The Common Property Resource Digest

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This issue's CPR Forum features **Gísli Pálsson** telling the story of the recent decision by the Icelandic Supreme Court concerning that country's individual transferable quota system for fisheries. This decision, and the popular reaction it generated, displays the drama of culture, politics, and law that is the reality of common pool resource management. What are the implications for Iceland and elsewhere? Gísli wonders if what is being asked for are quota systems that can maintain the common-property nature of fisheries. Reactions to the news are provided from several very different perspectives. **John Kurien**'s experience with fisheries in India leads him to ask: "Who is this Valdimar Johannesson who comes from outside the fishing industry to challenge the way it is managed?" Should he have the same standing as those who make their living from cod? **Parzival Copes** in Canada asks some fundamental questions about the meaning of the term "rights-based management." All management can be thought of as involving rights. What about rights to equitable access that can be found in both morality and law?

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This concern is echoed by **Anita Kendrick** from a very different place. Looking at these issues through her experience in Indonesian fishing communities leads her to question the meaning of "rights" as well. Rights of access to fish are complex cultural realities that do not necessarily begin with who takes the fish out of the water. **Hamish Rennie** relates how New Zealand's ITQ experiment has brought about conflicts between ITQ holders and other users of marine resources not involved in commercial fishing. Finally, **Allison Goebels** looks for similarities and differences between privatization issues in fishing and those she has found working in African forests. She notes parallels in how discussions of environment and efficiency come together and emphasizes again the cultural and historical nature of rights. **Enjoy!**

CPR FORUM

COMMENTARY

Individual transferable quotas: unconstitutional regimes?

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Last December, the Icelandic Supreme Court came to a stunning conclusion. "Stunning" both in the sense that few people seem to have anticipated the verdict and because the immediate political fallout was massive. It is hard to find a parallel example in the entire history of the Court over 78 years. The Court, in sum, declared as unconstitutional existing fisheries laws on individual transferable quotas (ITQs) which privilege those who derive their fishing rights from ownership of vessels during a specific period. This privilege, the Court went on, violates both the constitutional rule against discrimination and the rule about the "right to work". Here I focus on the legal status of ITQs in light of this ruling. Not only has it set the stage for intense legal and political discussions in Iceland, it has potential implications for the discussion of the constitutionality of similar systems elsewhere.

In the modern world, ITQs and similar market approaches are increasingly adopted in response to environmental problems, including the problems of fisheries. Typically, regional or national authorities first appropriate the resource-base, later on the total allowable catch for a season (TAC) is divided among producers, and finally such temporary privileges are turned into marketable commodities. Modern fisheries are increasingly "modeled" along these lines. Many scholars, such as Susan Hanna, have raised serious doubts and criticisms with respect to the theory of ITQs and the tragedy of the commons as it raises questions of law, ethics, politics, and social theory. In most cases ITQ regimes are the center of stormy political and moral debates.

Quota systems originate from resource economics. In order to achieve maximum productive efficiency, economists argue that fishing rights must emulate private property rights. This requires fishing rights to be incorporated into a market system, where they need to be quantifiable, fully divisible and independently tradable goods, held by individuals and companies on a long-term basis. However, there has continually been much confusion and debate about the kind of rights quotas confer on their holders. In particular, it remains unclear what kind of rights and privileges are secured through ITQ regimes, the extent to which they represent private property, and whether or not they violate fundamental constitutional principles.

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An Icelandic Cod Vessel (photo courtesy Gísli Pállson)

International Association for the Study of Common Property (IASCP)

The Icelandic ITQ system is interesting in several respects. It is one of the pioneering systems, established in 1984. As a result, perhaps, it reveals both the explicit and implicit assumptions of the theory of ITQs. Also, in Iceland, it may be relatively easy to detect and observe both intended and unintended consequences of ITQs, since here, unlike most if not all of the other cases, fishing is of central importance to the national economy. The ITQ "experiment", therefore, is relatively uncontaminated by confounding factors.

The Icelandic regime: the background

During most of Icelandic history, the principle of common use-rights has been applied to the resources of the sea . Early in the twentieth century, catches multiplied as vessels and fishing gear became ever more efficient. As a result, some of the most important stocks were heavily overexploited. In 1976, the government extended the national fishing limits to 200 miles to be able to prevent overfishing of its major stocks, particularly cod. The domestic fleet, however, continued to grow and catches, relative to effort, continued to decline. The measures that were initially adopted internally to organize fishing were designed not to deliberately exclude anyone from fishing but to affect producers equally. In theory, the commoners had equal rights to national resources, including fish. In late 1983 it was agreed, under the threat of "collapsing" stocks, to allocate an annual quota to each boat on the basis of its average catch over three previous years. All fishing vessels over ten tons that had previously been active in the cod-fisheries - a total of 667 vessels - were allotted uneven quantified rights of access or quota "shares."

When the ITQ system was first implemented, each fishing vessel over 10 tons was allotted a fixed proportion of future total allowable catches of cod and five other demersal fish species. Catch-quotas for each species, measured in tons, were allotted annually on the basis of this permanent ITQ-share. Currently, a boat owner is allotted quotas in several species (cod, haddock, saith, etc.), but the overall size of each individual quota is measured in terms of "cod equivalents" - an aggregate measure based on the market value of each species. Moreover, new vessels could only be introduced when one or more existing vessels of equivalent size were eliminated in return. While originally the system was presented as a short-term "experiment", with the fisheries laws passed by the Icelandic Parliament in 1990 it was reinforced and extended into the distant future.

Anticipated benefits of the ITQ systems, in terms of efficiency, stewardship, and safety at sea, are less than impressive. More importantly, perhaps, the system has had far-reaching social and legal implications. For one thing, quota shares have been rapidly concentrated with the largest companies. Also, a semi-feudal system has developed with fundamental division between quota holders and quota renters - between "sea lords" and "tenants", to borrow local jargon. A small class of boat owners, it is argued, has become the de facto owner of the fishing stocks in Icelandic waters.

The issue of ownership is contested. ITQs remain, according to the first clause of the 1990 fisheries management legislation, the "public property of the nation." During debates on the 1990 fisheries laws, members of Parliament raised doubts about the "legality" of the ITQ program, arguing that proposed privileges of access might imply permanent, private ownership that contradicted some of the basic tenets of Icelandic law regarding public access to resources. The laws that were passed categorically stated that the aim was not to establish private ownership. The government found it necessary to emphasize "preserving" the common property nature of the fisheries and the "national" stocks, in response to growing public discontent.

The real world of legal and economic practice, however, seems to have a momentum of its own. While quotas, according to the law, are not to be regarded as the private property of quota holders, quota shares may achieve the characteristics of private property as time passes; thus, quota shareholders may gain increased protection of their shares under legal clauses concerning the "right to work." There has been a long discussion over whether quotas can be used as collateral for obtaining loans. The law seems unclear on this point, but economic

and legal practice seems increasingly to recognize quotas as collateral, undermining the significance and effect of the statement in the current law on public ownership. Some evidence indicates that quota shares are acquiring the characteristics of full-blown private property. A case was recently contested in courts in which a woman divorcing her husband, the owner of a firm with a sizable quota holding, demanded her share of the estate. The Supreme Court ruled in favor of the woman, which may be seen as a significant step to the formal recognition of quota shares as private property. Thus, the use-rights of fish resources are becoming increasingly entrenched as private property while the resources themselves (i.e., the fish stocks) are proclaimed as being publicly owned. The implications of such a contradictory situation are unclear.

The ruling of the Supreme Court: Jóhannesson v. the State

In December 1996, a certain Valdimar Jóhannesson applied to the Ministry of Fisheries for a license to fish. Jóhannesson, who had no vessel but apparently intended to fish on a 250-300 ton boat with multiple gear, also applied for substantial quota. The Ministry of Fisheries rejected his request on the grounds that licenses were only issued to vessels, not to individuals. Jóhannesson took the issue to the local court of the capital city of Reykjavik, arguing that, while the Ministry's decision was in accordance with fisheries laws, the laws violated constitutional clauses about equal rights and the freedom to work. Johannesson requested that the court invalidate the Ministry's dismissal of his applications. The local court dismissed the case on the State's premise that a citizen could not request a resolution regarding the constitutionality of a law without arguing that particular legally-protected interests were involved. And that wasn't the case, the court reasoned. By implication, if Johannesson had a legally-protected interest in this case, any Icelandic citizen could apply for license and quota and challenge the Ministry's response in the courts, and that couldn't possibly work.

Johannesson took the matter to the Supreme Court, which rejected the local court's decision and said that the court, after all, had to evaluate the legitimacy of Johannesson's requests. The local court, however, agaom concluded in favor of the State, arguing that Johannesson failed to show how his rights and interests differed from those of other citizens. The Ministry's actions, the court reasoned, were in accordance with the main goal of fisheries policy, namely to control the size of the fleet and protect the reproductive potential of the stocks. The restriction of licenses and quotas to the class of vessels specified in current fisheries laws, the court went on, was in the public interest and in accordance with established scientific theories. Dismissals such as the one in this case "applied equally to all citizens in a similar position" and they did not violate constitutional clauses about equal rights and the freedom to work. Johannesson appealed to the Supreme Court.

Few people were prepared for the final verdict in the matter. On 3 December 1998, the Supreme Court unanimously concluded that the clause in existing fisheries laws (Art. 5, 38/1990) which privileges those who derive their fishing rights from ownership of vessels during a specific period is unconstitutional. This privilege, the Court concluded, violates both the Constitutional rule against discrimination (Art. 65) and the rule about the "right to work" (Art. 75). The rule against discrimination specifies that all citizens shall enjoy equal rights (irrespective of sex, religion, worldview, ethnicity, race, color, wealth, family, and status in other respects), echoing the European declaration of human rights (Art. 14) and the international agreement of 1966 on human rights. The latter rule, concerning the right to work, specifying that each citizen is free to enjoy the work he or she may chose, derives from the constitution of 1874 which, in turn, was modeled on the Danish constitution and the constitution of other states.

The Court reasoned that temporary measures to limit fishing effort by restricting licenses to particular classes of vessels may have been both necessary and constitutional in the beginning. While, however, restrictions to the right to work may have been justifiable at some point, given the threat of collapse of fishing stocks, the indefinite legalization of the discrimination that follows from Art. 5 38/1990 was not justified. That Article, in principle, the Court went on, prevents a substantial part of the public from enjoying the right to work in fishing and a share in the common property represented by the fish stocks, to which they are entitled. In light of this, the Court invalidated the Ministry's dismissal of Johannesson's request for license and quota.

Responses and consequences

Icelandic policy makers introduced the full ITQ system to the fisheries in several stages, apparently to avoid potential confrontation. Thus, privatization has been conspicuously absent from descriptions presented by the authorities to fishermen and the general public. This has granted quotas the somewhat anomalous status of being the public property of the nation, in name, but in effect the private property of boat owners. The verdict of the Supreme Court, however, seemed to release the growing tension under the quota system, as if the gates had been suddenly collapsed under mounting pressure, paving the way for a political flood. Immediately an intensive discussion of the system began in Parliament, the mass media, and among the public. Clearly, the legal environment of the fisheries needed to be changed.

In the heat of the moment some members of the government angrily protested. The Supreme Court's terminology, it was argued, was imprecise, the judges didn't seem to realize the significance of the issues involved or the impact of their decision, and if something was defective it was the constitution and not the fisheries laws. The Court, it was also pointed out, issued contradictory judgements, supporting, on the one hand, the property definition of quota holdings in the divorce case mentioned above, and, on the other hand, insisting upon equal access to fishing. The Government, however, decided to act with a new bill with minor changes to the laws. The bill that was passed in January 1999 simply revised the clauses in the fisheries laws judged to be unconstitutional by the Supreme Court. Thus, according to the new law fishing licenses are no longer restricted to the ownership of vessels with a specific fishing history. Any vessel, can get a license as long as it satisfies standard conditions about seaworthiness and registration. Icelanders, the lawmakers reasoned, had equal rights to buying boats and, so, the discrimination invalidated by the Court no longer applied. While Jóhannesson, however, and others in a similar position, may get a fishing license if they have a boat, they are not entitled to quota shares. They are free to buy or rent shares, but they are not entitled to the annual allocations; these are still restricted to those who derive their privilege from "fishing history." Critics of the new law maintain that these measures bypass the center of the debate, inviting repeated and prolonged proceedings in the courts beyond the millennium. The verdict of the Court, it is argued, signified a major blow to the system of fisheries management and more radical measures are needed.

As soon as the decision of the Supreme Court became public, applications for fishing licenses and quotas started

pouring in. Currently the Ministry of Fisheries is busily responding to them. It seems likely that many of the 4000 applicants are not seriously interested in fishing. Rather, they are protesting against the fisheries laws, underlining the Supreme Court's decision about equity and the common-property status of the fishing stocks.

The "uprising" of small-scale fishers who have no quota represents a further reaction in the wake of the decision of the Supreme Court. Several fishers in the rural communities of the Western Fjords have announced that they are going fishing without a quota. Their aim is to be taken to court and challenge the law, and, indeed, the authorities are forced to respond by withdrawing licenses and threatening arrests. This rebellion, which is unparalleled in the history of the Icelandic ITQ system, is reminiscent of the "oyster wars" of colonial New Jersey described by Bonnie McCay. In both cases attempts are made to defend common resources against enclosure and privatization, to establish or maintain some form of public-trust doctrine.

The implications of the Supreme Court's decision will, no doubt, be far-reaching. There are general elections for Parliament on 8 May and much of the ongoing political debate is centered around the ITQ system and ways in which it may be changed in compliance with the constitution.

The transformation of the social identity of fishing rights, from the status of common property and into privately owned commodities, has turned out to be one of the most contentious issues associated with ITQ management in Iceland. Common rights in fish are deeply embedded in Icelandic history and national identity, underlining the traditional notion that fish can only be transformed into commodities through the act of catching. In contrast, the idea that individuals or companies can own and sell rights to fish that have yet to be caught, or even spawned - the crux of ITQ management - horrifies many Icelanders, particularly fishers. Whilst the fate of the ITQ system depends on an ongoing rhetorical and political contest, for its adherents and architects it remains a panglossian "virtual reality."

The legal status of ITQs

The Icelandic case and the decision of the Supreme Court raise central questions concerning the constitutional status of ITQ systems in general and the nature of the rights and privileges involved. One need not be a legal pluralist to argue that the conclusions are likely to be different depending on the legal and historical context. To my knowledge, however, the issues have not been settled in the case of other ITQ systems. The question of property and enclosure has always been a thorny one. The arguments of the theorists and modelers who originally placed ITQs on the management agenda clearly suggested that such systems by definition instituted private property, revitalizing common-property regimes plagued by inefficiency and waste. Anthony Scott emphasized that the idea that fishing should not be subjected to private property was "completely antithetical to the very concept of quotas," indicating that it was essential to reverse the legal trend set in the middle ages by Magna Carta which guaranteed the public common access to the resources of the sea. The editors of Rights-Based Fishing cheerfully concluded that "ITQs are a part of one of the great institutional changes of our times: the enclosure and privatization of the common resources of the ocean." While, however, economists generally view ITQs as synonymous with property rights, politicians and government officials often staunchly deny this. Where ITQ systems have been instituted the legal and political discourse has tended to replace the language of "private property" with the more acceptable notion of temporary "use-rights," often with reference to the doctrine of the public trust.

While theories have a rhetorical force of their own, they do not restrict lawmakers and politicians. Thus, it may be possible to maintain the common-property nature of fisheries with some form of quota systems. The Icelandic Supreme Court seems to invite such a conclusion. The scientific committee recently established, under the Magnuson-Stevens Act of US laws, to evaluate quota systems in fisheries suggests a similar position:

IFQs . . . represent quasi-privatization of the fisheries, in that permittees hold exclusive privileges with some of the attributes of private property - such as the privilege to decide when and how to use the quota shares - but not others, including ownership of the resource itself and the ability to decide how much of the resource can be harvested. The latter remains the domain of state and federal governments, which have public trust responsibilities to manage fishery resources for the public.

Key References for Further Information

Committee to Review Individual Fishing Quotas. 1999. Sharing the Fish: Toward a National Policy on Individual Fishing Quotas. Washington DC: National Academy Press

Helgasson, Agnar and Gísli Pálsson. 1997. "Contested commodities: the moral landscape of modernist regimes. *Journal of the Royal Anthropological Institute (incorporating Man)* 3(4):451-471

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CPR FORUM RESPONSE

Can we empathize with Valdimar Johannesson?

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Gísli Pálsson's article on the debate over the constitutional validity of individual transferable quotas provides interesting reading for those of us in the Third World dealing with conflicts pertaining to the use, misuse and overuse of fishery resources.

Pálsson's article raises the issue of the spectrum of rights of citizens to make claims to natural resources, of which the state is the ultimate custodian. At one end of the spectrum, the fish in the EEZ of a country can be considered as accessible to all its citizens irrespective of "sex, religion, world view, ethnicity, race, color, wealth, family and status in other respects." This is the "pure equity" approach. At the other end, access may be given only to those individuals/entities who have proof of the ownership of the means of production – i.e. fishing vessels and gear. This could boil down to rights of access consolidating in the hands of a few wealthy individuals/ companies. Experience shows that this is what happens in the "pure efficiency" approach of the neo-classical economist. There is however, a middle position on the spectrum. This could be that the fish is made accessible only to those who will both invest and labor to harvest it. The Icelandic position seems to have moved from the equity end of the spectrum to the efficiency end, ignoring the possibility of the middle position.

In the developing country context the issue is far more complex considering the large numbers involved – we talk of millions of fishworkers and not hundreds as in Iceland! Moreover, the greater socio-cultural peculiarities of caste, race, community and religion throw shadows of grey over any debate regarding individual rights and freedoms. These differences make it difficult to restrict questions pertaining to human – nature interactions solely to issues of access and forms of legal ownership or to economic calculations of price, revenues and profits. Indeed, they deal with a whole plethora of intractable and charged issues of conflicts over life, survival and death.

In developing societies, millions of people follow traditional, hereditary occupations. Changing times and "modern development" have altered both the means and relationships of production and also broken old socio-cultural barriers to entry into these occupations. Together with this, hitherto unquestioned, unwritten property-rights to natural resources, which were by and large articulated within a context of a communitarian framework, have broken down.

Modern constitutions have clauses ensuring the removal of discriminatory practices and given all citizens equality in the eyes of law. The right to pursue any business or profession is a fundamental right. Equally important is the duty of the state to ensure that the right to livelihood and survival of one section of its citizens is not jeopardized in the process of giving expression to individual rights. Sometimes there is a clash of interests between safeguarding individual rights and fulfilling the duty to the collective. This calls for the role of a mediator to decide and interpret the priorities according to the constitution and the times. The judiciary often plays this role. In India there has been one landmark judgement by the Supreme Court with respect to access to marine resources. The plaintiff in the case was the purse-seine boat owners' association and the defendants were the state of Kerala and the artisanal fishworkers union. The case dealt with the question of prioritization of rights. The court concluded that the action taken by the state to curb the rights of a few hundred investors (purse-seine boat owners) who wish to harvest marine resources in pursuit of profits was fully justified. This was deemed both legal and constitutional considering that it was undertaken in the interest of protecting the rights of thousands of traditional, artisanal fishworkers for whom access to marine resources was their main source of livelihood. The right to life and livelihood was given higher priority over the right to do business.

Clearly spelling out property-rights for marine resources is a necessary condition for resource management and governance. Therefore, the issue really is not whether to grant property rights, but rather to whom it should be granted. The strikes of the fishworkers of Iceland in 1994 and 1995 protesting their marginalization following the introduction of ITQs and the struggles during the same years of the Indian fishworkers against the entry of joint ventures into the Indian EEZ point unequivocally to this principle.

Gísli Pálsson talks about " a certain Valdimar Johannesson" who went to court against the refusal of the ministry of fisheries to grant him a license to fish. It is also stated that Valdimar Johannesson had no vessel but apparently intended to fish on a large 250 – 300 ton boat.

Viewed from the developing country context a few questions arise in our mind: Is Valdimar Johannesson just a fishing crew member? Was he once a small fisher or owner-operator who was marginalized (sold his quota) as a consequence of the market concentration process of the ITQ system? Or is he just an ordinary Icelander who is "testing his rights" to the "publicly owned fish stocks" of Iceland? If the latter, it would be hard to empathize with him. It would be something like having to agree to all the carpenters in India (there are millions) claiming rights of the forests because they work with wood. If Valdimar Johannesson is either of the former – crew or marginalized owner-operator – there is common ground here for solidarity.

CPR FORUM RESPONSE

Equity and the rights basis of fishing in Iceland and Canada: reflections on the Icelandic Supreme Court decision

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My purpose in this paper is to explore, in the light of Gísli Pálsson's account of the Icelandic Supreme Court decision, some controversies regarding individual quota (IQ) management systems, particularly where they are applied in their "purest" individual transferable quota (ITQ) form. My remarks will focus particularly on Canada, where both ITQ and INTQ (non-transferable) systems occur. I recognize the importance in fisheries management of striking an appropriate balance among policy objectives concerning biological sustainability, economic viability and social equity. However, as the Supreme Court decision we are dealing with here is based formally on questions of equity, my focus will be particularly on fair access rights and equity in the distribution of benefits from common property public resources in the face of the drive towards ITQ "privatization" of fisheries.

What Is Rights-based Fishing ?

Recognizing the rights of fishermen—who have often been disadvantaged—has a favourable ring to it. Thus, the choice of the euphemistic term *Rights-Based Fishing* that supporters often use as a code phrase to identify ITQ systems, is easily understood. Both in Iceland and in Canada, many ITQ proponents have emphasized that their scheme is a form of privatization of the fisheries. They have suggested (a) that ITQs signify a form of private ownership—and thereby rights to the resource—and (b) that they offer concomitant efficiency achievements in the fishery parallel to those attained in other sectors of the economy where private ownership has tended to internalize potential external diseconomies. Both of the elements in this position are unsupportable.

The supreme courts and governments of Iceland and Canada have clearly confirmed the continuing common property status of fish stocks as public resources "belonging to all the people." Reinforcing the reluctance of governments to cede the ownership of marine fish resources to private interests, is the impossibility of dividing those resources, with their ecological support systems, into manageable self-contained units, each of which could be owned and operated by a particular individual or corporation to the exclusion of all others. The rights conveyed by ITQs are

not—and cannot be—specified *ownership* rights to any particular fish or to their productive environment; they are in effect only *access* rights that allow the taking of certain amounts of fish from a common pool under regulated conditions. This leaves ITQ systems open to a variety of external diseconomies, which may be as serious as, or more serious than those afflicting other management systems that also give access rights. The notion that ITQs, in any meaningful economic sense, represent privatization of the resource is a mere figment.

The term rights-based fishing, in its generic sense, may be applied to any fisheries system in which rights play an endogenous role, contrary to its use as a code phrase particular to ITQ systems. Today, rights of various kinds and at different levels—individual, community, corporate and collective—are imbedded in most fisheries, with some high-seas fisheries arguably being notable exceptions. For a start, the Law of the Sea assigns to coastal states *sovereign rights* to the resources within their 200-mile limits, which harbour the bulk of the world's exploitable fish stocks. Fisheries management is a rights-based function of ownership, be it usually one based on *de facto* public ownership. The spread of intensive management regimes has led to the injection of many more acknowledged rights (and obligations) for fishery participants, both in collective and individual capacities. The pretense that ITQs pre-eminently represent rights-based fishing cannot be justified. In any case, rights-based fishing, *au fond*, is a meaningless term for the purpose of identifying a form or class of fisheries that is either unique or superior.

Equity And Fisheries Access

Most fisheries regimes may be considered rights-based. Our preferences among them should rest on the particular qualities of the different rights they encompass which, together with other features of these regimes, make them more or less effective in achieving chosen policy objectives. ITQ regimes have been theoretically constructed and specified according to neoclassical economic prescriptions. In such regimes, maximization of net benefits in terms of narrowly defined economic values is paramount. Equity considerations are notably absent, while important collateral economic values bearing on the welfare of fishery-dependent communities are routinely ignored.

With respect to equity impacts, ITQs are especially noted for large windfall gains from public resources to small groups and for corporate and geographical concentration of fisheries access rights. This result relates to the way in which ITQs, typically, have been implemented. For political reasons governments have been reluctant to sell off quota access rights. Instead, at the time of ITQ introduction, quotas have usually been given away free to then current participants in the fishery. To demonstrate the attractiveness of newly introduced ITQ systems, governments have usually left to the industry most or all of the rents generated from the public resource through rationalization. Finally, with rent-yielding quotas being freely transferable and marketable, corporations, speculators and wealthy entrepreneurs have often used their access to financial resources to buy up quota and concentrate their increased share of the fishery in the central locations from which they operate.

In successful fisheries, the present value of prospective rents from ITQs have been reflected in high quota prices. In many cases this has raised access costs to the fishery dramatically. It has drastically reduced the prospects of young crew members aspiring to a career of independence as vessel owner-operators, except where they have been fortunate enough to inherit a vessel with adequate quota. It is evident that the process of capitalizing access rights at high values is gradually eroding independent owner-operator fleet sectors and undermining the economies of the smaller fishing centres from which they operate.

The erosion of the small-boat owner-operator sector is continuing despite their innate efficiencies, the attractive life-styles they support, and the equitable access opportunities to a public resource that they represent. It has been widely observed that the economic performance of individual fishing vessels run by owner-operators substantially exceeds that of similar vessels owned by companies that are run by hired skippers. A vessel operator working for himself on his own boat will have the incentive to work with greater diligence, closer supervision of the crew, more attention to maintenance, and greater insistence on profitability, than a hired skipper.

A true test of the desirability of an ITQ system requires its comparison with the best available alternative, which may be a limited-entry-licensing regime with effective controls on fleet capacity. The comparison should not be confined to narrowly applied economic calculations, but should give appropriate weight to collateral economic values, to conservation considerations, and—importantly—to distributional and other equity considerations. Notably, the calculations should take into account potential losses to disadvantaged or displaced fishermen and negative impacts on adversely affected coastal communities. The inequities of failing to do so account for appeals to the courts.

The Canadian Situation

The fisheries situation in Canada has some features in common with that in Iceland, but also exhibits some striking differences. Prior to the advent of IQ systems, Iceland already had a deserved reputation for exceptional efficiency of its fishing industry by international standards. By contrast, the Canadian industry—particularly in respect of its Atlantic Coast fisheries—was beset by greatly excessive fishing capacity and a debilitating level of subsidies. In both countries, the government—under urging by economists persuaded of the merits of ITQs, with their theoretically panacean qualities—adopted ITQs as their management instrument of choice.

In Canada, sensitivity to precarious social and economic conditions of Atlantic Coast fisheries led the government to go slow. Non-transferable INTQs are often used before considering a full-blown ITQ system for a sector. Despite its generally strong commitment to IQ management, the government has wisely recognized the unsuitability of quota regimes for some fisheries, because of incontestable incompatibility with biological management requirements. However, the government's persisting faith in the general suitability of IQ systems to provide good or superior biological management also lacks credibility. The Atlantic Coast groundfish stocks suffered utter collapse after a decade of IQ fishing, featuring incontrovertible evidence of resource waste through "high grading" and other forms of discarding induced by the

rules of IQ systems. The stocks have yet to recover. Iceland's cod stocks recently reached their lowest levels—again after about a decade of IQ fishing.

The Federal Court of Canada (1996) has dealt with a case contesting ITQ regulations on equity grounds, but this was concerned with allocation internal to an ITQ system, rather than with challenges to the system itself. While the court found in favour of the plaintiffs, the judgement was overturned on appeal on technical grounds. The case itself evolved around striking evidence of manipulation by key personnel of the Department of Fisheries and Oceans to secure majority support from the industry for the establishment of an ITQ system.

A substantial proportion of Canadian fisheries have now been brought under ITQ or IQ regimes. In some cases, the survivors from the rationalization process—i.e., those ending up with large or adequate quota allocations for healthy stocks of high-value species—have been quite satisfied. In some other quota fisheries there is dissatisfaction with the state of stocks and the distribution of benefits. In several areas on both east and west coasts of the country there is strong resistance to quota systems, particularly in smaller coastal communities that have banded together in *Coastal Community Networks*. The government now, in a few cases, is arranging community allocations (quotas) under co-management arrangements with local provisions for resource stewardship.

Successive federal governments in Canada over the last two decades, generally, have regarded IQ systems with favour. But in the independent-minded Senate, the Senate Standing Committee on Fisheries (1998) has worked diligently for years to explore social conditions in Canada's fisheries and recently brought out a report, *Privatization and Quota Licensing in Canada's Fisheries*, containing a critical assessment of IQ impacts. Following are two of the noteworthy recommendations in the report:

> 5. The Committee urges the Department of Fisheries and Oceans to more thoroughly consider the long-term social and economic effects of individual quota licences, especially those that are transferable, on Canada's coastal communities, Aboriginal and other, and not extend the individual quota regime until the needs of coastal communities, Aboriginal and other, have been fully assessed.
> 10. The Committee recommends that the Department of Fisheries and Oceans stop using the examples of individual quota management systems in New Zealand and Iceland until the Department has taken full account of the criticisms of individual quotas emanating from those countries.

Conclusion

The Supreme Court of Canada in a 1990 landmark decision (*R. v. Sparrow*) ruled that the constitutionally protected rights of Aboriginal people in Canada required the federal government to allow them improved access to fishery resources. The context was historical usage of, and dependence on, such resources by Aboriginal communities. This brings to mind the current agitation in Canadian coastal communities for recognition of their rights to local resources upon which they have long depended. Can a legal case be made to require protection of these communities against alienation of their resource base? Interestingly, in another Supreme Court case specifying Aboriginal fishing rights (*R. v. Gladstone*), Chief Justice Lamer mused on concomitant objectives "... such as economic and regional fairness, and the recognition of the historical reliance upon, and participation in, the fishery by non-aboriginal groups ...."

More directly comparable to the recent Icelandic development could be an appeal by individual citizens in Canada who claim to be disadvantaged by ITQ provisions. The Icelandic Supreme Court ruled in favour of the plaintiff on the grounds that he had suffered discrimination and that his "right to work" in the fishery had been infringed. The constitutionally entrenched Charter of Rights and Freedoms in Canada has a strong non-discrimination clause. Certainly, the case can be made that in Canada, as in Iceland, ITQ provisions have discriminated in favour of particular groups in the fishery, allowing them substantial monetary benefits from the public fishery resource, at the expense of others.

It is necessary to arrange fisheries affairs not only with direct social equity in mind, but also with attention to the collateral need for conserving fish stocks and for keeping fishing operations economically sound, i.e., unsubsidized and reasonably remunerative. There is a hint of naivete in the Icelandic Supreme Court decision to counter discrimination and assure the right to work, simply by ruling all citizens are entitled to have a licence to fish. The Court showed an attempt at realism by recognizing a temporary need to limit access to major stocks in the interest of conservation.

What needs to be recognized, on the one hand, is that both conservation and economic viability require permanent limits on access to most commercial stocks. On the other hand, it needs to be understood that there will be no social equity unless the current ITQ management rules are replaced by provisions that avoid the assignment of great windfall profits to the few, while many others face uncompensated loss of livelihood and uncontested community decline. The difficulty of reversing the inequitable outcomes of ITQ regimes is one vexing problem that should at least induce responsible authorities to think twice when they are contemplating installation of another ITQ regime.

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Note

This paper has been significantly condensed to meet space constraints. A full version, with an extensive set of references, is available from the author. E-mail address: copes@sfu.ca

CPR FORUM RESPONSE

The right to work and the right to survive: the moral economy of fishery resources

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The case of individual transferable quotas (ITQs) as a means for managing access to fishery resources in Iceland highlights a central tension in common property resources management: the issue of individual rights versus the common good. The constitutions of most modern democratic nation-states are built around guarantees of individual rights. Market economies are supported by these guarantees and the correlative institution of private property. The issues become more complex, however, when common resources, theoretically held in the public trust or for the common good of all citizens, are involved. In many places the legal questions are further compounded by situations of legal pluralism characterized by conflicting or overlapping legal systems operating on the ground. In addition to the constitutional and legal framework, resource access is also governed by local norms and rules which are part of a "moral economy" based on local concepts of both "rights" and "what is right."

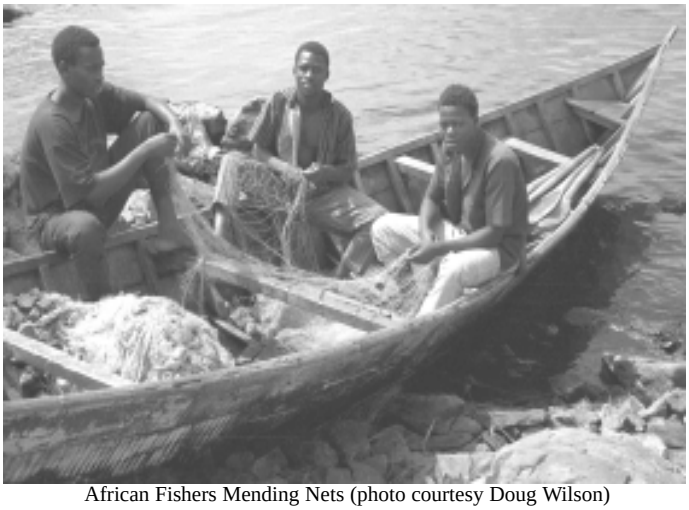
ITQ systems have so far been limited in application to the "modern" fisheries of countries such as the United States, Canada, Australia, New Zealand, South Africa, Norway, and Iceland. The less economically developed countries of the "South" lack the monitoring and enforcement mechanisms of the more industrialized countries to administer such a system. Instead, community management or community co-management is the emerging paradigm for fisheries management in many developing countries. Community management regimes raise many of the same issues regarding the tension between individual rights and the common good as do ITQs, albeit in a very different context. Both ITQs and some community management regimes take a system of resource access and "freeze" it in time by limiting access to those who already have it and providing for the exclusion of others after that point. Suddenly the gates are shut, although mechanisms usually remain to provide for new entrants. In ITQs non-quota holders can rent quotas from someone else. In community systems local mechanisms for accepting new entrants may apply, but the fundamental act of exclusion remains central to both.

The Icelandic court ruled that ITQs violated the constitutionally-held right to work. In the context of the relatively poorer countries, the right to work translates into the right to survival. In many places fishing is an occupation of last resort because of its relative ease of entry for those to which access to all other resources is closed. Fishing provides, for some, the safety net that allows them to survive. When boundaries and membership rules set by community management regimes restrict access for new entrants they are not only denying them the right to work but perhaps also the right to survival.

Access to common property resources, particularly to fish and other marine resources, are tied to complex, emotional and deeply held sets of cultural beliefs. The rhetoric and actions of fishers and the general public in response to government policies and court decisions on ITQs in Iceland has some parallels in the small fishing community I have studied on the south coast of the island of Java in Indonesia. Pálsson observes that in Icelanders' view that fish can only be transformed into a commodity through the act of catching. In this Javanese fishing community, even the act of catching does not create exclusive claim to fish. A complex, though contested, set of social institutions that serves to redistribute the catch once it reaches shore acts to redress some of the imbalances in fishery access at sea.

In the early part of this century, whether or not one got a good catch on a particular day depended more on the skill, weather and luck, than differences in technology. The primary input was one's own labor, as even boats and gear were home made. Over time access to the sea's resources became more uneven as relatively expensive new technologies were introduced and incorporated into the local fishing economy. As a result, a complex network of social relationships has evolved which works to widen access to the sea's resources through expanding access to either the technology or the catch.

Observation at the fish auction site on a busy night reveals what remains unspoken about social relations and resource rights. As much as one-third of the fish catch from purse seiners gets "redistributed" before the fish ever reaches the weighing scales and is sold. To an outsider it appears to be a free-for-all: little boys pulling fish out of the mesh holes of large baskets; porters taking a handful of fish out of each basket they carry and depositing it with a young boy or old woman to watch over it; strong young men pushing scissor-scoop nets



African Fishers Mending Nets (photo courtesy Doug Wilson)

through the water as the boats are landed, catching any fish that fall out of the baskets on the way to shore and sometimes deliberately "helping" them fall; boat crew members handing over bulging plastic bags of fish to pre-teen boys who wade out to meet the boats.

Besides simply helping oneself to the catch, redistribution takes several other, less visible but more institutionalized, forms. The most basic and the most significant in terms of volume of fish redistributed, are various ways of giving fish away. Every employee of a purse seiner feels he has the right to give some fish to his friends and relatives. Another form of redistribution is the lawuhan, (literally "daily food"), a small amount of fish from the day's catch which is given to each crew member in addition to his monthly share of the boat's net profit. The lawuhan was originally intended to be taken home, but is now usually quite a substantial amount of fish to be sold in the market. Another redistributive mechanism, called ngadim, provides those individuals without permanent positions on purse seiners an opportunity to share in the fish catch during peak fishing season. These additional laborers ngadim, or "go along," to help pull in the nets. In return they get lawuhan, but no share in the monthly division of the profits. Captains and boat owners say that the presence of these additional hands decreases operating efficiency on the boat,

yet when a crew member appears with a brother, cousin or friend who wants to ngadim, they are "forced" to allow them to go along.

An ethic of access underlies these redistributive mechanisms which involves a sense of justice, luck, and a "moral economy" that holds that every individual should have a right to survival. Despite complaints from boat owners about the losses, no one in the community ever refers to any aspect of redistribution as theft.

The local concept of justice is not egalitarian. There is no expectation that everyone's access and benefit from the sea's resources will be equal, only that no single individual, or group, receives a disproportionately large or unfair share, particularly at others' expense. A highly skewed rural social structure is accepted. However, closely related to a sense of what is just is the Javanese concept of cukupan, or sufficiency. Cukupan is enough—enough to eat, enough to get by, enough to survive, but without luxuries. The local conception of cukupan rights allows for open access to the bay's resources as long as the technologies being employed are relatively equal. Objections and conflicts have occurred, however, when immigrants or new technologies take what is perceived as unfair advantage of the sea's resources. Protests over perceived injustices are most potent during the scarcity season, when the sight of a few fishers bringing in a good catch using a new technology when the majority's is unable to make ends meet is especially galling.

The ethos of marine resource access also incorporates the notion of rejeki, luck or good fortune. Javanese custom demands that good fortune be shared in the form of a celebratory feast or actual distribution of a portion of the goods. Luck is integral to fishing. Willingness to take risks and to rely on one's luck is part of the identity of fishers around the world. One reason that the idea of owning and selling rights to fish that have yet to be caught is so disturbing to Icelanders probably relates to the importance of luck in the social understanding of rights to fish. Quotas take the luck out of fishing.

In this era of market supremacy, the role of capital, in the form of fishing technologies or gear, in determining access to fishery resources has been largely forgotten. Economic efficiency arguments favor the economies of scale provided by bigger and more advanced technologies, and government policies generally support market mechanisms for allocating resources. Many examples of conflict over fishery resources from around the globe involve conflicts over capital and the associated social relations. Disputes between big and small boat owners, or the small-scale and industrial sector, are at core about protecting livelihoods and violations of local understandings of social justice. Pálsson describes how the concentration of quota shares in the hands of large companies and the rise of a class of "sea lords" in Iceland has generated the frustration and resistance of the small scale fishers who cannot compete with the advantages of big capital. In Indonesia, violent conflicts between small scale fishers and trawl operators in several fishing ports on Java resulted in a Presidential Decree in 1981 banning the use of trawlers in most Indonesian waters.

Privatization of the commons, through quotas and other mechanisms for limiting the catch to the scientifically-determined maximum sustainable yield, have been the method of choice for industrial countries to address the depletion of resources. But from a perspective concerned with employment, survival, and sustainability, placing restrictions on capital investment, in the form of technologies, might be a better way of addressing resource depletion, particularly in less developed countries.

Any attempt to limit fishing effort in the commons will engender the tension between individual rights and the common good. The political expediency of the free market works in favor of quotas in most of the countries which have tried them. But cultural beliefs and national identities are also potent forces in politics. Many of the issues of small fishers in Iceland are reminiscent of the discussions about the centrality of the small farm to the national identities and "way of life" in the United States, France, Japan and other countries where government subsidies keep economically inefficient small farms alive. The Iceland case should serve as a reminder to policy makers and economic modellers that in the real world non-economic factors are also a potent motivator in human behavior.

Key References for Further Information

Kendrick, Anita 1993 "Access and Distribution: Two Aspects of Changing Local Marine Resource Management Institutions in a Javanese Fishery." *Maritime Anthropological Studies* (MAST) 6 (1/2): 38-58.

Lofgren, Orvar 1989 "The Reluctant Competitors: Fisherman's Luck in Two Swedish Maritime Settings," *Maritime Anthropological Studies* (MAST), 2(1): 34-58.

CPR FORUM RESPONSE

ITQs and competing claims on marine resources in New Zealand

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At the heart of Iceland's constitutional issue is the absolute versus the attenuated conceptualisation of the nature of rights. The creation, recognition and protection of rights are essential functions of civilised society. Among the most important institutions for peacefully resolving rights claims are thecourts and the government, but the degree to which they can resolve disputes depends on their contexts.

Courts partially represent the wisdom of the past and are usually a means for supporting and clarifying the existing rights; they are not, by nature, reformist. Governments, on the other hand have the capacity to design new systems of rights and to imaginatively create new contexts which, over time, become the status quo defended by the courts. The development of individualised rights systems for fisheries marked a creation of new rights regimes to assist the management of an old resource, fish. It is hardly surprising that, in so doing, governments might find themselves at odds with the courts. As Pálsson notes, the form of the conflict between the courts and the government varies from country to country, and I suggest that in the New Zealand context, the government's initial belief in the absolute nature of the property rights provided by ITQ has been successfully challenged.

In the 1970s , the declaration of an Exclusive Economic Zone (EEZ) led to a rapid expansion of fishing effort and the view that the fishery might be both overcapitalised and prone to unsustainable exploitation. New Zealand, like Iceland, was at the vanguard of implementing individualised fisheries quota systems as a means to address these problems. New Zealand drew heavily on bio-economic theories linked with Hardinian metaphors of the 'tragedy of the commons'. The conclusion appeared self-evident: divide New Zealand's EEZ into quota management areas loosely based on the geographical range of stocks of particular fish species, set biologically sustainable total allowable catch limits (TAC) for each stock, and then divide and allocate these TAC to fishers as individually transferable quota (ITQ). This would provide the incentives for fishers to rationalise the fishery on a voluntary basis. Over time, excess capital in

the industry would be reinvested more rationally in other sectors of the economy. The resultant quota management system (QMS) largely reflected this simple model.

The ITQ concept was initially tried in a deep water fishery in 1984, and the 1986 Fisheries Amendment Act extended this regime to the bulk of New Zealand's fisheries. As in Iceland, the initial allocations of quota were based on catch histories. Disagreements over these initial allocations were resolved in the courts. Unlike Iceland, the New Zealand ITQ were given to individual fishers and not tied to vessels. The ITQ were issued *in perpetuity,* are tradeable and able to be inherited or gifted. ITQ are a property right and discussed using that rhetoric. The government was able to justify the sale of ITQ because it was not actually selling the unowned fish of the sea. It was selling a government guaranteed 'right of access to harvest' those fish, a right created and secured by government as a responsible trustee of the resources of the people of New Zealand. Two significant events occurred prior to the implementation of the QMS that are critical to an understanding of the New Zealand rights regime.

In 1983, the government completed a substantial overhaul of its fisheries legislation with the passage of a new Fisheries Act. This Act established a community-based fisheries regime based on the USA's approach. In effect, this provided for anybody interested in fisheries to participate in their management. In choosing this approach government seemingly recognised the rights of the wider community to the marine commons. However, these planning provisions were never fully implemented and were subsequently overridden by the QMS.

The failure to implement this broad-based approach owed much to an ideological position of key people within the Ministry of Agriculture and Fisheries. This position favoured placing control in the hands of the 'users', the commercial fishers, rather than in the hands of the broader community. This has been, perhaps inaccurately, portrayed as 'privatisation' of the fishery. Others saw it as 'democratising' the fishery and enabling fishers to take greater responsibility and develop co-management regimes. However, the destruction of the fishery management planning approach left many, especially environmentalists, feeling disenfranchised.

The second significant pre-QMS event was the removal of part-time fishers from commercial fishing. New Zealand's domestic fishery had been dominated (in numbers) by part-timers. A key to the successful establishment of the ITQ system was the government's 1983 decision to remove the commercial status from fishers who gained either less than 80% of their income or NZ$10,000 per annum from fishing. This affected an estimated 1500-1800 fishers, but reduced actual catch by less than 5%. This made the initial allocation of ITQ much easier. With part-timers removed and a determination to implement the QMS rather than pursue the fishery management planning approach, or consider any hybrid combination of the two, the stage was set for the ultimate solution, the introduction of ITQs.

After the introduction of the QMS, three challengers (Maori, recreational fishers, environmentalists) emerged to defend their 'prior rights' in the fishery from the seemingly 'stronger' rights that ITQ provided to commercial fishers. The Fisheries Act had a clause, retained for most of the century, which explicitly preserved the rights of Maori to their fisheries. These rights and the extent of the fisheries had not been specified in legislation, and a resurgent Maori populace pursued a successful legal challenge to the implementation of the QMS.

This challenge was based essentially on Maori having aboriginal rights, implicitly recognised by the clause in the Act, that pre-dated the arrival of Europeans. Under the British legal system, adopted by New Zealand, these rights became common law rights and had to be protected by the courts, unless Parliament passed legislation that specifically removed the rights. For a government intent on rationalising a fishery by providing improved property rights, it would have been inconsistent to legislatively remove Maori property rights without some form of compensation. Faced with this and other political considerations, the government entered negotiations with Maori that ultimately resulted in the Treaty of Waitangi (Fisheries Claims) Settlement Act of 1992. Under this Act, Maori relinquished their historical rights to the commercial fishery in return for significant compensation (in cash and quota) and mechanisms for greater Maori control over traditional subsistence fisheries.

Recreational fishing has grown rapidly in recent years and legislation requires that the Total Allowable Catch (TAC) be set after taking into account the needs of recreational fishers. When the TAC has to be reduced to sustain the stock, the amount of fish available for recreational fishers has to be allocated before setting the Total Allowable Commercial Catch (TACC). Consequently, the TACC may be reduced by a disproportionately greater amount than the recreational allowance. The commercial fishers' rights to harvest a set proportion of the TACC will still exist, but their catch may have been so reduced that it would not be viable to commercially fish.

In response to demands from the commercial fishing industry to protect its 'real' ITQ property rights from a 'vague' recreational right, the government is now trying to convince recreational fishers that they should accept a quota-based approach for recreational fishers. New Zealanders are being asked to replace their traditional right to "catch a feed of fish" with a weaker, but more clearly defined right which, the industry and government argue, is more secure. In reality, the existing strong attenuation of the ITQ right will be removed and all New Zealander's recreational rights weakened in favour of the commercial fishing sector.

Environmentalists have pushed for more sustainable TAC setting and for more 'no-take' marine reserves. However, ITQ are a right to harvest anywhere within the quota management area. Therefore they encompass an access right. The courts have indicated that government should consider compensation where access rights are restricted, but it has concluded there is no legal requirement to pay compensation. The relevant reserves legislation pre-dated the QMS and is more specific. Consequently, those taking up quota were aware at the time that there was the potential to have areas reduced due to the establishment of reserves.

Some fishing communities have also sought control over their adjacent waters. However, considering a request from the Chatham Islands' community for management over their adjacent inshore fisheries a Parliamentary Select Committee commented: *"We do not support this suggestion. The implementation of this option would seriously infringe on the property rights of non-Chatham Islanders who hold quota in the existing QMAs surrounding the Chatham Islands. Quota allocated under the QMS is a property right which allows the quota owner to harvest fish throughout the appropriate QMA.. To subdivide an existing QMA by statute would be confiscation of property and would require compensation. Legislating for the reallocation of property rights would seriously destabilise the QMS which is based on owner-*

ship of individual tradeable property rights." (NZ House of Representatives 1995:7)

Instead the government has allowed the Chatham Islands Community Trust to exceed the normal limits on quota aggregation and also provided for direct allocation of quota to the Trust when new species are brought into the QMS.

In summary, I agree with Pálsson. It is possible to maintain the common property nature of fisheries within a QMS context, but that the theories and rhetoric that drive such developments need to be carefully tested. The complex rights of members of the wider community need to have some form of legal protection that secures them against the rights provided by ITQ. I would also suggest that a maximum of, say, 35 years to an ITQ right would assist to clarify the nature of the right as constrained rather than absolute.

Key References for Further Information

New Zealand House of Representatives (1995), *Interim Report on the Fisheries Bill, Report of the Primary Production Committee*, Wellington: Parliament

Wallace, C. (1998), 'Marine management and the Quota Management System' paper presented to Seaviews Conference, Wellington, NZ, 11-14 February, 1998 (in press)

CPR FORUM RESPONSE

The shift from common property to privatized tenure in resettlement area woodlands in Zimbabwe.

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There are a number of differences in the case of the shift to privatized tenure in the woodlands in Zimbabwe and IFQs in Iceland. There are also a number of striking similarities. Examining both highlights the importance of historical and cultural dynamics for c-p theory .

Background

In 1993, the government of Zimbabwe appointed the Land Tenure Commission (LTC) to study all land categories in the country. These include large- and small-scale commercial farms, communal areas (formerly the Tribal Trust Lands of the colonial era), state lands (such as National Parks and state forests) and resettlement areas. Resettlement areas date from Independence in 1980, when the new black government began fulfilling a revolutionary promise to redistribute land to the black rural population. Resettlement areas remained the property of the state, and residents were given permits for use rights for grazing, ploughing and residing. Most resettlement areas followed a family farm model. Families settled in nucleated villages and were allocated a set piece of arable land over which they had privatized control. Grazing areas and woodlands that fell within village boundaries were managed as common property by villagers.

In 1997, the government accepted many of the recommendations made by the LTC in its report released in 1995. Among these was a recommendation to privatize land holdings in resettlement areas. The new model was to divide the land into self contained, privatized units that included all resource areas, including woodlands. Farmers would be given long term leases with the option to purchase after ten years. While the state will retain the right to repossess improperly used land, or reject unsuitable heirs, the intention is to move towards free hold tenure in resettlement areas.

Environmentalism and "Efficiency"

One of the most interesting parallels between the Zimbabwean case and the case of IFQs in Iceland is the role that environmental concern and discourses of "efficiency" play in moves that narrow access to historically common property resources. In the Icelandic case, environmental concern over depleting fish stocks is clearly central in the program to manage catches through quotas. In Zimbabwe, the LTC concluded that the rapid deforestation it noted around the country in resettlement areas was in large part a result of poorly functioning common property systems. The recommendation to shift to privatized tenure, then, was in part a means to address this crisis. The LTC privileged a view of "sustainable development"—concern for the environment—as a key element in its overall position on land reform.

Regarding "efficiency", in the Icelandic case, Pálsson notes that the quota system was intended to improve "common-property regimes plagued by inefficiency and waste". In the Zimbabwean case, the LTC challenged prevailing conventional wisdom that resettlement farmers were inefficient, noting significant productivity increases in farm produce since the early 1980s. Meanwhile, however, government officials and the state-owned press continue to portray resettlement farmers as inefficient and "lazy", and the criteria for settler selection for resettlement land have changed to favor better off farmers, narrowing overall access to land. In the Zimbabwe case the concern with efficiency has little to do with the woodlands, but everything to do with the arable land. This is because the main economic value of the land is in its agricultural productivity, not in woodland values which are largely non- commercial. This latter point is pursued below. The point here is that as with the IFQs environment concerns and concerns over "efficiency" are closely associated with narrowing access to resources.

Common Property as Cultural History

Pálsson notes that "common rights in fish are deeply embedded in Icelandic history and national identity". It is in part a sense of entitlement to this history and identity that drives the opponents of the increasingly exclusionary nature of the ITQ system. There are similarities in the Zimbabwean situation although the dynamics are quite different. The history of land and woodland tenure in Zimbabwe is complex. A dual system of colonial law and traditional systems frequently engendered contradictions. A c-p system with traditional roots prevailed in the woodlands of Africa areas in colonial and post-colonial times. Woodlands were and are used by rural Africans for individual and collective purposes of both economic and cultural value. Clearly, the collective and cultural uses and values of woodlands are the most at risk from privatization. Individual economic uses such as the collection of firewood, fruit, insects, vegetables and building materials are also at risk since privatization will narrow the total number of people with legitimate access to woodland resources, and individual plots are unlikely to be equally endowed with woodlands.

More crucially, the cultural history of the woodlands as common property is at the centre of the crisis of deforestation in resettlement areas. While this at first appears to support the LTC's recommendation to change to private tenure, a closer examination of the social dynamics behind the problem of rapid deforestation in these areas casts doubt over privatization as a solution. The main problem in many resettlement areas is not the use patterns of the settlers themselves, but the pillaging of resources by neighbors in older, deforested African areas originating from colonial times. Since resettlement areas were formerly white commercial farms, they are better endowed with woodlands than the overcrowded African areas. When the revolution was

won, people from these bordering African areas often began using the resources from the empty commercial farms. In my case study site people explained that they did this both because they needed the resources, and because they felt profoundly entitled to them. The sense of entitlement came from their war efforts (i.e., they "earned" it), but also from a broader historical sense of entitlement to land and resources that they had been rolled back from during colonial days. In a sense, they were attempting to extend their own areas by incorporating the empty commercial farms. Woodlands there should be open to them, they felt, as common property. Ruling lineage members made claims on the land based on the presence of ancient ancestral spirits, sacred trees and groves. While this type of claim can be cynically strategic, it derives some power from being accepted as historically true. This is the context that the new settlers entered when they were granted resettlement land. Often, settlers were outsiders to that area, and also outcasts and undesirables in their home areas. Neighbors i saw them as interlopers, and when new settlers attempted to challenge their use of resources, they responded with astonishment and hostility

Privatization is unlikely to solve this problem. While resettlement farmers see privatization as to their benefit as they believe it will clarify ownership of resources, an historical-cultural reading of the conflict suggests that the sense of entitlement of resettlement neighbors, and the cultural history of seeing woodlands as "placed by God" and therefore common property, will confound the power of privatization to change people's use patterns.

Value, Scarcity and Privatization

One of the key differences in the Icelandic and the Zimbabwean cases is in the perceived value of the resources. Fishing rights are a highly prized commercial resource in Iceland and this is, in part, is why people are so opposed to changes that narrow collective access. This narrowing is related to both the high economic value of the resource and its increasing scarcity.

By contrast, woodlands in rural Zimbabwe are accorded a low economic value. Farmers consistently rank woodlands far below other resources, particularly arable and grazing land. Commercially valuable hardwoods historically have been harvested by private contractors, granted concessions by local government. Also, certain tree species recently have become increasingly commercially valuable with the astronomical growth of the regional wood carving tourist industry. Despite low ranking by African farmers, the value of woodlands in the household economies is very high. Fuel, various foods, browse for cattle and goats, medicine and building materials are some of the direct "free" woodland benefits.More abstract values are also gleaned such as erosion control, in some cases increased soil fertility, natural beauty and cultural meanings. Nevertheless, it is not the economic value of woodlands that informs the push towards privatized tenure. Government already controls the most economically valuable hardwood species, and also controls the commercial timber industry. It is not even scarcity that concerns government, at least not directly. It is the indirect importance of the woodlands in relation to other more highly prized land categories, mainly arable land and riverine areas. In rural African areas, the role of woodlands in erosion control is the main reason for concern about deforestation, a concern that has remained unchanged since the 1920s.

These remarks indicate the particularity of individual tenure conflicts, but also some of the recurrent themes. Challenges to c-p regimes often revolve around some or all of these issues: conservation, efficiency, scarcity and value. Understanding the particular meaning of the issues requires attention to cultural history.

Key References for Further Information

Bruce, John, Louise Fortmann, and Calvin Nhira (1993). "Tenures in Transition, Tenures in Conflict: Examples from the Zimbabwe Social Forest". Rural Sociology. 58(4):626-642.

Goebel, Allison, Bruce M. Campbell, B. Mukamuri, and M. Veeman (1998). "People, Values and Woodlands: Emergent Themes in Interdisciplinary Research in Zimbabwe". Institute of Environmental Studies Working Paper. University of Zimbabwe, Harare.

Rukuni, M. 1994. Report of the Commission of Inquiry into Appropriate Agricultural Land Tenure Systems. (The "Rukuni Report"). "Executive Summary for His Excellency the President of the Republic of Zimbabwe"; Volume 1 "Main Report"; Volume 2 "Technical Reports". Harare: Government Printers.

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An African Fish Camp (photo courtesy Doug Wilson)

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Freie, John F. 1998. *Counterfeit Community: The Exploitation of our Longings for Connectedness*. Lanham, MD: Rowman & Littlefield.

Gluck, Peter, and Erwin Niesslein, eds. 1998. *Wer Zahlt für die Gesellschaftlichen Leistungen des Waldes?* Vienna: Eigenverlag des Instituts *für* Sozioökonomik der Forst- und Holzwirtschaft, Universität *für* Bodenkultur.

Guy, Donna J., and Thomas E. Sheridan, eds. 1998. *Contested Ground: Comparative Frontiers on the Northern and Southern Edges of the Spanish Empire*. Tuscon: University of Arizona Press.

Horst, Lucas. 1998. *The Dilemmas of Water Division: Considerations and Criteria for Irrigation System Design*. Colombo, Sri Lanka: International Water Management Institute.

Kenney, Douglas S., and William B. Lord 1999. *Analysis of Institutional Innovation in the Natural Resources and Environmental Realm: The Emergence of Alternative Problem-Solving Strategies in the American West*. Boulder, CO: Natural Resources Law Center.

Kurien, J. 1998. *Property Rights, Resource Management and Governance: Crafting an Instituional Framework for Global Marine Fisheries.* Kerala India: Center for Development Studies

Matsuno, Yutaka, Wim van der Hoek, and Mala Ranawake, eds. 1998. *Irrigation Water Management and the Bundala National Park: Proceedings of the Workshop on Water Quality of the Bundala Lagoons.* Colombo, Sri Lanka: International Water Management Institute.

Olson, Richard K., and Thomas A. Lyson, eds. 1998. *Under the Blade: The Conversion of Agricultural Landscapes*. Boulder, CO: Westview.

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ARTICLES

Agrawal, Arun. 1998. "Profits on the Move: The Economics of Collective Migration among the Raika Shepherds in India." *Human Organization* 57(4):469-479.
Angelsen, A. 1999. "Agricultural Expansion and Deforestation: Modelling the Impact of Population, Market Forces and Property Rights." *Journal of Development Economics* 58(1):185-.
Bauer, Carl J. 1998. "Slippery Property Rights: Multiple Water Uses and the Neoliberal Model in Chile, 1981-1995." *Natural Resources Journal* 38(1):109-155.
Becker, Joanna. 1998. "Sustainable Development Assessment for Local Land Uses." *International Journal of Sustainable Development and World Ecology* 5(1):56-69.
Becker, Nir and K. William Easter. 1998. "Conflict and Cooperation in Utilizing a Common Property Resource." *Natural Resource Modeling* 11 (3):173-196.
Berry, Sara. 1998. "Unsettled Accounts: Stool Debts, Chieftaincy Disputes and the Question of Asante Constitutionalism." *Journal of African History* 39(1):39-64.
Brunckhorst, D. J. 1998. "Creating Institutions to Ensure Sustainable Use of Resources." *Habitat International* 22(4):347-354.
Brunner, E. J. 1998. "Free Riders or Easy Riders? An Examination of the Voluntary Provision of Public Radio." *Public Choice* 97(4):587-604.
Corbridge, S., and S. Jewitt 1998. "From Forest Struggles to Forest Citizens: Joint Forest Management in the Unquiet Woods of India Jharkhand." *Environment and Planning A* 30(8):1429-1443.
Costanza, Robert. 1999. "The First Decade of *Ecological Economics*." *Ecological Economics* 28(1):1-10.
Devkota. Surendra Raj. 1999. "Environment Management in Nepal: Unmanaging the Manageable." *Ecological Economics* 28(1):31-40.
Faroquee, Nehal A. 1998. "Development and the Eradication of Traditional Resource Use Practice in the Central Himalayan Transhumant Pastoral Society." *International Journal of Sustainable Development and World Ecology* 5(1):43-50.
Faucheux, Sylvie, and Isabelle Nicolai 1998. "Environmental Technological Change and Governance in Sustainable Policy." *Ecological Economics* 27(3):243-256.
Flora, J. L. 1998. "Social Capital and Communities of Place." *Rural Sociology* 63(4):481-506.
Geisler, Charles C., Rees Warne, and Alan Barton. 1998 "The Wandering Commons: A Conservation Conundrum in the Dominican Republic." *Agriculture and Human Values* 14 (4):325-335.
Gorove, K. 1998. "Protection of the Space Commons: New Customary Law?" *Journal of Space Law* 26(28):208-.
Harris, M. 1998. "The Rhythm of Life on the Amazon Floodplain: Seasonality and Sociality in a Riverine Village." *Journal of the Royal Anthropological Institute* 4(1):65-82.
Harvey, Michael G., and Nick Miceli 1999. "Antisocial Behavior and the Continuing 'Tragedy of the Commons'." *Journal of Applied Social Psychology* 29(1):109-.
Hukkinen, J. 1998. "Institutions, Environmental Management and Long-Term Ecological Sustenance." *Ambio* 27(2):112-117.
Humphries, S. 1998. "Milk-Cows, Migrants, and Land Markets: Unraveling the Complexities of Forest-to-Pasture Conversion in Northern Honduras." *Economic Development and Cultural Change* 47(1):95-124.
Johnston, J. S. 1998. "Million Dollar Mountains: Prices, Sanctions, and the Legal Regulation of Collective Social and Environmental Goods." *University of Pennsylvania Law Review* 146(5):1327-1369.
Kissling-Naf, Ingrid. 1998. "Grosser Wert und wenig Geld? Über die Honorierung von Waldleistungen." *Journal of Environmental Law and Policy* 3:373-397.
Kollack, Peter. 1998. "Social Dilemmas: The Anatomy of Cooperation." *Annual Review of Sociology* 24:183-214.
Kruse, Jack, Dave Klein, and Bill Simeone 1998. "Co-Management of Natural Resources: A Comparison of Two Caribou Management Systems." *Human Organization* 57(4):447-458.
Liu, S., M. R. Carter, and Y. Yao 1998. "Dimensions and Diversity of Property Rights in Rural China: Dilemmas on the Road to Further Reform." *World Development* 26(10):1789-1806.
Marquette, Catherine M. 1998. "Land Use Patterns among Small Farmer Settlers in the Northeastern Ecuadorian Amazon." *Human Ecology* 26(4):573-598.
McCarthy, N; deJanvry, A; Sadoulet, E. 1998. Land Allocation under Dual Individual-collective Use in Mexico. *Journal of Development Economics* 56 (2):239-264.
Minkler, Lanse. 1999. "Legal Institutions, Environmental Protection, and the Willingness-to-Accept Measure of Value." *Ecological Economics* 28(1):99-116.
Mitchell, R. B. 1998. "Discourse and Sovereignty: Interests, Science, and Morality in the Regulation of Whaling." *Global Governance* 4(3):275-293.
Moir, Robert. 1998. "Applying the Exact Randomization Test in Experimental Economics." *Environmetrics* 9(1):93-99.
Moxnes, E. 1998. "Not Only the Tragedy of the Commons: Misperceptions of Bioeconomics." *Management Science* 44(9):1234-1248.
Munton, Don. 1997. "Acid Rain and Transboundary Air Quality in Canadian American Relations." *American Review of Canadian Studies* 27(3):327-358.
Musters, C. J. M., H. J. de Graaf, and W. J. ter Keurs 1998. "Defining Socio-Environmental Systems for Sustainable Development." *Ecological Economics* 26(3):243-258.
Ostrom, Elinor. 1998. "Norms and Efficiency." In *Recasting Egalitarianism: New Rules for Communities, States and Markets.* E.O. Wright, ed. New York: Verso.(The Real Utopias Project, III).
Qureshi, Mohammad Hashim, and Suresh Kumar 1998. "Contributions of Common Lands to Household Economies in Haryana, India." *Environmental Conservation* 25(4):342-.
Reenberg, Anette, and Christian Lund 1998. "Land Use and Land Right Dynamics: Determinants for Resource Management Options in Eastern Burkina Faso." *Human Ecology* 26(4):599-620.
Ruddle, Kenneth. 1998. "Traditional Community-Based Coastal Marine Fisheries Management in Viet Nam." *Ocean & Coastal Management* 40(1):1-22.
Rupasingha, Anil. 1998. "Evolutionary Theories and the Community of Local Commons: A Survey." *Review of Agricultural Economics* 20(2):530-.
Saihong, Ko. 1998. "Land and Land Use Rights Ownership in China." *Asia Pacific Law Review* 6(2):103-.
Siar, Susana V., and Lynn M. Caneba 1998. "Women and the Question of Sustainable Development in a Philippine Fishing Village." *International Journal of Sustainable Development and World Ecology* 5(1):51-58.
Veitayaki, Joeli. 1998. "Traditional and Community-Based Marine Resources Management System in Fiji: An Evolving Integrated Process." *Coastal Management* 26:47-60.
Wily, Liz. 1999. "Moving Forward in African Community Forestry: Trading Power not Use Rights." *Society and Natural Resources* 12(1):49-62.

ANNOUNCEMENTS

Letters, announcements and other submissions for the June 30 issue will be accepted until June 10. Please send to Doug Wilson, Editor, CPR Digest. Department of Human Ecology, Rutgers Univ., 55 Dudley Road, New Brunswick, NJ 08901-8520 USA dwilson@aesop.rutgers.edu

For membership, dues, back issues, and missing copies contact Michelle Curtain IASCP Secretary Treasurer, Indiana Univ., Woodburn Hall 220, Bloomington, IN, 47405 USA iascp@indiana.edu

For questions about IASCP papers and research, contact Charlotte Hess, Information Officer, IASCP, Workshop in Political Theory and Policy Analysis, Indiana Univ. 513 N. Park, Bloomington, IN 47408 USA iascp@indiana.edu

From the President:

Greetings! I am happy to report that the association is doing well, keeping at about 600 individual members. This Digest has moved from UC Berkeley to Rutgers, many thanks to Nancy Peluso and Julie Greenberg for setting such high standards! We are also moving toward an electronic version of the Digest and would like feedback about your access to and use of the Internet.

A very urgent question is who will sponsor our 2002 Common Property Conference, which should take place outside of North America and Europe! Please let me know if you are interested!

The Executive Council will meet at Indiana University June 7-9, 1999. If there is anything else you want us to consider, please notify us through Michelle Curtain.

Bonnie McCay
Tel: 01-732-932-9153 X314
Email: mccay@aesop.rutgers.edu

CONSTITUTING THE COMMONS:

Crafting Sustainable Commons in the New Millennium

The Eighth IASCP Conference Bloomington, Indiana, USA May 31-June 4, 2000

The conference will look at the traditional and the new commons. We propose to explore common-property institutions of the past centuries and examine how they adjust to technology development and changes in the structure of the users as well as how they respond to an ever-expanding global economy. The conference will examine the role of donors as their ideas and incentives may shape the performance of different institutional arrangements. Further, we will explore new commons as they are created with invention of new institutions and technology. The global commons will be examined as they continue to increase in importance. We will look at a multitude of institutional arrangements as they are likely to be used in complex, large-scale commons. Market institutions will be looked at as they may exist side-by-side with common property and governmental institutions, particularly when rights to place greenhouse gases are paired with obligations to create carbon sinks in forests that may be governed and managed by common property or governmental arrangements. Thus, the old and the new commons will be an important topic for serious research and continued policy analysis. A major challenge is to provide a coherent theoretical analysis and synthesis of prior and current empirical research so that scholars, citizens, and officials are prepared for the future.

Field trips: This region offers possibilities for some important and intriguing field trips. We have planned the following field trips:

• *New Harmony* – an historic communal society from the 18th Century.

•*Angel Mounds* – archeological museum that provides insight to an ancient commons and its historic social organization.

•*Indianapolis* – various aspects of urban commons in a modern city.

•*Lothlorien* and *May Creek* communities and *Heartwood Association* – two contemporary communities that own their own forests and a regional environmental action group.

The Carbon Tower and Morgan-Monroe State Forest – how modern technology is being used to study carbon sequestration processes – the global commons – as well as an opportunity to learn more about how state agencies in the U.S. manage public lands.

Venue: The conference will be held on Indiana University, Bloomington Campus. Holding the meetings on a university campus means that there are many facilities on that campus that will be of interest to participants from all over the world. Indiana University has an extraordinarily fine Art Museum. Since it founding in 1941, the museum has grown to include over 35,000 objects, tracing developments of Western art from early Christianity to the present day, Ancient and Asian art, and one of the country's finest collections of art from Africa. We will hold our opening reception in the atrium of the Art Museum and offer special tours of the Museum for those who are interested. Indiana University also has one of the top ranked schools of music in the country, and we will arrange a number of opportunities for participants to hear musicians from the School of Music. The Lilly Library has some major rare books such as the New Testament of the Gutenberg Bible, the four Shakespeare folios as well as some famous individual manuscripts such as George Washington's letter accepting the presidency of the United States.

Accommodation: By holding the meetings on a university campus, we are able to offer a variety of housing arrangements, ranging from university dormitory rooms, rooms in nearby motels, and antique furnished rooms in the Indiana Memorial Union Building. The dormitories will offer housing at much lower rate than is feasible in a large city.

Paper and panel proposals deadline: We invite anyone interested in the new and the old commons to participate in the conference. We encourage scholars and practitioners to submit panel, individual paper, and poster proposals early. The panel, paper, and poster abstracts not to exceed 500 words should be submitted to the Program Co-Chairs at the latest by October 30, 1999. E-mail: iascp00@indiana.edu

Nives Dolsak and Elinor Ostrom, Co-Chairs

Landscape Futures

An International Symposium on Advances in Research for Natural ResourcePlanning and Management
Across Regional Landscapes
Hosted by UNESCO and
The Institute for Bioregional Resource Management
22-25 September, 1999 Arrmidale, New South Wales, Australia

For information see the web page at: http://www.ibrm.une.edu.au/future/conf.htm or contact: Dr David J. Brunckhorst, Senior Lecturer, Ecosystem Management, and Director, UNESCO Institute for Bioregional Resource Management, University of New England, Armidale NSW 2351, AUSTRALIA
Phone: (+61) (02) 6773 3001 Fax: (+61) (02) 6773 2769
Internet:dbrunckh@metz.une.edu.au

COMMONS INTO THE NEW MILLENNIUM:
A REGIONAL PANEL ON COMMON PROPERTY RESOURCE MANAGEMENT IN EASTERN AFRICA

The Resources Conflict Institute (RECONCILE) invites other common property resource management institutions in Eastern Africa to join it in organizing a regional panel in preparation for participation in the eighth IASCP conference. We propose a regional workshop on "East African Commons into the Third Millennium: The Challenge to Policy and Law" early next year as part of these preparations. By 30th June 1999, organizations based in Kenya, Uganda, Tanzania, Ethiopia, Sudan, Eritrea, Burundi, Rwanda and Djibouti interested in this initiative should contact: Michael Ochieng Odhiambo, Executive Director, RECONCILE, Printing House Road, PO Box 7150 Nakuru, Kenya Tel/Fax 254-37-212865 konosi@net2000ke.com

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(Membership year 1 July 1998- 30 June 1999)

Please check the boxes below indicating the number of years for which you want to pay dues.

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The IASCP Board decided in February 1997 to prevent distribution of membership lists in machine readable form, but may distribute lists of members to professional and scholarly associations. Are you willing to have your name and address on membership lists that are made available to other organizations? Yes_____ No_____

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