Co-management and Beyond: The British Columbia Experience

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Abstract: In British Columbia "co-management agreements" are improving the sustainable management of many commercial fisheries. While some fisheries have fairly extensive co-management agreements which outline cost recovery, joint and separate roles and responsibilities for enforcement, science, and management, most do not. There are a number of important factors which have limited the development of co-management in B.C. These include lack of security of access to fisheries resources for participants; a lack of clear and easily accessible policy supporting co-management; free riders and incentives for industry participants not to co-operate; a perceived lack of agreement on objectives between industry and government; and a lack of public confidence that fisheries management can be improved through co-management. Progress in moving towards industry taking greater responsibility for sustainable management of commercial fisheries will depend on both industry and government dealing proactively with these issues.

Keywords: co-management, property rights, delegated management

1. INTRODUCTION

In British Columbia "co-management agreements" are improving the sustainable management of many commercial fisheries. Industry is taking greater responsibility for fisheries research, management and monitoring. Governments remain responsible for ensuring the public interest in marine resources and ecosystems are protected. Experience and success in co-management ranges widely between various commercial fisheries. Some fisheries have fairly extensive co-management arrangements with government, while other fisheries are still at the stage of trying to form representative associations that can start the process of sharing responsibilities with government.

Fisheries regulators have quickly embraced the downloading of costs to representative associations in the industry, but have been less enthusiastic about providing security of access to commercial fisheries or delegating decision making and moving to self-management.

This paper will provide an industry perspective on the progress to date in implementing co-management in British Columbia commercial fisheries and what is required to move further towards industry self management.

2 DEFINITION OF C0-MANAGEMENT

Co-management arrangements in B.C. are on a continuum of responsibility sharing between government and stakeholders. In theory, co-management can be defined as "two or more parties working towards shared and/or compatible objectives with shared authority and responsibility; joint investment of time and resources; sharing risks and benefits; and an explicit agreement, contract or other instrument that sets out term" (Savoie, 1999). Simply consulting with industry is not co-management.

Implementation of an industry funded catch monitoring program could be considered a simple form of co-management. A co-management agreement that includes cost recovery, joint and separate roles and responsibilities for enforcement, science, and management, and security of access could be considered a more comprehensive and complex form of co-management. Co-management can include elements of delegated management outlined in an agreement with industry. It is unlikely that fishery management in Canada would ever be completely delegated to industry, however certain aspects of decision making could be assumed by stakeholders.

Assuming that the overall objectives of fisheries management in Canada are to sustainably manage marine resources for the maximum benefit of existing and future generations of Canadians, co-management of commercial fisheries can serve to assist in meeting those objectives in the following ways:

- Additional resources (financial and human) for research, assessments, monitoring, enforcement, management, marketing and communications.
- Reduced risk to the fish resources.
- Increased stability and security to investors (which includes the public).
- Improved short and long-term business planning.
- Less confrontation and greater cooperation, communication and dialogue.
- Enhanced strategic planning, creativity and vision.

Co-management is a policy direction, a way of doing business governments and industry can choose to facilitate and encourage. The alternative is a system of government "command and control" where the decisions on when, where, how much and how to fish are completely made by government and the resources to make those decisions are provided by taxpayers in general. How far industry and government are prepared to go along the path to industry self-management remains a question.

3. HISTORY OF CO-MANAGEMENT IN B.C.

Commercial fisheries in British Columbia are managed by the federal Department of Fisheries and Oceans (DFO) under authority of the federal *Fisheries Act* and regulations made by the Governor in Council pursuant to the *Act*. Under the *Fisheries Act* the Minister of Fisheries and Oceans can use his or her discretion to set fishing plans, licence participants, set licence conditions and do all the things required to manage and enforce commercial fisheries. These powers are subject only to fisheries regulations, administrative fairness, court decisions, and laws of general application. Regulations made pursuant to the *Fisheries Act* supersede the Minister's discretion. Since 1983, when detailed licensing regulations were abandoned by DFO, the Minister has retained absolute discretion over licence policy and issuance. Under current legislation, delegation of licensing can only be accomplished by regulation or legislation. A legislated exception to the above is the one modern treaty settlement in B.C. which is between the Nisga'a First Nation and the Federal and Provincial Governments. Under the Nisga'a Land Claim Agreement, a fisheries co-management board has been set up in legislation enshrining the obligations of the parties in managing fisheries resources within a defined Nisga'a territory. Such boards have a substantial role in the decision-making process respecting resource management. Nisga'a fisheries access under the treaty includes commercial access. Another Canadian example of the authority of legislation to regulate fisheries access other than through the federal Minister's discretion is the Manitoba provincial legislation (1993) used to entrench property rights in the Lake Winnipeg commercial fishery (Gislason, 2000).

Co-management in commercial fisheries started with catch monitoring agreements between the DFO and representative licence holder organizations in the geoduck fishery and the sablefish fishery. In both of these fisheries, the licence holders had requested DFO implement individual vessel quotas (IVQ's) for their fisheries. Both parties to the development of the IVQ program recognized that in order for the IVQ system to work properly, there was a critical need for effective independent catch monitoring. Over time, both the geoduck and sablefish associations have taken on progressively increasing financial and operational responsibility for scientific research, fisheries management and enforcement, as well as other functions such as generic marketing. Some of these activities have been "incremental" activities that would otherwise not occur under existing DFO budgets. However, there are several activities formerly done by DFO that are now the responsibility of industry.

In the geoduck fishery, the Underwater Harvesters Association (UHA) pays government for the salaries of a DFO fishery manager, a DFO stock assessment researcher, and a Department of Environment water quality specialist. Water quality testing, marine toxin testing, generic marketing, and a complete program for enhancement of wild stocks to increase production are also funded by the UHA. Funds are provided to government for items such as overtime for enforcement officers and, most recently, a highly trained dog for sniffing out shellfish. All funds to run UHA programs are raised directly from fees charged licence holders.

In the sablefish fishery, the Canadian Sablefish Association (CSA) has an agreement outlining all of the joint objectives and responsibilities of the parties with respect to the fishery. The association funds salaries for science research in DFO and for enforcement officers. The CSA also does independent stock assessment and then provides the scientific research and a commercial fisheries management plan for review and approval by DFO staff. Fees are raised directly from licence holders who each sign an agreement with, and pay a fee to, the CSA.

Many other fisheries have entered into agreements with government for specific programs and functions. Several types of arrangements have been cobbled together as industry and government identify a need in

fisheries management and try to patch together a solution. These are generally written into what are called "collaborative agreements" which are essentially legally binding contracts which set out the terms and conditions under which a fishery will be managed or a project will be carried out for a specified period of time. In addition, representative organizations can enter into "joint project agreements" that define the objectives and responsibilities of the parties including financial contributions. Joint project agreements have a maximum duration of five years and are in addition to fisheries management plans, regulations, and conditions of licence which also govern the fishery. When things are going right, all these elements match and support each other.

Most fisheries are now subject to independent catch monitoring paid for by licence holders. For example the groundfish trawl fishery in B.C. has a requirement for on-board observers as a condition of licence and these observers are paid directly by the licence holder. In the spawn-on-kelp fishery the industry association is the only source of required export validation stickers, which are provided to licence holders once they pay their association dues, which cover the costs of monitoring the fishery and funding other association activities related to managing the fishery.

The DFO also has what they call a "use of the resource" policy which allows for industry associations, that represent a minimum of 2/3 of the licence holders, to request a specified portion of the commercial TAC (total commercial allowable catch) be set aside for their use. These agreements are limited to one year and can not be referred to in the fisheries management plan or a joint project agreement. There are a number of industry associations that take advantage of this method of spreading the costs of research and other programs over the entire industry. This is the only mechanism provided by the government to facilitate raising funds for co-management activities.

In the IVQ (individual vessel quota) managed halibut fishery, the Pacific Halibut Management Association (PHMA) funds the salaries for halibut managers and several enforcement officers in DFO as well as funding a complete monitoring program. They have a collaborative agreement allowing them to raise funds for co-management operations by having a portion of the halibut TAC assigned to the association. The PHMA then provides this assigned TAC proportionately to each of the halibut licence quota holders as soon as they pay their fees required for industry funded programs. The problem is that the PHMA would like to sign a five year Joint Project Agreement (with attendant financial obligations), but can only get a "use of the resource" collaborative agreement that secures the required funding for one year at a time, with no certainty of renewal.

In all cases, the industry associations are established as non-profit societies under provincial or federal statute. Non-profit societies are required to have a constitution, objectives, membership criteria, directors, voting procedures, financial reporting etc. Through the mechanisms provided in setting up a society, decisions are taken on priorities, annual voting for the directors and budgets. Combined with required financial reporting, these decisions ensure ongoing accountability to the membership.

In no case has an association officially taken on any decision-making role because the DFO has said this is not possible under current legislation. All decisions on licence issuance, licence or quota transfers, setting of TAC's, fishery management plans, and sanctions on violators are made either by government or the courts.

In 1995 and 1996, the DFO introduced amendments to the *Fisheries Act* to allow for the Minister to make joint agreements with representative organizations that would be binding on both parties and give legal force to joint decisions. The joint decision making would include areas such as licensing, allocations and access. (DFO, 1999). The DFO called this "fisheries management partnering". Industry organizations and participants were largely opposed to these Act amendments precisely because they were introduced without government having first dealt with the issue of security of access and providing for stronger property rights aspects in fisheries licences and quotas. Industry participants were extremely concerned about the authority being used to justify and encourage additional access and fracturing of fisheries into competing self managed entities. As well, the general public was skeptical about the industry managing itself.

However, in practice and over time government is relying more heavily on industry associations to either pay government directly for government services and staff or to finance the provision of scientific and management data and advice. While decisions are still officially made by administrators in government, more and more these decisions are being taken in collaboration with industry associations. In most instances the relationship between the industry association and the government has been positive with improved communications and trust. In other instances, notably where decisions have been taken that undermine industry participants' security of access, the relationship between DFO and the industry is strained and meaningful co-management is more difficult to achieve.

All of this has taken place in an environment with very little supportive policy direction on co-management and without the benefit of strong fishery property rights. In summary the current status of co-management in B.C. can be described as having the following features:

- A broad range of contractual agreements and funding arrangements between government and representative industry associations.
- No decision making authority on the part of the industry associations.
- No legally recognized property rights in fisheries, but a range of fisheries management practices providing various levels of security of access, from IVQ's to open access.
- Increasing government reliance on industry associations to effectively manage fisheries resources in an environment of reducing budgets.
- Improved fisheries management and sustainability.

The industry is now in a situation where some industry associations are responsible for, and paying for, a substantial portion of the costs of managing their fisheries and other fisheries groups have minimal if any financial responsibilities. The question of how much of the costs of managing commercial fisheries can be born by the industry often is seen as an impediment to co-management. Indeed, if fisheries science and management cost more than the fishery is worth, it will be impossible for the industry to afford to pay those costs. No one in industry is interested in a simple down loading of government costs, however where joint programs are affordable and reap benefits for the resource, the industry has shown a willingness to contribute financial and in-kind resources.

4. FACTORS LIMITING PROGRESS IN CO-MANAGEMENT

4.1 Lack of Security of Access

The primary impediment to further progress in co-management in B.C. is the lack of security of access to fisheries resources on the part of those who are being called upon to co-manage those resources.

Dr. A. Scott (2000) identified four essential characteristics of fisheries property rights as having duration, exclusivity, quality of title, and transferability to the fullest extent possible. Some of the fisheries in B.C. have some of these characteristics. For example IVQ fisheries generally have exclusivity and transferability, but not sufficient duration or quality of title. As such, these fisheries have had more success in both maximizing profitability and being able to participate in co-management activities. Other fisheries, notably the salmon fishery, are characterized by a complete lack of access security, making cooperative behaviour and long term planning next to impossible. This lack of access security is to the point that many licence holders do not know from year to year whether they will have <u>any</u> fishery openings or not. In the salmon fishery, access is the result of management actions which can lead to allocation results far different than those projected at the beginning of the season. In addition, a significant segment of the harvest of some salmon species is caught in recreational and non-commercial Aboriginal fisheries (ie. the majority of some chinook and coho salmon stocks are harvested by recreational harvesters).

No fishery in B.C. has complete property rights with all four characteristics. Licences are a "privilege" issued annually at the "absolute discretion" of the Minister (within the bounds of administrative fairness) and fishermen can be surprised by new arrangements that can reduce the value or other important characteristics of access. For example, in 2000, the DFO issued additional commercial licences and quotas in the spawn-on-kelp fishery and exempted some existing and the new licences from having to comply with the same monitoring requirements as the existing licences. This action totally undermined the progress that was being made between licence holders and the DFO in shared responsibility for monitoring the fishery, particularly since the industry association had, based on agreed to management plans, already made financial commitments to an independent monitor for all licence holders.

In the commercial salmon fishery, the DFO has created a whole new unlimited category of commercial salmon licences accessing the same salmon stocks and for the purposes of employment and economic development in selected Aboriginal communities. While generally the number of commercial licences in limited entry fisheries does not change from year to year, these obvious exceptions to the tradition create significant uncertainty.

In the geoduck fishery, the industry association has invested significantly in enhancing wild stocks in order to increase bio-mass and eventually production. The efficacy of this entire program has been consistently

undermined by the DFO insistence that the geoduck planted by the association are in no way the property of the association or its members. The DFO even went so far as to say in a draft policy that, if the geoduck enhancement program is successful in increasing production, they may issue additional licences (DFO, 1999).

These situations are not conducive to ensuring that the licence holders, and therefore their industry associations, have the same long-term goals as government of maximizing returns from a sustainable public resource.

At this point, and within the confines of what is possible under existing legislative authorities, some industry associations are seeking greater security of access through setting the maximum number of licences and the percentage of TAC associated with those licences into regulation. This would increase the quality and exclusivity aspects of fishermen's access privileges because there are at least substantive processes and notification requirements to implement or change regulations. There is a strongly held view in industry that if the government wishes to increase access to a limited entry commercial fishery for a particular group in society, that access should be purchased out of existing access authority (licences or quotas). To date, the DFO has refused to even limit by regulation the maximum number of commercial licences issued in any limited entry fishery, preferring to retain the power to increase the number with no notice for, one assumes, other public policy purposes (such as employment creation or economic development). Whether the value of this flexibility outweighs the negative affect on industry participants in terms of their willingness to be concerned with long-term sustainability does not appear to be questioned since the DFO still sees itself exclusively in charge of determining sustainability requirements.

4.2 Lack of Leadership and Clear, Supportive Policy on Co-Management

There is a lack of clear and easily accessible government policy supporting co-management. Without setting an overall policy which is supportive of co-management, there is little incentive for either government officials or industry to really work out the details of how to make co-management work effectively. For the most part, the progress made in working together has been reactive rather than pro-active.

For example, the draft guidelines for entering into co-management agreements are general and weak. They are still in draft form despite being published in 1999. There are no criteria to define industry associations eligible to enter into co-management agreements other than that they must represent a majority of participants and must be legal entities. Interpretations of "majority" and "participants" are presumably left to the parties. Fisheries managers and industry participants are often left wondering what is acceptable and possible in developing a co-management agreement. The best we have been able to achieve to date is to look at what has been accepted and build from there.

Industry also needs to take a leadership role in promoting and supporting co-management – by definition, co-management is not something that can be forced on the parties involved. Government policy guidance and facilitation is necessary to create the conditions under which the incentives to co-mange exist. After that, it is the joint responsibility of industry and government to make it happen.

There are a number of key issues from a government perspective that have worked against development of a clear government policy on co-management over the last decade. These include: the definition of appropriate stakeholders to co-manage with; uncertainty about the extent and nature of First Nation rights and title; falling harvest rates in some fisheries which made everyone nervous about entrenching catch shares; and the DFO desire to manage whole eco-systems rather than single species/fisheries. The industry is also skeptical about the motives for co-management, fearing a simple down loading of government costs with little or no benefit to industry participants. Each of these issues can be addressed and resolved, however the government and industry leadership to do so is required.

4.3 Free Riders and Incentives Not to Co-operate

Current policies and regulations do not allow for industry associations to obligate licence holders in the fishery (members or non-members) to participate in co-management. In fact, the current draft policy on co-management states quite clearly "It is not DFO's responsibility to ensure that there is universal participation by a given fleet or set of fishers in a co-management arrangement." (DFO, 1999).

Co-management requires a level of cooperation and commitment from individual licence holders in a fishery. Incentives for co-operative behaviour are strongest in those fisheries, such as IVQ fisheries, where the features of property rights are strongest and the fisherman's share of the benefits of better management are assured. Even in those instances, however, free riders can benefit from actions of an industry association without bothering to join or pay their share of the costs. Much of the creativity used in B.C. co-management agreements to date has been to compel licence holders to contribute to cost recovery – however, most of these mechanisms have few legal teeth and could be subject to challenge.

Government commitment to co-management and the creation of policies that support industry associations in their efforts to avoid free riders and build co-operative associations are important to solving this problem.

For example, if individual fishermen have success (either in political attention or actual change in policy) by separately engaging fisheries administrators or politicians, this undermines the collective decision making processes of the association. While not wishing to take away from anyone's right to express their opinion or to try to influence politicians, government administrators can support representative associations by words and actions supportive of further co-operative actions.

4.4 Perceived Lack of Agreement on Objectives

One of the benefits of co-management should be to foster a common understanding (and hopefully agreement) on the overall objective and role of all parties involved. Indeed, the objectives of license holders and the government are generally the same: to extract rents from the resource in an efficient, viable, sustainable manner.

Some fishery managers still believe that having industry make fishery management decisions is "like having the fox manage the chicken coop". If fishing licence holders are provided with long term, secure access to the resource with all of the aspects of a property right, there is no reason to believe that they will make choices about research and management that would be any different than those made by government administrators. As pointed out by Scott (2000), industry participants may make better decisions. He notes that "For administrators, the penalties in making wrong predictions (and the rewards for being right) are not great. For the property owning fishermen, the penalties, in the form of a time-stream of smaller catches, and/or, a lower market value of their quotas, would be much more tangible and personally felt."

Of course, while the objectives of the parties are "generally" the same, they are not exactly the same. Government and industry objectives may differ on issues such as income distribution, employment creation, corporate concentration, non-target species, and predators of target species. In some of these situations the government will have to intervene actively – for example to ensure protection of a predator species. In other situations, the objectives of government will need to be balanced against other objectives (a common occurrence in government where conflicting objectives are often expressed). For example, if employment creation is so important and issuing additional licences is the most effective way to increase employment (which may be questionable in any case), this objective needs to be balanced against economic and biological sustainability and cooperative management objectives.

Balancing objectives is often difficult, however the question remains – what is the best system of management overall. Often it simply takes time, good communications, and consistent actions in support of fisheries resources to build trust and a belief in common objectives between industry and regulators.

4.5 Lack of Public Confidence

Underlying all of the issues stalling commitment to moving to greater security of access and co-management is the public confidence that the public interest in marine resources will be better protected using these tools than it would with the alternative of strict government control and regulation of fisheries.

Our experience in B.C. is that the public is not well informed about commercial fisheries. Long histories of conflict and some serious fisheries failures in Canada (northern cod) have created an environment where the public mistrusts both the Department of Fisheries and Oceans and the commercial fishing industry.

This mistrust can only be resolved over time by consistent efforts to improve information upon which management decisions are made, by improved sustainability in fisheries management, and by communicating

these successes to the public. Without public support, political support for delegated management initiatives will be difficult to achieve.

Having industry associations and government working together in a productive, problem-solving way is extremely important to improving public confidence. The media generally only picks up on fisheries stories when they contain conflict and problems, leading the public to believe that's all there is. In B.C. fisheries that have the strongest features of property rights and the most advanced co-management regimes, there are less front-page stories and more stories in the "Food and Leisure" sections of the media.

6. CONCLUSIONS AND RECOMMENDATIONS

Co-management of commercial fisheries by government and industry has been a positive step forward for resource sustainability in British Columbia. Associations in fisheries with the best record of security of access that have been able to make progress co-management all have consistently better managed fisheries, with better information and improved co-operation.

There are three fundamental steps government and industry can take simultaneously to bring about better management through co-management.

One step is to agree on a real policy framework with all affected interests. The purpose of this framework would be to deal with the tough issues that have slowed progress in embracing the principle of co-management. Having such a framework would allow industry, government and politicians to take a strong leadership roll in promoting co-management.

In addition, progress in co-management would be greatly enhanced by providing greater security of access for individual licence holders through regulation or policy. This can take the form of policy statements by the Minister about allocation, regulations limiting the maximum number of commercial licences in a fishery, policy documents that outline an approach to access to fisheries, or at the extreme, the kind of individual quota property rights available in Lake Winnipeg. The stronger the property right, the more likely that co-management will successfully take hold and flourish. No one would expect aquaculturists to invest in producing seafood without having security of access/property rights to what they produce. A shift in attitude and policy is necessary in both government and industry to realize the greatest sustainability and economic benefits from commercial wild fisheries.

Finally, industry and government should jointly develop explicit policies and programs that support co-management such as:

- defining criteria for an association that can enter into a commercial fishery co-management agreement with government;
- where such associations do not already exist, providing initial assistance in setting them up;
- providing the authority for co-management associations to compel all sector participants to contribute to co-management activities supported by the majority;
- working together to educate the public about commercial fisheries and successes in co- management.

Progress in co-management of fisheries in British Columbia has been evolutionary. Movement on any or all of the above recommendations will encourage further progress along the continuum of co-management towards sustainable self managed fisheries.

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