

TOWARD A POLICY FOR THE UTILIZATION OF NORTHERN COD

A DISCUSSION PAPER

DEPARTMENT OF FISHERIES AND OCEANS

GOVERNMENT OF CANADA

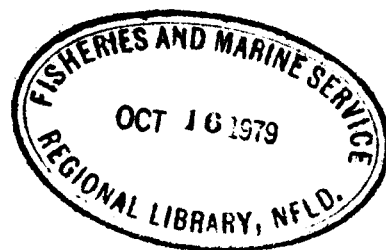
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FORWARD

The extension of Canadian jurisdiction to 200 miles from the coast has provided opportunities but has also created its own problems. The most significant opportunity is the authority to manage the fish resources within the extended zone for the benefit of Canadians. The problem is that unless that is done properly the benefits could be dissipated by trying to resolve all the economic and social problems of the Atlantic coast with the limited fishery resources.

The establishment of a total allowable catch limit (TAC) at a conservative level will enable the northern stock to rebuild. Under present cost and returns conditions, a level of catch of 350-400 thousand M.T. would appear to offer the best opportunity to optimize social and economic benefits for Canada. Whether these results are achieved depends upon the management system selected for this resource. More particularly, it depends upon the technology chosen to harvest the resource.

It must not be forgotten, that although it was the foreign fleet that depleted this particular stock, our own fleets, inshore and offshore, have depleted other stocks, and still have the ability to do so unless they are controlled.

To ensure that the errors of the past would not continue into the future, the Department of Fisheries and Oceans, Canada undertook a series of studies, and held an industry-government seminar at Corner Brook, Nfld. on August 28-30, 1979 to get the best technical information and obtain the

views of individuals representative of the various sectors of the industry and provincial governments. Background papers prepared for the Seminar are listed in Annexe 1 and can be obtained from the Department of Fisheries and Oceans, Ottawa. A short report on the conclusions of the Seminar is reproduced in Annexe 2.

This paper puts forward a suggested policy for the utilization of northern cod for discussion by all interested groups.

CHAPTER 1

Introduction

The Northern Cod Stock as it is commonly called is that stock of codfish contained in the areas designated 2J3KL by the International Commission for the Northwest Atlantic Fisheries and the Northwest Atlantic Fisheries Organization (NAFO). This stock occupies an area from just north of Hamilton Inlet Bank to the Northern Grand Bank, including all the inshore areas of southern Labrador and east Newfoundland as far as Cape St. Mary's and all of the offshore area of southern Labrador and the east coast of Newfoundland as far south as the northern half of Grand Bank.

This is not a new stock recently discovered but the stock that has provided the basis for a large inshore cod fishery along southern Labrador and the east coast of Newfoundland. It has been fished for over three centuries and has been the main determinant of settlement patterns along the coast. It has been and continues to be the principal economic base for all the communities along the coast.

At its historical peak, the stock yielded about 300,000 metric tons (MT) of cod most of which was caught by fixed shore gear, the cod trap, and by handlines and baited trawls. The catch was generally salted and dried on shore.

On the Labrador coast, most of the fish was taken by fishermen from the island of Newfoundland who migrated to Labrador each summer to fish from

shore stations, or from larger vessels, where the end product in each case was wet salted fish. From time to time, the dory vessel fleet from Nova Scotia also participated.

The decline of the inshore fishery was not brought about by the lack of effort on the part of inshore fishermen, or the economics of their operations, but by the scarcity of fish, caused by overfishing by the foreign fleet which caught 800,000 M.T. of cod in 1968. Although the foreign effort increased, the catch began to decline in 1969 and continued to do so until 1978 when it reached the level of 140,000 M.T. (under quota).

The inshore component was the first to suffer. As more fish was caught offshore in winter, less fish migrated inshore in the spring and summer. The mobile foreign fleet could go elsewhere to seek fish but the inshore fisherman did not have that alternative. Direct subsidies by the Government of Canada in 1974 helped, but as the subsidy was based on cents per pound of catch, and catches were low, the inshore fisherman was left in considerable difficulty.

By 1974, the total inshore catch of cod from the norther stock had dropped to 35,000 M.T. Since then it has been increasing and for 1979 is expected to reach between 80 and 90 thousand M.T. Although this is a long way from its historical peak, better prices (even when related to costs) and a better market for other species caught by inshore fishermen (i.e. squid, herring, capelin and turbot), have resulted in increased earnings of inshore fishermen.

As a result of these difficulties, the number of inshore fishermen fishing northern cod declined rapidly. At the moment, the number is increasing, particularly in the fixed gear fishery. It has been estimated that at its historical peak, fishermen employed about 4,000 cod traps. Recent surveys by the Government of Newfoundland suggest that this number has already been exceeded. In some areas the number of long liners (somewhat of a misnomer as these vessels now fish with gillnets), has also been increasing.

Traditionally, the Canadian wetfish trawler fleet did not fish the northern cod during the winter off Labrador although the 3L portion (northern Grand Bank) has regularly been fished, mainly because there were other grounds more economic to fish. However, when fish became scarce in all areas, the trawler owners, with financial incentives from the federal Government, began to fish the northern cod and this year are expected to catch about 50,000 M.T. or about one third of the total Canadian quota.

The balance of this paper will deal with the following points:

- (a) the philosophy of resource management as it relates to northern cod;
- (b) The projected size of the stock and its annual yield;
- (c) The fleet required to catch the annual yield;

(d) The capacity of the processing sector to handle the fish;

(e) Policy options open to the Government; and

(f) Future policy direction.

CHAPTER 2

Management Philosophy

Two points should be made at the outset: one, the management of the fishery is constitutionally the responsibility of the Government of Canada, and two, the fishery resource is a common property resource which means that its ownership is vested in the state. Right of access to the resource is granted by licence.

Before discussion of policy options on the utilization of northern cod, the objective of the policy should be set out. In general terms, this objective can be stated as "the optimization of the social and economic benefits for the nation". Although one can measure roughly what most of these benefits are, there is considerable judgement involved. Hence, it becomes necessary to outline a philosophy as the basis for making such judgements. Some aspects of this philosophy are as follows:

- (a) Although the resource is a national one, contiguous areas are considered to have a priority in exploiting this resource;
- (b) As it is common property resource, access to this resource must be by licence;
- (c) Access to a common property resource must be controlled. Experience in Canada and elsewhere tells us that unless access is controlled, new units will continue to seek access to the resource until returns begin

to diminish. This has often been described as "The Tragedy of the Commons" because it was in the use of common land that the phenomenon was first observed.

- (d) In allocating access, the choice of technology is an important factor; different technologies may require different methods of control, and produce different results.
- (e) The northern cod stock cannot be managed in complete isolation from other Atlantic coast fish stocks.

Although not part of the "philosophy", two historical facts should be restated:

- (a) The northern cod stock is not a new stock recently discovered but was the basis for settlement patterns on the coast of southern Labrador and eastern Newfoundland and remains their principal economic base;
- (b) Until 1977 the northern cod stock has never been exploited to any degree by the Canadian offshore fleet off Labrador. Traditionally, the offshore fleet fished the stock in Division 3L (northern Grand Bank).

CHAPTER 3

The Northern Cod Resource to 1985

Projected Size of the Stock

Until extension of jurisdiction gave Canada control over that stock, ICNAF was responsible for its management. It was not until 1973 that a limit was placed on the catch (TAC) and this was at the level of 650,000 M.T. It was reduced to 550,000 M.T. in 1975 and 300,000 M.T. in 1976 when it had become obvious that the TAC had been set too high. It has since been further reduced to promote rapid stock re-building.

In 1978 and 1979 the TAC was set at a level that would provide for a more rapid re-building of the stock to allow the recovery of the inshore fishery. On this basis, the stock is expected to reach its "restored" level by 1985 when the stock should support a TAC of at least 350,000 M.T. In discussing the options on its utilization, it is assumed that in 1985 and beyond, the northern cod stock can support an average annual catch of at least 350,000 M.T., though this will be influenced by the management strategy adopted at that time. Better than average year classes could support a larger fishery in some years and vice versa. For details and for the scientific explanation of how the TAC's are established, see background paper number one listed in Annexe 1.

The Fleet

As mentioned earlier, the inshore fleet with unsophisticated technology caught about 300,000 M.T. in the 1930's when the stock biomass was probably not much larger than it is projected to be in 1985. In recent years, the maximum caught by the inshore fleet was 200,000 M.T. in the 1950's.

The Canadian offshore wetfish trawler did not fish the northern cod stock off Labrador in winter until a shortage of fish elsewhere, restrictions on where they could fish, and financial incentives forced them to do so. The fleet is expected to catch 50,000 M.T. of northern cod in 1979.

The question that has to be answered is the capacity of the current fleet to catch the projected TAC of 350,000 M.T. Three background papers considered this question using somewhat different methods but, within narrow limits, concluded that the inshore fleet at its present level and the offshore wetfish trawler fleet (if reinforced to fish through the ice) can catch the 1985 TAC. Details of the calculations and technical explanations can be found in background papers 1, 2 and 4 listed in Annexe 1.

It is also interesting to note that the participants at the Seminar came to the same conclusion. Some participants cautioned about the wisdom of catching the TAC with present gear. The report on the Seminar is reproduced in Annexe 2.

Processing Capacity

When the northern cod stock was heavily fished inshore processing consisted of splitting, salting and drying and this was usually done by the fisherman and his family. It was the capacity to process that placed a limit on his catch.

The introduction of freezing, the extension of roads to coastal settlements which facilitated the distribution of fish, and the introduction of mechanical drying of saltfish led to the practical disappearance of the fishermen's production. With the drop in the availability of fish from 1970 on, the fisherman has had no difficulty selling his catch in the fresh form. As more fish has become available inshore the "glut" problem has reappeared, though not yet seriously. Three steps have been taken recently that should considerably reduce this problem. These are:

- (a) Expansion of processing capacity by the private sector;
- (b) The development of an inshore fish handling system by Fisheries and Oceans, Canada and its planned installation at 200 landing points; and
- (c) The establishment of fish information desks by the Newfoundland Department of Fisheries, now in operation at six centres.

Some areas will experience "glut" problems from time to time, but these may become isolated and can be dealt with. The Labrador Coast has insufficient capacity to process inshore fish caught off the coast and

fish is transported to plants on the island of Newfoundland. This, however, is more a concern of social and economic development at the local level than a "glut" problem.

The Seminar also concluded that generally speaking, there is enough existing and currently planned capacity to process the expected volume of northern cod. The participants were more concerned with the quality of "glut" fish than with the quantity. They felt that less fish should be caught in cod traps and more with long liners and other vessels capable of fishing until late fall to reduce the "glut" problem and lengthen the fishing season. Three aspects of the quality problem were discussed: size, quality of flesh, and the effect of delays in processing during the warm summer weather. It was recognized that most of the quality problems can be resolved and many suggestions were made on how this might be accomplished.

Markets

By 1985, Canada is expected to land a maximum of 680,000 M.T. of cod compared with 248,000 M.T. in 1977. At the same time, other nations that were fishing will be landing less cod partly because their catch in the Canadian zone has been reduced but also because other cod stocks, particularly in the North Sea, have been depleted.

The Departments of Industry, Trade and Commerce and Fisheries and Oceans in cooperation with industry are undertaking a world-wide marketing study of fish and fish products. The first part of the study dealing with cod

has concluded that by 1985, the demand and supply of cod will be in balance. Numerically, at least, it would appear that Canada could sell its entire production.

However, there are many problems to be resolved. Traditionally, Canadian cod has been sold in the frozen and fresh form in the domestic and U.S. markets, and in the salted form in the Mediterranean and Caribbean countries. While these markets will continue to be important, they will not absorb the total volume. Hence, the balance will be sold in new markets, principally Europe and Japan for frozen fish. More saltfish can probably also be sold in markets that were previously supplied by European fishermen with cod from the Grand Bank and the North Sea.

The Seminar came to the same general conclusion but some participants expressed serious doubts about the industry's ability to provide the quality required by the European market in particular, but also by the rapidly-growing fast food service in the United States. These doubts are based on the fact that too much of the new cod production would be taken by cod traps and gillnets, two types of gear that in their view produce a poor quality product.

CHAPTER 4

Policy Options

Inshore Option

From the previous discussion on the historical utilization of northern cod and the stated philosophy of management, it follows that priority of access must be given to the fishermen of Labrador and eastern Newfoundland. This was also accepted in principle by the Seminar participants who went further and concluded that about two thirds of the TAC should be set aside as an "allowance" for the inshore and near shore fleet. The question of a middle distance fleet was not resolved but it was generally considered a part of the inshore sector. The "allowance" could be managed as an average rather than as a set annual allocation.

In terms of economics and social benefits the inshore fleet (including all nearshore and middle distance vessels under 100 ft.) provide the best mix of benefits. Some of these benefits can be lost if entry is not controlled. Because the trap fishery requires the least capital of the major catching methods, it is the one that requires control most urgently. It is also a fishery that attracts casual fishermen who participate only for a few weeks and then disappear. Their presence tends to create problems for full-time fishermen.

Offshore Option

For the total fishery the benefits could be increased by allocating one-third of the TAC to the offshore sector. This would not only provide a continuing supply of cod for smooth marketing operations, and reduce seasonal plant overheads, but also reduce payments of unemployment insurance benefits to plant workers during the winter months. It would also lessen the pressure by the offshore fleet on other stocks that can be fished by smaller, less mobile vessels.

Again, there was general agreement at the Seminar on these points. The controversy arose over the question of which kind of technology should be used offshore. Although it was agreed that the current wetfish trawler fleet (as replaced) can catch the northern cod, it was stated that wetfish trawlers operating from Nova Scotia ports will not be economic in the mid-80's as fuel costs continue to increase. On the other hand, by then, it is argued, there should be other stocks available to that fleet that are nearer the Nova Scotia ports than the northern cod winter fishing grounds. The question becomes one of replacement. Should wetfish trawlers based in mainland ports be replaced by wetfish trawlers from Newfoundland ports or with freezer or factory trawlers fishing from Nova Scotia ports?

Factory/Freezer Trawler Option

No convincing evidence has been advanced for the argument that large freezer or factory trawlers are required to catch northern cod and there

appears to be rather wide agreement on that point. There is a separate but valid argument being made that Canada requires vessels capable of freezing at sea to harvest species that are now harvested almost entirely by foreign vessels whether by allocation of fish to them or by chartering their vessels to fish for Canadians. The argument goes on further to say, that the only freezing-at-sea technology that makes any economic sense is the large (225-250 ft.) factory/freezer trawler. However, such vessels, capable of catching in excess of 10,000 M.T. of fish per year, would require an allocation of northern cod to be economic.

At the Seminar strong views both for and against were expressed on this point but no agreement was reached. On one side is the fear that such a large technology will not only create problems for the smaller inshore and nearshore fisheries, but tend to concentrate excessive power in the hands of those who control it. On the other side, the argument is that unless we have such technology we will continue to have foreigners fishing in the Canadian zone and not optimize the benefits from extended jurisdiction.

Another argument that can be made is that, for example, while freezing squid at sea is necessary, it might be preferable to catch the squid with jiggers rather than trawl. Hence, the larger freezer trawler may not be the best catching technology. There is also danger that once the larger freezer/factor trawlers have been permitted to enter the fishery, it will tend to exclude other technologies. Examples of this problem can be found in the herring, scallop and haddock fisheries in the past decade or so.

On present evidence there will probably be sufficient capacity to catch all the traditional species without adding to the existing fleet, by simply replacing and allowing increases in vessel size up to 125% in overall length. If one starts to "borrow" traditional species to ensure the viability of the new technology, some units of the existing fleet may find themselves in difficulty. On the other hand, some of those who have applied for licences for freezer/factory trawlers have licences that are "banked" following a freeze on licencing of large vessels instituted in 1973 (a problem that has not be resolved), and feel an entitlement to some consideration when new licences are issued. The issue, therefore, is not just one of technology but access to more resource and is really a question of licence.

Although freezing at sea is discussed as a new technology, the tuna fleet freezes at sea and so do salmon boats on the Pacific coast. Moreover, part of the Newfoundland trawler fleet is equipped with freezing technology. More recently, northern shrimp licences have been issued for vessels that will have freezing at sea. Similarly, wetfish trawlers can be replaced with vessels with freezing capacity on board; their owners are not prevented from doing so under present regulations.

So far as freezer trawlers are concerned, the only objections to their introduction are their possible size and the fact that some of those who wish to acquire them want a licence that will permit them to fish northern cod. Their size is a concern because of their catching capability and the large volume of resource committed to the owner. Another problem

associated with the operation of freezer trawlers is their wasteful utilization of the resource. In recent Canada/Foreign arrangements involving freezer trawlers, observers noted that in heading fish by machine, a large amount of flesh was wasted partly because of the nature of the operation of the machine, but also because the fish was cut to fit the freezer trays. The problem of the machine is partly one of speed, the faster it goes the more fish can be caught in a day because the capacity of the vessel to catch is greater than its capacity to process. These problems, like those of the trapfish, can be resolved. As the fish is frozen almost as soon as it is caught, its quality is very good. Even with reprocessing on shore, it can still produce an excellent product. Because it is landed in frozen form, it can be kept in storage and processed as plant capacity permits.

In respect to northern cod the same objections can be raised with respect to the licensing of factory trawlers. They have a further disadvantage that catching capacity is even greater than the freezer trawler because the fish is processed into a finished product. It is very capital intensive and raises questions about the effect on employment on shore. The only point in their favour is the quality of the product, which is excellent.

The International Option

Extended jurisdiction gave Canada control over a zone extending to 200 miles from the coast. Unfortunately, some of the stocks straddle the boundaries of the zone and can be harvested on either side. These stocks

are not managed by Canada alone but in concert with an international organization, the North Atlantic Fisheries Organization (NAFO), the successor to the International Convention for Northwest Atlantic Fisheries (ICNAF).

Allocation of access for stocks in Flemish Cap (3M) is the responsibility of NAFO. In allocating access, NAFO recognizes Canada's preferred position as a coastal state. The principal species of interest to Canada are redfish and cod. For 1979 Canada received reasonable allocations of these stocks. The beneficiaries of these allocations have been the operators of wetfish trawlers.

In discussing the stocks beyond the zone, particularly the transboundary stocks, some participants at the Seminar expressed their concern about the lack of cooperation by some foreign fleets. They suggested that Canada should be prepared to trade access to fish within the zone to obtain such cooperation. There was not consensus on that point but there was general acceptance that such trade-offs should not be ruled out as a means of increasing Canada's benefits from extended jurisdiction.

An area where such trade-offs might be most rewarding is the trading of access to fish in the zone, say northern cod, for an allocation of outside the zone, say redfish on Flemish Cap and/or the various species on the Grand Banks.

As the principal beneficiaries from such trade-offs would be the trawler owners, the allocation of northern cod to the foreign fleet should come from the offshore allocation. This would not only be beneficial to Canada in terms of cooperation but could improve the economics of the wetfish trawler operations.

Canada, should be prepared therefore, to set aside, say 10% of the 2J3KL cod TAC in exchange for larger allocations beyond the zone.

CHAPTER 5

Future Policy Direction

The following summarizes the policy being suggested for the utilization of northern cod, on the basis of the preceding discussion.

- (a) The first and over-riding priority in allocations is to the inshore fishery. The consensus from the seminar participants was that two-thirds of the TAC of northern cod should be set aside as an allowance for the inshore fishery. The allowance would be an average and not a fixed quota. It would vary from year-to-year depending on the size of the inshore cod migration and fishing conditions. The question of whether the middle distance fleet (e.g. vessels between 65 and 100 ft.) should be included in the inshore or offshore sector cannot be answered until the size, nature and scope of such a fleet is known. Meanwhile, there is no evidence that an allowance of 2/3 of the TAC will constrain the existing inshore fleet in 1980.
- (b) There must be some control on the number of units in the inshore sector. Although there may not be any resource constraint on the inshore sector for some time, the present fleet (including replacement) has the capacity to catch the entire inshore allowance by 1985. Based on the anticipated catch rates, this should provide good average earnings. Any large increase in the number of units will obviously reduce average earnings and could produce serious gear conflict. Because of wide variations in the availability of the cod

resources along the coast, effort control must be selective. There must therefore, be close consultation with the Newfoundland Provincial Government and among all participants before the scope of control can be determined.

- (c) An amount not to exceed 10 per cent of the TAC of northern cod or alternatively an amount of 20 to 30 thousand tons should be set aside for negotiating, through NAFO, a larger allocation to Canada of fish beyond the 200 mile zone. As the offshore fleet will be the principal beneficiary, this amount should come from the offshore allocation. The domestic offshore allocation would thus approximate 25% of the TAC.
- (d) Replacements of existing wetfish trawlers by similar vessels would be allowed to fish on the same basis as the vessels they replaced. These replacements could be of greater length overall, to a maximum of +25%.
- (e) Replacements of existing wetfish trawlers by vessels capable of freezing at sea (providing that they come within the 125 per cent guideline) would receive a separate quota within the offshore location. The separate quota would take into account the catching capacity of the wetfish trawlers being replaced by freezer trawlers.
- (f) With respect to the possibility of access to northern cod for additional offshore vessels, this matter remains under review pending further Provincial and Industry consultations.

(g) Consideration should be given to placing an upper size limit on offshore vessels, irrespective of technology used, e.g. 175-200 feet, on the assumption that vessels of this size can be equipped to freeze and/or process at sea, and to prevent excessive concentration of offshore catching capacity.

(h) The 1980 TAC of northern cod should be the same as in 1979, i.e. 180,000 M.T., allocated as follows:

	1980	1979
Inshore:	110 - 115,000 M.T.	100,000 M.T.
Offshore:	45,000 M.T.	43,000 M.T.
Foreign:	<u>20 - 25,000 M.T.</u>	<u>37,000 M.T.</u> (includes 12,000
*TOTAL:	180,000 M.T.	180,000 M.T. landed in Canada)

* For 1978, the overall TAC was, for the first time, set at a level below the $F_{0.1}$ level to promote more rapid rebuilding. The level was chosen arbitrarily as 135,000 M.T., corresponding to a fishing mortality of 0.16 which is below $F_{0.1}$. The TAC for 1979 was originally set at 170,000 M.T. which corresponds to a fishing mortality of 0.17, and later adjusted to 180,000 M.T. which corresponds to a fishing mortality of 0.18; both below $F_{0.1}$. The proposed TAC for 1980 of 180,000 corresponds to a fishing mortality of 0.17. The TAC at the $F_{0.1}$ level in 1980 would be 212,000.

* The $F_{0.1}$ level for this stock is approximately 0.20.

- Number 5 A Discussion Paper
 prepared by The Fisheries Council of Canada for the
 Northern Cod Seminar presented by Mr. K. Campbell,
 General Manager
- Number 6 Freezing at Sea - A Canadian Opportunity
 prepared by
 The Nova Scotia Fish Packers Association, and presented
 to the Seminar by Mr. Ken Campbell
- Number 7 2J3KL Cod - An Old, not a New Resource
 presented by Mr. R. Cashin, President, Newfoundland Fish,
 Food & Allied Workers Union
- Number 8 Northern Cod - Market Factors and International
 Considerations
 a paper presented by
 Mr. G.C. Vernon
 Assistant Deputy Minister
 Fisheries Economic Development & Marketing Dept. of
 Fisheries & Oceans

ANNEXE 2

Summary

Of the Main Conclusions of the Participants

at the Northern Cod Seminar

1. From the reports of the workshops I have come to the following conclusions:

- (a) While there was no unanimity, there was strong agreement that the TAC on the northern cod should be established at a conservative level; not only to enable the stock to rebuild rapidly but because there was uncertainty expressed by the scientists about their knowledge of the stock because of the usual uncertainties associated with stock forecasts.
- (b) There was general agreement that in granting access to the northern cod stock, the inshore fishery should be given priority and that there should be some measure of control on the size of the inshore fleet. The proportion of the stock to be allocated to that sector of the fishery should be about two-thirds of the total.
- (c) Although there was no agreement on the proportion of the TAC that should be allocated to a new middle distance fleet partly because it is an integral part of the inshore fleet, a strong feeling was expressed that this fleet should replace part of the fixed gear to lengthen the inshore fishing season. Because there is insufficient

information on the economics of operating such a fleet, the need to prepare a fishing plan for this fleet to fish during the winter in other areas was highlighted as an important item.

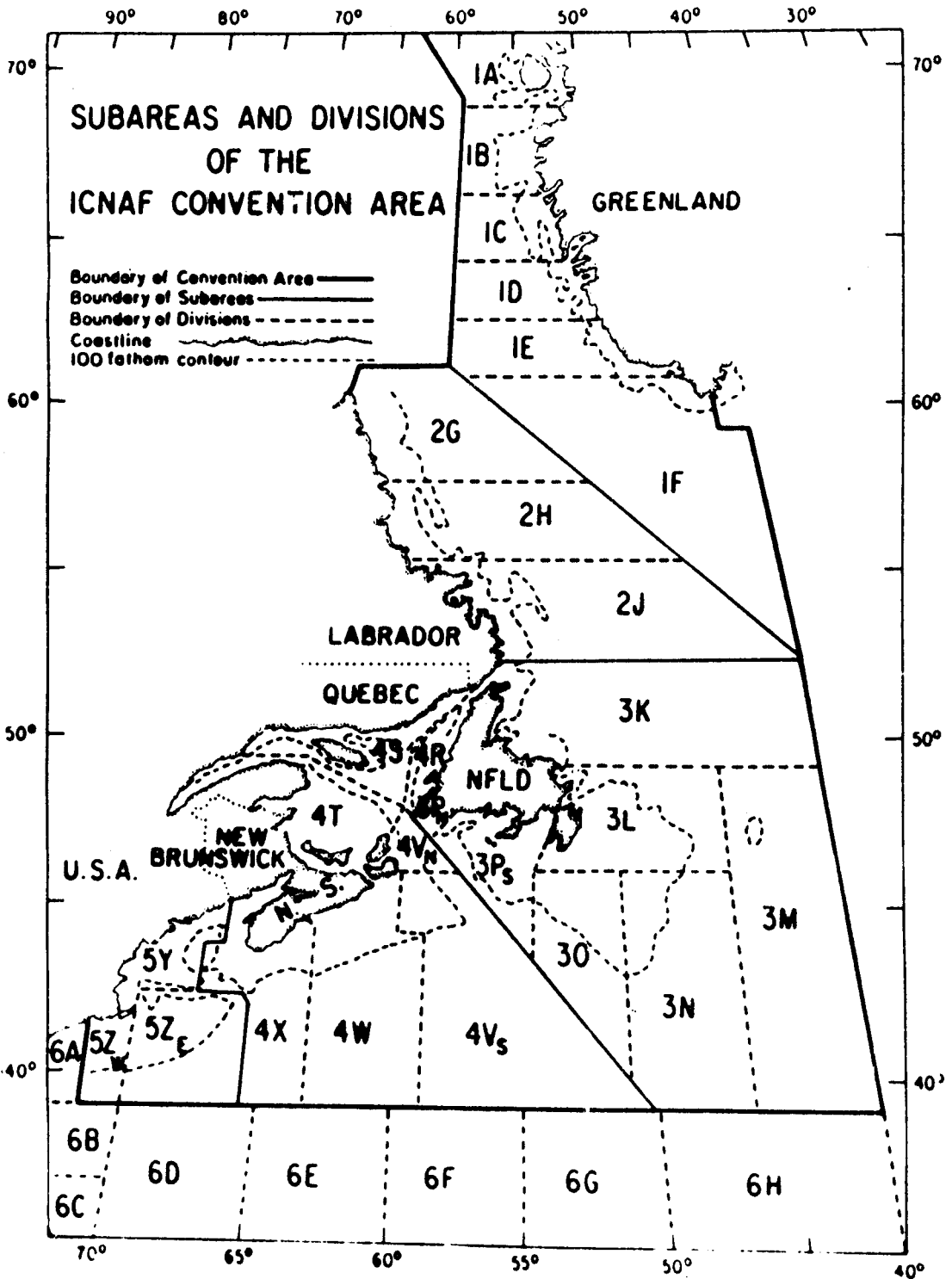
- (d) There was also general agreement that the existing wetfish trawler fleet and the inshore fleet could take the entire 1985 TAC of 350,000 M.T. of northern cod. Some doubts were expressed about the wisdom of catching the whole TAC with existing fishing methods, because of quality and related problems. Another doubt relates to the expectations that other stocks would rebuild that would be more economic for some segments of the wetfish trawlers to exploit, although there was some feeling that these stocks would be required for the smaller, less mobile vessels.
- (e) Although there was general agreement that neither factory nor freezer trawlers were required to catch the northern cod, there was a strong feeling expressed by some participants that it was unwise to consider the harvesting of northern cod except in the context of the total Atlantic fishery. Because some species such as squid, offshore mackerel, silver hake, etc., have to be frozen at sea, some participants expressed the view that if northern cod is required to ensure the viability of such vessels then an allocation should be made for this purpose. A supporting argument for developing this Canadian capability is the continuing presence of foreign participation in those fisheries.

- (f) Although there was general agreement that priority in allocating northern cod should be given to the inshore sector, it was recognized that this decision makes it essential to consider the problem of seasonal gluts. Consequently, the participants made many suggestions to deal with this problem and there was considerable similarity in the suggestions that were made. These suggestions are listed in the detailed report but they are essentially concerned with improvement in the harvesting methods including fleet restructuring, gear restrictions, improvement in quality through better handling and the establishment of standards, as well as the improvement of distribution of fish including the continuation of the present information desk system.
- (g) Foreign freezing vessels should not be chartered on a continuing basis to handle cod glut. Should Canadian freezer vessels be added to the fleet, these might be used for that purpose. Except for the Labrador Coast, there was a feeling that present and planned plant capacity was adequate.
- (h) There was also general agreement that offshore northern cod caught in the winter should be distributed to underutilized seasonal plants although there was no general agreement on how this might be done or what plants should be supplied. However, it was suggested that selective expansion should be considered where the need can be demonstrated.

- (i) The participants concluded that the anticipated volume of cod in 1985 could be marketed at a reasonable return to the industry provided that a product of acceptable quality can be placed in the market at a competitive price. It was strongly emphasized that because the markets of the 1980's would require a high quality product both processors and fishermen will have to improve their methods of handling fish. At the same time, government will have to cooperate with industry in achieving this objective. Cooperation between government and the industry will also be required to develop a strategy that will enable the industry to penetrate these markets. More emphasis will have to be placed on obtaining good market intelligence, and to achieve this will require that industry and government fish experts be located in the principal markets.
- (j) There was fairly general agreement that, in the absence of a surplus, northern cod should not be used to obtain market access or tariff reductions.
- (k) Although strong views were expressed for and against the use of northern cod to obtain cooperation beyond the 200 mile zone, no consensus was achieved. Those who felt strongly in favour of granting access, related their concern to the transborder stocks where they felt the Canadian industry could be seriously hurt. To demonstrate the seriousness of this problem, it was suggested that it might be possible for the foreigners to take the total TAC of

the southern capelin stock outside the zone. Those who opposed granting access for this purpose felt that once you started to do this, you could expect all countries fishing outside the zone to demand the same treatment. Moreover, it could appear that we would be rewarding the guilty and punishing the innocent.

Annexe 3

Subareas and Divisions of
ICNAF Convention Area

ANNEXE 4

Annual Offshore Quotas, Inshore Allowances and Catches in 2J3KL, 1973 - 1979:

<u>1973</u> ¹	<u>Allotment</u> <u>(M.T.)</u>	<u>Catch</u> <u>(M.T.)</u>
Offshore Quota	60,000	1,000
Inshore Allowance	50,000	43,000
<u>1974</u> ¹		
Offshore Quota	60,000	1,000
Inshore Allowance	50,000	35,000
<u>1975</u> ¹		
Offshore Quota	38,000	1,000
Inshore Allowance	50,000	41,000
<u>1976</u> ¹		
Offshore Quota	24,000	3,000
Inshore Allowance	50,000	60,000
<u>1977</u> ¹		
Offshore Quota	17,750	7,000
Inshore Allowance	50,000	73,000
<u>1978</u> ¹		
Offshore Quota	20,000	21,000
Inshore Allowance	80,000	82,000
<u>1979</u> ¹		
Offshore Quota	43,000	N/A
Inshore Allowance	100,000	

¹ Arrangements for these years were under the ICNAF structure. In 1977, Canadian control was asserted with extension of jurisdiction.