the sea were organised. Then modern aquaculture developed and demanded extensive areas of the coast. After an initial phase with intensive rearing of anadrome fish in small volumes and frequent release of chemicals and medication, aquaculture has now achieved sounder operating procedures - with prophylactic vaccines, separation of age groups, more spacious pens, shifting cultivation of different localities etc. In addition, new species, like cod and halibut is ready for commercial aquaculture. This has, however, meant that larger areas on the coast are needed by the aquaculturalists, and they are in a number of different ways contracting for property rights on the open coasts. So is river owners, who on behalf of "their" migrating salmon is demanding free runways without contaminating aquaculture along major fjords and into the ocean. In addition the development of leisure and recreational activities has been especially attracted to the coastal areas. In some cases this has resulted in the enclosure of large coastal areas for development of recreational housing, marinas etc. in other cases for development of "public access" to large coastal areas for recreational fishing, coastal hiking trails etc. Thus both the private and the public recreational sector is contracting for property rights in the coastal areas. With advanced plans for Japanese-style "Cultivation of the Sea" *(Saibai Gyogyo* :PUSH 1995) by the release of thousands of fish fry in massive sea-ranching schemes and through various enhancement efforts like artificial reefs in coastal areas, completely new questions of property rights as basis for new institutions arise (Sandberg 1995). As a reaction to all these massive - and sudden - claims on coastal resources which nobody really esteemed, the government tries to employ traditional conservation strategies, in Nordland alone it is proposed to set aside more than 70 natural and coastal reserves for birds' nesting places, coastal vegetation, fish spawning places and fish fry feeding areas. The reaction against these attempts to contract for government property rights is massive from Fishers' Associations, from aquaculturalists, from the tourist industry and from coastal communities. It is interesting that in the age of High Modernity it is the claims for compensation for a "non-development state intervention" that is voiced most eagerly from representatives of local government. We remember that objective customary law

from around 1100 AD up to around 1905 clearly protected the local communities with rules like: "Such shall Commons be, as has been from ancient times". But in the 1990s it is the loss of the "right to development" for specific territories within the municipality which must be compensated - while the modern state itself is committed through international treaties to protect biodiversity and a wide range of natural ecosystems. We shall see below - when dealing with hydropower resources - how the roles of development advocates came to be switched around.

But there are also counterarguments voiced against such government conservationist strategies of the typical traditionalist type: natural reserves will seriously hamper the continuation of the traditional harvesting of coastal fish resources, of seals and sea-birds - and will threaten coastal culture. A revival of old claims of the mobile fisher's property rights to most coastal areas are therefore one of the effects of the government proposals. It is also claimed that such a high proportion of the coast protected under the nature conservation act will seriously constrain the expansion of ecologically more correct, but area-consuming aquaculture. Aquaculturalists are therefor starting to look into the possibilities of claiming old "coastal common property rights" to coastal areas that has been in continuos use for 1000 years for a variety of economic activities by coastal people. They are often supported by municipalities who are trying to use the law of planning and development in order to achieve "sea-enclosure" - against the state conservation proposals (Sandersen 1994). Coastal communities also argue that all these natural reserves will hamper the development of new ways of "Cultivating the Sea" like releasing large numbers of fingerlings for Sea ranching, enhancing local fish habitats (artificial reefs or fish-houses) and spawning places. Such investments need some kind of property rights to secure some returns, either individual, corporate or property rights that are common to a defined group of users.

It is worth noting that a number of these claims from various segments of coastal communities are in contradiction to each other, especially if the recreational interests of local private property owners and nearby urban agglomerations are added to the list of claims. On the surface this seems to strengthen the position of the state as the neutral resource manager of coastal resources. But in reality the state has many faces in the governing of coastal resources. In the multi-layer governing of these northern coastal environments there is one type of governing institutions for the use of healthy coastal ecology for aquaculture - in closed pens - with limited participation by local government. There are other governing institutions for the wild salmon that migrates through the coastal waters on its way between the ocean and its spawning river. There are again other governing institutions for fish-fry areas, for underwater parks, for sea-bird nesting areas, for various categories of coastal fishing areas, for recreational activities and for coastal culture in general. This is not a very transaction cost effective way of

governing resources that are of crucial value to the whole of the Northern Atlantic. The lines of communication between government agencies are often long and clogged by other matters, the decisions are often taken far away from the local resource users and legitimacy of resource management by bureaucrats is generally low. In Japan, the fundamental precondition for the massive growth of "Cultivation of the Seas" - (not cultivation in closed pens) is the ancient Japanese sea tenure system where fishermen's' cooperatives have property rights to territorial areas of sea surrounding their village. If this is not directly feasible in Europe, what are the possible institutional designs for governing coastal resources in the face of a fundamental transformation from hunting whatever nature provides, to enhancing, sowing and cultivating the coastal seas? One model close at hand is an institution like the old European commons itself, based on collective property rights and solidarity in both sowing and harvesting. Geographically these can comprise either a river/fjord system, an archipelago of islands or the sea areas within a municipality (Sandberg 1993b). On most of the North Atlantic Coasts, however, the actual governing institutions for such coastal commons have been dead since the Dutch invented the "freedom of the seas"-doctrine in the 1600-century and most European Kings and Queens imposed their "Sovereign Rule".

Therefore Coastal Commons most probably would have to be reinvented in order to meet this resource challenge, and in doing so it is possible to put into good use all the underutilised social capital that is still intact in most North Atlantic coastal communities. Still, if successful, such a reinvention will only take place against strong opposition from both those who see the State as the guarantor of equality and from those who see the State as the guarantor of the exclusive rights of the free enterprise (Sandberg 1995).

The **Hydropower Resources** of the North are major resources which in the course of 110 years has changed not only the economic base of the north, but also changed fundamentally the way of life, the level of education, the pattern of social interaction and the northern cultures themselves. In the context of this report it is, however, two crucial questions that arise: One is the character of the mental picture in northern populations of the State as the principal agent for development and change in society. The other is the emerging - and troublesome questions of local and regional property rights to hydropower resources as electricity is being redefined from "a resource for local industrial development" to an international trade commodity. In a subtle way these questions are closely linked; so that ordinary northerners have great difficulties in seeing how the "hydropower the state developed for them - as northern industrial infrastructure" can now be sold freely for commercial profit or as solutions to environmental problems in other countries.

In a thorough analysis of the legal and historical basis for today's energy policy for Northern Norway, Asbj0rn Karlsen has traced the development of rights to water from the earliest customary laws to the recent regulations for a liberalisation of the hydro-energy market (Karlsen 1995). In brief, his main argument is that the water rights of Scandinavian customary law was different from that of continental Europe, where Roman Law had secured the freedom of movement for trade, war-lords and the general public on the large navigable rivers. Scandinavian rivers were small, often steep and the salmon was traditionally the most priced resource of the rivers. Thus, private ownership of rivers was the fundamental principle in the North - it was usually the farmstead who owned the shore, who also owned the river and all the rights connected to the river. If two farmers owned shore on either side of the river, the border between their parts of the river was drawn at the deepest part of the river *(djupalen).* In parts of Sweden, this was complicated further by the King holding property rights to the deep, middle part of navigable rivers *(kungsddran).* Both the property rights system with groups of private owning farmers along a river - and the system with the King and the fanners owning the river together - seemed to have worked up to the beginning of electrification around 1880. Flour mills and simple saw-mills were constructed to utilise the kinetic energy of the water, large amounts of timber were floated down the large rivers through cooperative agreements between the river owners. Even if the governing institutions for the old commons, the Community Assembly *(bygdeting)* were *de facto* abolished under Sovereign Rule, some of the norms and rules regarding common property lived on in the rural communities and facilitated such agreements (Sandberg 1994). In retrospect, it was probably the high value put on salmon - and salmon fishing, that made the rapid river stretches, the waterfalls and the ponds below them such valued objects of private property. Also in cases where river rights were traditionally held in common, it was very tempting for farmers to have their part of a "river commons" individualised at the time of enclosure. For large river stretches without salmon in several of the Northern Commons, the Kings illegally sold the common property rights of these to private merchants around 1750. When the state later bought the common property rights in the district of Helgeland back and sold the farmsteads to the tenants around 1890 -1905, the state kept the right to "the kinetic energy in the water" *(fallrett)* for itself and also made the tenant/owners sign away any compensation for loss of fields as a result of regulation of lakes in the district (Loras 1994). Contrafactually, had the local communities kept all the water rights in common property arrangements, without rights to alianate any parts of these rights, the history that follows would have been very different.

With the invention of electricity, a new kind of property right assumes significance - the energy right *{fallrett).* A number of private river owners found themselves as owners of a new kind of right which they did not even know about, which they did not know how to utilise and which they did not really

esteem until it was too late. When both Norwegian and foreign buyers of energy rights *ifossespekulanter)* - offered them good money for this new right, without themselves loosing the right to the salmon, and with the promise of bright electric light and general development ahead, it was easy to alienate this right.

Karlsen sees the 10 years after independence (1905 -1915) as the fundamentally formative years in the institutional history of Norwegian hydropower. It was to be a crucial part of the nation building efforts of the new nation. While the 1880s saw a strong alliance of government administrative elite and merchants and industrialists promoting hydropower development for rapid industrialisation, the reaction from more traditionalist and nationalist segments were strong. In order to protect the nation from hydropower resource mining from foreign companies, strict regulations were put in force that gave the municipalities most of the development initiative in hydropower development (Karlsen 1995). The overall ambition now was to electrify the whole country - for the welfare of the citizens - and the municipalities - and the provinces - were to become the principal agents for this new policy. They were equipped with strong expropriation laws and could partly persuade, partly force all their "members" to support hydropower development for public service. This "small scale/public service" character of both Norwegian, and Swedish and Finnish electrification, gave it legitimacy. But at the same time as the small scale municipal approach gave the hydropower development legitimacy in the areas where waterfalls were piped, the state moved into the core of the development with the 1917 River law, where it created a new legal category: "the right to manage hydropower resources" *(reguleringsretten).* This right, it was claimed, was not part of the traditional river owners bundle of rights, but was created by the general social and economic development. The river owner might have the right to sell the resource, but not the right to manage it - that was a societal right. According to our definition of property this is a removal of one crucial element of the fall set of property rights, thus the ownership of the newly won "energy rights" should be worth less after the state assumed all management rights. A consequence of this new legislation was that the loss of value of these "energy rights" from creating a National Park or other conservation measures did not have to be compensated. This might have been an unconstitutional government "theft" of private property, but at the time there was little political support for those "who only risked to loose something they had not deserved".

The second formative period for hydropower development in the north, was the 10 year period from 1945 to 1955. With new construction and generating technology, the huge untapped hydropower resources of the North were to be developed for large scale energy-consuming metallurgic industry. Now with the state as government in charge of all regulations, with the state as controller excempted from licence *(konsesjori)* and with the state as the major owner of the

ground in the North, we enter a period where all large hydropower development schemes in the North are undertaken by the state itself. The national reconstruction strategy saw northern hydropower no longer as public service, but as part of an industrial infrastructure that should make the north earn foreign exchange. The scale of the developments were massive, much more than the civic society could ever consume. The municipalities, who compared to the 1905 strategy now were pushed into the background, accepted this in return for generous compensations , development funds and a large number of new employment opportunities and a broader tax base. Except for the central role of the state, it is the same policies as were tried in the 1880s

This is the backscreen for the 1990 change in the energy policy of a number of Northern countries. The state run energy-consuming industry of the reconstruction period is phased out and the liberalisation of European energy trade demands a liberalisation of the very segmented Norwegian hydropower market. In addition the right to the hydropower developed by private industry for its local industrial plants is to be transferred to the state after 60 to 80 years. Northern electricity is thus gradually transformed from an industrial infrastructure resource to a free-flowing state owned commodity with higher prices on the European continent than in the North and with artificially low transport costs (Karlsen 1995). The similarity with the extraction model for oil is striking: The state's own power-producing branch is now made into a parastatal company (Statkraft SF) with the explicit aim of earning money for the state from the sale of hydroelectric power on the market. The epoch of the state as a development agent thus seems to have expired and the state is increasingly seen as merely an owner of money machines in the North. From the municipalities and communities who since 1950 have suffered from the loss of its beautiful rivers and fishing lakes, the reactions are strong. The property rights to the energy in falling water, which they helped the state to take over from private river owners after independence, seems to have disappeared in the new and open network. And so has the employment opportunities and a large part of the local tax income from hydropower development. The intentions of the 1905-1915 legal framework fora "social contract" between state and municipality seems to be violated. Therefore analysis of the exact property rights to hydropower resources for the northern regions, municipalities and local communities will be of great importance to the municipalities. Included in this are also their rights to tax the property value of the hydroelectric power plants that mine their resources (Karlsen 1995).

But in the long run, there might be other factors that prove to be more crucial for the further course of development. With a less friendly and environmentally more conscious local community, the users of the same ecological systems as the hydropower producing companies will most probably be more alert. It might therefore be an increasing number of legal measures taken against the state for

not adhering to the regulatory preconditions set by the state. In many storage reservoirs of the North, the stocking of fish have been poor. In many of the fjords of regulated salmon rivers, the stocking of salmon and sea-trout have been poor. In the case of unexpected floods or draughts, the regulatory strategy and the multipurpose motivation of the power producer have been questioned. There is long historical and international evidence that it is easier for a local community to file charges against a power company in which they have no property rights than against a producer where they share in the property rights. Maybe will the state at some point want to come back to the social contract of 1915?

The predator resources of the North are another important kind of resources that have not been esteemed. In the North, the management of predators has always been very important. To kill a bear or a wolf could be a matter of instant survival. During the Saga-period, the "claw-ware" - the furs of predators - were one of the major tax objects and export articles from the North. According to old tax records, the North must have had a significant - and probably "sustainable" production of predators through hundreds of years. Closer to modern times the existence of "predator-free areas" has become politically and economically important. The main reason for this is the modernisation and structural changes in agriculture and animal husbandry - including reindeer ranching. In many ways this kind of development started during the latest major settler period in the North - from around 1870 -1939. Special state "shot awards on vermin" were established as an important government strategy to increase the "predator free areas" in the North. The award had to be sufficiently high to stimulate also the hunting of predators where the commercial value of the "Claw-ware" was low. The persistent efforts from the state to extinguish predators and promote the development of modern agriculture and animal husbandry is one of the heavy elements in the attitudes today's adult northerners have towards predators.

In modern times the high cost of farm labour and ever increasing demands for profitability as a prerequisite for government support, has forced sheep-owners and reindeer ranchers to transform into increasingly more extensive forms of sheep rearing and reindeer ranching. The animals are not herded by herdsmen any more and the transhuman system with movement of both people and livestock to a summer barn *(sceter)* in the mountains is becoming extinct. The sheep and the reindeer are for the most part of the summer left to themselves. In addition has the vulnerability of the sheep to predators increased due to breeding for hornless sheep with a higher meat weight. There has also been other dramatic changes in the keeping of sheep: the male sheep are separated from the female sheep and the lambs, the number of sheep per flock has increased and inexperienced sheep are often placed in new areas. Such labour extensive forms of animal husbandry does naturally achieve its highest profitability in "predator

free areas", and in areas which are not free from predators, intensified predator control will inevitably be more profitable that herding.

The other side of the modernisation of society is the demand for unspoilt nature and "real nature" experiences - which include the existence of large predators. In order to be able to offer an "experience product" to urban tourists from continental Europe, the large predators belong. Without the excitement tied to the knowledge that bears, wolves, eagles, lynx and wolverine exist, a "wilderness" area will loose both its unquantifiable natural value and its commercial value. In the age of High modernity, the North is back to the original position where predators are a valuable resource to Northern communities. Living predators have both an experience value and a hunting value which can be translated into commercial terms.

These two tendencies of the same modernisation process are contradictory - and they meet in the state predator management policy. Here strong conflicts and strong feelings command the discourse. The state has assumed all property rights to predators in order to protect them from extinction by angry sheep-farmers, but for mountain communities who rely on both sheep, reindeer and "wilderness-tourism", hunting and fishing, the local conflicts can also be strong. Various parts of the state is also on different sides of the conflict, as owner of the ground, as development agent for modern animal husbandry, as exemption authority and as compensation authority. On the regional level there is no representative body participating in the management of the predator resources, the different lobbying organisations are mainly influencing "their" segment within the government. When a large number of sheep-owners and reindeer ranchers yearly receive many millions in compensation for animals killed by predators, this can be viewed as the price the larger society has to pay to be able to have predators in the forests and mountains. But it might also be seen as the price society has to pay for a poor and illegitimate governing of the predator resources. A side-effect of the present institutional design is that development-pessimism, anti government feelings and eco-reactionary sentiments are growing in certain mountain communities.

Could then a different distribution of property rights to predator resources produce a better and more legitimate management of these resources? Could a wider participation by the various user groups with interests in predator resources achieve this?

A number of new research point towards solutions which are more viable than the unilateral management of predator resources by state bureaucrats.

- The new research on biodiversity has shown that predators play a more important role in the ecosystem than believed earlier, by preventing one

particular specie in the ecosystem (e.g. sheep) to become too dominating and expelling other species (Holling & al. 1994). Since monocultures are non-robust ecological systems, an even predation could contribute to the maintenance of robust ecological systems.

- There is apparently a closer link between predation and animal health than earlier assumed When a healthy stock of predators has the opportunity to take out the weak individuals from a stock of moose or deer, epidemic diseases among game can be avoided.
- It is also a closer link between the size of the stocks of small game, the pressure of human hunting and the frequency of predation on "domestic" animals. When predators, who are opportunist hunters, have sufficient food from small game and their common prey, they will not touch a "seasonal" animal like sheep.
- Game managers also seem to believe that the size of the stock of predators alone does not decide how much damage is done to sheep and reindeer. Also the individual characteristics of predators are important factors, there are often deviant individuals who become "murderous" animals. Thus an "on the spot management" with elimination of unwanted individual predators can be a feasible strategy as well as more thorough research into predator ethology and reproductive genetics.
- Finally there are rapports of new ways of keeping sheep, and of new species that can run faster, climb better and are less vulnerable to predators.

Taken together, this kind of knowledge - and some new experiences can be utilised to look into the possibilities for creating institutions that are better suited for governing predator resources. With the aid of modern predator research, the various groups of wilderness resource users could thus participate in the governing of predator resources in a local area.

The resource challenges to modern governments

We opened this discourse with the proposition that resource management is not simply about the relationship between harvesters and the biological resource. It is more about relationships between social persons. It has been shown that it is more fruitful to regard resource management as the complex task of governing the interrelation between one persons' relationship to the resource and another persons' relationship to it (Bromley 1991). Such a Kantian approach has also been applied through this discourse. While a total ecosystem approach - including humans, might be valid in some analysis of sustainability (Paine 1992), the interpersonal approach adopted here allows for the introduction into the

analysis of various concepts of property rights originating from both Customary and Roman *ius in re* and utilised in modern institutional analysis.

The resource challenges to modern governments are therefore of two distinct types:

- One is to govern the total subtraction from the biological resource, and to protect and maintain its life processes to secure its long term sustainability. This include both considerations of single stock sustainability and considerations of maintaining biodiversity and ecological resilience (Holling &al 1994). This challenge demands both stewardship in the moral fabric of the political establishment, actual jurisdiction over the resource and the scientific knowledge necessary to make sound judgements regarding the future.

- Another type of challenge is to enable the design of just distributions of rights so that the resource management regime is perceived as just and legitimate. Illegitimate resource management regimes are serious threats to both environment and society. To achieve a just distribution of rights a society must strive towards fairness, both on the procedural level and in the actual distribution of rights at any point in time (Rawls 1971).

Both these challenges are formidable for any government - and especially for democratic governments which are seldom in a position to design principles of resource use that are such that they could have been agreed upon as a contract between rational citizens in a situation where everyone is in an equal position. A quota system in fisheries, or a licensing system in aquaculture means, like any rationing system, that inequalities are introduced and that they become sticky after short time. A state privilege is particularly difficult to take away or to redistribute. But if the procedure to choose the principles for governing a resource is fair and resource users are openly invited to participate in the design of these principles, experience from all over the world show that the social capital they possess is of crucial importance for such tasks. Especially when it comes to the difficult questions of legitimate decisions, of monitoring, control and sanctions, one finds that user groups has a capacity to design institutions that are far more transaction cost effective than those designed by bureaucrats (Ostrom 1991)

But even if a legitimate system of governing a resource could be designed, there is no guarantee that it will produce the required sustainability. But as we have tried to show in dealing with the different kinds of resources, the resource using communities have a capacity to take the needs of future generations into consideration when governing the local resources - it is the external shocks, the sudden state intervention and the institutional vacuum in for instance

international waters that threatens the sustainability of long enduring local resource governing institutions.
Still, this is not an argument for government passivity or laissez faire: With the emphasise on biodiversity as the bases for a resilience that can accommodate both internal dynamics and external shocks to resource dependent communities, there is still work to do.

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