

**Proceedings of the workshop on future directions for common property
theory and research: Rutgers University New Jersey**

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Introduction

The Common Property Workshop at Rutgers was co-hosted by the Eco-policy Center for Agricultural, Environmental, and Resource Issues and the International Association for the Study of Common Property, IASCP, which held its Executive Board meeting the next day (March 1st). Bonnie McCay, Associate Director of the Eco-policy Center and Professor in the Department of Human Ecology at Rutgers University, organized and chaired the workshop. In her introductory remarks she said, "We couldn't pass up this opportunity to bring together people who are doing the most innovative thinking about the problems of dealing with common resources, as well as the problems of property rights and property rights as they relate to and use of management of natural resources." She introduced members of the Executive Board of IASCP and other participants. Then Bob Tucker, director of the Eco-policy welcomed the group on behalf of Rutgers University. He explained the Eco-policy Center, which "looks at resource issues from an environmental point of view, ecological point of view and also an economic point of view. We're looking at environmental issues at agricultural issues, issues of land use, and so the idea for looking and studying common property is very appropriate for the center. We're also particularly proud to have Bonnie as the President-elect of the International Association of the Study of Common Property. So I think it is particularly appropriate that you are all here this afternoon -welcome."

Presentation #1:

"Common Property Regimes: Moving From Inside to Outside"

Margaret McKean, Political Science, Duke University, and past-president of IASCP.

When we were thinking about putting this together I thought I wanted to speak about how I see the history of this field. Of course, people have been studying common pool resources and property rights on common pool resources and social behavior and institutions having to do with how people use natural resources for a long time. But, I think the systematic attempt to pool findings from many disciplines and many areas and many resource types perhaps is only a dozen or more years old. It seems to me we can say a few things about what we've concentrated on to date and I had a few thoughts on what our next research thoughts should be. So far its been natural to examine the insides of common property arrangements and the behavior of people who use a single resource. So we've looked at the relationships between people who use their resources and among the people who are using the same resource. We've focused a lot on the internal arrangement of these mechanisms. We've looked at rules for use, techniques of cooperation, looked at mechanism by which people enforce prohibitions against cheating in order to enforce mutual restraint and capping aggregate levels of use and stress on common pool resources. I get questions about what we ought to be looking at next and I had four categories which I thought we should try and push our research interests. One thing I am constantly asked is: well its all very good and well to know how these things work and what the characteristics of these systems are that have established successful working arrangements, but we don't know where they came from. How did it get rolling? So one project would be to push our research in the direction of how these things start. I see three ways to do this and I of course advocate doing this. But I think there are many conditions and situations in the world where we probably need to create common property regimes that don't now exist-resources under stress, and so on. So therefore we need to know something about how to create them when they aren't there to start with. One subcategory under common property regime origins would be to study the evolution, the original evolution of the historical long lasting systems, that is, systems that have lasted for several centuries in many parts of the world. Another helpful area for exploring origins I think, would be laboratory experiments that focus on manipulating the variables that you would manipulate in the creation of regimes and then of course, another one is to pay very close attention to the natural experiments we conduct upon ourselves all the time. When you try and create new systems, I'm thinking particularly when you work in fisheries and the formation of new fishery organizations; you begin to make general statements about which one's work and which ones don't. There are three other areas for future research, all looking outside CPR

systems. We've focused very closely so far on what makes them work, what internal features of common property arrangements make them work. We haven't paid enough attention to the relationships between successful systems and their surroundings. I think of three features of the surroundings. First, would be the relationships with government; all the work on co-management is really an effort to explore that. But I would include the studies of the legalization of common property rights-studies of changes of government recognition, levels of government recognition and government acknowledgment of common property rights. Second would be the relationship between CPR and commerce. The economic context of successful arrangements presents an interesting dichotomy across resources. Those of us who have studied common property arrangements on land frequently encounter the assertion that commerce is deaf- the arrival of the market economy, the arrival of commercialization, the commercialization of commodities that are extracted begin to erode the features of cooperation that made those systems work for a long time. Thus commercialization brings pursalization to landed commons. We encounter this statement; I actually caught myself writing it myself, it is pretty unexamined. It has not been very well tested and if you move over to fisheries there are a lot of people who study the common property arrangements on landed resources who suggest banning the sale of products extracted from the commons. What they should do is let people live subsistence lives with products from the commons, but not sell for themselves because then everything goes to pieces. I think if you proposed that to the people in the world who do fishing they would wonder what planet are you from. Nobody would suggest that the thing for successful fishers to do is to stop selling fish. Fish are a commodity. There wouldn't be much fishing if the only people who ate fish were the ones who caught them. It's odd to me that we haven't examined the relationship between healthy property relations in a commercial context. We have to face the facts that a lot of the products we extract from the commons are of commercial interest. We want these products to integrate us with a cash economy. Some of these products have no value if we can't sell them. They are no force for a subsistence style of living so there is something very wrong with our habit of believing, at least those of us who study land economy, that commercialization is very dangerous or that commercialization is really tricky and very fragile. Maybe later I will give you an analogy that demonstrates how certain bad statistical analysis can lead you to the wrong conclusions. That I think might be responsible for these conclusions on the part of us who study landed economies and commercialization. It seems to me the third thing or third feature of the outside worth thinking about is the relationship with the ecological setting. That isn't as silly as it sounds-of course common property regimes on common pool resources are found in ecological settings where we have common pool resources - that is true by definition, so what more is there to know. I don't have that in mind. I am really thinking about the fact that over the course of history we have seen common property arrangements come and go and move around. We have also seen people choosing to use common property regimes for some resources in certain

situations and then choosing to use individual property arrangements for other resources that they have or other goods that they produce. People apparently have historically made choices, they might have even been intelligent choices about which kinds of resources to manage as common property resources and which kinds of resources to parcel up to individuals. With the crowded planet we have today, we want to figure out if there are any places where there are resources or situations where we should be turning away from making common property arrangements. We should really know the ecological conditions that make common property arrangements the efficient choice today. It may be that historically what made common property resources efficient was not always the ecological setting. It may have been other things having to do with the availability of labor, economies of scale and enforcement costs or the non-availability of administrative efforts from the outside. But it may still be ecological conditions which would help us make intelligent choices about where to place common property regimes or how to best handle resources in a community. So I think these are the four areas I would single out as good targets for research agendas. In the future, we need to look more at origins, look more at relationships with the legal and government contexts, to look hard at some of our hypothesis of commercialization and commercial context and to look carefully at how people have chosen where to put their common property regimes. We're perfectly familiar with different kinds of arrangements, like choices of when to use common property resources.

Presentation #2:

"What Can Agents Do? Reflections on Post-Hardin Commons Discourse"

Peter J. Taylor, Visiting Scholar, Center for Critical Analysis of Contemporary Culture, Rutgers University.

What can agents do? For common property researchers (CPRers) there is an obvious meaning to this question: Can individuals overcome their self-interest? Can they come together to build institutions for managing a resource held in common? Through my joint involvement in the Environmental Studies and Science and Technology Studies (STS), I ask what agents can do of two other kinds of agents, namely, CPRers, and STSers who interpret and contextualize science. I am particularly concerned with the influence of CPRers on the socio-environmental situations they study, and with STSers, such as myself, who hope their work can influence the researchers they study. What each of these kinds of agents can do are open questions. I am in a very early stage of this inquiry. In the talk I laid out a set of "entry points" or "angles of illumination," which I referred to as: examining the broad social context; substituting the local for the exotic; exploring the cross-reinforcement of ideas about psychology, methods used, and theories of agency and social structure/dness; inverting the sequence in scientific research of simple to complex; examining intersecting processes instead of bounded systems; and deprivileging special cases. Using those angles of illumination and learning from responses by CPRers to my STS interpretations, I hope to expose more of the complex pragmatic considerations governing specific research and researchers. A proposed contribution to CPR Digest and a talk at the Vancouver IASCP meetings should further my interactions with CPRers.

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Discussion of McKean and Taylor presentations:

McCay: McKean's presentation captured an important new direction in common property work, which has been dominated to this point by questions of internal design as highlighted in Ostrom's work "Governing the Commons." Her focus on "the outside" dovetails with others who are taking political economy perspectives that emphasize the bigger picture- the economic situation, the political situation and so on as they affect common property regimes.

Taylor: Upon the point of contrasts in research agendas, there is of course the question of whether reflections based upon multiple angles are very helpful. Some of the best scientists have always been very simple minded and they don't ask many questions about where we come from or why it does that....

McKean: I have two things to say. I was fascinated with your juxtaposition of the development of the field right alongside a world wide drive for decentralization, privatization, individualization, not to mention the fall of communism which means to many people never do anything collective again. So I have no idea if people who are interested in common property are interested because they are fighting world trends or if it's just coincidence. It's like two halves of a river running in opposite directions.

Unknown: The question of why Hardin's idea had such an affinity is extremely important. I would approach that question by looking at higher institutions. I think we shall find part of the answer in what deeply ingrained beliefs about property are, from everyday experiences that are so deeply ingrained that you don't think about it. They have disappeared from our conscious minds, and when Hardin speaks to us he speaks to our unconscious beliefs about what property is. ...

Brad Walters (graduate student, Rutgers Ecology & Evolution): Hardin's popularity, I hate to admit it, has a lot to do with how accurately it models reality. We're continuously viewing evidence of commons tragedies, be they litter on the side of the road, or whatever.I agree that there is this social political stuff that is very complex and needs to be pulled apart and that, but there is this reality...the empirically oriented and the "social/critical types" are in opposite camps?

Taylor: One of the tenets of science in science and technology studies is that empirical accuracy is never sufficient to account for something's acceptance. So that you are always looking for other things and sometimes that search for other things is as saying empirical accuracy is not at all relevant. In this case unfortunately I want to say that there I am one of those last camps because I think there are and never have been —I am going to overstate it — tragedies of the commons. So I am opposed to you there. In terms of Hardin's model, it has to do with that "complex/ simple" argument I made.

Walters: Is what you are saying that there have never been any social commons problems?

Taylor: No, but with the perspective of science studies, you would ask why is it that other people could go in and see the world and say this is tragedy of the commons? In other words, it's not just taking it subjectively. It's saying what is it these people bring you see litter as a tragedy of the commons and others do not?

Erling Berge (IASCP): on the importance of language, Hardin using "commons" to mean open access, but the English law of property using "commons" very differently.

McKean: Hardin has great appeal because he is making some observations that really do occur to people. You're right with your objections for when I talk about him in class I worry about his spurious correlations. He presents the problem as one where the only thing wrong with common resource use is commonness or too many people, versus the possibility that he got the main causal variable wrong...

Evelyn Pinkerton (IASCP): Of course Hardin is right because our institutions are set up in a way that makes what he says to be true. The common property literature makes us see that there are institutions that are set up differently.

Frank Popper, Political Science & Urban Studies, Rutgers U.: I see Hardin as an ecological fable. When we leave here we should have a better understanding of it. It's a real interesting story and let it go at that.

Paige West, Graduate Student, Anthropology, Rutgers U.: There are certain socio-political economic conditions that were arising at the time Hardin wrote this that went along with the globalization of capital. Maybe one reason Hardin was successful is it spoke to people who wanted to see capital as natural.... I use Hardin in just about all my classes too and find that we really want to believe it. Even though I teach about it critically, the students still come to class and say well look this is what Hardin said.

Taylor: I feel I need to say something about why I don't believe in the commons. It's not any of the things being said so far. Hardin can be read as building on the conceptual ideological model of the state as being a constraint on individuals and on individual transactions. In this pervasive model there is no middle ground for social structure upon unequal power that facilitates the social life as well as constrains it. As a consequence there is no sense of the messy politics involved in a transition from the way Hardin thinks things are to what he'd like them to be. With respect to transitional psychology this liberal model of the individual as the source of all inequality and the rationality of change and resistance to change says something about the structuredness and

the inequality. I think it is truer in many cases and that is why I don't think the tragedy of the commons occurs; it doesn't have those features.the reason we read Hardin back then is to examine how many of those kind of assumptions are still with us today...

Presentation #3:

"New and Not-So-New Directions in the Use of the Commons: Co-Management"

Fikret Berkes, Natural Resource Institute, University of Manitoba; President, IASCP

Many co-management (joint management, collaborative management) initiatives are in progress in the areas of fisheries, wildlife, protected areas, forests and other resources. These initiatives have a common reason for their existence. Top-down resource management by centralized government agencies has not been working well, and purely local-level management is often ineffective in the complex world of multiple stakeholders. As a rapidly developing field of study, there is a substantial accumulation of empirical material on co-management, yet the field is weak in terms of theory development. Many authors agree that the theoretical basis of co-management may be found in common property research. It is not clear; however, how the theory developed in the broader area of commons may be applicable to co-management.

Development of the idea of co-management can be traced to a number of different resource areas:

- * Fisheries First Canadian co-management, Kearney, 1984 (LeBlanc 1978 speech); Norway: Jentoft, 1985; Pinkerton book 1989 example: Fisheries Co-Management project (SE Asia, Africa)

- * Parks and protected areas World Conservation Strategy (1980); Caring for the Earth (1991); Integrated Conservation-Development Projects ex. Mt Elgon Nat Pk, Uganda; Mafia Is Marine Pk, Tanzania

- * Forests Joint forest management, W. Bengal, India 1972; Nepal * Wildlife examples: CAMPFIRE project in Zimbabwe; IIED

- * Other water (zanjera, Philippines); wastelands (India, China); aboriginal land claims (Canada, Australia, New Zealand)

The reason for development of co-management in these various areas has to do with the basic dilemma: * Top-down resource management by centralized government agencies not working well, * Local-level, community based management is often ineffective and limited because of outsider interference, multiple interests, centralized management, interjurisdictional problems.

The co-management solution makes two basic assumptions: * Local people must have a stake in conservation and management, and * Partnership of government agencies and local communities and resource users is essential.

What is 'co-management'? * A number of terms are used interchangeably: Cooperative management/collaborative management/joint management/participatory management/multi-stakeholder management * the general function of co-management is to encourage partnerships; provide local incentives for sustainable use; share power and responsibility for resource management and conservation. * Various definitions:

McCay and Acheson (1987:32): (referring to community-led initiatives) "co-management signifies their political claim to the right to share management power and responsibility with the state."

Murphree (1989:418): "co-management is a broad concept that covers an assortment of managerial arrangements."

Berkes et al. (1991): "the sharing of power and responsibility between the government and local resource users."

West and Brechin (1991:25): "the substantial sharing of protected areas management responsibilities and authority among government officials and local people."

IUCN (World Conservation Congress 1996): "a partnership in which governmental agencies, local communities and resource users, non-governmental organizations and other stakeholders share, as appropriate to each context, the authority and responsibility for the management of a specific territory or a set of resources."

Evaluating co-management

Evaluating the degree of participation has often been based on the Arnstein 'ladder of public participation'. Variations include:

- * Berkes et al. 1991; Berkes 1994
- * McCay 1993; 1995
- * Pinkerton 1994
- * Pomeroy 1995 * Sen and Raakjaer Nielson 1996

When is co-management feasible?

Assuming that

- * Co-management is desirable and there is a need, and
- * Devolution of management power is possible and feasible,

Three key questions seem to define successful co-management:

1. Are there appropriate institutions, both local and governmental?
 2. Is there trust between the actors?
 3. Is there legal protection of local rights?
- More work is needed in understanding these and other possible key conditions for successful co-management, including economic ones.

Challenges ahead: Developing theory for co-management

1. Analysis of experience with the process

- * Problem recognition
- * negotiating and consensus-building
- * developing an agreement
- * implementing and monitoring the agreement

2. Analysis of experience with agreements

- * Structure and content of existing agreements
- * Typology of agreements
- * Towards a generic agreement model (?)

3. Analysis of capacity-building requirements

- * Supportive policies and legislation
- * Users: institution-building
- * Managers: making devolution attractive

Research strategy and agenda may include:

- * Reasons for successes and failures;
- * Key conditions for feasibility;
- * Institution-building;
- * Appropriate techniques to facilitate co-mgmt;
- * Cross-cultural approaches and methods;
- * Adaptive management' (feedback learning);
- * Designing supportive policies and legislation

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Presentation #4:

"Beyond Rational Choice: Implications of a Broadened Institutional Analysis for Fisheries Management"

Svein Jentoft, Institute of Social Science, University of Tromsø, Norway,
Visiting Professor, Rutgers University

My contribution is drawn from a draft paper co-authored with Bonnie McCay and Doug Wilson.* with only ten minutes I can only give you the main argument, which, I hope, will be of relevance to the theme of this workshop.

The paper attempts to bring out some of the implicit assumptions in fisheries resource management, particularly those that refer to the nature of institutions, what institutions are, what they do, and what can be expected from them. Needless to say, these assumptions determine how we arrive at our hypotheses and design our research projects. They also determine what we perceive to be within reach of management systems, what we think can be accomplished in practice, what we can realistically hope to gain. Social scientists use to say that the problems of fisheries management are basically social and institutional, not technical or biological. Therefore, our subject should be head on to the core issue in fisheries management.

Although the paper has a fisheries co-management focus, our concerns are also more general. We argue that definitions of institutions underpinning much of common-property research are too confined. We say that there are more to institutions than rules, regulations and transaction costs. When Douglass North contends that "institutions are simply the rules of the game", we think it is too simplistic. Rather, we prefer a definition of institutions promulgated by Dick Scott, a sociologist at Stanford, who argues that "(I) institutions consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior."

Scott calls these structures "the three pillars of institutions." In fisheries management, and in common property theory, it is practice just to emphasize the third pillar - the regulative one. Hence follows the overly legalistic approach to fisheries management. The so-called "new institutional economics" basically shares this view on institutions but want rules that allow market mechanisms to work more freely. For this, property rights are the key. Co-management is not so much about rules per se as about the process through which rules are made and the way this process is organized. Scott regards institutions as role systems. Co-management is a role system that involves users in regulatory decision-making, contrary to the top-down, government and science based management systems so predominant in fisheries management today. Who participate how (for instance, in which roles?), and with what knowledge, are key questions here.

As Scott also reminds us, institutions do not only create restraints. Institutions enable, authorize and legitimize. Institutions empower, they provide licenses and, hence, opportunities. They confer rights as well as responsibilities. They define what is appropriate for a particular person to do, what is required of him, what is morally accepted and justified, and they help him to make sense of the world. Thus, institutions are more than a set of ramifications, a framework within which actors pursue their self-interests in a strategic, cost-benefit manner. Interests are socially constructed, not naturally derived, and institutions define what these interests are, how they are acquired and get internalized by the individual. In short, from our perspective, institutions are not only external to the individual. People also get institutions under their skin.

These, we argue, are the assumptions on institutions underpinning the co-management model, but they are seldom explicitly expressed. They are, however, in stark contrast to those assumptions that form the basis of the Hardin model, the theory of games, and rational choice theory - which have all become a part of the same key paradigm within natural resource management. Although co-management and Individual Transferable Quotas are not mutually exclusive but could well be elements of a comprehensive management scheme, the two solutions come from entirely different assumptions on human nature and social institutions.

It would probably help the resource management discourse, if we were more aware of these differences. It would let us see where we come from when we argue. Even more important is that it would reveal more alternatives for action. The co-management model holds that there is a third way to avoid the Tragedy of the Commons: In addition to legal and market mechanisms, there are organizations. Also organizations coordinate users' behavior, as Ronald Coase taught us.

Those who are sceptical to co-management often refer to the "Fox in Henhouse." It is the free rider argument but at a collective level. The critics contend that also user organizations would tend to defect and not respect their agreements. Neither will an organization be able to commit their members to follow its policy and its rules, particularly if membership is voluntary. Devolution of management authority to user organizations is therefore too risky. The temptation to abuse the resource will simply be too high.

It would, of course, be naive to rule out these outcomes. There is no doubt an inherent logic to them. The point here, however, are those expectations derive from certain assumptions on what institutions are and what they do - in this case to and with the users of the resource. Recall that Scott regarded institutions as role-systems that define what behaviour is appropriate and that they provide mechanisms for socialization and internalization of norms. These are the assumptions that make us conclude that the "Fox in the Henhouse" metaphor is overdrawn. Instead we hypothetically argue that if users obtain

more management responsibility in functional terms, they will behave more responsibly in moral terms. Since we are invited here to present ideas for new research directions, this is obviously one: Under what conditions do hypothesis hold true?

* "Social Theory and Fisheries Co-Management," by Svein Jentoft, Bonnie J. McCay, and Douglas Wilson, submitted to *Marine Policy*, June 1997.

Discussion (Moderated by Peter Parks, Department of Agricultural Economics and Marketing, Rutgers University), who in his remarks underscored the importance of discerning criteria for success and failure:

Svein Jentoft: When people are involved, they will comply with the rules. It will bring down transaction costs.

Susan Buck, Political Science, North Carolina; IASCP: So you are equating efficiency with morality?

Jentoft: Yes, when people are involved they control the outcome of the system.

Susan: Morality and efficiency? What is economically efficient may be environmentally disastrous.

Jentoft: The argument is that the need to interfere may be less because the norms that created the system would be allowed to work.

Walters: This sounds like privatization. It harkens back to Jeffersonian individualism. We have evidence that under privatization we have resource problems too. Can you comment on that?

Jentoft: This harkens back to what Peter Parks was saying. It has to do with how you design co-management systems. We need to know more about what design principles make a difference.

Berge: To me it sounds like co-management comes from above; is there an example of involvement from below?

Jentoft: Yes, Norway. The demand from below came as a response to what came from above. There are lots of systems that came from below in that they develop and then become codified by law. This is a research question. How did these systems evolve in the first place?

McCay: There is no simple answer. In North America, co-management comes from below, but government's respond and they adapt. They co-opt this so it can be imposed from above, then the local people react to this.

Jentoft: I got interested in this from my interest in cooperatives.

Berkes: Interesting question, like the one posed by Meg. It is not about above or below, it is interactive. The origins are from below, but it develops as an interactive process and it comes about if there is a resource crisis, or a problem between users.

Pinkerton: By definition it comes from below. The design of the system comes from people figuring out what works for them; the government only goes into the interaction to minimize control. It is about control and keeping the costs down.

Meg: Is this something that the locals want as the best option or is it only what they can get-is it the best they can get? I worry about this.

Tucker: (offered a New Jersey example, from his experience in the Department of Environmental Protection, where processes of participation were initiated from the local level in some cases but in others come from government.)

Douglas Wilson, Post-Doctoral Scholar, and Ecopolicy Center: ... When you talk about above and below where do you put nature? Where do you put environmental reasons?

Presentation #5

"Design Principles of Norwegian Commons"

Erling Berge, Sociology & Political Science, Norwegian University of Science and Technology, Trondheim; IASCP Executive Board

Legal Traditions

If you look at the history of land law in England you find that rights of common is defined as the right to remove something of material value from the land of another owner. Those who possess such rights of common are called commoners. I think this definition should alert us to an important dimension of the commons: the distinction between ownership of the ground and ownership of the material resources attached to the land.

The Roman law institution of dominium conferred upon the owner of the land absolute powers (or as close as practically possible) over the land and all values attached to it. The old maxim "nulle terre sans seigneur" can surely be traced to Roman times. But Romans also knew of common property. The premedieval and medieval societies of Scandinavia as well as Great Britain were more concerned about the material values they could harvest and the personal relations among those with interests in the land than about the ground as such. In feudal society the maxim was "no man without a lord". Most of the land was commons. But tilled land was in some basic sense private property.

As the Roman law ideas spread across Europe the doctrine of dominium came in conflict with the established local traditions of common ownership of land and usufruct rights to its various resources. They also were in conflict with feudal society and the ideas of tenure relations dominant there. I do not think it is a great secret that the development of market economies was closely connected with the gradual victory of the dominium principle. But in the mutual adaptation of Roman and local ideas of law, new legal conceptions were developed to reconcile some of the older concerns. The "dominium" doctrine never became as total as it is presumed to have existed in Roman society. In Norway, dialectic between Roman law and the development of the law of commons has been somewhat different from England's experience, where the rights of common survived in a much clearer way.

Now let us go to the Norwegian commons and look at the various instances of commons. The major dimension differentiating them is precisely ownership of the ground. Today Norwegian commons come in three "flavors" which I call state commons, bygd commons and private commons. "Bygd" is an Norwegian word which doesn't translate well to English. Its original meaning is something like "local community". Because the areas burdened with rights of common were tied to the local community, the bygd became tied to a certain area as

their commons. But during the past 1000 years this has turned around, and today the bygds (in relation to commons) are defined in terms of their rights of common. The bygd is defined as comprising of those farm enterprises who rights of common in the area have called commons.

The defining difference between state commons, bygd commons and private commons is the differences in ownership of ground. In a state common the state is the owner of the ground, in the bygd and the private commons it is the commoners who own the ground. What distinguishes bygd and private commons from a co-ownership is that not all the commoners are owners of the ground. The difference between a bygd and a private commons is that in the bygd commons more than 50 percent of the commoners are owners of the ground and in the private commons less than 50 percent of the commoners own the ground.

The private commons are almost extinct. In an act from 1863, it was stipulated that the private commons should go through a process of land consolidation dividing them into one part private property for the owners of the ground with the rest as a bygd commons. This division has been done in most areas, but some small remnants are presumed to exist. Only one fairly big private commons is known to exist. Here a timber company is the owner of the ground while all the farms of the local community are commoners with rights of the company have no interest in the pasture.

Currently there is also a fourth type of commons under construction. In a recent government report a new kind of commons was proposed for the county of Finnmark. It is a rather complicated legal construction designed to accommodate the reindeer herders, farmers, as well as the local non-farmers. Very briefly it can be described as a hybrid between the state commons and the bygd commons.

The importance of the ownership of the ground and the separation of this from rights of common is that the rights to the ground contain what is called the remainder. All rights that are not positively accounted for as rights of common belong to the remainder. In Norway for example hydro-electric power is one of these remainder rights. It didn't exist 100 years ago. We didn't know about the value of waterfalls until a new technology appeared. This new right fell to the groundowner.

Design principles: -- ownership of ground and remainder -- important for problems of coordination and distribution -- resource specific management -- important for sustainability of production -- power sharing central-local actors - - important for distribution, monitoring and coordination

This separation of ground and remainder from the various specified resources is the first and main principle of differentiation among various types of commons.

A second principle used in the definition of various types of commons is the specification and definition of the resources the various types of entities are allowed to withdraw resource units from. By saying entities I underline that the beneficiary need not be a person. For some basic types of resources the unit holding the right of common is the farm or the reindeer herding unit seen as a legal entities and going concerns.

Resource types seems to be differentiated primarily after the ecological dynamic of their regeneration (forests are different from wild game). This dynamic has implications for how to allocate rights of enjoyment and control of technology used in their appropriation. Secondly they are differentiated according to economic value. This has implications for who gets allocated the right of enjoyment.

The units exercising rights are selected among the actors of the economic system. They are persons or economic units in the primary industries (farm, reindeer herding unit, fishing vessel). Stockholding companies or other kinds of economic actors have been barred. The conceptualisation of the units able to hold rights in the commons reveal a lot about the political objectives of the society.

The third principle is the way of sharing power between the state and the commoner. Its origin goes back at least to the 11th century. At that time the King of Norway was elected by the commoners and he was given certain powers to go with his office. Mainly it was activities in war. But he was also given some rights of coordination among the commons. The first one, I think, may have been the right to give settlers permission to settle in the commons and make their home there. From that time on the kings powers, gradually generalised to state power, has grown in bounds and leaps, but also with significant setbacks. Sometimes the government has taken some powers from the commoners, at other times, when the government was busy elsewhere, the commoners have taken rights back or gotten themselves new rights through prescription. Today the relations between state and various types of commoners are formalised. The difference in governance between state commons and bygd commons is substantial. The state has no particular powers for decision-making in the bygd commons but quite large in the state commons. The interests of the groundowner in the state commons is managed by the company STATSKOG, and the management and coordination of the interests of the commoners have been delegated to the local municipalities in their "mountain board".

Goals

In the design of the institutions governing the commons I think there is a particular concern about the distribution of benefits, about equity. There is also a concern about the economic performance of the commons and about stinting the usage or more generally about the sustainability of the resource.

Judging from the first known written law from the 12th century, their only concern was equity and the procedural implications of that. Later on, from about the 18th century, concern about limiting the removal of timber was read into the law and from our century a concern about the sustainability of wild game populations was introduced. The concern about economic performance dates from the 19th century.

Problems of management:

Coordination of activities -- definition of units holding rights -- distribution of harvest -- depends on geographical location of commoner -- sustainability of production

It's not easy to reconcile the various goals, but one already mentioned technique used for some of the rights of common is to tie them to units such as a farm or a reindeer herding unit. Other rights are tied to persons in various ways. The rights of timber are for example tied to the farm while the rights of hunting are tied to the farmer and the persons in his household. Defining a farm as the unit, enables to exercise rights in the commons, suggest a concern with the viability of the farm as an economic enterprise as well as a practical mechanism (at least for farms) for stinting the usage of the commons.

Seeing a farm or a reindeer herding unit as capable of holding some rights of common is tied to the stipulation of inalienability of the rights of common. The idea is strengthened with the stipulation that the rights cannot be enjoyed to a larger extent than what the farm or herd needs. A farmer cannot take more timber than he can use in building or repairing the houses on his farm. This limitation was originally introduced in 1687. At that time the goal of the King was to keep more of the timber for himself. There is no indication that the intention was to use the rule as a conservation measure. But in the 1730s or 40s the rule came to be seen by managers of the "King's commons" as very useful in their effort to recreate good forests (and hence improve the economic result for the King).

A second basic mechanism in the design is the differentiation of rights of common according to geographical location. When persons are defined as the units holding rights, the groups of persons are often limited by geographical boundaries. These may be the boundaries of the household running the farm business, the "bygd" where the farm is located, the local municipality where rights are to be exercised or the state of Norway. A few rights are given to any person which legitimately can visit the commons (i.e. with a right to stay in Norway long enough to visit). The way rights are limited can be interpreted as a compromise between considerations of equity and probability of overuse.

Each rabbit or grouse does not have high economic value and hunting them to extinction is difficult. But too many hunters will pose a hazard for both the

hunters and the surrounding the hunting to the persons living in the bygd is one solution. Fishermen on the other hand do not represent any particular danger to the surrounding community qua fishermen. Fishing can be allowed for all living in Norway.

Big game has high economic value and hunting to extinction is not particularly difficult. Here restrictions need to be more severe. Even limiting the rights to the household of the cadastral unit is not enough. A problem of coordination requires special legislation and monitoring.

The more recent ideas about resource management has not been integrated with the legislation on the commons, but has been laid down as resource specific rules applying to all lands whether commons or private lands. One reason for such a system of crosscutting management rules might be the variations in size of the area needed to manage a resource effectively. Variations in rules for various types of game illustrate this. The increasing number of large game in the present century may be seen as a result of this approach even if it is not the only causal factor.

The goals and various design principles and mechanisms used to achieve the goals create a rather complex web of regimes. I will mention a few just to give you an indication of what the result is.

There are particular rules for the enjoyment of housing timbers, fuelwood, pasture, housing in the commons, fishing, and hunting of small game, beavers, lynx, and big game. These rules are further cut across by the resource specific management regimes. There are several levels of decision making and various ways of sharing power is part of the gradient.

Common pool resources are defined as resources from which it is difficult or relatively costly to exclude users and with rivalry in consumption are usually seen as suitable for common property regimes. If there are considerable measurement costs of reproduction and harvest, the argument for common property is even better.

Comparing forest commons and private commons in contemporary Norway we must conclude that it is not more difficult to put a fence around the commons, nor is it more difficult to measure their reproduction or observe harvesting.

So why do forest commons exist in such large quantities in Norway?

I could suggest a couple of hypothesis; one reason might have to do with the long cycle of life of the forest in terms of human generations. Because of this there needs to be a stability of interest in the management of the resource across generations. This is difficult to achieve successfully with individual property. In a commons where several family farms are commoners and owners

of the ground, the probability of finding a good manager is better than in a single household.

Across generations and the of the forest the greater availability of management talent for forest commons suggest that they are likely to outperform most private forests even if there in each generation will be a few private owners doing better. I think this makes forests an interesting common pool resource.

Presentation #6 (introduced by McCay, who noted Pinkerton's role as an "instigator" of co-management principles).

"Anthropological vs. Economic Models for Control of Fish Effort: Where do Communities of Place and Communities of Interest Intersect?"

Evelyn Pinkerton, Simon Fraser University; IASCP.

It is interesting that you say "instigator." The title of my talk relates to a lot of what has been said before. It comes out of a very frustrated set of discussions with an economist in British Columbia who is another kind of instigator. In British Columbia right now we are in a very intense struggle between instigators of privatization, especially in the forms of ITQ's which are access rights in fisheries, and people advocating co-management or community based management. What I want to talk about is what has come out of my debates with an economist who believes you can combine these two and that you can form basically virtual communities of ITQ holders who can act as co-managers. However, private access rights and the exercise of stewardship rights are very different things. They are really very antithetical; the rationales behind these rights are very different. The solution I see is to marry communities of interest and communities of place in your management system, not through ITQs, but by bringing owners of access rights into contractual arrangements with the people who do live in a place. That's my solution to that dilemma. Before discussing this, I have to tell you one story. Fikret told me that an anthropologist who had been to one of the meetings of IASCP said there's something about these common resource people. They never argue amongst themselves. He is referring to something I had written which is basically a challenge to Eleanor Ostrom and Schlager regarding property rights. Somehow he got the idea that I wasn't issuing a challenge. I think the reason he got that wrong idea was that we like each other a lot and are very respectful and very nice to each other. Do you have to be mean to someone to challenge their ideas? I have learned so much from Eleanor Ostrom that it's very difficult for me to be disrespectful, so what I would like to call what I am doing a friendly amendment.

Ostrom represents the institutional perspective, and I represent the human ecology perspective. (Dr. Pinkerton referred extensively to overheads in her talk; we have edited this to help the reader follow the argument without seeing overheads). One of the contradictions that we see in Ostrom is that the goals of institutions are to benefit individuals in terms of access rights at the operational level and they are to benefit the group at the choice or at the management level -- not the right to withdraw what you catch but the right to manage the fisheries. I think there is often a tension or contradiction between those two levels. The way anthropologists see the goals of the management system is to benefit present and future generations, to protect the eco-system and the linkages for large scale productivity's factors, offer multiple species

and what Jim Wilson at the University of Maine would call cross-species tradeoffs, in other words effective regulation. The fundamental goal of management from this perspective it is to manage effectively and there may be a ruling to make efficiency trade-offs. This is the first layer of contrast I make between these three positions, the neo-classical, the institutionalist and the human ecologist.

Now I would like to talk about the scope of rights. Economists who advocate ITQs are really defining almost everything to come from the right of access or the right to take fish. Everything flows from that. Those rights freely transfer and the concentration is unconstrained. This is really about our concept of property. In the systems the economists envision and have to some extent helped create, it is assumed that if you have an access right it automatically transfers into every other management right. It goes to the extreme of contracting out: paying someone to monitor, to enforce, to do all those things that the state usually does. Interestingly, this all flows from private property. It all flows from a very central part of private property: access.

In the institutional perspective of Ostrom and Edella Schlager, who worked with Ostrom on fisheries, rights are seen at different levels, and they might be individual at an operational level and at the level of alienation or transfer, but collective when the task is to decide upon managing a harvest. Let's contrast that to a human ecology conception of a right: all the rights are collective and multi-generational. And they are not just rights, but they are responsibilities. They're about perpetuating the values that Svein was talking about and the scope of these are far broader than "access," "rights to alienate," the "right to define membership of or exclude," etc. Institutional analyses don't talk about protecting the eco-system, having the right to information, the right to make policy, having the right to plan or having the right to coordinate with other uses. For example, how do you coordinate protecting habitat with harvest management, how do you strategically envision the future of the fisheries, how do you envision, basically how do you construct the kind of fishery that you want in the future, very, very broad scope of activities that communities demand to be involved in.

My model for this comes from the co-management experience of the tribes in Washington State, where the tribes have every single level of these rights. This goes back to the court decision of 1970, where the judge interpreted their treaties to say that these tribes do have an access right but that they will never be able to implement this access right if they do not have the right to plan the harvest. They will never be able to exercise the access right if they can not protect the habitat. This is the basis of their co-management agreement.

The right to basically set the terms and conditions, to plan and collect and analyze data--these are not just extractive rights. They are far broader. In neo-classical thinking, the assumption behind these rights is that individual utility

equals public welfare. Accordingly, the community of interest can operate like the community in place. ITQ holders can form communities that can manage the fisheries. It seems to me that there is a lot of rational choice theory in the institutional perspective and there are a lot of institutions replacing markets. Robert Bates makes that critique.

In British Columbia now we have private right advocates on one side saying do this and we have the economist in the middle saying yes I think we can make ITQS and bring together individual access rights with community based planning. ITQ owners can just form communities. What I am saying at the other end of that spectrum is that we need community based management representing the human ecology perspective,-- communities that are going to take care of the eco-system and the broad set of rights that relate to the territory. For instance, what do you do about people who have access rights to this territory but do not live there? What we are trying to construct now, as we speak, in British Columbia are place-based community management boards which include those people with access rights but are balanced in power. The institutions would be designed to basically look at the nature of the access right in relation to the broader set of rights. People with access rights (i.e. fishers with historical patterns of fishing in the area) would have to make contracts with local people if they want to have influence on the broader set of rights, which includes questions pertaining to restoring habitats and fish stocks. We're trying to bring these people into a board that isn't purely a stakeholder board, not just representative of interests, but a board that represents environmental interests, and the interests associated with those rights.

Discussion

Susan Buck, moderator: The terminology and conceptualization of property rights needs further discussion. The role of First Peoples or native peoples also deserves attention.

Pinkerton: (responding to query from Berkes about private rights holders and co-management, gives an example): It has to do with the monitoring of ITQs. ITQ holders have enormous incentives to free ride and so the way you stop them from free riding is by having a system whereby you can monitor and enforce the rules that they've agreed too. ITQ holders in British Columbia live all over a huge coast; they don't live in one area and so the opportunities to free ride are large. The way that communities can monitor and really know that someone is free riding is based on long standing knowledge and reputation; ability to check out what someone is really doing and multiple people, so people in communities have very complex ways of interpreting information. Information is often very ambiguous, it takes a long time to build a case, often someone really is free riding if you are ignoring the dockside monitor or you are dumping smaller fish over the side. It is difficult to do and much more difficult if you don't have a community of face to face users. In

other words people who have had long face to face experience, shared languages they have an enormous amount of data to use and first of all they can check about half the people off their list because they know the people who are honest, they know the people who are at risk of being free riders, so they are the people they watch. So that is just a start of it.

McKean: I thought common property meant, well every time I have heard of it or encountered it, I thought collective ownership pertained to "stock" and private ownership to "flow." The people who own the production system are not necessarily the people who have the right to extract. (Discussed the equity positions of those with ITQs).

Pinkerton: The debate is actually a lot more complex than that. Everyone knows that salmon won't survive unless its habitat is protected, so people say the community of interest should just pay a royalty to the community of place and that is one way to do it. And another way is to look at restoring stocks is to coordinate the harvest with the restoration, a very complex thing.the communities in place can negotiate for the habitat, because they can say, you can't live without us-if you don't have us as part of the management scheme you are lost. You will lose the habitat and it will be paved over in British Columbia.

Taylor: (responding to Buck's challenge to think about disciplinary background and definitions of property): It is interesting when you look at the program most of the time people don't say what discipline they work from, which is obviously one of the resources or constraints people bring to an analysis. And one of the things about society involves people who transgress those boundaries. ...

Buck: It is interesting you should say transgress. There was a cartoon in the NY Times that said we don't know him, he doesn't come to our meetings!

Jentoft: If there is a research task for this society it is to try to get at all the meanings and ways of common use and common property. If you did this between different types of resources and compared their uses, it would be very interesting-because we seem to argue about the extent to which common property is about access. It is a very simplistic notion about what common property is, but BErgee demonstrated very clearly the existence of finer distinctions.

CONCLUSION

The last part of afternoon was devoted to brief presentations by people in attendance. One was Peter Riggs, Rockefeller Brothers Fund, East Asia/Sustainable Resource Use Program, whose work deals with a program of advocacy regarding how communities are integrated into the decision making

process. He questions who is involved in the process and how those involved are held accountable to the communities they represent. Brad Walters, in the Ecology graduate program at Rutgers, is studying common property issues in the Caribbean and Southeast Asia, and is also concerned with declining productivity in common property theory as compared to several years ago. Frank Popper is a professor at Rutgers who is very well known in the U.S. for the work he and Deborah Popper have done in the Great Plains region, prompting institutional change in land use and resource management through the concept of "buffalo commons." Rick Schroeder, in Geography at Rutgers, has worked extensively on issues of environment and development in West Africa and now, with Dorothy Hodgson, in East Africa as well, on counter-mapping strategies. Jesse Ribot, at the Center for Critical Analysis for Contemporary Culture at Rutgers this year, has worked on issues of participatory management of forests in West Africa, and on a revised theoretical paradigm that emphasizes access itself over property. Don Kreuckeberg, a professor at Rutgers in Urban Planning and Policy Development, deals with the property tax in the United States. He believes that small changes in the way that it is administered might result in a substantial redistribution of property and serve as some sort of land reform. He is working on issues of property in relation to political change and structural reform in Africa, and how property ownership is explained there (story of scarcity; story of colonialization and the strong state; story of community culture/civil society). Douglas Wilson, Eco-policy Center, Rutgers University, has studied the fishing industry in Lake Victoria as the community struggles to develop a way to manage a common property resource in the midst of long term economic change. Julie Greenberg, a graduate student at University of California, Berkeley, attended in her capacity as assistant newsletter editor for the Common Property Newsletter of IASCP and Michelle Curtain in her capacity as secretary for IASCP. Graduate and Undergraduate Students from Rutgers and from Duke University in North Carolina also attended. Particular thanks are owed to Rutgers graduate students Paige West, Fadjar Thufail, and Dhon Setyawarmra for their help in running the workshop and taking notes.

Notes to readers

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