



Alignment of Policies and Principles: An Examination of Governance in Newfoundland and

Labrador's Fisheries

Nathan D. Stanley

Memorial University

Author Note

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Abstract

The fisheries in Newfoundland and Labrador have undergone a number of changes in guiding principles ever since the province joined Canadian confederation in 1949. These principles directed policy formation in fisheries management, and were affected by national and international influences. It is necessary to understand what influenced these principles, and what the effects of the principles were on the fishery, in order to begin considering how new principles may be applied to encourage an ecologically and economically sustainable fishery in the future. An examination of secondary sources including government publications, policy reviews, academic critique, and news releases have been used to create this report. This report splits Canada's management of NL fisheries into five different periods, from 1949 until the present day. Determining the guiding principles and resulting policies across this period allows for a comparison of management behaviours in response to a variety of social, economical, and ecological events. This comparison is then used to posit ways in which guiding principles can be employed in the future of the fishery. Although a lot of differences are apparent between the different periods, there are some similarities as well. Consistent concerns in the fishery include an overcapacity of harvesting resources, and a desire for integrated (as opposed to top-down) management.

Introduction

The fisheries of Newfoundland and Labrador (NL) have a history marked by consistent policy change and ecological and economical tragedies. Since the Federal Government of Canada took control of the fishery after NL joined confederation in 1949, a series of changing circumstances has influenced how fisheries policies and governance principles are adjusted. An examination of the events, which led to these changes in governance, is important in order to understand how future governance of the fisheries can be designed with resource sustainability and community viability in mind. It is also essential to consider for use in evaluations that could assist in meeting management goals. This report will provide insight on how such governance principles were determined in the context of relevant events and international influences, and how they shaped fisheries policies. There are two main sections of the report. The first section breaks up the time span between 1949 and the present day according to different periods in fisheries policy. These periods are not watertight demarcations, as a lot of principle changes happened incrementally. However, they are useful for categorizing the major shifts in principle and the events that influenced them. Having a broad view of these changes and their catalysts allows one to look for patterns in fisheries principles and policies over time, which is the purpose of the second section. The periods can be compared and contrasted, allowing for observations to be made about what has changed in fisheries governance, and what has not. This section will also discuss the importance of perspectives on fisheries policy, and what implications the history of fisheries governance in Newfoundland and Labrador can be inferred from the past.

Periods of Principle and Governance

1949- late 1960s

By the time Newfoundland and Labrador (NL) joined Canadian Confederation as the country's 10th province in 1949, a number of changes had already occurred in the fisheries. The Commission of Government had begun to focus the marketable product of the fishery away from salt fish and towards frozen fish, although the inshore fishery remained a key part of the industry [1]. The push for change in the NL fishing industry set the stage for what would happen in the coming years, after the Federal Government of Canada began managing the resource through its Department of Fisheries [2].

Following the pre-Confederation shift towards economic viability and the expansion of the frozen fish industry [3], the first period of Canadian fisheries policy management in NL can be seen. This period saw a desire to increase economic efficiency as a guiding principle of the fisheries.

One of the ways in which the plan to increase economic efficiency was carried out was through state-sponsored resettlement. In 1954, the provincial government began to incentivize urbanization. Initially, it was through covering moving expenses of those who were willing to leave economically "unviable" outports [4]. The incentives increased until 1965, when a new resettlement scheme was executed, run by the Department of Fisheries and as a joint effort between provincial and federal governments, which continued until 1975. One of the main purposes of the resettlement initiative was to shift the fishery into larger centres, with more modernized industrial standards [5]. This would reduce the number of small outports vying for

resources to improve infrastructure, allow services to be delivered to a few larger population centres instead of many small ones, and concentrate the fishing fleets.

A policy of this period which seemed geared against the principle of economic efficiency was the introduction of unemployment insurance (UI) for NL fishers in 1957 [6]. It was posited that less fishermen participating in the industry would increase profit margins, so an unemployment insurance scheme for fishermen was likely to have the opposite effect; it would incentivize more people to join the fishing fleets. However, the provincial government would not entertain the idea that the fishing population had to be reduced, while the federal government was reluctant to provide subsidy to maintain the fishing population at its operating level. Although a controversial decision (argued to be more politically motivated than the best option for all parties at the time), the existing UI scheme was extended to supplement the income of fishermen [7].

This early period of Canadian fisheries governance in NL, guided by a principle of increasing economic efficiency, changed the face of the province. The resettlement program began, which emptied out outports that were deemed unviable, and an unemployment scheme was extended to fishermen. The policy at the time was directed towards modernization and industrialization of fishing processes and equipment. While all this was occurring, a problem which had loomed over the NL fishery for years was becoming more threatening: the foreign fishery. A number of countries were fishing. Joining the Canadian Confederation had not done much to mitigate this issue for NL fisheries. In fact, while the total cod landings rose steeply during this period, Newfoundland's percentage of the catch was falling consistently [8].

1960s-1980s

The Day Report, released in 1967, supported this same idea. Although NL had an unmistakable geographical advantage in its proximity to the fishing grounds, foreign fishing interests had begun taking the main portion of the catch landed each year [9]. At the same time, inshore fishery catches in NL were declining. The inshore fishery still had a focus on the salt fish industry, even though governing bodies had begun to push for a focus on offshore fishing and frozen fish product since before Confederation. It was amidst this conflict with the foreign fishing industry that governing policy began to shift under local pressure. People were unsatisfied with the resettlement program, and reproachful that the discussions of prosperity in the fishery had not come to fruition [10].

A policy review in 1973 brought forward two recommended policies. Although the meetings failed to agree on a concrete set of principles for guidance, a principle that led the discussion was that Canada should firmly establish their right to manage the fisheries resources from their coasts to the end of their continental shelf, with the goal of re-allocating the lion's share of the catch to national interests. The two recommended policies, as quoted by the Newfoundland Oceans Research and Development Corporation (NORDCO), were:

1. That the Newfoundland government seek from Canada a long-term commitment that no catch allocation to Canada within Divisions 2, 3, and 4 will be accepted if it is less than the demonstrated or planned capacity of Canada to catch in the year in question, subject to the total allowable catch remaining at or below the maximum sustainable yield;

2. That there should be great Federal-Provincial consultation in the determination of Canada's position at ICNAF [International Commission for the Northwest Atlantic Fisheries] meetings. [11]

The policies outlined hint at an overall goal of balancing the Total Allowable Catch (TAC) of the regional fishery resources in Canada's favor. This is also one of the earlier times in Canada's management of NL's fishery that a sense of precaution arises, such as when they reference the maximum sustainable yield. To this end, Canadian stakeholders planned to build an offshore factory freezer trawler fleet. The industry increase would be focused on the offshore effort, while it was proposed that the inshore fishery, characterized by less organization and lower yield, should diversify into different species for harvesting (such as capelin). It was perceived that the relative mobility of the inshore fleet would enable them to move to different areas of the coastline as different species became available for harvest. This may maximize the resource harvesting ability of the inshore fleet, allowing them to claim more of the TAC from the inshore side of the industry [12].

Furthermore, licensing restrictions for high-value species were introduced in 1974. This was a move contrary to that of the unemployment insurance subsidies in 1957, as the purpose of the licensing program was to restrict newcomers into the industry, and give the state control over how the licensed resources could be further restricted in the future. This licensing system was likely inspired by the British and Norwegian licensing systems which preceded it. While Canada pursued a larger share of the catch in Atlantic waters, the licensing system was meant to restrict access to the industry to ensure economic viability for the current participants as they pursued their catch limits [13].

With this overhead principle of increasing Canada's management of the fishery on their side of the Atlantic (with the goal of ultimately increasing the share of the resource they could harvest), the policies which immediately followed focused on resource management. To this end, the 1976 Federal Policy report was released. Recognizing a number of problems with Canada's North Atlantic fishing industry, the report noted that the government had regulated the exploitation of the fish stocks from both Canadian and foreign interests, based on what the MSY that species could support year after year. It went on to propose that the guiding principle be shifted from trying to top out Canada's yield of the resource to instead maximizing that "sum of net social benefits" of society's resources [14]. The dominant strategy recommended by the report was that Canada institute a 200 nautical-mile Exclusive Economic Zone (EEZ), in order to assert sovereignty over its fishery resources. This zoning policy, although discussed by the United Nations Convention on the Law of the Sea (UNCLOS), had not yet been ratified by signatory states to the Convention. The third round of UNCLOS discussions, and those most commonly referred to today, had been ongoing since 1973 and did not come into force until 1994 [15]. This international instrument, which Canada participated in, clearly had an influence on the federal government's approach to managing their fishery resources.

When the 200 nautical-mile EEZ was declared by the Canadian Government in 1977, fisheries policy went under review once again. The goal was to ensure that Canada's fishery structure in the North Atlantic was optimal, now that foreign fishing interests were, for most intents and purposes, perceived to be removed from the equation. The discussion turned to consultation between the government and fishery stakeholders on how to best allocate fishery resources between the inshore and offshore fisheries, the types of vessels allowed to participate, and what rules should be set to limit the introduction of new technologies so as to not overextend

the fisheries' harvesting ability [16]. The new guiding set of strategies placed importance on the principle of fair distribution between fishery sectors, with an emphasis on the inshore fishery, and limits set on the development of offshore fishery technologies [17]. Although economically motivated, most parties involved in the decision-making process "agreed with the decision to manage the stock for rapid growth, [and] to hold TAC's down in order to meet this end..." [18]

A number of countries were setting new international limits (USA and Denmark, for instance, had also enforced 200 nautical mile limits). The ICNAF dissolved and was replaced by a new international regulatory collective, the Northwest Atlantic Fisheries Organization. Canada became a member of this collective [19]. The purpose of both groups was to monitor fish stocks for decline and protect them against overfishing [20]. However, concerns about the declining fish stocks were never so serious as they would become in the 1980s. This concern was also noted, and diminished, by a particular statement in the 1976 Policy for Canada's Commercial Fishery. The statement claimed that the fishery had previously been managed with the ecosystem as the main consideration, and then declared that it would now be managed with the interests of dependents on the fishery in mind [21].

1980s-1992

The 1980s began with a positive outlook, in some regards, for the fishery. Canadian catches of Atlantic groundfish had peaked in the first years of the 1980s [22]. The offshore fishing fleet, even though licensing had restricted its growth in 1976, was still expanding. This expansion was met by management practices which were recognized in the last period of fishery policy. Namely, an expanding and modernized fleet must have limitations on its harvesting ability [23].

The turn of the decade also showed signs of struggle in the processing side of the fishery. Many fish processors found that rising costs of production were met with a relatively unchanged return on the sale of goods. Frozen groundfish processing was one of the areas where the issue was most prominent. Fishermen also bore the weight of this market condition, as they could not prosper from a raw resource harvest that the processing market could not sustain [24]. This being said, the outlook at the end of 1982 was that the cod catch would lead the growth of the groundfish catch while the market improved, and that by 1987, “Atlantic Canadian fishermen should be catching about 1.1 million tonnes of groundfish a year [25]. This optimism, projected by the Task Force on Atlantic Fisheries, was short-lived. Not only did the groundfish catch peak in 1982, but 1987 marked the beginning of the exponential decline in the groundfish stock which would cause the full-blown fisheries crisis of the 1990s [26].

As evidenced by the Kirby report, the new objective for NL fisheries in this period was to maximize employment in the fishery, not economic growth, as long as the employment was viable [27]. It was not intended to say that more people should be brought into the fishery, but that a viable employment in the fishery should be the standard for those involved. A Background Report prepared for the Royal Commission on Employment and Unemployment noted that although the goal of achieving fishery professionalization was important, what was more urgent was “to restore confidence in the inshore fishery and to give outport Newfoundlanders the opportunity to live in dignity and to achieve a basic economic security for themselves and their families [28].” This idea of providing comfort to the fishing fleet (especially in the inshore fishery) may have created a solid foundation for further professionalization, had the groundfish stock not been on the brink of unprecedented collapse. These two ideas of encouraging industry

professionalization and employment viability in order to allow fishers and their families to “live in dignity” suggests a principle of social and economic improvement during this time.

The 1980s was also marked by a period of more diverse management. Despite the limited entry licensing program which began in 1976, there was also another licensing system introduced in 1981 which created distinctions between full-time and part-time fishermen. This system, advocated for by the Fishermen’s Union, had the effect of limiting the ways a fisherman considered “part-time” under this licensing system was able to carry out his work. Furthermore, it placed a second barrier on entrance into the fishery, which may have had the effect of curtailing overcapacity. If a fisherman, previously considered full-time, needed to work another job to supplement his income, he may have been reclassified as a part-time fisherman due to the circumstances of his case. Furthermore, this system had also been used as a pseudo-training system for new fishermen who aimed to achieve full-time status. A newcomer to the industry could spend two years classified as a part-time fisherman before being allowed to achieve full-time status. Although in these ways the programs supported the goal of professionalization in the industry, they did not necessarily support the goal of providing comfort and support to the current fishing fleet labourers, especially of those in smaller, “outport” communities [29]. This was because those two objectives, especially as demonstrated by the two licensing systems, were easily in conflict. Professionalization required a reduction of previous participants in the industry, some of whom could be deemed unprofessional, while removing people from the current fleet can not be said to be supportive of the current fleet. In this sense, the principle of improving social and economic wellbeing amongst fishers was extended only to those fishers of certain fleets (and their families) who were approved by the licensing systems.

By the end of the 1980s, amidst the number of principle and policy shifts and conflicts as noted above, there was a heightened sense of urgency emerging. The Independent Review of the State of the Northern Cod Stock emphasized the need to immediately decrease fishery-related stock mortality [30]. This urgency was even reflected by the fishermen. As Palmer and Sinclair stated, “along with a greater concern for the stocks came an even greater demand by the dragger skippers for increased surveillance. The skippers were, in effect, pleading with the DFO to force them to stop their own profitable but destructive fishing habits [31].” This concern for conservation, which was an undercurrent of principle in the fisheries for many years following ICNAF’s coming into force, experienced its resurgence too late to prevent the approaching moratorium. Even in 1990, the Report of the Implementation Task Force on Northern Cod left the question unanswered as to how to rebuild the collapsing cod stock in the previously abundant fishing areas off the Atlantic coast of NL. The report’s Recommendations section, otherwise populated with confident advice, states that a “decision must be made” in regard to how the stock is to be rebuilt [32]. Even with the guiding principles of the fishery seemingly favoring conservation at this point, the implementation of such a principle was uncertain in the decline of the groundfish resource.

1992-2000s (early)

On July 2, 1992, in response to the collapse of the Northern Cod stock, Federal Fisheries Minister John Crosbie officially introduced the Atlantic Cod moratorium. This drastic measure, which was announced to only last a couple of years, was extended indefinitely, although small coastal fisheries had occasionally been allowed since then [33]. Initially, the moratorium affected the 2J3KL region [34]. A moratorium on other regions followed shortly afterword. With the posterchild of the groundfish stocks now “commercially extinct [35],” the management policies

of the NL fishery could no longer centre on cod stocks, as many of them had done. Economic programs had to be rushed into place to prevent social collapse, as the moratorium had officially put many thousands of Newfoundlanders out of work [36]. Furthermore, the fishing industry now had to shift its focus to other primary resources in order to make up for the lack of work, and to try and maintain some sort of level of employment for career fishery harvesters and processors in the province.

As in the previous couple of decades, there was still an issue of overcapacity present in the fishing industry of NL. The Northern Cod Adjustment and Recovery Program (NCARP) was designed as a financial adjustment strategy to cover the 2-year period of the initially announced moratorium. One of its goals was to reduce fishery participation, so that when the cod fishery began again, there would be less of a capacity issue [37]. NCARP supported those directly affected by the fisheries closure, including trawlermen, fishermen, and processing plant workers. Support was provided to fishermen who wished to restructure their enterprise to harvest other species. NCARP also offered an early retirement program for fishery workers between 55-64 years of age. They would provide financial assistance to those who were eligible for the program and desired its benefits, so long as they surrendered all their fishing licences and commercial registrations. As well, for fishery workers who were ineligible for early retirement due to their age, a re-education program was designed. If an individual wished to voluntarily surrender their licences and commercial registrations, effectively removing themselves from the fishery, then financial assistance would be provided. NCARP committed to assisting both groups of people to explore career choices outside of the fishery [38]. Although intended to support goals, the main principle of NCARP was to reduce the severity of the socio-economic conditions which would invariably follow a cod stock collapse in an area which depended so heavily upon the resource.

Following the extension of the moratorium and the end of the two-year NCARP program, The Atlantic Groundfish Strategy (TAGS), an assistance and restructuring program designed to replace NCARP was announced in 1994[39]. TAGS, similar to NCARP, provided an adjusted early retirement program, a youth re-education program, a relocation assistance program, and a much higher emphasis on fishery workers changing careers [40]. The goal of this program was to achieve a “50 per cent capacity reduction and industry renewal [41].” Whereas NCARP was meant to reduce socio-economic strain but also reduce harvesting capacity, the primary principle of TAGS was a reduction in harvesting capacity.

It is worth noting that the continued unemployment insurance regime, which was extended to include fishermen in 1957, had the opposite effect on the industry than the adjustment programs did. By the mid-1990s, as participation in the adjustment programs was declining, use of the unemployment insurance (renamed employment insurance” in 1994) program was rising. The program was structured to provide fishermen with degrees of economic comfort that were acceptable to them, and its structure incentivizes fishery labourers to remain in the industry, instead of incentivizing them to find other work [42]. This policy works against the principle of reducing overcapacity in the fishing industry, but supported the policy of protecting fishery labourers and their families during the moratorium period.

Besides the government’s attempts to reduce the harvesting capacity of the fishing industry, following the principle that less fisheries workers would mean less harvesting pressure on the resource and a greater economic base for those left involved, another change was happening in the fisheries. Even though the NL fishery harvest was still dominated by cod in 1990, the focus would shift in favor of other species after the collapse of the cod stock. This change in the fisheries, instead of being influenced largely from the top down (like the reduction in harvesting

capacity), appears to be driven from the bottom up; a change in what resources were available influenced what resources were harvested. By the mid-1990s, the fisheries had refocused on species such as shrimp and snow crab instead of groundfish [43].

The shift in dominant harvested resource was not unprecedented- as licensed snow crab fishery had existed since the 1970s. Supplementary licenses, used to help pad fishermen's incomes, were issued in the 1980s. Finally, temporary licenses were provided after the collapse of the cod stock in 1992. When the stock did not recover, these temporary licences were reclassified as conventional licences instead of temporary ones. By the early 2000s, a fully viable snow crab fishery had been established [44].

By the end of this period of fisheries governance, the guiding principles had shifted to provide damage control for a depleted resource, and to restructure the fishery to focus on other harvestable resources in the region. Although attempts were made to reduce the workforce had still not been sufficiently reduced- the number of fishermen in 2002 was similar to that in 1992, although they are considered to be active under different licencing capacities [45]. An inspection of the industry after the moratorium would result in DFO's 2004 Policy paper on the fisheries, ushering in the current period of fisheries governance. [46]

2004-Present Day

In 2004, DFO released a paper titled *A Policy Framework for the Management of Fisheries on Canada's Atlantic Coast*. They claimed that a comprehensive review of fisheries management had not taken place since the early 1980s, and acknowledged that DFO's priorities at any given period were a product of their time. DFO described their nine new principles for fisheries management as setting the foundation for a restructured, sustainable fishery that included more

participants in the decision-making and management process, as opposed to management from a top-down approach. The nine new principles, as they are called by DFO, amount to:

1. Conservation (and sustainable use as an ecological safeguard)
2. Managing the common resource of the fisheries for all Canadians, Aboriginals included.
3. The Minister of Fisheries is still the highest authority on decisions concerning use and sustainability of the fisheries.
4. The fisheries have a “historic and continued importance” for Atlantic Canadians
5. Responsibility of fisheries resources is shared across the government, industry labourers, and shareholders
6. Aboriginal interests will have more opportunity to participate in decision-making processes
7. Such processes must be transparent and understandable for all involved
8. These processes will encourage participation from interested or affected parties
9. Operation decision making will be conducted at the “sharp end” of fisheries, to ensure that the best decisions can be made. [47]

These principles, meant to govern fisheries policy from 2004 onward, do show a great change as compared to previous policy principles. Economic or employment maximization is not mentioned. Maximum utilization of the resource is not mentioned. Instead, conservation and sustainability is declared as being the “first [48]” principle of policy guidance, and many of the other principles (such as 5, 6, and 7) focus on cooperation across all levels of resource users, stakeholders, and governing entities. This allows for greater participation and understanding in

management processes. Considered all together, the list of principles suggests a desire for sustainable use and for a participatory management system.

The Northern Cod stock has increased since the mid 2000s, as a result of the 1992 moratorium [49]. Up until 2013, the more prudent attention paid to the health of the stock and purposely depressed allocations of the recourse appear to have produced results. Although the cod stock is still in a poor state, there has been recovery that can be empirically tracked from 2005-2013, using a “conservative biomass limit reference point [50]” as a measuring baseline. This precautionary approach is in line with DFO’s primary stated principle of sustainability. In this past year, a decline was once again witnessed in the cod stock, and in response, catch limits were reduced and the recreational fishery shortened by a week (as compared to the length of the recreational fishery in 2017) [51]. A rebuilding plan is in development, although no firm timelines for progress have been established [52].

In implementing the policies for sustainable management over the last few years, DFO has built sustainability into their regulation framework with the Precautionary Approach Framework, which effectively matched Canada’s fisheries governance to the systems recommended by the United Nations Fish Stocks Agreement (UNFSA) [53]. UNFSA principles propose amongst other things a need to adopt a precautionary approach to fisheries, based in science and responsible management of fish stocks by signatories, while taking care to adopt conservation measures when needed [54]. As well, updates to Canada’s Integrated Fisheries Management Plans (IFMP) have been made which supported sustainable fisheries development [55]. Certain policy goals, such as Canada’s commitment as a signatory to the Convention on Biological Diversity, have resulted in ongoing commitments to change in the fishery. The Convention on Biological Diversity outlined targets for sustainability in 2011, and these targets are intended to

be met by 2020 [56]. One of the targets directly influenced the Canadian *Species at Risk Act* (SARA), which the Atlantic cod is a species of “special concern [57].”

Oceana, an international organization focused on oceans’ advocacy, has outlined several ways in which Canada can improve its current fisheries policy frameworks. These include updating the *Fisheries Act* to align it more closely with UNFSA and to increase transparency and public availability of the IFMPs [58].

The Canadian Fisheries Research Network (CFRN), a research collaboration among fish harvesters, academics and government, developed a comprehensive framework for sustainability. The framework specifies four pillars of sustainability: ecological, social (including cultural), economic and institutional, and articulates candidate objectives based on Canadian policies and in relation to international agreements. The CFRN framework may be a useful tool for assessment of current fisheries management schemes and for reshaping future management around ecosystem-based management and full-spectrum sustainability (R. Stephenson, personal communication, September 7, 2018).

Conclusion

These categories of fisheries principle and policy are not watertight. Incremental changes in policy and management tools, such as licensing, can blur the lines of these divisions. However, they do demonstrate an evolution of reactive principles throughout DFO’s management of the NL fishery. Understanding these principles and the events which influenced them can be an important baseline in future management planning.

Perception, Contrast, and Comparison of Principles

Differing Perspectives

One of the historical difficulties with fisheries management is that top-down management of the industry supports principles which are used by the managing entities to direct the other affected parties. Perspectives on what should be considered when setting these principles can vary, depending on who is considering them. For instance, a fisherman, who operates at the sharp end of the fishing industry, could have a different perspective on what is of principle importance to the industry than a policymaker, who could be motivated by an entirely different set of experiences. Consider the 1986 publication, *We Won't Even get a Sculpin*. Dedicated to fishing families of NL, the thesis paper examines how the sharp end of the industry is impacted by government policies. The management policy of developing the offshore industry while restricting the inshore industry is maligned at the start of the paper. Whether it was influenced by a principle of economic expansion, employment professionalization, or simply reducing economic unviability, it was claimed that such policies “push people out of the fishery and they undermine traditional adaptations and fishing practices which are rational in the Newfoundland setting [59].” Palmer and Sinclair noted in 1997 that the most frequently mentioned problem with the fishery in a survey of NL residents was the “Government (no specification of exact problem) [60].” It was also discovered that the enforcement of buffer-zones on dragger vessels in certain fishing areas in 1988 was seen as an attack on the dragger fleet by participants in that sector of the industry, the small zone restrictions did not actually have a considerable impact on their operation [61]. In this case, it was perceived that the state was working against the fishermen, when their policy and regulations were designed to achieve the goals of employment

maximization in the late 80s. Palmer and Sinclair also suggest that self-interests weren't the primary cause of many disagreements between fishery labourers and policymakers, but that the policies at the turn of the 1990s were not clear enough to convince fishermen that they were being regulated effectively [62].

These differences in perspective demonstrate that the decades-long process of top-down management in the fishery ever since Newfoundland joined Canada may be ineffective. "On-the-ground" participants in the fishery, both in the harvesting and resource sector, could have assisted the policy-making process as a source of information about the effects, application, and usefulness of DFO's principles and policies. This integrated, more comprehensive style of policy creation and guidance is noted as a key principle in DFO's 2004 Policy Framework. In the future, the application of the principle may encourage a more balanced and informed management system for the recovering fisheries.

Comparison and Contrast

It is useful to have a chronological understanding of how and why the principles which have been discussed were implemented in the NL fishery, and how they relate to each other comparatively.

In the first period of fisheries governance after NL joined Canada, the leading principle stands out as an attempt to increase the economic efficiency of the fishery. Programs such as resettlement and adding fisheries workers to the unemployment insurance scheme in 1957 were indicative of this. Driving factors included either removing, replacing, or absorbing unviable

operations and practices with a modernized standard of raw resource harvesting and processing. Foreign fishing was commonplace, as it had been ever since the discovery of the Grand Banks fishery in the late 15th century. On its face, the resettlement program was effective in reducing the number of unviable fishing settlements, as previously stated. As well, the opening of the unemployment insurance program to fishermen incentivized people to remain working in the fishery. More government funding was being placed into development of offshore fleets and more modern processing technology. In 1953 a report was released by a joint committee between the federal and provincial governments on how to best move forward with solving existing problems in the NL fishery. Named *The Walsh Report*, it stated that modernization had to occur, but not too quickly, as other employment sectors needed to be developed in order absorb the fishery workers who would be pushed out of the industry by modernization practices. Even with a principle focused on economic efficiency and restructuring instead of conservation, it was recognized early on that a smaller workforce in the NL fishery was desired to meet the policy goals of the time.

In the next examined period of fisheries governance, UNCLOS discussions introduced the feasibility of a 200-nautical mile EEZ. In a push to find ever more effective ways in preventing foreign fishing of the groundfish stocks, Canada saw the EEZ as a necessary tool in protecting their economic interests. The principle of reducing foreign overfishing turned to adjusting inconsistencies within Canada's own fishery systems once the EEZ was implemented. The dominant principle became ensuring MSY of the fisheries primary resources. Throughout this period, an overall reduction in fisheries participants was recognized as a necessary and natural part of the policy planning process. The end result would be less vessels, less fishermen, and a higher technological capacity to harvest fishery resources with less participation. In doing so,

however, a superficial contradiction arose in the late 1970s. It was decided that the Total Allowable Catch allocations would be biased in favour of the inshore fleet. Despite the projected reduction in the size of the inshore fleet [63], inshore fishermen were being assured that they would have preferred access to the resource [64].

During the initial optimism of the fishery in the early 1980s, and throughout the crashing biomass reports which brought the groundfish fishery to a halt, the guiding principles of the fishery changed again. Instead of aiming to maximize economic growth, the fishery governance regime desired to maximize employment while enhancing professionalization. Professionalization had the effect of placing barriers on entry into the fishery for new participants, which supported the idea that overcapacity was still a concern for the fishery, and that a smaller number of participants with a higher level of output, safety, and quality of production was preferred to a glut of participants achieving the maximum sustainable yield of the resource.

The principles of restructuring and relocating employment in the moratorium years created policies and programs which all appear to have pointed towards the same goal: reducing the number of participants in the NL fishery. The NCARP and TAGS program were expressly designed to shuttle people out of the fishery and into other employment sectors (whether or not they achieved this effectively). Although the number of part-time fishermen, as they were classed by the 1981 licensing system, were largely no longer participating by the time 2005 rolled around, the number of fishermen in the industry in 2002 was equal to the number of full-time fishermen in the industry in 1992. The processing sector saw a reduction in the number of plants, but the number of full-time plant workers was not reduced by much. Throughout this period, over-capacity of fishery (especially in the processing sector) was still a large problem

[65]. The reduction in participants of this period largely came about because fisheries labourers, stakeholders, and managing bodies were forced to restructure and downsize because of the unprecedented resource crisis.

Now, in the present day of the fishery, new directions are being provided to fisheries management by a new set of guiding principles. Conservation is the most heavily-weighted principle, and ways to achieve a conservation balance have been influenced by international bodies such as the UN or Oceana. The CFRN framework and IFMP guidance suggest methods that are in tandem with this principle to work towards recovery of regional fish stocks and to prevent future crises in the fishery. The common element in all the periods of fisheries governance leading up to the present day has been that a reduction in the harvesting capacity of the fishery was necessary.

Observations and Implications

Considering the above comparison, the observation that reduction in harvesting capacity has been an ever-present goal of the fishery. This recommendation came about in response to different guiding principles, which themselves were developed in response to vastly different situations that arose throughout the fishery's history. It may be that further consideration should be given to holding down participation in the fishing industry, as it could promote both economical wellbeing for remaining participants, and recovery and sustainability of many resource species.

As evidenced by the socio-economic turmoil and resulting programs of the 1990s, it is essential that the fishery not be considered in a vacuum in Newfoundland and Labrador. It is less

a stand-alone industry as it is a common fabric of NL's overall governance and economic structure. Other principle and policy changes in the past have recognized this. The resettlement period in Newfoundland history was a restructuring of the social face of the island, in part driven by a desire for fishery improvements. Another example is that of the NCARP and TAGS programs, which were designed to re-educate those leaving the fishery; other sectors of industry had to be available to select fishers, or they would have very little recourse for employment. If a policy such as reduction in capacity is to be considered, it has to be recognized that it is not a management issue specific to fisheries- it must involve other governance systems as well.

The “Four Pillars” Approach and Guidelines for Management

The CFRN stresses that for a successful fisheries management framework, four pillars of sustainability should be considered. The first pillar of ecological elements are informed by international understandings of fish ecology, and structured in a way that they would assist a managing entity with meeting biodiversity targets as set out by the CBD. The second pillar, economy, is based on understandings and needs of individual/ private operators, and sustainable, stable employment models. Social and cultural elements, which make up the third pillar, consider the safety and wellbeing of the people active in the fishery, and how the fishery may relate to their cultural heritage. The fourth pillar of institutional elements considers management responsibilities and structures and how they interact with other affected parties in the fishery, including Aboriginal parties [66]. There are other frameworks, including internationally developed ones at the United Nations level. The benefit that the CFRN claims to have is that it is more balanced across all four pillars of sustainability, whereas other frameworks are typically much more biased towards one pillar over another. The Food and Agriculture Organization of the United Nations (FAO), for instance, has recently released a Voluntary Guidelines for

Securing Sustainable Small Scale Fisheries in the context of Food Security and Poverty Eradication, which favor the institutional and social elements of management over the ecological and economical ones. For instance, human rights and dignity, cultural respect, consultation and participation (citing UNDRIP), accountability, and a holistic and integrated approach to management are all listed under the Voluntary Guidelines [67]. The CFRN framework, if applied to DFO's policy management, may be able to help balance fisheries management plans so that both stakeholders, communities, and harvestable species benefit.

Conclusion

A number of different principles have informed the governance of NL's fishery for the last few decades. Quite often, these principles were reactive to particular events or situations surrounding the fishery. It is easy to say with hindsight, but the tendency of the principles to focus on readjusting one aspect of the fishery, especially when the principle was in conflict with prior principles, or when it was not clearly defined, caused the resulting policies to be less effective at long-term management than would have been beneficial. Currently, after the 2004 Policy paper and the development of tools such as the CFRN framework, international frameworks and policies, and more transparent methods of planning, a new period of principled fisheries governance is beginning under DFO. The past methods of governance have demonstrated that reactive principles allow ineffective management and unsustainable practices to continue. Furthermore, it is possible that recommendations or issues across a timeline of different policies- such as the consistent call to reduce overcapacity in the fishery- may provide guidance when policy planning. The road ahead for a healthy fishery could very well be marked by maintaining a focus on sustainability as a guiding principle in the fishery, combined with a consultation and planning process integrated across all levels of the industry.

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