

First Draft

CANADA AND THE NEW INTERNATIONAL LAW OF THE SEA

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V. CONCLUSIONS: CANADA IN THE AGE OF OCEAN  
DEVELOPMENT AND MANAGEMENT

## CANADA AND THE NEW LAW OF THE SEA

Douglas M. Johnston

### I. INTRODUCTION

Most Canadians are essentially land-bound mammals. Especially in the four inland provinces, few individuals and even fewer institutions give more than the occasional passing thought to the ocean and its impact on the nation. Of the coastal provinces, perhaps only two - Newfoundland and Nova Scotia - can be said to be deeply imbued with maritime traditions and to possess a high degree of "ocean consciousness". Despite our possession of the world's longest coastline (approximately 151,489 miles) and the second largest shelf (2.5 million square miles), few of us have any appreciation of the significance of the new law of the sea for Canada. It is the purpose of this paper to describe and assess these recent legal developments and to evaluate their implications for Canadian policy-making in a number of domestic and international contexts.

The phrase "new law of the sea" is a convenient shorthand reference to the entire field of international law, policy and practice relating to the ocean, and to the many fundamental changes which have been effected in that field in recent decades. Increasingly over the last 50 years, science has transformed our perception of the three-dimensional ocean environment.<sup>1</sup> Moreover, the emergence of platform technology has opened up new uses of the sea and its resources, and especially since the 1950's the world shipping industry has acquired an extraordinary diversity in the type and size of vessels it deploys.<sup>2</sup> In response to these developments in ocean science and technology, new political and economic demands have been forged in the heat of UN conference diplomacy, shaped by contending ideas and energies at work in the world community. The "new law of the sea" is the product of these ideas and energies, but it is also the process for the making of future policies and decisions related to the ocean at national as well as global and regional levels.

The new law of the sea is assuming legal form in a variety of instruments and practices: global treaties, multilateral agreements among like-minded nations, regional or subregional conventions and protocols among neighbouring littoral states, bilateral arrangements, national statutes and regulations, unilateral declarations and decrees, and other administrative acts that can be said to reflect "state

practices". Over the last 12 years alone, several hundred instruments of these kinds have been concluded or promulgated. For example, some 80 bilateral maritime boundary agreements have been negotiated,<sup>3</sup> and almost 100 claims to extended coastal state jurisdiction have been officially proclaimed.<sup>4</sup> Judicial pronouncements play a less constant role in the development of international law in general, but since the 1950's most of the arbitrations before the International Court of Justice have been law of the sea disputes.<sup>5</sup> Amid this proliferation of legal developments, however, one particular contribution stands out as dominant and all-pervasive: the 1982 U.N. Convention on the Law of the Sea.<sup>6</sup> After 15 years of global negotiations of unprecedented complexity, at the Third U.N. Conference on the Law of the Sea (UNCLOS III), 134 states have come forward to sign this immense law-making treaty,<sup>7</sup> which consists of 320 Articles and nine Annexes. Almost a dozen states have already gone further to the point of ratifying the Convention,<sup>8</sup> and it is expected that by the end of the 1980's the majority of nations, including Canada, will have become bound to it, as parties, under the law of treaties.<sup>9</sup>

The UN Convention on the Law of the Sea is a unique document. No other global treaty has ever been negotiated on this scale. Indeed it is difficult to think of any legal instrument, at any level of legal development, of comparable scope. It has often been described as the "constitution of

the oceans" - which encompass over 70 percent of the globe - but in truth the Convention goes further than most national constitutions, or even the UN Charter, in the elaboration of rules, the development of regimes, and the creation of institutions, guidelines and procedures. In short, the Convention represents the indispensable legal framework for almost all future activities at sea.<sup>10</sup>

In addition to these developments at UNCLOS III and other law-making forums,<sup>11</sup> the new law of the sea can also be seen to be evolving outside the limits of legally binding instruments.<sup>12</sup> Through declarations, action plans, and other important "soft law" documents, the legal and institutional development of ocean policies and principles occurs, more or less continuously, in various global and regional contexts.<sup>13</sup> This diversity of legal development is especially conspicuous in the environmental law of the sea.<sup>14</sup>

Of all the nations of the world, none has had more at stake than Canada in these modern developments in the law of the sea. Even back at the first U.N. Conference on the Law of the Sea (UNCLOS I), held at Geneva in 1958,<sup>15</sup> and at its abortive successor two years later (UNCLOS II),<sup>16</sup> Canada played an important part in the negotiation of several major issues.<sup>17</sup> In the late 1960's, as soon as it became evident that the UN Seabed Committee, convened by the UN General Assembly, was intended to review and possibly redesign much of the existing law of the sea the Canadian government realized the substant-

ial benefits that might be secured for Canada within such a "radical" frame of reference.

In purely economic terms, it was obvious that the eventual outcome of UNCLOS III could have a profound effect on three of Canada's resource industries: fishing, petroleum and mining. Moreover, it was seen that strategic ("sovereign") Arctic interests might be affected in the complicated interplay of ocean-related interests at UNCLOS III, and that more general environmental concerns might be addressed through imaginative resort to legal diplomacy. As one of the major oceanographic "powers" in the world, Canada also had a substantial interest in the issues related to the regulation of marine scientific research. Furthermore, UNCLOS III was perceived as the most important single forum for the advancement of New International Economic Order claims by developing nations. Because of its substantive and symbolic impact in the context of North-South issues, UNCLOS III evolved rapidly as the forum where Canada had the greatest need to develop its political skills in the search for an appropriate balance between acquisitive self-interest and concern for less advantaged nations.

In short, for reasons of geography, economic development, and national strategic planning in the largest sense, Canada was induced to assign an extremely high priority to UNCLOS III, and to the coordination of its national ocean policy at other forums. Now that the major law-making



exercise has been concluded and the global framework brought into existence, the nation has important tasks of policy implementation on its agenda for the 1980's and 1990's.

## II. CANADIAN INTERESTS AND CONCERNS

### 1. Introduction

Early in the period of the U.N. Seabed Committee (1968-1973), it became apparent that UNCLOS III would be primarily devoted to acquisitive purposes. Despite a measure of idealism reflected in the initial proposal to establish an international organization to regulate activities on the deep ocean floor,<sup>18</sup> the truth is that almost all delegations were chiefly motivated by the prospect of substantial gain.

For most coastal states the immediate and substantial gain to be won at UNCLOS III was in the form of ocean space and resources which could be brought under the jurisdiction and control of the coastal state. Prior to UNCLOS III - as early as the 1950's - the concept of the continental shelf had been accepted as the basis of a new regime of exclusive coastal state jurisdiction over offshore resources in customary international law.<sup>19</sup> But the pre-UNCLOS III legal definition of the outer limits of this regime remained elastic, and it lay in the interest of "broad margin states", such as Canada, to prevent a re-definition which would force them to roll back their claims to "sovereign rights" over the non-living resources in their adjacent offshore

areas.<sup>20</sup> In this context the facts of geography and geology prevailed over any other consideration. As "possessor" of the world's second largest shelf and claimant to fairly spectacular offshore reserves, Canada had the strongest of interests to bring a degree of aggressiveness to this context of conference diplomacy, though no more so, perhaps, than the other "broad margin states".<sup>21</sup>

For a much larger number of coastal states, however, the prospect of gaining extensive new areas of maritime jurisdiction and control arose not merely from the seabed but from the sea itself. In the early 1970's most of these aspirations focused on the proposal for a globally uniform zone, whose seaward limits would extend 200 nautical miles from the baseline of the coastal state's territorial sea. Within this area, named the exclusive economic zone (EEZ), the coastal state would acquire "sovereign rights" both to the living and non-living resources of the waters and the seabed: both fish and petroleum, and any other resources that might become available.<sup>22</sup> In addition, within the EEZ the coastal state would also acquire jurisdiction (and a measure of control) over certain other activities, such as scientific research and the protection and preservation of the marine environment.<sup>23</sup> To Canada, with an extremely long coastline and frontage on the open ocean, free of islands or opposite shorelines belonging to a neighbour, the advent of the EEZ regime opened up a vast extension of the land economy. By the most conservative estimate, UNCLOS III held out to Canada the promise of

the world's fifth largest EEZ.<sup>24</sup> If, however, one adds in those Arctic Ocean areas which, technically considered, might be regarded as falling under the UNCLOS III regime of internal waters,<sup>25</sup> Canada is probably to be ranked third or fourth among the world's largest gainers of surface area; and second or third, if one takes account of the depth dimension in measuring ocean space in cubic terms.<sup>26</sup>

These, then, are the physically measureable area of spatial gains that Canada stood to make through successful UNCLOS III diplomacy. If the measurement of stakes extends to the value of all resources contained within these vastly expanded limits, then Canada might be regarded as the country which has had the most to gain, in relative if not absolute resource terms, from the new law of the sea.<sup>27</sup>

Moreover, in the early stages of the U.N. Seabed Committee, it seemed likely that Canada would also have something to gain eventually from the development of industrial capability to extract manganese nodules from the deep ocean floor. But because of Canada's prominence as a land-based producer of nickel and copper - two of the principal metal constituents of these nodules<sup>28</sup> - the Canadian orientation to deep ocean mining issues at UNCLOS III tended to be defensive and equivocal.<sup>29</sup> Accordingly, Canadian diplomacy on this issue has reflected, in part, a long-term interest in research and development to ensure that Canada not lose

its present saliency in the world mining industry. In the shorter term, Canada's posture has been one of concern lest the advent of deep ocean mining result in a further depression of world metal prices, and lest the onset of international bureaucracy in the field result in unacceptably restrictive regulatory controls on the industry. In this area of UNCLOS III negotiations, then, Canada has been motivated by an uneasy combination of long-term interests and immediate concerns.<sup>30</sup>

In a number of other, non-resource contexts at UNCLOS III, the Canadian delegation had to develop positions reflecting a combination of acquisitive and non-acquisitive motivations. Precisely because of its high-profile involvement in the most "acquisitive" areas of the agenda, Canada had to work hard to offset its apparent desire for self-enrichment. In these other contexts, discussed below, Canada was obliged to enter into an unprecedented number and variety of alignments and coalitions with other delegations with a view to maintaining and projecting consistency and credibility as a self-interested but concerned moulder of the new law of the sea. The story of its effort to strike that balance makes up one of the most interesting chapters in Canadian diplomatic history.

## 2. Fishery Interests

Canada has always been a major fishing nation, lying adjacent to some of the world's richest fisheries both in the Atlantic and Pacific. Even by weight, Canadian landings have always placed this nation in the upper echelons of world rankings, though in recent years not more than 2 percent of total world catch.<sup>31</sup> Measured in value, the Canadian contribution to world fishing is much higher, because of our participation in high-value fisheries such as scallop, salmon, and lobster, as well as popular species like haddock, sole, and cod. Today the total annual product value of the Canadian fishing industry is around \$2 billion.<sup>32</sup>

It is true, of course, that fishing is not one of our massive industries measured in gross earnings,<sup>33</sup> and its contribution to the nation's protein diet is modest by international standards.<sup>34</sup> But the industry consists of over 50,000 (more or less) full-time fishermen and it also provides a livelihood for a large number of processors and part-time fishermen.<sup>35</sup> At the regional level, fishing is still a basic component of the local economy. In Newfoundland and Nova Scotia several hundreds of small coastal communities, mostly consisting of 500 inhabitants or less, subsist mostly on fishing and related activities.<sup>36</sup>

Table 1 suggests that Canada can take pride in its saliency as a fishing nation. These figures for 1982 show

TABLE 1

CANADIAN SALIENCY AS A FISHING NATION (1982)

	Landed Catch		Percentage of Landed Catch Used in Export		Value of Fisheries Exports	
	MT	rank	%	rank	1000 US D	rank
Japan	10,557,083	1	6.65	11	800,558	5
U.S.S.R.	9,153,168	2	3.7	15	218,042	16
U.S.A.	3,914,874	3	10.32	10	1,034,373	2
Chile	3,672,740	4	25.34	5	385,973	10
Peru	3,436,855	5	22.78	6	288,758	14
China	3,364,683	6	2.79	17	299,660	12
Norway	2,484,916	7	28.08	4	888,351	4
South Korea	2,236,852	8	15.18	9	754,464	6
Denmark	1,905,552	9	37.16	3	900,512	3
Thailand	1,750,000	10	22.6	7	464,763	9
Indonesia	1,489,800	11	5.86	12	231,634	15
North Korea	1,465,000	12	1.48	18	31,400	18
India	1,443,971	13	5.00	13	354,509	11
Mexico	1,394,509	14	3.58	16	489,739	8
Canada	1,331,400	15	39.85	2	1,299,651	1
Spain	1,322,425	16	17.38	8	292,504	13
Philippines	1,259,071	17	3.75	14	107,565	17
Iceland	788,262	18	45.85	1	508,855	7

MT = metric tons

Source: F.A.O., Yearbook of Fishery Statistics, 1982

this country in 15th place in total landed catch - only one seventh of the Soviet landed catch and one eighth of the Japanese - but much higher in the second and third columns. Canada is in second place, behind Iceland, in the percentage of its landed catch used in export, and in first place as a fish exporting country measured by value.

These second and third figures should, however, be read as a warning rather than as an accomplishment. They certainly do not reflect the Canadian fishing industry's virtuosity in market development, but rather Canada's adjacency to some of the world's most valuable fisheries and the reluctance of Canadians to eat large quantities of fish.<sup>37</sup> The Canadian fishing industry is very largely an export industry, an important earner of foreign currency. For the Canadian fishing industry, therefore, the significance of UNCLOS III was that it represented an opportunity to obtain global consent to some form of extended fishery jurisdiction, so that it could devote itself ambitiously to a higher level of fishery development. But the ultimate goal is not security of access to the resource but security of access to markets.<sup>38</sup>

As noted above,<sup>39</sup> the cause of extended fishery jurisdiction at UNCLOS III took the form of a vast, multi-functional zone called the "exclusive economic zone". When this concept was first put forward, at the 1972 session of the UN Seabed Committee,<sup>40</sup> the Canadian government's initial reaction was mixed. Some voices were heard to warn

against unrealistic expectations, reminding the optimists and nationalists that "clearing out the foreigners" would, in itself, do little to solve the basic problems of Canadian fishery policy.<sup>41</sup> Others were instinctively repelled by the arbitrariness of uniform 200-mile limits from any fishery management perspective, and even regretted such a wholesale repudiation of the concept and the history of international fishery commissions.<sup>42</sup> At the other end of Canadian official opinion, the nationalists noted the acquisitive nature of the Conference and pressed for a regime which would grant the coastal state exclusive management authority with respect to all species over the



continental shelf, so as to eliminate the "straddling stock" situation which would arise from an arbitrary 200-mile limit in the Northwest Atlantic.<sup>43</sup> But easily prevailing over all the reservations was the view that the expansionist EEZ concept was an idea whose time had come, assuring Canada of substantial economic benefits in the form of increased landings and of new allies and alignments among the expansionist-minded delegations, whose support was needed on more controversial UNCLOS III issues of importance to Canada.<sup>44</sup> Above all, the prospect of an exclusive fishing zone within 200-mile limits was highly popular within the Canadian fishing industry, which has always been coastal and protectionist in orientation.<sup>45</sup> Finally, Canada's espousal of the EEZ at UNCLOS III was seen by most Canadian fishery officials and diplomats as a natural culmination of the trend toward expansionism in Canadian fishery jurisdiction, which had been reflected in legislation and "phase-out diplomacy" since the late 1950's.<sup>46</sup>

But Canada's initial support for extended jurisdiction at the UN Seabed Committee had been carefully qualified. The position Canada took in 1971 repudiated the 200-mile territorialist approach and advocated what came to be known as the functionalist approach, supporting preferential rather than exclusive rights for the coastal state in its offshore zone,<sup>47</sup> and proposing a differential rather than a unitary

system of fishery management and conservation.<sup>48</sup> But the former position was found to be too modest to be acceptable by most of the expansionist delegations, and the latter too complex and demanding, especially for the developing coastal states. So Canada's new alignments with these delegations forced it to withdraw its original proposals and to acquiesce in the more popular demands for exclusive rights and unitary management authority in the EEZ.<sup>49</sup> In the summer of 1974, at the Caracas session of UNCLOS III proper, Canada's support for the 200-mile EEZ regime - and thereby for a 200-mile exclusive fishing zone - was formally announced.<sup>50</sup> Since then both the substance and style of Canadian fishery policy have changed.<sup>51</sup>

The UNCLOS III fishery "system",<sup>52</sup> which Canada supported but did not originally advocate, has six major elements:

- a) Under the EEZ regime, as defined in Part V of the Convention, the coastal state has exclusive ("sovereign"), but qualified, rights to the living resources of "the waters superjacent to the seabed and of the seabed and its subsoil",<sup>53</sup> subject to
  - (i) the duty of the coastal state to set conservation limits ("allowable catch") and to

- adopt appropriate "conservation and management measures";<sup>54</sup>
- (ii) the duty of the coastal state to determine its own "capacity to harvest" the living resources of its EEZ;<sup>55</sup> and
  - (iii) the duty of the coastal state to give other states access to the "surplus of the allowable catch",<sup>56</sup> with a view to promoting the global objective of "optimum utilization".<sup>57</sup>
- b) Under the EEZ regime, the coastal state is permitted to exercise conservation and management authority over all fishing and fishermen through a wide range of regulatory controls.<sup>58</sup>
- c) Under the EEZ regime, the Convention provides for special arrangements in the case of highly migratory species,<sup>59</sup> anadromous species,<sup>60</sup> catadromous species,<sup>61</sup> "straddling stocks",<sup>62</sup> and marine mammals.<sup>63</sup>
- d) Under the regime of the continental shelf, as defined in Part VI of the Convention, the coastal state has exclusive ("sover-

eign") rights to all "living organisms belonging to sedentary species".<sup>64</sup>

- e) Under the regime of the high seas, as defined in Part VII of the Convention, the Convention retains a relatively open ("neo-classical") legal system for the fishing of non-sedentary species beyond 200-mile EEZ limits.<sup>65</sup>
- f) Under Part XV, dealing with the settlement of disputes, the Convention provides for "compulsory procedures entailing binding decisions"<sup>66</sup> in the case of fishery disputes arising under the regimes of the high seas and the continental shelf, but places major limitations on the applicability of these procedures in the case of fishery disputes arising under the EEZ regime concerning a coastal state's failure to discharge any of its duties enumerated above - (a)(i)(ii)(iii).<sup>67</sup>

This new legal system for fisheries creates a mixture of new opportunities and problems for Canadian fishery policy and the Canadian fishing industry. These are reviewed in the following section of this study.

### 3. Energy Interests

Since the early 1970's it has become more urgent, as well as fashionable, to approach the ocean as a source of energy resources. With a view to supplying the long-term energy deficiencies arising from our current over-dependency on non-renewable energy materials, the ultimate energy use of the oceans might be developed by harnessing wave and wind power.<sup>68</sup> In some equatorial ocean areas pilot projects in ocean thermal energy conversion (OTEC) have produced encouraging results.<sup>69</sup> In a few estuarine areas, such as the Bay of Fundy between New Brunswick and Nova Scotia, it is technologically feasible to harness tidal power.<sup>70</sup>

The existence of these future, non-conventional sources of energy in the ocean has been acknowledged in the U.N. Convention on the Law of the Sea. Under Article 56, the coastal state has "sovereign rights" within its EEZ "with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds". For Canada, this provision is important to the extent it dispels any lingering doubts that might have been raised about Canada's legal entitlement to proceed, if it wishes, to tidal power generation in the Bay of Fundy.<sup>71</sup>

But, for the next 20 years or more, by far the most important single source of energy in the ocean consists of the relatively abundant reserves of petroleum

TABLE 2

## CANADIAN PETROLEUM RESERVES

Region	Oil (million cubic metres)			Gas (billion cubic metres)		
	Known	Estimated (*)	Total	Known	Estimated (*)	Total
Western Canada	754	593	1347	2111	2504	4615
(Canada total onshore+)	(754)	(593)	(1347)	(2111)	(2504)	(4615)
East Coast	225	1877	2102	246	2423	2669
Beaufort Sea/ McKenzie Delta	117	1347	1464	286	1865	2151
Arctic Islands	76	686	762	361	2357	2718
(Canada total offshore)	(418)	(3910)	(4328)	(893)	(6645)	(7538)
CANADA TOTAL	1172	4503	5675	3004	9149	12153

\*These figures represent the "average expectations of the Canadian government intermediate between the official "confident" and "optimistic" estimates.

+Canada's onshore petroleum reserves outside Western Canada are virtually negligible.

Source: Based on Proctor, Taylor and Wade, Oil and Natural Gas Resources of Canada, 1983 (Geological Survey of Canada, Paper 83-31, Energy, Mines and Resources, (1984).

under the seabed in many regions of the world.<sup>72</sup> Geologically, at least, Canada is particularly well favoured in the potential supply of offshore oil and gas. As Table 2 suggests, there may be as much as 4328 million cubic metres of oil and 7538 billion cubic metres of natural gas physically available in the Canadian offshore, and "optimistic" estimates go much higher.<sup>73</sup> According to the "average expectations" of Canadian government geologists, Canada's offshore oil reserves may be 3 1/2 times larger than its remaining onshore reserves, and its offshore gas reserves may be over 60 percent larger than the onshore reserves of gas. These geological estimates of Canada's offshore reserves compare most favorably with those of Norway and the United Kingdom, as Table 3 shows. To the extent that total volume of the resource is a major factor in production planning, it is quite conceivable that Canada will one day surpass both of these countries as a major offshore producer. Indeed as early as 1977 a study by the United Nations predicted that Canada would quickly become one of the five leading offshore producers.<sup>74</sup> However, these estimates are of little reliability as a basis for projecting production levels, because production decisions are made in light of various physical considerations: not merely in light of the physical volume of resources in a prospected area but also by reference to the propinquity of sites of highest concentration.<sup>75</sup>

Moreover, offshore production decisions in the 1980's and 1990's will be heavily influenced, of course, by economic considerations, not least by the availability of alternative offshore and onshore reserves at competitive cost levels and of government-controlled incentive programmes derived from overall national energy policies.<sup>76</sup> Yet after acknowledging the difficulty of prediction in energy policy planning, one still assumes that over the next two decades Canada will find it physically possible and economically attractive to become one of the world's major offshore producers. Meanwhile, it is by no means accepted by the Canadian petroleum industry as a whole that the present level of Canadian government investment in the exploration of the offshore and other "frontier" areas is justified, and major revision of the National Energy Program may greatly reduce the present attractiveness of offshore petroleum development.<sup>77</sup>

As far as the next decade is concerned, it seems likely that most of Canada's offshore production will occur initially within 200 miles of the Canadian shoreline: within the limits of Canada's EEZ.<sup>78</sup> But the most contentious part of the continental shelf debate at UNCLOS III focused on the outer areas of the continental margin<sup>79</sup> beyond these 200-mile limits. The chief issue was the formulation to be adopted for the determination of the seaward limits. What resulted, in



Article 76, was an exceedingly complex formula consisting of geological, geomorphological, geometric and mileage components.<sup>80</sup> Under this formula the coastal state is authorized to delineate the outer limits of the shelf in accordance with this formula, but it will be required to submit "information" about the delineation to an international body, the Commission on the Limits of the Continental Shelf, which will be set up under Annex II "on the basis of equitable geographical representation".<sup>81</sup> The exact nature of the Commission is left deliberately vague: it is empowered to make "recommendations to coastal states on matters related to the establishment of the outer limits of their continental shelf", but the limits "established by a coastal state on the basis of these recommendations shall be final and binding".<sup>82</sup>

Another continental shelf issue at UNCLOS III was the question of revenue-sharing.<sup>83</sup> The price that the "margineer" states had to accept for entitlement, in the form of "sovereign rights", to the resources of the shelf beyond 200 miles was the obligation to make "payments or contributions in kind"<sup>84</sup> to a fund, which will be administered by the International Seabed Authority and distributed among parties to the Convention "on the basis of equitable sharing criteria, taking into account the interests and needs of developing states, particularly

the least developed and the lanklocked among them".<sup>85</sup> Canada will certainly be required to make such payments or contributions in respect of its offshore activities beyond 200-mile limits in the Northwest Atlantic, but not until the sixth year after production has begun at any site in these outer areas.<sup>86</sup> Accordingly, the first of these payments by Canada may not be due until the late 1990's, or even later.

Of course, Canadian offshore development has been retarded and complicated by political and constitutional quarrels at home. Some of these domestic issues have not yet been resolved, but in March 1984 the Supreme Court of Canada took a decisive step at the judicial level in determining the constitutional issue over the Atlantic shelf in favour of Canada in proceedings against Newfoundland and Labrador.<sup>87</sup> In 1967 the same tribunal ruled in favour of Canada against British Columbia in respect of the Pacific offshore seaward of Vancouver Island.<sup>88</sup> More recently, in May 1984, the Supreme Court of Canada held, on the other hand, that the "inland sea" between Vancouver Island and the mainland of British Columbia fell under provincial, not federal, jurisdiction.<sup>89</sup> But joint development and management arrangements between federal and provincial governments will have to be negotiated before industry can proceed to invest sub-

stantially in the exploration and exploitation of promising offshore areas such as Hibernia. Moreover, changes may be made in Canada's National Energy Program to alter the present balance in favour of offshore production. In the meantime, however, recent legislation has brought Canada's national claim to the petroleum resources in its offshore areas into line with the provisions of the new law of the sea;<sup>90</sup> the Canada Oil and Gas Lands Administration (COGLA) has been created with primary responsibility for offshore as well as onshore development of Canadian petroleum resources on "Canada Lands";<sup>91</sup> and a joint mechanism for offshore development has become operational under an agreement between Canada and Nova Scotia.<sup>92</sup> The problems and opportunities now confronting the nation's offshore development planners will be reviewed in the following section.

#### 4. Mining Interests

Until the 1950's mining was almost entirely confined to the land. But the realization that deposits accumulating on the deep ocean floor (popularly referred to as "manganese nodules") constituted a major new source of commercially valuable metals<sup>93</sup> stirred interest among governments around the world. Especially excited by the prospect of deep ocean mining were those countries heavily dependent on foreign supplies of these metals, and therefore most

vulnerable to the vicissitudes of the international economy.<sup>94</sup>

By the late 1960's - even before the convening of the U.N. Seabed Committee in 1968 - it was already being suggested that these nodules should be brought under the jurisdiction of a new global regime, and that mining and other activities associated with them should be subject to some kind or degree of regulatory control by an international agency.<sup>95</sup> Proposals of this kind were immediately acclaimed by the majority of developing countries: namely, by those developing countries not included among the world's major land producers of these metals.<sup>96</sup> Most strongly opposed, or at least most fearful, were those countries which had the most to gain from an international legal system that would guarantee their mining companies free access to these metals on the deep ocean floor with a minimum of regulatory restraints: namely, a handful of capitalist countries which are not included among the world's major land producers of these metals but possess the economic and technological capability to become the leading deep ocean mining states under favourable political and legal conditions.<sup>97</sup> But for many of the developing countries it became evident that a short-term, or even medium-term, gains from UNCLOS III were more likely to be derived from the extension of coastal

state jurisdiction than from participation in a global system for the regulation of deep ocean mining. For these countries the issues surfacing in the First Committee had less of a substantive importance than a symbolic or political significance in the ideological context of the New International Economic Order.<sup>98</sup> Accordingly, the course of "seabed politics" at UNCLOS III was somewhat unusual.<sup>99</sup>

Canada did not belong to any of these categories, but instead to the category of land-based producer states: namely, those which already have a preponderant role in the world mining industry, as far as one or more of these metals are concerned.<sup>100</sup> In some respects, these land producer states had the most difficult hand to play on deep ocean mining issues at UNCLOS III. They formed a small minority which as "advantaged" nations within this context, could not expect to gain a great deal of sympathy or support from others; and, more than the other states, stood to lose much through miscalculation.<sup>101</sup> The risk of miscalculation is, of course, particularly grave within the metals industry, complicated as it is by the near impossibility of accurate cost and price projections beyond the immediate short-term.<sup>102</sup>

As shown in Table 4, the Canadian nickel mining industry is especially conspicuous: Canada is the world's largest producer of nickel, contributing 47% of

annual global production. The most important nickel mining companies are INCO, Noranda, Falconbridge Nickel Mines, and New Quebec Reglan Mines. Canadian nickel mining accounts for 3-3 1/3 percent of our gross national product.<sup>103</sup> It has been estimated that known nickel deposits on land in Canada will last at least another 100 years.<sup>104</sup> In the case of cobalt and copper,<sup>105</sup> Canada is also one of the leading producers and exporters, but manganese ore, on the other hand, has to be imported by Canada, chiefly because of its importance in the manufacture of steel.<sup>106</sup>

Because of its saliency as a producer-exporter of nickel, and to a lesser extent of cobalt and copper, Canada was unable to align with the other major industrial users of these metals on deep ocean mining issues at UNCLOS III. Nor could Canada react ideologically to Ambassador Pardo's 1967 proposal for an international agency to "regulate, supervise and control all activities" in the international seabed area.<sup>107</sup> But the concept of an international area "beyond the limits of national jurisdiction" did threaten to re-open the legal issue of the breadth of the continental shelf, which had been defined in highly elastic terms at UNCLOS I, in a way that had suited Canadian interests admirably in the years since 1958.<sup>108</sup> After some soul-searching, the Canadian government decided to give qualified support to the Pardo

proposal, in the context of deep ocean mining, despite the risk that UNCLOS III might insist on rolling back the seaward limits of the shelf. Apparently prevailing over all other considerations was Canada's need for the security of an international treaty system for deep ocean mining, given the prospect that the United States and other industrial powers were likely to become dominant in the world mining industry through their virtuosity in deep ocean technology.

In conjunction with this policy decision by the Canadian government, the Canadian mining industry also had to take a stand on the issues of deep ocean mining. After weighing the pros and cons, Canada's two largest nickel producers, INCO and Noranda, decided to participate in international corporate consortia which were being put together for the purpose of preliminary research and development in deep ocean mining.<sup>109</sup> Thereafter, it can be said, the Canadian mining industry in general, and these two corporations in particular, have followed closely the developments in deep ocean mining in two ways: by participating in the development of the technology and by participating in the negotiations at UNCLOS III as members of the Canadian delegation.

The context of deep ocean mining issues was the most widely contentious and most technically complicated

of the many areas of negotiation on the UNCLOS III agenda. The various issues addressed in the First Committee were seen to be of interest or concern, substantively or symbolically, by almost all of the 150-odd delegations negotiating at the Conference. As negotiations proceeded, on the ambitious course charted by the U.N. Seabed Committee between 1968 and 1973,<sup>110</sup> it became evident that a large majority of delegations sought, or accepted as inevitable, an array of highly diverse provisions ranging from general principles of a normative, aspirational, or "constitutional" character, at one extreme, to highly specific arrangements of a procedural, regulatory, technical, or organizational sort, at the other. Accordingly, Part X of the Convention and the relevant Annexes were negotiated both as a kind of constitution and as a mining code.<sup>111</sup> To no one's surprise, these issues in the First Committee, representing the "ideological" side of the Conference, proved extraordinarily resistant to the process of compromise diplomacy; and, to the consternation of most countries, it is not yet clear whether the provisions finally negotiated will eventually be accepted universally as the legal framework for all deep ocean mining activities around the world.<sup>112</sup>

The principal UNCLOS III issues on deep ocean mining can be divided into four classes: those concerned with allocation, structure, representation, and production



control. In the early period of negotiations the First Committee was chiefly involved in the first two of these four areas, which had to be resolved before the third and fourth kinds of issues could be dealt with in detail.

The allocative issues were finally resolved in the mid-1970's, after several alternative approaches had been proposed, debated, and abandoned.<sup>113</sup> The allocative system adopted by the Conference, generally referred to as the "parallel system", envisages that seabed mining and related activities will be carried out in parallel by the Enterprise, the operating arm of the proposed International Seabed Authority (ISA), and by state or private mining entities under the direction of the ISA.<sup>114</sup> This dual arrangement is based on the new legal principles that the seabed and its resources beyond the limits of national jurisdiction - that is, beyond the seaward limits of the continental shelf regime - belong to the "common heritage of mankind",<sup>115</sup> and that all uses of this designated international area shall be exclusively for peaceful purposes<sup>116</sup> and for the benefit of mankind as a whole.<sup>117</sup> Claims to sovereignty or sovereign rights over this area by any state - whether or not a party to the Convention - are declared to be invalid in international law,<sup>118</sup> and the ISA is authorized to apply the principle of equitable sharing to all financial and other economic benefits derived from activities

in the designated international area of the seabed.<sup>119</sup> This allocative system, it should be noted, was derived partly from a Canadian proposal in 1974 that seabed mining should be based on joint ventures between the ISA and seabed mining consortia.<sup>120</sup>

The debate on structural issues resulted in the design of an elaborate international organization, the ISA, consisting of three principal organs: an Assembly, a Council, and a Secretariat. The Assembly, which consists of all members of the Authority and will meet annually is the "supreme" organ of the ISA, and is mandated to address a wide range of legislative or quasi-legislative functions.<sup>121</sup> The Council, consisting of 36 members of the Authority elected by the Assembly in accordance with a prescribed representational formula, is the "executive organ of the Authority,"<sup>122</sup> and it will be assisted in its activities<sup>103</sup> by two important subsidiary organs: the Economic Planning Commission<sup>124</sup> and the Legal and Technical Commission.<sup>125</sup> The Secretariat will consist of a Secretary-General and a staff of scientific and technical and other personnel.<sup>126</sup> However, since the purpose of the ISA is, above all, to organize, conduct and control exploration and exploitation of the deep ocean floor, the Conference also created another organ, called the Enterprise, to conduct these activities on a day-to-day basis and to engage directly, on behalf

of the Authority, in the transporting, processing and marketing of minerals recovered from the designated international area of the seabed.<sup>127</sup> In addition, the Convention provides for the establishment of a separate Seabed Disputes Chamber of the proposed International Tribunal for the Law of the Sea for certain kinds of seabed-related disputes between states which are parties to the Convention, or between such a state and the Authority itself.<sup>128</sup> The Chamber is not an organ of the ISA, and may not substitute its discretion for that of the Authority.<sup>129</sup>

The most controversial of the representational issues concerned the composition of the Council. After much debate the Conference accepted a formula whereby the 36 members of the Council would consist of states parties to the Convention drawn from five distinct categories:

- (i) four from the category of major consumers and/or importers of the minerals expected to be derived from the deep ocean floor;
- (ii) four from the category consisting of the eight largest investors in seabed mining and related activities;
- (iii) four from the category of major exporters of the minerals expected to be derived from the deep ocean floor;
- (iv) six from the category consisting of developing states with special in-

- terests (eg. least developed, geographically disadvantaged, heavily populated); and
- (v) eighteen elected according to the usual UN formula designed to ensure equitable geographical distribution.<sup>130</sup>

Canada would seem to be eligible for election to the Council, after ratification or accession, under three of these five heads: categories (ii) and (iii) as well as (v).

But of all the difficult issues negotiated in the First Committee, none was more important and more divisive than that of production control. The proposal for special protection for land-based producers originated in 1976 on the part of the United States and some Latin American copper producers, but these proponents based their production limitation formula on an arbitrarily selected 6 percent per annum increase in nickel demand. Canadian experts, convinced that nickel demand would be much lower, argued that the formula was against the interests of all land-based producers, including copper producers. From 1976 to the end of the Conference the Canadian delegation found itself immersed in protracted and highly

contentious wrangling over various alternative and exceedingly complex formulae. The final version, less than entirely satisfactory from a Canadian perspective,<sup>131</sup> was agreed to in 1981 and remained in the Convention despite a last-minute effort by the United States to have it deleted.<sup>132</sup>

Finally, it must be noted that the last year of the seabed mining debate at UNCLOS III featured a new and increasingly bitter North-South issue over the demand by the United States for "preparatory investment protection" for the "pioneer" seabed mining states. The idea behind this (PIP) scheme was that those states which had already made substantial investments in deep ocean mining research and development would have their investments protected by being given priority in obtaining mining sites under the Convention. Although not associated with this initiative, Canada was affected by it as one of the "pioneer" seabed mining states, along with Belgium, France, the Federal Republic of Germany, India, Italy, Japan, the Netherlands, the United Kingdom, the USSR, and, of course, the United States. Despite the potential benefits available to Canada under the "PIP resolution",<sup>133</sup> the Canadian delegation sympathized with the objections raised by the developing countries (the so-called "Group of 77", who by this time were infuriated by 11th hour demands by

the United States to re-negotiate a much wider range of UNCLOS III issues. Canada tried to close the gap which had opened up between the Group of 77 and the major industrial powers through the mediatory efforts of a group of industrialized or semi-industrialized "middle powers" called the "Group of 12".<sup>134</sup> Sadly, these efforts and other frenetic attempts at last-minute concessions on other mining issues failed to appease the United States, possibly due to what has been called "a tragic failure of communications",<sup>135</sup> and the U.S. government announced its refusal to sign the Convention.<sup>136</sup>

The problems and opportunities confronting the Canadian mining industry in light of the Convention and associated uncertainties will be reviewed in the following section.

##### 5. Arctic Interests

Perhaps the highest priority of all for Canada at UNCLOS III was the buttressing of legal claims to the Arctic Ocean. For generations many Canadians, and most Canadian governments, have been emotionally involved in the effort to secure "sovereignty", or its moral equivalent, in the unguarded North. Many readers will recall the international vibrations emitted by the Manhattan transit of the Northwest Passage in the late 1960's and the (much easier) passage through Parliament of The

Arctic Waters Pollution Prevention Act in 1970. Today the Arctic Ocean is still regarded as a region of acute sensitivity from various political, military, sociological, and environmental perspectives.<sup>138</sup>

The law of the sea issues confronting Canada in the Arctic have always been technically, as well as diplomatically, tricky.<sup>139</sup> The nature and extent of Canadian legal claims or aspirations in the Arctic Ocean have long been in contention between the Canadian and U.S. governments in particular, and to a lesser but appreciable degree a matter of concern to some European scientists and others with a sentimental as well as professional interest in the region. It has long been a major objective of Canadian national policy to secure sufficient autonomy in the Arctic Ocean to legitimize Canada's role as the controlling "manager" of the Northwest Passage.<sup>140</sup> Over the years, however, Canadian officials have learned not to couch such claims or aspirations in territorial terms, as far as the water areas between the Canadian Arctic islands are concerned.<sup>141</sup> Canada's legal strategy in the Arctic has been to advance arguments that together are tantamount to a de facto, as distinguished from a formal de jure, sovereignty claim. This strategy of incrementalism - sometimes derided by foreign critics as a policy of "creeping jurisdiction" - was one of the

reasons why Canada and the other Arctic littoral states agreed in the early 1970's not to put these Arctic issues explicitly on the Conference agenda at UNCLOS III.<sup>142</sup> This left Canada in a position to advance its Arctic claim on a variety of fronts under a number of separate heads on the UNCLOS III agenda: territorial sea, internal waters, international straits, exclusive economic zone, continental shelf, and special environmental authority. The subtlety and sophistication with which the Canadian delegation played its Arctic hand at UNCLOS III is one of the most interesting stories of the Conference.

First, fortunately for Canada, there was little resistance at UNCLOS III to the proposal for a uniform 12-mile territorial sea, given widespread agreement on the new concept of an exclusive economic zone extending 200 miles seaward of the baseline of the territorial sea. The significance of this is that it permits Canada to exercise the full authority inherent in "sovereignty" in all Arctic straits, or other entrances to the Northwest Passage,<sup>143</sup> which are less than 24 miles in width,<sup>144</sup> and thus to "choke off" access to the Passage, if necessary, from either direction. Under present conditions of technology, it is probably impossible to conduct surface navigation on a year-round basis through those entrances which are more than 24 miles in width.<sup>145</sup>



Second, the Conference contributed in various ways to the broadening, if not the clarification, of the regime of internal waters on the landward side of the baseline of the territorial sea. Two of these ways are worth noting: the first through the development of criteria for the delineation of the baseline of the territorial sea,<sup>146</sup> the second through the creation of a new regime of mid-oceanic "archipelagic states"<sup>147</sup> permitting the enclosure of immense coastal areas on the landward side of their "archipelagic baseline". These new provisions make it easier for Canada to argue, directly or analogically, that it is entitled under the new law of the sea to enclose large areas of "internal" or "coastal archipelagic" waters in the Arctic.<sup>148</sup>

Third, Canada was particularly anxious to oppose any tendency at UNCLOS III to reformulate the provisions on international straits in a way which might be read as including the Northwest Passage in that category. This issue was central to Canada's strategy for securing management authority over the Passage, since the Conference eventually agreed to guarantee the "right of transit passage" through "straits used for international navigation".<sup>149</sup> Canada has long maintained that it should lie in the managing state's discretion to deny access to the Passage to any vessel, foreign or Canadian, that

failed to meet reasonable standards. In the final result, the Conference declined to designate any specific straits deemed to qualify as "international". So the matter of definition is still open, and Canada must continue to deny, on the facts of history, that the Passage is "used for international navigation", until it is universally accepted that Canada has sole transit management authority in the region.

Fourth, the legitimization of the exclusive economic zone at UNCLOS III has, of course, secured Canada's "sovereign rights" to all resources, both living and non-living, within 200 miles of the baseline of Canada's territorial sea in Northern waters. At present there is only a modest prospect of fishery development in the Arctic Ocean,<sup>150</sup> but, as we have seen,<sup>151</sup> the potentiality for offshore mineral development is considerable.

Fifth, the continental shelf definition in Article 76 is, as we have also seen,<sup>152</sup> quite expansive, but it is not yet clear how much of the continental margin in the Arctic might be subject to Canada's "sovereign rights" beyond 200-mile limits under that complex definition.<sup>153</sup>

Finally, and most directly applicable to the unique problems of navigation in the Arctic, Canada succeeded in its initiative to secure special environmental authority in "ice-covered areas".<sup>154</sup> This provision, drafted

and promoted assiduously by the Canadian delegation, won for the Arctic littoral states such as Canada "the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance". Although this special entitlement is generally worded, and may be variously interpreted, it represents a major victory for Canada at UNCLOS III.

Given the importance of Canada's stake in the Arctic, and the diversity of related legal issues, it must be concluded that the Canadian delegation's Arctic strategy at UNCLOS III was highly successful.<sup>155</sup> The decision to keep almost all explicitly Arctic issues off the agenda has been vindicated.

#### 6. Navigational Interests and Environmental Concerns

More generally, outside the specific context of the Arctic, Canada has been waging a diplomatic campaign for many years to strengthen coastal states' rights with a view to the prevention and control of marine pollution.

To some extent this effort has been motivated by a broad, scientific, altruistic concern for the conservation and protection of the ocean environment as a whole,<sup>156</sup> but especially since the Arrow oil spill off the Nova Scotia coast in February 1970 Canada's environmental "crusade" has tended to focus, in a more self-interested way, on the problems of ship-generated (or "vessel source") pollution in coastal waters.<sup>157</sup>

After the Arrow incident Canada began to play a central role in drafting what came to be known as the "Ottawa principles" on marine pollution for the 1972 U.N. Conference on the Human Environment.<sup>158</sup> These principles had an influence on the environmental thinking of the Third Committee both of the U.N. Seabed Committee between 1971 and 1973 and of UNCLOS III thereafter.<sup>159</sup> But not all the Canadian ideas incorporated in the "Ottawa principles" were to prevail at UNCLOS III. The Conference failed, for example, to adopt the Canadian concepts of "custodianship" and "delegation of powers": that is, that the "basis on which a state should exercise rights or powers, in addition to its sovereign rights or powers, pursuant to its special authority in areas adjacent to its territorial waters, is that such rights or powers should be deemed to be delegated to that state by the world community on behalf of humanity as a whole".<sup>160</sup>

After many years of intensive effort at compromise diplomacy, the Third Committee did finally strike a delicate balance between coastal states' rights and interests, on the one hand, and the rights and interests of shipping (ie. transit) states, on the other. Moreover, the Second Committee also had to reconcile navigational interests and environmental concerns in developing its jurisdictional regimes: for example, in the provisions on the territorial sea, international straits, archipelagic waters, and the exclusive economic zone.

The work of the Third Committee on the "protection and preservation of the marine environment" was in many ways a consolidation of previous norm-setting and law-making contributions from other forums: not only the 1972 Stockholm Conference on the Human Environment but also a number of shipping-related conferences convened since the 1960's by the International Maritime Organization (formerly the Intergovernmental Maritime Consultative Organization).<sup>161</sup> Moreover, its contribution to marine pollution prevention and control in the contexts of non-vessel-source pollution was modest.<sup>162</sup> But in the context of ship-generated pollution UNCLOS III made important and creative contributions by developing a system of alternative or concurrent jurisdictions to facilitate action, both preventative and remedial, for the prevention and control of this kind of pollution.

In addition to acknowledging the traditional enforcement role of flag states in such matters,<sup>163</sup> it recognized and clarified the enforcement role of the coastal state,<sup>164</sup> and, with Canadian advocacy, introduced provisions for enforcement by "port states".<sup>165</sup> Even more important, from a Canadian perspective, the Third Committee recognized, clarified, and developed the legislative authority of coastal states in certain, carefully defined, circumstances for the prevention of pollution from vessels within limits of national jurisdiction.<sup>166</sup> The most significant of these was the provision authorizing the coastal state, in certain circumstances, to adopt special mandatory measures for pollution prevention, beyond what is normally acceptable under "international rules and standards".<sup>167</sup> This special entitlement is, however, subject to the approval of the International Maritime Organization, which, it may be hoped, will seek to work co-operatively towards these ends with the applicant coastal state.<sup>168</sup>

The Second Committee reformulated the provisions on the right of "innocent passage" through the territorial sea<sup>169</sup> - though not to the satisfaction of the Canadian delegation<sup>170</sup> - with a view to balancing the navigational interests of the transit states and the environmental concerns of the coastal states. Under the regime of international straits, the right of "transit

passage" was secured, but balanced against the need for agreements between user and littoral states for the prevention, reduction and control of pollution from ships,<sup>171</sup> and against the right of the littoral states to designate sealanes and to prescribe traffic separation schemes.<sup>172</sup> A similar balance was struck in the provisions on archipelagic waters.<sup>173</sup> Under the regime of the exclusive economic zone the coastal state was granted "jurisdiction" - without further qualification - over "the protection and preservation of the marine environment",<sup>174</sup> but a balance is struck in other provisions between the coastal state's environmental interests, on the one hand, and the right of navigation and other non-coastal freedoms, on the other.<sup>175</sup>

Taken together, these various outcomes in the Second and Third Committees at UNCLOS III have resulted in a carefully negotiated system which greatly reduces the vulnerability of environmentally concerned states such as Canada.

#### 7. Other Interests and Concerns

Note should also be taken of a number of other UNCLOS III developments of lesser interest or concern to Canada.

The Third Committee, at the demand of developing coastal states which have felt threatened or at least

deprived by their lack of effective participation in marine scientific research, developed a "consent regime" under which the coastal state will be entitled to exercise a high degree of discretion, albeit conditional discretion, in the regulation of such activities by foreign states within its limits of national jurisdiction.<sup>176</sup> Canada did not choose to take a strong position on these issues, partly perhaps in deference to developing coastal states whose support Canada needed on other issues, and partly because the Canadian oceanographic community, unlike its U.S. counterpart, was relatively unalarmed by this trend at UNCLOS III.<sup>177</sup>

Somewhat similarly, Canada was not deeply involved in the issues of concern to archipelagic states (such as Indonesia, the Philippines, and Fiji), but chose to support their demands for a special entitlement to enclose vast areas of archipelagic waters, partly because of the need to win their support on other issues, and partly because of the potential analogy that might be drawn between their mid-oceanic inter-island waters and Canada's coastal archipelago in the Arctic.<sup>178</sup>

The issues of maritime boundary delimitation, between neighbouring states with opposite or adjacent coastlines, were more complicated, and of much more importance, for Canada. Throughout the period of the U.N.



Seabed Committee (1968-1973) and the early period of UNCLOS III proper, Canada and the United States were locked in talks and then negotiations concerning unresolved ocean boundary issues in four areas: the Gulf of Maine, Juan de Fuca Strait, the waters seaward of Dixon Entrance, and the Beaufort Sea. Issues of a similar kind with Denmark (Davis Strait) and France (St. Pierre and Miquelon) were also on the negotiating table. The Gulf of Maine dispute was given saliency above the others, but unfortunately a brave effort to settle this dispute and associated transboundary problems proved abortive,<sup>179</sup> and these serious differences between the two countries finally had to be taken to the International Court of Justice.<sup>180</sup> Accordingly, Canada had to take an active interest in the UNCLOS III negotiations on the global formula to be applied to boundary delimitation. The matter was complicated by the fact that Canada had to make different, and even contradictory, arguments in these various boundary negotiations. However, given the saliency of the Gulf of Maine dispute, Canada had little choice but to join the camp of the "equidistance" proponents at UNCLOS III. With this posture, Canada found itself, with 20 other states, vehemently opposed by 29 other delegations which supported "equitable principles" instead of "equi-

distance". Since the deadlock between the two factions could not be broken, the Conference was finally forced to accept general language designed to favour neither group.<sup>181</sup>

Dispute settlement was another area of negotiations where Canada kept a relatively low profile at UNCLOS III, but faced with a strong reluctance on the part of most delegations to accept a compulsory system of dispute settlement, the Canadian delegation felt obliged to join in the search for a compromise. The Canadian approach was not entirely based on principle: Canada was reluctant to risk losing some of the substantive gains it had made in earlier negotiations,<sup>182</sup> and in any event the Canadian government in recent years had not shown itself to be committed to the policy of accepting in advance the compulsory jurisdiction of the International Court of Justice.<sup>183</sup> In the final result, Canada acquiesced in the general trend toward a "hybrid" system of dispute settlement consisting both of obligatory and optional elements. In the final version of the text the Conference accepted "compulsory procedures entailing binding decisions"<sup>184</sup> where no settlement could be reached through optional means,<sup>185</sup> but these provisions on compulsory procedures were subject to a wide range of carefully negotiated "limitations and exceptions".<sup>186</sup> At

the time of signing, ratifying, or acceding, any state may declare in writing that it does not accept any one or more of the compulsory procedures in any one or more of certain designated categories of disputes, such as boundary delimitation disputes and certain kinds of disputes over a coastal state's exercise of its discretion with respect to foreign scientific research within its limits of national jurisdiction.<sup>187</sup>

Finally, Canada did express interest, albeit at a low level of national priority, in the UNCLOS III issues related to the development and transfer of technology, which were debated in the Third Committee.<sup>188</sup> Along with all other developed states represented at UNCLOS III, Canada was, of course, placed in a "defensive" posture whenever it was argued by a developing country delegate that obligations to transfer technology should be made specific and legally binding. Inevitably, the reluctance of developed countries to be saddled with strictly binding obligations of this sort resulted in much looser language of an aspirational character, intended merely to convey a general order of long-term moral commitment. Accordingly, the Canadian delegation found it sufficient to co-ordinate its position on these issues at UNCLOS III with its position on similar North-South issues in other forums, as part of its overall, orches-

trated approach to the New International Economic Order. As soon as it became evident that the transfer of technology provisions proposed at UNCLOS III<sup>189</sup> were relatively moderate and "unthreatening", within this sector of Canadian foreign policy, it seems that the Canadian government adopted an acquiescent rather than an active approach.

### III NATIONAL OCEAN POLICY IN THE WAKE OF UNCLOS III

#### 1. Introduction

Canada has never engaged publicly in an examination of its national ocean policy. Despite the frequent use of royal commissions and the occasional referral of specific ocean-related issues, Canadian governments have never chosen to use the results of such an inquiry for systematic ocean policy-making.<sup>190</sup> Yet now it seems quite urgent for a national stock-taking of the diverse policy implications which arise from the new law of the sea. It is scarcely hyperbole to assert that UNCLOS III has effected a "revolution" in this area of international law. Given Canada's extraordinary saliency as a coastal state - a saliency whose permanency is assured by geography - a failure to pull together the elements of national ocean policy planning would be inexcusable.

Other countries behave differently. In the United States, for example, the Stratton Commission was appointed

in the late 1960's for precisely that purpose,<sup>191</sup> in circumstances of lesser national priority than now exist in Canada. The results of the Stratton Commission<sup>192</sup> were taken seriously and had an important influence on national policy, especially in the development and implementation of "coastal zone management" programmes.<sup>193</sup> Currently, the U.S. Congress is considering a proposal for another Stratton-type inquiry into the state of U.S. national ocean policy.<sup>194</sup> Without the benefit of a blue-ribbon panel, similar proposals have been made for Canada,<sup>195</sup> but with no discernible impact.

Canada's failure to engage in systematic policy planning may be a mark of its culture, or the result of an unduly regionalized system of federal government. Whatever the reason for this failure, it has nothing to do with capability. Canadian officials have been centrally involved in many of the major U.N. planning studies for the international community and are second to none in this particular kind of virtuosity.<sup>196</sup>

With a view to encouraging a systematic study of Canadian ocean policy requirements for the next 15 years, it may be useful to review some of the more obvious considerations. The first of these will be addressed within the traditional contexts of industrial policy related to the ocean: fishing, energy, mining, and shipping. Other important considerations which do not fit so neatly into

these familiar categories will be discussed as types of "strategic planning".

## 2. Sectoral Problems and Opportunities

### A. Fishing

There are few, if any, industries more frustrating to policy-makers than the fishing industry. Over the years the problems of the Canadian fishing industry, especially on the Atlantic seaboard, have defied any long-term or generally acceptable solution. The point has been reached that some experienced analysts question whether some of these problems are truly "soluble" within the framework of our culture and political system. The fact that many of these problems are also unsolved elsewhere, under different cultural and political conditions, might be of small consolation in Canada, but it does at least underline that some, if not most, of the difficulties involved in fishery development and management arise directly from the nature of the ocean fishery resource itself.

An ocean fishery is a "common property" resource.<sup>197</sup> This means that no one person, unit, or institution can own it outright, and thus establish total control over the "input" factors of production and secure a reasonably dependable "rent" from the resource.<sup>198</sup> Accordingly, it

is impossible for fishery policy advisers to derive much insight from the theory of agriculture or the practical experience of farming on land. Twenty years ago the leading fishery economists argued for solutions on the form of limited entry policies which would permit the imposition of quota controls and licensing requirements.<sup>199</sup> Gradually most fishery biologists began to accept these arguments for a variety of reasons, both theoretical and practical,<sup>200</sup> not least because limited entry seemed to promise a more effective approach to the problems of stock conservation.<sup>201</sup> Most fishery experts believed that the "enclosure movement", in the form of 200-mile exclusive fishing zones under the proposed EEZ regime, would facilitate successful experimentation with limited entry programmes under the sole management control of the coastal state. Much was made of the argument that "clearing out the foreigners" would make at least some of the chronic problems of fishery policy manageable, if not totally soluble.<sup>202</sup>

Of course, it was acknowledged in the early 1970's, even by the optimists and nationalists, that the advent of extended fishery jurisdiction would result in temporary dislocations within the world fishing industry, but these disruptions were usually envisaged in terms of reallocation of total fishing effort. Even the limited statistics presented in Table 1 show a fairly impressive

increase in the annual volume of fish landings by developing coastal states which are new to the upper echelon of the world's major fishing states, and a corresponding decline in the saliency of the traditional "distant fishing" states of Western Europe, although Japan and the Soviet Union are still firmly entrenched in the leading positions.<sup>203</sup> But in most countries, including Canada, the "enclosure movement" has contributed little to the improvement of fishery management, and it has been painfully learned that increased landings are scarcely more than a first step toward the goal of fishery development.

The ordeal of the Canadian fishing industry in the last decade has been diagnosed in detail elsewhere.<sup>204</sup> Now that two federally appointed Task Forces have reported on the problems on the Pacific<sup>205</sup> and Atlantic coasts,<sup>206</sup> it is possible to summarize the most recent professional opinions on the new directions that should be taken in Canadian fishery policy. What seems to be shared by the Pearse and Kirby Reports is a common understanding of the malaise: the diagnosis is essentially the same on both coasts. Both reports emphasize that the common property characteristics of the resource itself tend to result in overcapitalization within the industry: too many vessels, too many plants, too much investment, and, above all, too many fishermen. Overexpectations and



traditional attitudes combine to keep far too many engaged both on the catching and processing sides of the industry; excess capacity raises production costs; and this in turn reduces the level of available net income.<sup>207</sup>

Moreover, both reports agree that entry limitation arrangements, through quota and licensing controls, have resulted in excessive government regulation. Although intended to guarantee fairness in the distribution of fishing licences and efficiency in the allocation of fishing effort, the system is in chronic disarray. The regulations are lacking in uniformity, and therefore inequitable to someone somewhere. Licensing decisions are suspected of being politically motivated, and are not subject to review procedures. The stock quota system induces fishermen to take the quota as quickly as possible, intensifying the natural seasonality of the fishery, overstraining vessel and plant capacity for short periods, lowering the quality of the product, and thus reducing the Canadian industry's competitiveness in the export markets. As the spiral continues, fisheries close early and vessels and plants lie idle. Moreover, an unpopular regulatory system is difficult and expensive to enforce at the community level, because fishermen have little motivation to protect the common property resource.<sup>208</sup>

The Pearse Report was, of course, also influenced by factors peculiar to the Pacific sector. First, British Columbia is an affluent province, and the Pacific fisheries do not make a major contribution to the regional economy, either in terms of total domestic product or in terms of employment. Few of the coastal communities are solely, or even preponderantly, dependent on the fisheries. Those who are engaged in year-round commercial fishing - and now most registered fishermen operate on a full-time basis - are moderately comfortable, earning about twice the income of their counterparts on the Atlantic coast, since much of their catch consists of very high value species such as salmon, halibut, and roe herring.<sup>209</sup>

Second, the problems of fishery management on the Pacific coast vary significantly from species to species. In the case of salmon, for example, the central problem is habitat management, since the condition of the upstream spawning areas and downstream transit areas is adversely affected by other upstream and downstream uses, such as forestry, irrigation, flood control, and hydro-electric power generation, by pollution of various sorts, and other urban and industrial impacts. Effective salmon fishery management seems to require a highly sophisticated and carefully co-ordinated management plan for the entire river basin area, and this will be expensive and polit-

ically sensitive, not least because of the federal-provincial and management-union issues involved.<sup>210</sup>

Third, both for salmon and halibut, the Pacific fishery development and management problems arise partly from the interaction of Canadian and U.S. fishermen and the interdependence of Canadian and U.S. fishery policies and programmes, at state/provincial as well as federal levels. In both of these fisheries, most problems have an international aspect, demanding the bilateral negotiation of politically sensitive issues and the successful administration of bilateral commissions, such as the International Pacific Salmon Fisheries Commission (IPSFC) and the International Pacific Halibut Commission (IPHC). In the case of salmon, difficult diplomatic issues remain to be resolved,<sup>211</sup> and in the case of halibut criticisms of the IPHC have still to be met.<sup>212</sup> By and large, the effect of the UNCLOS III "enclosure movement" on the Pacific coast has been to reinforce the vulnerability of Canadian national fishery development and management to the vagaries of Canadian-U.S. diplomacy and transboundary management arrangements.<sup>213</sup>

On the Atlantic coast the socio-economic and political settings of fishery policy-making are entirely different. The Atlantic Canada region is far from affluent; in many areas unemployment is extremely high; and in some communities underemployment is a way of life.

Especially in Newfoundland and Labrador and Nova Scotia, the provincial economies of the region are significantly affected by the rising and falling fortunes of the fishing industry. Income from fishing and related occupations is low or unreliable, or both.<sup>214</sup>

The Atlantic fishery is highly diversified. Fishery management does not lend itself to discrete strategies based on the specific characteristics of any one commercially salient species. The diffuseness of the fisheries of the region means that no one source of impact can be brought usefully under any comprehensive system of resource management, habitat management, or coastal zone management.<sup>215</sup> On the other hand, the fishery tends to be more resilient than the Pacific fishery: the groundfish stocks recover more quickly under effective conservation. The chief developmental task in Atlantic fishery management today, in the wake of UNCLOS III, is the design of a strategy for improved use of under-utilized species, such as silver hake.

Internationally, the Atlantic fishery problems have multilateral as well as bilateral diplomacy implications. The advent of Canada's 200-mile exclusive fishing zone has reduced, but not eliminated, the role of the Northwest Atlantic Fisheries Commission (NAFO) as an international manager of the Northwest Atlantic Fisheries.<sup>216</sup> Moreover, the Georges Bank area in the outer Gulf of Maine, which includes a highly valuable scallop fishery, may be declared

partly or wholly "off limits" to Canadian fishermen as a result of the award of the International Court of Justice expected in the fall of 1984.<sup>217</sup>

Of the many difficult problems associated with fishery policy in Atlantic Canada, two in particular may be picked out for comment. First, fishery policy issues in the region have almost invariably a socio-economic, political, cultural, and therefore emotional, significance. Government policies, programmes, and officials tend to be distrusted or resented, almost regardless of the form they take. The "cultural" response to almost any government initiative tends to be negative, leading to demands for greater communal autonomy, in one form of "self-management" or another.<sup>218</sup> This is a very difficult demand for modern government to accept: particularly for a "directive" kind of system such as that of the federal government of Canada, and particularly within an industry which is notoriously dependent on governmental support and largesse.<sup>219</sup>

A very different kind of difficulty, but equally central to the fishery policy problems of the Atlantic region, is that of securing dependable, long-term marketing arrangements.<sup>220</sup> In a country with limited interest in eating more fish than it already does, there is no gain in catching larger volumes of fish in newly extended Canadian fishing zones unless we can sell these additional landings. Indeed there is a loss, since excess capacity increases costs, lowers prices, and produces waste and demoralization. Marketing is

not a major problem on the Pacific coast, but it constitutes the largest single challenge to the development of the industry in the Atlantic region. It seems unlikely that appropriate marketing arrangements can be made without some resort to trade-off wheeling and dealing in the larger context of Canadian international trade policy.<sup>221</sup> This is not a popular line of argument to the Canadian fishing industry, but it is probably the price that must be paid if Canada is to gain substantially from its living resource acquisitions under the EEZ regime.

These two examples, one communal and the other industrial, reflect the co-existence of two very different, but equally legitimate, approaches to Canadian fishery policy in general. In a sense each approach represents a "philosophy" or "ideology": communitarian and industrial. Especially on the Atlantic coast, it is difficult to envisage any formulation of Canadian fishery policy that does not accommodate this duality of philosophy. Canadians may have to accept the inevitability of the balancing of industrial and communitarian considerations, as well as foreign and domestic factors, recommended by the Kirby Report in its formulation of the basic objectives of Atlantic fisheries policy:

- "(i) The Atlantic fishing industry should be economically viable on an on-going basis, where

to be viable implies an ability to survive downturns with only a normal business failure rate and without government assistance.

- (ii) Employment in the Atlantic fishing industry should be maximized subject to the constraint that those employed receive a reasonable income as a result of fishery-related income transfer payments.
- (iii) Fish within the 200-mile Canadian zone should be harvested and processed by Canadians in firms owned by Canadians wherever this is consistent with Objectives 1 and 2 and with Canada's international treaty obligations."<sup>222</sup>

This framework of Atlantic fishery policy objectives may, in fact, prove as useful on the Pacific coast as on the Atlantic. But the crucial factor is the relative weighting to be given to each of these elements or considerations, and this is a matter which may be resolved accidentally, rather than deliberately, by the mix of biologists, econo-

mists and sociologists involved in the implementation of Canadian fishery policy. Economists tend, by reason of their training and orientation, to emphasize the industrial side of policy, and therefore to criticize such things as the high level of subsidization afforded by the federal government to the industry as a whole, and the extraordinarily high cost of fishery management - allegedly close in value to the nation's total catch.<sup>223</sup>

Sociologists, on the other hand, tend to reflect and articulate communitarian concerns such as the inequity of particular licensing and quota arrangements and the burden upon fishermen of the regulatory system as a whole. Some discern in government planning an assumption that "things will get better", whereas in reality the "fate" of fishing communities is to oscillate between good times and bad. Most government "intrusions" on the community tend to be harmful, in the long term if not in the short. Some even deny the common property character of an inshore fishery, pointing to informal, traditional, community-based arrangements for catch allocation. They are particularly resentful of "tough" recommendations by economists advising some form or degree of displacement in those coastal communities which cannot establish an economically viable role in the modern fishing industry.<sup>224</sup>

Scientists, on the other hand, are constantly burdened by the scale of research that seems to be required



to provide a sound and reliable information base for rational fishery development and management. Typically, the biologist's approach to fishery policy is that of constant experimentation and frequent revision, as new data becomes available. Biologists tend, moreover, to be split fairly evenly in their sympathies between the "no-nonsense", industrial school of economists and the more compassionate, communitarian school of sociologists.<sup>225</sup>

In conclusion, it must be confessed that the new law of the sea has brought more problems than solutions to the Canadian fishing industry, if we can judge by events since the convening of UNCLOS III and the promulgation of our 200-mile exclusive fishing zone in 1974. Yet it must be hoped that the newly extended framework of national fishery policy planning will, in the not too distant future, permit a larger degree of wisdom in the management of these natural resources.

#### B. Offshore Energy

In some respects Canada's offshore energy problems seem a good deal less complicated than the fishery problems reviewed above. Though it presents its own range of technical difficulties and social uncertainties, offshore mineral development is generally perceived in terms of economic opportunity. It resides in the "growth" sector of the national psyche. Despite some reports of adverse impacts on coastal communities elsewhere,<sup>226</sup> offshore

petroleum development is not generally viewed with suspicion or resentment by the coastal residents of this country or by the public at large. The technology of offshore production is much the same around the world, and this uniformity makes it easier for government and industry to learn from experience elsewhere. Moreover, the relatively short life of offshore petroleum production reduces the need for long-term projections and scales down the level of investment risks incurred.<sup>227</sup>

If the analysis stopped there, we might suppose that now, 25 years after the commencement of commercial offshore exploration, Canada would be well placed to take advantage of its newly confirmed monopoly over the energy resources of its continental margin. But, despite many favorable developments in these 25 years, the Canadian story is largely one of delay and frustration. In order to understand the offshore energy problems of the 1980's, it seems necessary first to look at the offshore in the context of national energy requirements.

National energy planning is a relatively new government responsibility, necessitated by a series of "threats" to traditional sources of "strategic materials" by factors beyond the consumers' control, such as the instability of political systems on the supply side and the danger of international cartelization.<sup>228</sup> Offshore energy is still a minor component of energy planning as

a whole, even in a country like Canada which possesses considerable offshore energy resources. Effective energy policy planning is dependent on collaboration between government and industry, and within a federal system such as ours requires a willingness on the part of federal and provincial governments to work co-operatively in difficult areas of resource management and regulation. The planning of the new offshore sector of Canada's energy industry also seems to call for a new political balancing of provincial interests: on the one hand, between the coastal and inland producer provinces, and, on the other, between the producer and consumer provinces.

Seen in the larger context of long-term national energy requirements, the ocean's crucial role will be that of supplier of infinitely renewable resources in the form of wind and tides. As noted above,<sup>229</sup> the chief significance of the new law of the sea for Canadian energy production may be that the advent of the EEZ regime guarantees Canada's monopoly over the energy resources of the Bay of Fundy, whose extremely high tides make it a logical site for the world's largest tidal energy production facility.<sup>230</sup>

For decades the technical feasibility of such a facility has been studied and debated.<sup>231</sup> Now it seems to be agreed that most of the engineering solutions are available.<sup>232</sup> The problems remaining are mostly economic

in character,<sup>233</sup> and to some extent environmental.<sup>234</sup> The economic problems require a formidable act of political will by the Canadian government system - though one that might be compared with earlier decisions to proceed with multi-billion dollar mega-projects in other parts of Canada.<sup>235</sup> The environmental cost or risk is more difficult to assess. Scientists are coming closer to understanding the probable risk in terms of measureable effects,<sup>236</sup> but since environmental consequences may be felt off the shores of New England<sup>237</sup> the interests of the United States are also involved. Moreover, since most of the tidal energy generated in the Bay of Fundy would have to be exported to the New England market,<sup>238</sup> the project is of considerable economic interest as well as environmental concern to our neighbors. Indeed the project would represent an aspect of U.S. national energy policy even more than an aspect of Canadian energy policy. Like Canadian fishing, Fundy tidal power would be an export industry, and it would be vulnerable to the ups and downs of Canadian-U.S. relations.<sup>239</sup> Accordingly, great care will have to be taken before a final commitment is made to proceed with the Fundy Tidal Power Project.<sup>240</sup>

But more immediate, albeit more limited, are the current problems associated with the development of offshore petroleum. Most observers seem to agree that off-

shore development will remain an important feature of development policy within the Canadian petroleum industry, though perhaps for socio-political rather than strictly economic reasons. The problems have to do with the rate and manner of offshore development, which to some extent is competing for government favor and private capital with other kinds of petroleum reserves and with other non-petroleum sources of energy.<sup>241</sup>

As far as petroleum development options are concerned, the first distinction that has to be made is between conventional and non-conventional sources. Conventional sources are the onshore oil and gas reserves in Western Canada (chiefly Alberta but increasingly also Saskatchewan), which can be exploited under present conditions. Non-conventional sources, which can be developed with a high level of public and private investment, are available in three principal ways: through enhanced recovery,<sup>242</sup> tar sands development,<sup>243</sup> and frontier development. "Frontier" consists of offshore and Arctic onshore. Although it is common to say, for purposes of conciliation within the industry, that all these modes of development must be supported, the truth is that the offshore mode of development must compete to some extent with the other modes: with Arctic onshore, with tar sands development, with enhanced recovery, and with the development of conventional reserves in the West.

But the emphasis to be placed on offshore development is an intensely political issue. Account must be taken of economic considerations of cost and price, and industrial considerations of profit, but in this context of "strategic planning" even the best motivated of politicians must give due regard to the social and political systems of Canada as well as the national economy. Just as Arctic onshore (and offshore) development is a matter of special interest and concern to the people and governments of the Territories, offshore development on the East Coast is a prospect of great significance for the people and governments of Atlantic Canada. To put the matter as delicately as possible, a question of regional balance is at stake in these large-scale investment decisions.<sup>244</sup>

Also involved is the constitutional (and political) issue of division of powers between the federal and provincial authorities within the Canadian governmental structure.<sup>245</sup> Until recent times, the provinces tended to have most control over promotion, production and regulation in the field of indigenous mineral resources.<sup>246</sup> Federal authority tended to be limited to the regulation of export and import trade in such resources, interprovincially and internationally.<sup>247</sup> But in the 1950's the federal government began to realize the potentiality of petroleum development in the "Canada lands": especially in the Territories and in the offshore.

Canadian interest in Arctic island petroleum development seems to have originated in the late 1950's. Under the first federal regulations,<sup>248</sup> written in 1961 with a high degree of corporate involvement, it seemed that the federal government's role in petroleum development would be supportive rather than directive.<sup>249</sup> The federal government's interest was stimulated by Diefenbaker's economic vision of the North in the early 1960's, and, of course, revived in 1967 after the massive discovery at Prudhoe Bay in Alaska.

As to the offshore, relatively little thought seems to have been given to this area of petroleum development by the federal government<sup>250</sup> until the mid-1950's, when Canada had to take a position internationally on continental shelf provisions being prepared by the International Law Commission for the first U.N. Conference on the Law of the Sea (UNCLOS I), which was held at Geneva in 1958.<sup>251</sup> In that period the Arctic offshore was still assumed to be the chief area of potential offshore petroleum development under federal jurisdiction, but as the seismic evidence started to accumulate more attention was given to the prospect of commercial activity off the East coast of Canada. The first offshore drilling took place in 1966, when Amoco sank some wells off the Grand Banks, but unlike the North Sea, where drilling began about the same time,<sup>252</sup> the process of offshore development to the point of pro-

duction has been slow, and it may be 1988 or later before offshore production begins in the Northwest Atlantic.<sup>253</sup>

Exactly when and how offshore production occurs in Canada will depend on highly political decisions that must be made, and made soon, on the balance to be struck between federal and provincial government roles and between the roles of government and industry. To the extent that the Supreme Court of Canada has more or less upheld federal jurisdiction over offshore development,<sup>254</sup> it seems likely that the federal government will retain control over this area of economic planning,<sup>255</sup> though further concessions to the provinces may be expected in revenue-sharing and management participation.<sup>256</sup> Certainly the National Energy Program will be revised or modified in some form, but the three objectives of the Program - self-sufficiency,<sup>257</sup> Canadianization,<sup>258</sup> and fairness<sup>259</sup> - are unlikely to be repudiated.<sup>260</sup> The present grant system of incentives to promote offshore exploration<sup>261</sup> might be subject to adjustment, or complemented with a tax incentive programme, to appease industry and government critics in Western Canada.<sup>262</sup> It is possible that Petro-Canada's saliency in "frontier" development might be reduced.<sup>263</sup> But it now seems to be an imperative of Canadian government and politics that regional balance must be secured in all major areas of economic planning, and Canada's offshore mineral resources certainly have a contribution to make to the overall goal of national economic development.



### C. Deep Ocean Mining

It has been suggested that the Canadian mining industry's approach to deep ocean mining issues at UNCLOS III was based on a mixture of short-term concerns about proposed formulae on pricing and production controls and a long-term interest in research and development. But the actual imminence of these short-term concerns has long been a matter inviting scepticism. Today, 18 months after the conclusion of UNCLOS III, there are more reasons than ever to question the operational significance of the deep ocean mining provisions which emerged from the Conference in 1982.

First, there are legal reasons for scepticism. To become legally binding, the mining provisions in Part XI and related annexes of the UN Convention on the Law of the Sea must be brought under the law of treaties. Because most of these provisions are completely new and highly specific and deal with a mixture of operational and organizational matters, they cannot pass into general (or "customary") international law and become binding on non-party states which decline to sign and ratify the Convention.<sup>264</sup> Accordingly, the legal significance of these particular provisions depends on the future of the Convention as a whole under the law of treaties: that is, on the number and identity of nations that choose to confer or withhold their final consent in the form of signature and ratification - or later accession.<sup>265</sup>

There are three schools of legal scepticism regarding the future of the UNCLOS III provisions on deep ocean mining. The first, the extremist faction, denies that the Convention in its present form will ever come into effect, through the deposit of 60 instruments of ratification or accession in accordance with Article 308. If this arithmetical projection proves correct, then of course the mining provisions will have no legally binding effect, even on those nations which have chosen to grant their final consent to them.<sup>266</sup> The second group concedes that the Convention may eventually come into effect for 60 or more states - say, early in the 1990's - but argues that the important consideration is the identity, and not merely the number, of the parties to the Convention. The crucial question, they contend, is whether all or most of the ocean mining states - that is, those with the capability to become ocean miners - choose to grant their final consent to these provisions through signature and ratification. The future they project is that of a chaotic legal world, in which deep ocean mining activities would be attempted, on the one hand, by party states in accordance with the nominally global regime of UNCLOS III and, on the other, by a group of non-party states in accordance with some other kind of regime.<sup>267</sup> The third kind of legal scepticism envisages merely continuing rounds of unsuccessful effort to create a viable and effective system for deep ocean mining under the aegis of the Preparatory Com-

mission and the projected International Seabed Authority.<sup>268</sup> This order of scepticism is based on doubt that such an effort can succeed without the active participation of the United States and other key industrial powers.<sup>269</sup> This line of prediction points usually to the need for re-negotiation of the UNCLOS III mining provisions as soon as the inevitability of their failure is generally recognized.

Apart from these legal arguments, scepticism arises from economic considerations. World metal prices have been severely depressed for almost a decade and there is no short-term prospect of dramatic price recoveries.<sup>270</sup> There is very little incentive for the mining industry to invest heavily in large-scale preparation for substantial involvement in high-cost production of these low-priced metals.<sup>271</sup> According to most economists, substantial preparatory investment in the production of ocean metals in the 1980's can only be expected in a situation where a rich, metal-importing country is determined, at virtually any cost, to create its own secured supply of these "strategic materials" and the government of such a country is prepared, for overall security reasons, to assist its mining operators to absorb the high costs of seabed prospecting and production - somewhat in the manner of state-supported shipbuilding.<sup>272</sup> As matters stand, Canada does not seem likely to follow such a course, but the same may not be said of the United States, Japan, and the Federal Republic

of Germany, among others.<sup>273</sup> If it is true that no seabed mining takes place before 2000 except on the part of a few strategically motivated industrial powers, then it seems unlikely that the Convention provisions will be accepted as more than a set of non-binding guidelines in certain aspects of ocean mining.

There are other industrial reasons for questioning the operational significance of the UNCLOS III provisions on deep ocean mining. Alternative land sources of supply of nickel, copper, cobalt and manganese may be preferred to new ocean sources, even if they represent equally high costs of future production.<sup>274</sup> Moreover, some broad margin states, especially France and the United States, now seem likely to commence seabed mining within their limits of national jurisdiction - that is, under the regime of the continental shelf - even although it remains true that most of the nodules on the seabed lie beyond national limits in international areas of the Pacific Ocean.<sup>275</sup>

Finally, there is new scientific evidence that much richer concentrations of metals in the ocean may become economically available in forms other than that of manganese nodules lying on the ocean floor. Considerable excitement has been generated by the recent discovery of poly-metallic sulfides fissuring up from crevices in mid-ocean ridges in the Pacific and Atlantic Oceans,<sup>276</sup> but too little is known at present about these sulfides to permit speculation on the future impact of this new source of ocean

metals on the UNCLOS III regime for deep ocean mining, a regime which was designed solely with nodules in mind.<sup>277</sup>

For these many reasons it is appropriate to entertain a degree of scepticism about the short-term operational significance of the UNCLOS III regime on deep ocean mining. Quite properly, the Canadian government participates in the semi-annual sessions of the Preparatory Commission and contributes to the work of that body.<sup>278</sup> Meanwhile, both INCO and Noranda are still participants in two of the four existing international corporate consortia which were established in the 1970's to facilitate the development of ocean mining technology.<sup>279</sup> At least partly as a result of UNCLOS III and the continuing work of the Preparatory Commission, the Canadian government and the Canadian mining industry are obliged to continue working cooperatively (or collusively) in this area of national economic policy planning. The question whether government and industry should adopt a "strategic materials" approach is limited to cobalt, which Canada has to import and is important in steel production, and this turns on the larger, but non-oceanic, question of the extent to which Canada should continue to concentrate on the production of steel and other alloys.<sup>280</sup>

#### D. Shipping

Of Canada's four ocean industries, the shipping industry was the least directly affected by UNCLOS III. The world shipping industry in general was involved in these negotiations only to the extent that the Conference dealt with jurisdictional

issues related to navigation (or transit) rights.<sup>281</sup> These issues required a reconciliation of coastal state interests with the interests of shipping states. Because most Canadian-owned and Canadian-registered vessels are confined to inland and coastal waters,<sup>282</sup> the Canadian government was able to take a strongly coastal position on these issues without running counter to the dominant interests of the Canadian shipping industry.<sup>283</sup>

Canada's position on shipping-related matters was, therefore, influenced less by industrial pressure than by a combination of environmental and administrative considerations.<sup>281</sup> This has had the effect of placing Canada essentially in the same negotiating position as most of the developing coastal states within this particular context of ocean policy issues.

Yet, like most developing coastal states represented at UNCLOS III, the Canadian government has had to give some thought to the possibility that Canada may, sooner or later, wish to develop its own deep sea shipping capability. Although this country is unlikely in the near future to abandon its general "coastal state" orientation on ocean policy affairs, it may nonetheless wish to build up its own national merchant marine, at least on a modest scale, so as to enjoy the advantages of possessing "flag state" jurisdiction over an appreciable number of ocean-going vessels as the state of registration.<sup>282</sup> Once again, Canadians are reviewing the arguments for and against the development of national-flag shipping in Canada.<sup>283</sup>

First, it should be remembered that the Canadian shipping

industry has had an unusually volatile history. There have been periods when Canada ranked high among the world's shipping states, especially in times of war when it was strategically expedient to place a large volume of shipping, both foreign-owned and Canadian-owned, under the Canadian flag.<sup>284</sup> In times of peace, on the other hand, and especially in the period since the late 1940's, the Canadian merchant marine has been allowed to run down to a low level -- the level at which Canada is judged to be competitive in the world market for shipping services. Currently, the Canadian merchant fleet, measured in gross registered tons for vessels over 300 tons, ranks only 35th (?) in the world.<sup>285</sup> Both in thick times and thin, Canadian importers and exporters have usually derived advantage from access to British or imperial preferential arrangements, and certainly incalculable benefits from a shared legal heritage, but at least the former gains have largely eroded in the post-war period,<sup>286</sup> and the latter (legal) advantages are becoming more questionable as shipping law becomes more "transnational".<sup>286</sup>

Almost continuously since the late 1940's, arguments have been put forward in support of the position that Canada should develop its own deep sea shipping capability: that is, that the Canadian government should support and develop the Canadian shipping industry beyond the level at which a Canadian merchant marine is at present commercially competitive in the open market of supply and demand. There are seven principal arguments: three of these are traditional mercantilist arguments for

industrial protectionism, and the remaining four may be classified as "modern".

The first traditional argument attempts to justify protection on the ground of national defence. Given the extremely limited military power that Canada can or should exert in world affairs, virtually no one is prepared to make this kind of protectionist argument for Canadian shipping, except possibly in the limited and special context of Arctic sovereignty.<sup>287</sup> The second traditional argument proceeds from the premise that the development of national-flag shipping would produce a favourable net effect in terms of the balance of payments. But most shipping economists have concluded that the net effect would be negative in the short run, and small, if favourable at all, in the longer run.<sup>288</sup> The third traditional argument rests on the proposition that the development of the Canadian shipping industry would result in new employment opportunities. But it must be conceded that the world shipping industry in general is becoming more capital intensive, and it is extremely doubtful, in light of the Canadian fishing industry's experience, how many unemployed men or women in Canada are prepared to undergo intensive training programmes in order to qualify for a career at sea.<sup>289</sup>

The first of the modern arguments proceeds from the premise that the protection of selected industries is politically crucial to the development of an underdeveloped or "unbalanced" economy. The case rests on the psychic, rather than the economic,



benefits available, and has more to do with the psycho-cultural concept of "nation-building" than with that of economic or industrial development. This "romantic" line of argument, though emotionally appealing to many nationalists, is scarcely amenable to rational analysis.<sup>290</sup>

The second line of modern argument is that a short-term economic loss is justifiable, or even necessary, in the first phase of sectoral development in order to become competitive in the second phase. Thus it may be argued that, under the supportive policies of UNCTAD<sup>291</sup> and other UN bodies,<sup>292</sup> Canada should make substantial short-term national investments in a "vulnerable" sector of its economy, such as that of shipping, in the hope that the infant industry will be sufficiently safeguarded in the second generation.<sup>293</sup> The strength of this argument depends on how one views the future pattern of the market for shipping services. Some experts believe that the current world surplus of shipping services, which keeps marine transportation costs extremely low, is unlikely to continue for more than 10 years, and that now is the time for a newcomer like Canada to plan and invest its way into a competitive and influential position in a future seller's market.<sup>294</sup>

The third modern argument, distinguishable from the second, is the so-called "dark clouds" argument: that is, that the increasingly interventionist, protectionist trends in the international economy will have adverse effects indefinitely on the capacity and efficiency of (mostly foreign) shipping services currently

available to Canadian importers and exporters. The principal reference here is to the LDC-sponsored Liner Code of Conduct, approved under UNCTAD auspices,<sup>295</sup> whereby cargo would be shared equally, 40 percent each, by the vessels of the importing and exporting countries, leaving only 20 percent for the vessels of third party countries (mostly those of the developed countries which still dominate the world shipping industry).<sup>296</sup> From this kind of projection regarding the redistribution of economic power within the world shipping industry it can be argued that Canadian-flag shipping, which would not otherwise be commercially viable, should be subsidized now as a national investment against future costs.<sup>297</sup>

The fourth, and final, modern argument is the admittedly limited and special argument that Canada's stake in the protection of the Arctic Ocean environment, and therefore in the administrative control of the Northwest Passage, is so great -- not least for psycho-cultural reasons of "nation-building" -- that a policy of special government support is necessary in order to permit the development of Canadian capability not only in shipping services but also in the entire range of ancillary services necessary for a system of "transit management" in that region of special national importance.<sup>298</sup> This argument is less cogent if restricted to the goal of environmental protection than if extended to that of transit management; but even in its extended form the argument may seem too specialized to support a general policy of protection for the Canadian shipping industry as a whole.<sup>299</sup>

This debate on Canadian shipping policy has been waged, more or less continuously, since the birth of the nation. A cynical observer might be excused for concluding that this kind of policy is determined less by the merits of the various arguments than by the political influence of the debaters. Apart from the taxpaying public, which in practice has little direct influence on this kind of issue, there are four principal interest groups engaged in the shipping policy debate: the shipowners (carriers), the users of shipping services (importers and exporters), the shipbuilders, and the maritime and shipbuilding unions.<sup>300</sup> Each of these groups has a different position on Canadian shipping policy. The unions are the most unequivocal in support of government interventionist measures which would lead to an expansion of Canadian-flag shipping, and their position rests chiefly, of course, on the employment argument.<sup>301</sup> The importers and exporters are the most consistently opposed to the concept of a substantial Canadian merchant marine on the ground that a policy of government support, in any of the various forms suggested,<sup>302</sup> would inevitably raise the costs of transportation and adversely affect their trading position in the market.<sup>303</sup> The shipowners are, of course, mostly in favour of developing their own industry, but it is a heterogeneous grouping, whose interests are by no means identical.<sup>304</sup> The shipbuilders do not press for a requirement that all Canadian-flag vessels should be Canadian built or Canadian repaired, but they are, of course, in favour

of a national flag policy which would have the effect of bringing in more orders, and they see the Arctic as a special case in which Canadian-built vessels should be employed.<sup>305</sup>

Since the electorate is not emotionally involved, the Canadian political system is able to absorb the shipping policy debate more easily than its fishing policy counterpart. But shipping policy problems have never been comfortably addressed by the government system. Senior decision-makers in Ottawa rarely have any "feeling" for the world of shipping. Indeed to most Canadians, in industry and commerce as well as government, shipping is an alien world, full of traps and complications, best left to foreigners who know what they are doing. But the challenge calls for national vision as well as understanding, and it seems to deserve a ranking on the national agenda.

### 3. Strategic Planning Issues

#### A. Transit Management

Even if the Canadian government should eventually decide to move in the direction of developing our national shipping capability, Canada will retain its present coastal orientation on virtually all navigational issues. This means that Canada will continue to be less concerned with the preservation of the traditional freedom of navigation in the high seas - a principle that Canada has no reason to challenge - than with the development of regulatory "transit management" systems of various kinds within Canadian limits of national jurisdiction.

"Transit management" is a coinage which is intended to convey the idea of a system for the regulation and control of vessel traffic within a designated area: either over all vessel movements, if the area itself tends to be congested or presents certain hazards, or at least over certain classes of vessels that present special hazards.<sup>305</sup> Within limits of national jurisdiction the coastal state would act as the "managing state", but the kinds of regulatory measures and administrative controls applied by the coastal authorities would, of course, have to be in accordance with international rules and standards and recommended procedures and practices, in conformity with the UN Convention on the Law of the Sea.<sup>306</sup> Juridically, one can envisage different approaches to the development of transit management systems under three distinct regimes: internal waters, territorial sea, and exclusive economic zone.<sup>307</sup> At least in the third of these regimes, beyond the 12-mile limits of territorial sovereignty, the managing coastal state has an obligation to develop a partnership relationship with the International Maritime Organization, the specialized agency based in London which represents the international community in matters related to navigation and vessel-source marine pollution.<sup>308</sup> This seems to be a reasonable interpretation of the Convention, at least from the viewpoint of a potential managing coastal state such as Canada.<sup>309</sup>

Nowhere is the case for a Canadian initiative in transit management stronger than in the Northwest Passage. Outside shipping-related circles, relatively few Canadians have any conception of the potential significance of the Northwest Passage. But for the obstruction of ice and other physical hazards, the Passage could provide a direct link between the Pacific and Atlantic Oceans, saving thousands of miles and tens of thousands of dollars on any cargo-carrying voyage, over the next best alternative ocean route through the Panama Canal.<sup>310</sup> At the present level of technology, we now possess most of the technical capability to begin planning and designing arrangements for initiating trans-seasonal, if not year-round, navigation through the Passage.<sup>311</sup> By the year 2000 Canada should have in place a permanent transit management system for the Passage, the western approaches in the Beaufort Sea, and the eastern approaches in the Davis Strait, Baffin Bay, and adjacent waters. In this context, the concept of "transit management" embraces all processes of policy-making, legislation, regulation, administration and enforcement applied to the shipment of any cargoes, by any means, in and through the Passage and its approaches. Such a system would provide overland and air as well as ocean transportation.

Crucial to this task is the need to make full allowance for the special physical and environmental characteristics of the Arctic Ocean.<sup>312</sup> Moreover, a Northern mega-project on this scale must be conceived

and designed within a socially appropriate, environmentally sensitive ("eco-developmental") framework of economic planning.<sup>313</sup> Much thought would have to be given to the design of appropriate navigational aids and special training programmes for those to be permitted to navigate in these difficult waters.<sup>314</sup> Given the diversity of governmental procedures for screening proposals for mega-projects of this scale, special care should be taken in the selection of approval procedures appropriate to a permanent transit management system for installation in the Canadian Arctic Ocean.<sup>315</sup> Moreover, this kind of system planning and design should be the product of 10-15 years of the most sophisticated study and analysis that Canadian expertise can provide in the late 20th century.<sup>315</sup>

The task is large, calling for an impressive exercise of will and imagination within the political and bureaucratic sectors of the Canadian government system. Not least, one envisages the need for a high degree of diplomatic tact and firmness in dealing with international aspects of such a system in the Northwest Passage.<sup>317</sup> It is difficult to think of any ocean-related initiative that should have a higher ranking on the national agenda.

#### B. Ocean Management

Most specialists who have participated in the last 15 years of "ocean development" have found the need to "re-group" around one or two new concepts which seem to

lie at the centre of their shared concerns. One of the new concepts evolving, both in government and the academic community, is that of "ocean management".

The idea behind this recent coinage is that under the new, and newly expanded, regimes of national jurisdiction the coastal state has a widening range of managerial responsibilities which must be addressed together, holistically, as well as specifically within individual "sectors" such as that of fishery management. The managing state is confronted with expanding uses of the sea: offshore petroleum exploration and production, tidal power generation, ocean thermal energy conversion, transit by new kinds of vessels, disposal of various wastes, new forms of recreation, and aquaculture, as well as many types of fishing. Each of these uses, old and new, can be brought under an overall system of "rational" management, whereby the conflicts among uses can be anticipated and minimized, if not avoided, objectives clarified, priorities established, and research and training programmes developed. Particularly for the purposes of research and training, the framework of "ocean management" must be designed in interdisciplinary terms in order to offset the biases and distortions inherent in each of the sectors.

Most coastal states in the world, not least those of the developing regions, now accept the need for an "integrative" approach to the tasks of planning and management in their coastal and offshore waters under the



new law of the sea. The idea is not entirely new. In the early 1970's the division of the North Sea continental shelf into national areas<sup>318</sup> induced Norway, the United Kingdom, and other littoral states in the region to enter into co-operative arrangements,<sup>319</sup> both bilateral and multilateral and to initiate thinking about the need for systematic "sea use planning".<sup>320</sup> At the same time the United States was beginning to develop an ambitious, federally inspired, national programme of "coastal zone management"<sup>321</sup>. Because of the timing of this path-breaking venture in American public administration, proposed several years before the advent of extended maritime jurisdiction in the form of a 200-mile exclusive economic zone,<sup>322</sup> the U.S. concept of the "coastal zone" was limited to the ocean area within the three-mile limits of the U.S. territorial sea but included also a narrow strip of hinterland behind the shoreline.<sup>323</sup> The U.S. concept of the "coastal zone" was that of the interface between the land and the ocean. Since the early 1970's variants of the "sea use planning" and "coastal zone management" concepts have emerged in several other regions of the world,<sup>324</sup> and in 1982 the United Nations Environment Programme (UNEP)<sup>325</sup> took the important step of designating "coastal zone management" as an area of secondary priority for the second decade under the U.N. Action Plan on the Human Environment.<sup>326</sup>

Against this background it seems obvious that Canada - with the world's longest coastline, the second largest continental shelf, and one of the biggest economic zones - should be making a major and innovative contribution to the development of "ocean management", not least by virtue of Canada's experience and international reputation in environmental management.<sup>327</sup> But, strangely, Canada has been slow in responding to the need for a comprehensive, integrative approach to the management of its vast coastal and offshore waters. In 1975 several alternative approaches to a coastal zone management system for Atlantic Canada were suggested,<sup>328</sup> and the topic was put on the agenda of a federal-provincial council of ministers,<sup>329</sup> but despite (perhaps because of) the inclusion of the inland provinces under the concept of "shoreline management",<sup>330</sup> little has been heard of any significant developments which could be said to reflect inter-governmental awareness of the need for a national system of ocean management. Yet Canada needs an ocean management plan - with or without the inclusion of the inland provinces.

Now, with the crystallization of the new law of the sea, one can see that a comprehensive ocean management plan for Canada would be based on two kinds of ocean management systems around the Canadian coastline: bi-national and national. Bi-national ocean management systems need to be developed with neighboring states in six easily

designated marine regions: in the Fundy-Maine-Georges (FMG) region with the U.S.;<sup>331</sup> in the St. Lawrence-Gulf outer region with France (St. Pierre et Miquelon)<sup>333</sup>; and in the Beaufort Sea, Dixon Entrance, and Juan de Fuca regions with the U.S.<sup>334</sup>. National ocean management systems need to be developed, of course, in the remaining Canadian coastal and offshore areas interspersed between the bi-national management regions. Underlying each of these management systems, of both categories, would be a number of common principles and institutions, including those established or further developed in the UN Convention on the Law of the Sea and other international agreements. In areas where it is premature to proceed to the design of an ocean management system, steps should at least be taken to begin consultations on the elements of an appropriate Regional Ocean Management Action Plan.<sup>335</sup>

### C. Offshore Development

Another pivotal concept evolving in the field of ocean affairs is that of "offshore development". What is usually meant by this coinage is a systematically planned effort to direct the entire process of developing the petroleum resources of the continental shelf (within the limits of national jurisdiction on the continental margin) over which the coastal state has "sovereign rights" under the new law of the sea. It is assumed that offshore development planning should begin as soon as the initial geological prospecting of offshore areas suggests the

existence of petroleum reserves of potential commercial significance, so that appropriate stimulation and regulation can be applied to the entire series of steps thereafter right down to the final phase of production (and the post-production clearance of installations).

The offshore development concept, like the larger concept of ocean management, is multi-disciplinary and multi-functional in scope. It is intended to project a variety of concerns: the need to stimulate, direct, and co-ordinate the appropriate research strategies; the need to orchestrate the inputs of the various government agencies with relevant capabilities and responsibilities; the need to design effective procedures both to stimulate and to regulate the offshore development process; the need to fuse the relevant resources of government, industry, and the academic community as productively and economically as possible; the need to incorporate the views and interests of the affected coastal communities; and the need to provide linkages with other coastal states and regions with experience in offshore development.

Offshore development began, initially in a rudimentary and unsystematic fashion, on the U.S. continental shelf in the Gulf of Mexico,<sup>336</sup> and later off the coast of Venezuela, and in the offshore waters of Indonesia.<sup>337</sup> A more systematic approach to offshore development was taken in the North Sea in the late 1960's by the governments of Norway and the United Kingdom.<sup>338</sup> Now, in the mid-1980's,

we are about to witness in Canada the appearance of the "third generation" of offshore development, initially in the Northwest Atlantic Ocean and, perhaps a little later, in the Beaufort Sea. Given the value of the resources at stake, Canada would have little excuse for failing to meet the challenge of raising the "third generation" of offshore development to a higher level of efficiency and sophistication.

With a view to these ends, a recent collaborative effort has been made to establish the Program for Atlantic Co-operative Offshore-Onshore Development (PACOD).<sup>339</sup> The Canadian component of this Program (viz. CANPAC) will consist of a network of participating institutions from the three sectors of government, industry, and the academic community,<sup>340</sup> and CANPAC will also co-operate in various ways with counterpart institutions in Norway (NORPAC)<sup>341</sup> and Scotland (SCOPAC).<sup>342</sup> It is hoped that the voluntary efforts of these institutions will result in an intelligent and effective fusing of resources, so that Canadians will be able to take pride in their contribution to offshore development over the next 25 years.

Unfortunately Canada's efforts to stimulate and regulate offshore development over the last decade have been flawed by federal-provincial and inter-provincial conflicts. Thoughtful Canadians might well be chilled by the prospect of future political wrangling over various aspects of offshore development. In some respects this particular area of intergovernmental relations may serve

as a test of Canada's claim that it functions effectively as a unified nation state.

Since the tragic sinking of the Ocean Ranger drilling rig in stormy seas off the Newfoundland coast in March 1982,<sup>343</sup> both government and industry have been deeply concerned with the problems of offshore safety. The problems of safety have, of course, been the major concern of the Canada-Newfoundland Royal Commission on the Ocean Ranger Marine Disaster,<sup>344</sup> but its terms of reference have been broadened to include a fuller review of the entire range of offshore regulatory requirements that Canada should be addressing in the 1980's, as the nation moves toward the period of large-scale offshore production.<sup>345</sup> Canadians everywhere will wish that the Commission's final recommendations<sup>346</sup> receive the most careful consideration by government and industry alike.

#### D. Coastal Community Development

As noted above,<sup>347</sup> it is widely agreed today, especially among economists and industrialists, that the major problem in the Canadian fishing industry is overcapitalization. It seems logical, therefore, to approach the problems of Canadian coastal communities as if they were essentially economic, or even industrial, in origin. But to most specialists in the field of coastal community studies it is precisely this "sectoral" assumption - that community

development is virtually equateable with economic development - that must be challenged.<sup>348</sup>

First, it should be made clear that the focus of concern is the small coastal community, not the town or city located on a shoreline, which has an entirely different set of characteristics. The small coastal community, like the small rural community, tends, almost by definition, to subsist at the periphery of the industrial economy in a country such as Canada. It does not necessarily follow - it may or it may not - that the best way of developing a small community is by ensuring it acquires a more central role within the industrial economy. On the other hand, it seems pointless, at least in a "dynamic" society such as ours, to deny that small coastal communities need to be developed. Like larger communities, small ones, both coastal and rural, have "developmental", not merely "maintenance" or "conservationist", requirements.

Perhaps the chief danger is overgeneralization. Important regional distinctions must be made between the coastal community problems of Atlantic Canada, British Columbia, and the Canadian Arctic.

All coastal communities in the Canadian Arctic are "small", and all bear witness to difficult problems in community development. But the fact that almost all of them are Inuit settlements and that they suffer special forms of hardship due to a harsh climate and terrain

has tended, until recently, to emphasize the cultural and environmental factors in community development. Only recently has it been noticed by policy planners that these are also coastal communities, whose residents are traditionally dependent on ocean resources for their survival. With current developments in technology the Inuit coastal communities in Northern waters are no longer so isolated from the kinds of governmental and industrial impacts which have complicated the problems of coastal community development elsewhere in Canada. Impacts on these Northern coastal communities tend to be the product of two kinds of policies: the federal government policy for Native peoples,<sup>349</sup> on the one hand, and the industrial-governmental policy for industrial development,<sup>350</sup> on the other. Before irrevocable planning decisions are made by government and industry, it seems important to ensure that careful coastal community development thinking be added to the mix of considerations.

In British Columbia, unlike the Arctic, the policy problems of coastal community development are aggravated by the co-existence of both Native and non-Native coastal communities. Overgeneralized policies are unlikely to accommodate the diverse cultural values and attitudes involved.<sup>351</sup> Moreover, distinctions have to be drawn among the various Indian tribes represented in the coastal communities of Northern British Columbia. Indeed the fact



that most of these Native coastal communities are affected, directly or indirectly, by Native land and offshore claims<sup>352</sup> seems to underline that most contemporary thinking about these communities is not so much communal, in the proper sense, as tribal or sub-cultural.<sup>353</sup>

It is in the Atlantic region that most thought has been given to the problem of coastal community development per se. More than one-quarter of the population of the Atlantic provinces live in small coastal communities, and more than half of these have been classified as having single-sector, fishery-based, economies.<sup>354</sup> The recent Task Force on Atlantic Fisheries (1982) identified no less than 1,339 small fishing communities in Atlantic Canada.<sup>355</sup>

Traditionally, there have been two responses to the unsolved problems of coastal community development in Atlantic Canada: vocational pluralism and migration. But the first of these responses, combining two or more seasonal or part-time jobs, serves to illustrate the "marginality" of the work force in the region more than it suggests a long-term solution to the problem of "marginality"; and, in any event, the structure of U.I.C. and other welfare programmes is such that it tends, unintentionally, to eliminate or at least reduce some of the seasonal employment options in the coastal community.<sup>356</sup> Migration, the second traditional response, must also be

seen as part of the problem, rather than as a solution; and during the current recession we are reminded that inter-regional shifts of the unemployed simply displace a serious social problem and add to the strains of a highly regionalized nation.<sup>357</sup>

Long-term solutions to these socio-economic problems do not come easily to mind, but it may be useful to suggest that solutions should be sought both in the economic and sociological approaches to coastal community development. On the economic side, some analysts in the early 1970's concluded that the best systemic solution would be community re-settlement for many of the outports of Newfoundland.<sup>358</sup> Enforced or negatively induced re-settlement is unlikely to be politically acceptable as a social solution within the culture, but the strategy of human development is probably sound if it takes the form of positively sanctioned and imaginatively designed skills training programmes in designated non-traditional areas such as aquaculture,<sup>359</sup> specialized farming,<sup>360</sup> small-scale ocean technology (manufacture and repair),<sup>361</sup> offshore services,<sup>362</sup> and recreation and tourism.<sup>363</sup> Diversity seems the best objective. Moreover, some of the traditional skills developed in the coastal communities of Atlantic Canada might be adapted to the needs of developing countries overseas and made available under Canadian international development programmes.<sup>364</sup>

On the sociological side of the problem, more consideration should be given to developing a humanistic approach to fishery planning, which would be based on a higher degree of community participation in fishery decision-making.<sup>365</sup> Most sociologists are convinced that too much reliance has been placed on the spectre of the "tragedy of the commons" in fishery policy thinking since the 1960's,<sup>366</sup> and that this has led to grossly excessive interference by government in the small-scale fishing community. Much more use, they argue, should be made of local custom and usage in the allocation of fishing space.<sup>367</sup> Some of the tensions in the fishing communities of the region in recent years have resulted in violent as well as non-violent forms of civil disobedience.<sup>368</sup> Much of this kind of social unrest might be ascribed to the clash between internal and external authority patterns, which will not be averted until a more central and controlling role is defined for local customs and practices in the process of fishery management.<sup>369</sup>

#### E. Marine Technology Development

One of the important new "potential growth" areas in the Canadian economy, at least in the coastal regions and especially in Atlantic Canada, is the area of marine technology. In the larger Canadian context of technology development planning, it is useful, and normal, to distinguish three sectors of marine technology: the "traditional"

sector ancillary to the fishing industry; the traditional sector ancillary to shipping; and the new sector, mis-named the "ocean industry" sector, which is emerging from other, more recent and prospective, uses of the sea. Marine technology development policy, like technology development policy in general, is partly a component of ocean science policy, which is dealt with in the following section. But, more basically, technology development is a function of industrial strategy, and an important facet of overall national economic planning.<sup>370</sup>

Canada has not yet achieved world status as a supplier of fishing equipment and services. The world fishing industry, including the Canadian industry, is still largely dependent on American, European, and Japanese technology.<sup>371</sup> But in recent years Canadian industry, prodded and cajoled by federal and provincial agencies,<sup>372</sup> has made a bid to capture a proportionate share of the fishing technology market.<sup>373</sup> With a large domestic industry to supply, Canadian equipment manufacturers and dealers have a reasonably secure foothold at home, but it is not at all easy to penetrate the established fishing states overseas. Perhaps the best prospect lies in gaining a share of new or developing markets in the Pacific Rim and Caribbean regions, where Canada enjoys a good political reputation and might be expected to compete effectively in the development and marketing of "intermediate" technology for the fishing countries of these two regions.<sup>374</sup>

In the modern era Canada has not been a major supplier of shipping technology and services. The story of Canadian shipbuilding in recent decades has been one of more downs than ups.<sup>375</sup> Shipbuilding policy is closely related to merchant marine policy, since the Canadian shipbuilding industry could never survive on the strength of foreign orders. The relatively small size of the Canadian shipping industry, largely confined to coastal and inland waters, has been the major factor in limiting the growth potentiality of Canadian shipbuilding. In the world market, dominance in shipbuilding is passing from Japan to South Korea and other "newly industrialized" countries.<sup>376</sup> The future growth of Canadian shipbuilding seems to depend on that of the Canadian merchant marine,<sup>377</sup> and on the specialized need for excellence in ice-breaking technology, which is an essential part of the need for national excellence in Arctic navigation and transit management.<sup>378</sup>

But it is in the third area of ocean technology, the so-called "ocean industry sector" as designated by Industry, Trade and Commerce, that Canadian prospects may be brightest. This sector is composed of those firms that manufacture equipment or provide services for all commercial and scientific activities associated with the new and prospective uses of the sea: offshore petroleum exploration and production; ocean mining; energy production

from wave and tidal action; aquaculture; and marinas and other developing forms of recreation. These new uses are very rapidly generating requirements for new types of equipment and services for offshore drill and supply ships, submarine production systems (eg. pipelines and cables), submarine surveying systems, and manned and remotely controlled submersibles. In the late 1960's this area of technology in Canada generated only a few million dollars; by 1976 it had yielded over \$200 million; and now it provides over double that amount. With proper encouragement this could soon become a multi-billion dollar industry.<sup>379</sup>

The biggest problem facing Canadian manufacturers and suppliers in the "ocean industry sector" is the familiar one of combatting foreign competition, especially that of the United States. In the offshore petroleum industry U.S. service and equipment supply companies have achieved a dominant position internationally due to their early start in the development of platform technology off the coast of California and in the Gulf of Mexico.<sup>380</sup> Over the years these U.S. manufacturers and suppliers have established close working relationships with the major oil companies around the world, and today the technological (and financial) infrastructure around offshore petroleum is huge, complex, and ferociously competitive. In the last decade the U.S. dominance in this sector has

been challenged by the best technologists and entrepreneurs of Western Europe, as the governments and corporations of that region have come to recognize the potentially long-term industrial benefits available from offshore petroleum activity in the North Sea.<sup>381</sup> Both multinational and domestic oil companies in Canada are understandably reluctant to change their traditional (non-Canadian) suppliers. In determining how far to go with legislative requirements for Canadian technology, Canadian economic planners will surely wish to give a fair chance to Canadian offshore equipment manufacturers and Canadian suppliers of offshore services.<sup>382</sup>

Outside the area of offshore petroleum, Canadian opportunities seem brighter, without special government support, precisely because it is still too early for foreign competition to have reached unduly formidable dimensions. In the area of underwater technology, for example, there is really no reason why Canada should not become a world-class manufacturer and supplier, and the recent establishment of the Canadian Underwater Center in Halifax, promoted by the federal Ocean Industry Development Office (OIDO) in co-ordination with the Canadian Oil and Gas Lands Administration (COGLA), is the kind of initiative which may help to place Canada in the vanguard of this particular area of marine technology.<sup>383</sup> Aquaculture is another area of special promise for Canadian technology,

since relatively little American capital or ingenuity has been invested in this area, but a serious government effort is needed to raise Canadian consciousness of the potentiality for aquacultural development in this country.<sup>384</sup>

But since much of the interest in these areas of technological development is most evident at the regional level, especially in Atlantic Canada, it seems important not to shackle the relevant regional government offices and small-scale regional entrepreneurs with a highly centralized system of policy-making based in Ottawa. Indeed Industry, Trade and Commerce may not be the appropriate agency to promote the development of ocean technology unless it is required to decentralize its operations in this sector.<sup>385</sup> Moreover, the process of developing ocean technology and bringing innovation to ocean-related equipment and services is likely to be retarded in Canada unless the federal government attaches a higher and more visible priority to the promotion of ocean engineering and related skills through special fellowship and training programmes.

#### F. Ocean Science Policy

The term "ocean science" is a convenient shorthand reference to the entire cluster of marine sciences and



technologies which must be included within any general framework of ocean policy planning. Conspicuous among the marine sciences are the following categories of investigation: (i) physical oceanography and physics of sea water and ice; (ii) chemical oceanography and marine chemistry; (iii) biological oceanography and marine biology (including marine fisheries); (iv) geological oceanography and marine geology; (v) marine geophysics and geochemistry; (vi) air-sea interaction studies; (vii) hydrodynamics related to the ocean; (viii) hydrography; and (ix) shoreline dynamics.<sup>386</sup> The marine technologies have been defined as the devices and techniques for a) the study of the marine sciences, b) the exploration and exploitation of marine resources, and c) engineering for the marine environment.<sup>387</sup> However, within the general context of science policy, it is possible to define "ocean science" even more broadly, so as to cover completely all points on the "spectrum of scientific activities": basic or fundamental research, applied research, development, and innovation.<sup>388</sup>

Most Canadians are probably unaware of their country's saliency in the field of ocean science. Particularly in the basic and applied research areas Canada ranks among the top four or five countries in the world by almost any test: number of university graduates or

"professional scientists" in the field, amount of money spent on research, level of technical support, amount or quality of equipment and facilities, amount of ship time available to researchers, volume and quality of publications, or amount and quality of scientific advice available to decision-makers in government and industry.<sup>389</sup> As noted in the previous section of this study, Canadian prominence is less marked on the technological side of the spectrum, and yet there is evidence that a strengthening in the areas of "development" and "innovation" is also taking place.<sup>390</sup> In view of the rapidly growing importance of Canada's interests and responsibilities in almost all sectors of ocean development and management, it is now a matter of national priority to bring long-term vision as well as everyday perception to the assessment of the nation's requirements in ocean science for the next two decades.<sup>391</sup>

The principal oceanographic institution in Canada is the Bedford Institute of Oceanography (BIO) located in Dartmouth, Nova Scotia. The BIO is approximately the same size - by most of the measurements that can be made of such complexes - as the Woods Hole Oceanographic Institution in Massachusetts; and, taken together, in size they may rank second only to the Scripps Oceanographic Institution in California, the world's largest.<sup>392</sup> In the last 10-15 years the BIO facilities have almost

doubled in size, and the Institute now has a total staff of over 1,100 employees (including fleet crews as well as shore-based personnel). BIO operates a fleet of three research vessels, together with several smaller craft. The two largest vessels, Hudson and Baffin, have global capability, extremely long endurance, and are Lloyd's Ice Class I vessels able to work throughout the Canadian Arctic. The BIO facilities (buildings, ships, computers, workshops, library, etc.) are operated by DFO, but the Institute is composed of several laboratories under three different federal departments: four under DFO (Canadian Hydrographic Service, Atlantic Oceanographic Laboratory, Marine Ecology Laboratory, and Marine Fish Division), one under EMR (Atlantic Gloscience Centre), and one under DOE (Seabird Research Unit).<sup>393</sup>

In addition to the BIO, the federal government of Canada maintains a number of smaller but very important oceanographic institutions in other parts of Canada, including the Institute of Ocean Sciences (IOS) at Patricia Bay, B.C., the Bayfield Laboratory for Marine Science and Surveys, and the Champlain Centre for Marine Science and Surveys, as well as dozens of research laboratories in specialized marine sciences.<sup>394</sup> In addition, most of the provinces have established non-profit research councils or foundations with the aim of fostering research

in areas of economic importance, and at least two, those of British Columbia and Nova Scotia, have instituted important projects in ocean science, especially at the technological end of the spectrum of scientific activities.<sup>395</sup>

A significant volume of the nation's ocean science research, especially in the "basic" category, is also done in the universities. The largest teaching-and-research programmes in oceanography are located at six universities: U.B.C., Dalhousie, McGill, Victoria, Simon Fraser, and Guelph.<sup>396</sup> Because of the understandable emphasis on "missionary" research in government and research council laboratories, it tends to be left mainly, though not entirely, to university scientists to take the lead in "undirected" areas of ocean science research, the so-called "curiosity-directed" sectors of scientific investigation.<sup>397</sup> But since a large, and increasing, proportion of university research in the sciences is, and must be, funded federally, chiefly under the auspices of the National Research Council, there is a tendency for university-based researchers to be attracted to the more easily funded "missionary" areas in accordance with the government's current conception of national priorities.<sup>398</sup> Those able and willing to resist the pull to this part of the spectrum are usually required to demonstrate an established reputation for true excellence - a requirement which may be very difficult for a young scientist to satisfy.<sup>399</sup>

Most of the major issues in Canadian ocean science policy have remained unchanged since the last major study of these problems was undertaken 15 years ago.<sup>400</sup> The emergence of new uses of the ocean has accentuated the need for resource-and-environment problem-solving. The ocean is no longer perceived in spatial terms. Technology has dramatically enhanced the economic, and therefore social and political, significance of the seas, introduced the prospect of conflict of uses, and underlined the role of government in ocean development and management. Since most ocean scientists in Canada are government employees,<sup>401</sup> and almost all of the others are largely dependent on government grants to finance their research,<sup>402</sup> Canadian government policy controls - or at least is capable of controlling - the volume of expenditure on ocean science, the choice of emphasis on designated subject areas or modes of investigation, the degree of problem-orientation in funded programmes and projects, the standards of competence, the uses of the data derived, and, to a lesser extent, the availability of the findings within and beyond Canada.<sup>403</sup> With the dramatic extension of the seaward limits of national jurisdiction in the 1970's, Canada now has an opportunity to derive new and almost unmatched benefits from its world class standing in ocean science. Now, more than ever, it seems essential to maintain the current levels of national investment in

ocean science and to review the need for increased investments in selected areas of priority.

It is virtually impossible to get unanimity within the Canadian scientific community on any of these basic issues of ocean science policy.<sup>404</sup> Some, but by no means all, argue that government and research council laboratories have a public responsibility to focus, more or less exclusively, on ocean development and management problems of more immediate national interest: for example, in fishery, petroleum, and other ocean resource contexts, in the general context of environmental protection, and in the special context of the Arctic Ocean. This viewpoint comes close to justifying recent trends in Canadian ocean science policy.<sup>405</sup> But others, pointing to the indispensability of government vessels and facilities in Canadian oceanography and related fields, argue that it is artificial and arbitrary to draw black-and-white distinctions between the research allotted to different kinds of institutions in government, industry, and the university community.<sup>406</sup>

Some scientists emphasize the significance of the trend, especially in Arctic investigations, to more sophisticated expeditionary methods of research, involving integrated cross-disciplinary teams, vessels, aircraft, satellites, ice or artificial island stations, and other expensive modes of technology.<sup>407</sup> Others draw

a more diversified picture of ocean science requirements, including an important support role for less specialized scientists, and even skilled lay observers belonging to the local community.<sup>408</sup>

Many Canadian ocean scientists, conceding the need to design research programmes and projects around specific economic, environmental and social problems, favor a larger investment in the areas of technology and product development.<sup>409</sup> But to accomplish this it seems necessary to narrow the traditional gap between the world of economic and industrial strategy and the world of ocean science.<sup>410</sup>

Again, many Canadian ocean scientists feel strongly about their potential role in helping developing countries to deal more effectively with their ocean development and management problems; and, not surprisingly, there is a wide variance of opinions on the best way to organize or re-organize Canadian ocean science capabilities. But both of these issues will be discussed below, in later sections of this study.<sup>411</sup>

#### G. Legal Development

Rather like ocean science, or science in general, legal development should not be unduly valued as an end in itself, but held out rather as a crucial means to a variety of social ends. Today law is no longer perceived as a mystery or as an evolutionary process, or even as a set of universal rules. Law is a complicated set of social and institutional arrangements, which are, more

or less consciously, developed in response to general or special social needs by officials elected or appointed for that purpose. In view of the nation's new opportunities and requirements in ocean development and management, careful thought must now be given to the development of Canadian ocean law.

In this context, Canadian legal development requirements begin with the need to accept the importance of a much more systematic approach to ocean law. Much of the existing law related to the ocean is of pre-modern origin and has grown up in a haphazard way, often without much thought for the general social or economic purposes to be served. The federal Fisheries Act,<sup>412</sup> for example, is one of the oldest Canadian statutes in existence,<sup>413</sup> and despite innumerable amendments<sup>414</sup>, and a proliferation of regulation<sup>415</sup> is badly in need of overhaul. The Canada Shipping Act,<sup>416</sup> another bedrock component of Canadian ocean law, is of even earlier origin and is based on a foreign model.<sup>417</sup> On the other hand, the Arctic Waters Pollution Prevention Act<sup>418</sup> is a fairly recent enactment designed along modern, functionally specific lines,<sup>419</sup> but no comparable legislation exists for the protection of the Canadian marine environment in the Atlantic and Pacific Oceans. The Canada Oil and Gas Act<sup>420</sup> provides another modern approach to the



development of Canadian ocean law, for certain administrative purposes related to offshore exploratory activities, but Canada falls far short of the need for a national legal regime over the entire process of offshore development.<sup>421</sup> No legislation exists for the promotion of coastal zone (or shoreline) management in Canada,<sup>422</sup> and we are just beginning to see the emergence of legislation to facilitate the development of aquaculture.<sup>423</sup> Canada has not yet introduced any modern legislation on the delineation of the baselines around its coasts, which it is entitled to draw under the new law of the sea; and indeed one looks in vain for any legislative enactment formalizing this country's entitlement to a 200-mile exclusive economic zone (as distinguished from an exclusive fishing zone).<sup>424</sup>

The case for overhauling Canadian ocean-related legislation (and regulations) in a comprehensive and systematic fashion is stronger now than ever before. Canada has signed the U.N. Convention on the Law of the Sea, and is expected to ratify the famous treaty in the near future. As a prospective party Canada has a responsibility not only to bring its existing laws into conformity with the Convention, but also to take a wide range of legislative and administrative, as well as diplomatic, initiatives in order to implement its provisions. Indeed, as one of the largest and most capable coastal states, Canada might be said to have incurred "maximal response"

responsibilities under the Convention.<sup>425</sup> With a treaty of such extraordinary size and diversity, the tasks of "implementation" go far beyond what is normally regarded as "legal development".<sup>426</sup> Yet these tasks begin, though they do not end, with legislative enactments and revisions.

There are, of course, a host of difficulties - constitutional, political, technical, diplomatic, and even psycho-cultural - which complicate the task of developing Canadian ocean law in a systematic fashion. In this section it is not possible to do more than comment on these difficulties.

Perhaps the most obvious hurdle in this path, at least in the mind of most lawyers, is the federal-provincial framework within which Canadian legal development occurs. Despite important constitutional innovations in recent years, nothing has been done to alter fundamentally the division of legislative powers between the Parliament of Canada and the provincial legislatures. Under section 91 of the old British North America Acts, Parliament has exclusive legislative authority over a number of "subjects" directly and wholly related to the ocean, such as navigation and shipping, ocean fisheries, interprovincial and international ferries, and beacons, buoys, light-houses, and Sable Island, as well as others indirectly

and partly related to the ocean, such as defence, trade and commerce, taxation, and criminal law and other undesignated areas of law-making required for the "peace, order and good government" of Canada. On the other hand, under section 92 of the same legislation, the provincial legislatures have exclusive law-making powers in several broad areas, such as those of "property and civil rights in the province" and "all matters of a merely local or private nature in the province", which may be infringed upon by several sectors of "national" ocean policy.

Even in some of these areas which seem to have been demarcated fairly clearly under the BNA Act, political sentiment has intruded to force a shifting or sharing of federal and provincial responsibilities. Some degree of duality in government regulation of the fishing industry has emerged for a mixture of political and administrative, rather than strictly legal, reasons.<sup>427</sup> Joint federal-provincial management schemes for offshore petroleum exploration and production are likely to prevail, again for a mixture of political and administrative reasons.<sup>428</sup> Such cross-jurisdictional arrangements may be defensible, or even unavoidable within the Canadian political culture, but they certainly complicate the task of legislative consolidation. Arguably the need for such "finessing" of our constitution is

fatal to any systematic effort to develop a national legal regime in the field of ocean law.

Technically, it can be objected that any radical legislative effort to re-structure existing Canadian ocean law, with a view to bringing it into line with new enactments, would create unprecedented difficulties of interpretation for the judiciary, at a time when it is burdened with difficulties of adjustment to the new Charter.<sup>429</sup> To offset such fears it is necessary to have a good deal of faith in the technique of mirror (or parallel) legislation and in the political acceptability of such proposals.<sup>430</sup>

Another complication arises from the fact that new areas of "national" waters, namely those areas beyond the 12-mile limits of the territorial sea, fall outside the domain of the coastal state's territorial sovereignty, and cognizance must be taken of the rights of other states in these areas, as determined by the new international law of the sea.<sup>431</sup> Indeed even inside the territorial sea (and internal waters) of the coastal state, many legal issues have an international aspect, either under customary international law or under the 1982 U.N. Convention on the Law of the Sea, or both.<sup>432</sup> Any systematic approach to the development of Canadian ocean law would be complicated by the requirement to provide for notice to, or consultation with, other states within any comprehensive legal framework,<sup>433</sup> and

by the need to comply with internationally prescribed dispute management procedures.<sup>434</sup>

Finally, it might be argued that the Canadian nation is not institutionally structured or culturally conditioned for heroic undertakings, such as a holistic, integrated, comprehensive legal regime for the regulation of ocean-related activities. Under this argument, one may be beaten back to much less imaginative, less sophisticated exercises in legal development, which are judged to be more "feasible" or "realistic". In psychocultural terms, one is left to balance out the question of how bold or cautious the Canadian legislative development strategy should be, and what priority should be given to ensuring that Canadian ocean law is properly designed to serve the national interest in ocean development and management.

In the final analysis, a modest, "sensible" or "realistic", approach to an ocean law development strategy in Canada is likely to be inadequate. An orthodox, "sectoral" approach to legal development is condemned to failure, because the orthodox "sectoral" approach to policy-making in ocean development and management is no longer sufficient. Already, for example, it is evident that policies must be developed for efficient and equitable handling of conflicts of uses: to deal with

conflicts between fishing and offshore development, between waste disposal and beach protection, between industrial and recreational uses of coastal waters, and so forth. Fragmented and ad hoc legislation dealing with these different uses of the ocean provides no hope of a satisfactory legal basis for resolving such disputes. Sooner or later, the world's largest (or second largest) coastal state will have no choice but to proceed systematically to the development of a sophisticated ocean law regime.

#### H. Federal-Provincial Relations

The difficult and often fractious relationship between federal and provincial levels of government is a major problem in the development of a national ocean policy, as in so many other contexts of Canadian socio-economic planning. It may be a problem without a solution. Two "philosophic" viewpoints can be taken. Either the problem of federal-provincial antagonism is seen as a cultural phenomenon, reflecting a basic and irreconcilable disparity between national and regional perceptions of Canadian society, or it is seen as a dominant but remediable flaw in the institutional design of the state. On the assumption that the problem is institutional, and therefore soluble, how might it be dealt with in the context of ocean development and management? Surely we cannot surrender to the

notion that an "emotional" or attitudinal problem of this kind is simply not amenable to "rational" treatment.

Of the four sectors of ocean industry reviewed above, shipping and deep ocean mining are unlikely to become "contested" between federal and provincial levels of government.<sup>435</sup> Fishing, on the other hand, has been a "target" for provincial politicians, especially in Newfoundland, and in recent years a good deal has been heard of the argument for a sharing of federal and provincial responsibilities. Unfortunately the argument has usually been couched in rhetorical terms, within the constitutional context of "resource jurisdiction", thereby concealing the possibility of more specific, and less emotive, proposals for co-operative programs that might be seriously considered. At its least credible, the rhetorical line of argument has led to poorly considered demands for carving up Canada's exclusive economic zone (or, more accurately, exclusive fishing zone) into provincial compartments.<sup>436</sup> This kind of "balkanization" of Canada's offshore water has, deservedly, been ridiculed by the federal government. The advent of the 200-mile EEZ has underlined the need for a strong central government role in directing the drive for foreign markets for increased Canadian catches,

and in many other ways reinforced the crucial importance of a unified national management policy.<sup>437</sup> But the special interest and responsibility of the coastal provincial governments should be conceded in the context of coastal community development, if not in that of national fishery development. It might be suggested that a more imaginative approach by both levels of government should be taken to the design of co-operative federal-provincial programmes for the benefit of the small inshore fishing communities.<sup>438</sup> A separate (federal-provincial) approach to these, essentially sociological, problems would be likely to save these vulnerable small coastal communities from some of the consequences of a tough industrial approach, which the federal government might be justified in directing for the offshore fishing industry in the wake of UNCLOS III.<sup>439</sup>

Offshore petroleum development has also become embroiled in federal-provincial controversy in recent years. It is still too early to predict the success or otherwise of joint federal-provincial management schemes for offshore mineral exploration activities, much less for production purposes.<sup>440</sup> But as these early experiments get underway, it would be timely for a joint federal-provincial study team to examine closely the experience of cross-jurisdictional or intergovernmental experiments of a comparable kind in other regions, even in countries with unitary, instead of federal, state structures.<sup>441</sup>



If we return to the six sectors of ocean development and management reviewed earlier in this section, we discern extremely variable impacts of federal-provincial relations. In two of these sectors, transit management and ocean science, it is difficult to find any sound reason for interfering with the present situation, where the federal government has the dominant role. In the case of transit management, it is unthinkable that anything other than a unified national system should be developed for Canada's Atlantic and Pacific offshore waters. In the wake of UNCLOS III, it is difficult enough to design a single national system which will meet Canada's new requirements as a managing coastal state under the U.N. Convention on the Law of the Sea.<sup>42</sup> In the special case of the Arctic, as Canada proceeds to the long-term design of a transit management system for the Northwest Passage, there is, of course, a territorial, not a provincial, government in place to share the coastal perspective, but the lack of provincial government removes the discussion from the area of existing entitlements. Local community (Inuit) inputs are certainly crucial in the design of a transit management for the Northwest Passage, but it is difficult to see why these inputs should be fundamentally altered if, or when, the Northwest Territories acquire provincial status.<sup>443</sup>

Somewhat similarly, the field of ocean science should not be fundamentally re-organized, in a jurisdictional sense, between the federal and provincial levels of government. The case for intergovernmental co-operation should be made out in the terms of specific federal-provincial programmes, especially on the technological side of the spectrum of scientific activities related to "development" and "innovation".<sup>444</sup>

On the other hand, coastal community development seems to be a sector of ocean development and management especially well suited to the provincial level of government. Not least in the Atlantic region, a re-doubled effort should be made to generate new ideas for the attraction of ocean technology development opportunities to the small coastal communities under the appropriate provincial government agencies, in conjunction with the federal National Research Council, the provincial research council, and the relevant sectors of industry and small-scale business.<sup>445</sup>

Progress in two other sectors of ocean development and management seems to depend primarily on joint federal-provincial initiatives. Marine technology development must be advanced at different levels, from the highest level of sophisticated equipment and techniques applicable to large-scale industry to "intermediate" and even lower levels applicable to small-scale firms and individuals operating in the small and modestly

endowed coastal community. Because of the range and diversity of opportunities, it seems essential to maintain the broadest interaction between industry, science, and government, including provincial as well as federal agencies. A continuing development of federal-provincial co-operative programmes is pivotal in the Canadian strategy for marine technology development.<sup>446</sup>

Similarly, it seems obvious that the purpose of offshore development will not be met in an efficient manner without the joint involvement of federal and provincial levels of government. One suspects - perhaps unfairly - that some politicians, both federal and provincial, have derived enjoyment from the thrust-and-parry politics of the offshore, and it is the kind of spectator sport that tends to divide the electorate into partisan factions. But the winner-takes-all politics of offshore development is an expensive sport, and it is doubtful that the Atlantic region can afford this particular luxury. Indeed the kind of intergovernmental co-operation that is required goes far beyond a few bilateral federal-provincial schemes of the kind now beginning to emerge. What is needed is a comprehensive and operationally effective management system designed (and funded) to draw upon all the requisite knowledge and experience in government, industry, and the academic community in Canada, and in other countries with the most relevant expertise.<sup>447</sup>

Finally, the difficult and challenging field of ocean management poses a special difficulty for federal-provincial relations. The order of difficulty varies with the way one envisages ocean management. If one aims at a single, all-encompassing, omni-functional national system of management for all ocean areas within the newly expanded limits of Canadian jurisdiction, the difficulties are very nearly overwhelming. But if these vast areas are divided into distinct kinds of "ocean management areas" the federal-provincial implications can be distinguished and more easily analyzed. In the case of bi-national ocean management offshore areas, shareable with the United States, Denmark/Greenland, and France/St. Pierre and Miquelon, the federal government must be required to assume a dominant role, not least because of the foreign policy implications involved in the operation of such a management system.<sup>448</sup> On the other hand, in the case of uni-national ocean management inshore or coastal areas, the need for close federal-provincial co-operation seems very clear indeed. Whether bilateral federal-provincial management arrangements would be sufficient depends, among other things, on the spatial and functional definition of this kind of ocean management area. A narrowly defined "coastal zone", say between Sydney and Lunenburg, Nova Scotia,

might be managed efficiently through bilateral federal-provincial arrangements. A "coastal zone" defined to include Northumberland Strait might be managed on the basis of federal-provincial arrangements involving the three coastal provinces (Nova Scotia, Prince Edward Island, and New Brunswick) as well as the federal government. But if the definition is extended to cover a much larger area, such as the entire Gulf of St. Lawrence, it would be preferable to establish a truly regional, as distinct from federal-provincial, mechanism to conduct effective management on such a scale.<sup>449</sup>

#### I Governmental Re-organization

Just as the federal structure of government is particularly ill suited to meet the modern requirements of ocean development and management in a vast coastal state such as Canada, so is the present distribution of Canadian government departments, both at federal and provincial levels, an inadequate system for applying the nation's talents and resources to these tasks. In most states it may be felt that ocean development and management is still too new or too peripheral to the nation's primary concerns to justify a massive restructuring of government departments, but thoughtful Canadians will hesitate before assigning the ocean to the periphery.

Significantly, France has recently reorganized its central bureaucracy and established a "superministry" for ocean affairs with a view to enhancing governmental efficiency in ocean development and management in the age of extended coastal state jurisdiction.<sup>450</sup> It behoves Canada, as another major "gainer" from UNCLOS III, to give equally serious thought to this and alternative options in governmental reorganization.

Normally, at least in theory, the question of governmental reorganization should arise near the end of a particular line of reasoning triggered by policy revisions of some significance. By this kind of logic governmental reorganization should be postponed until answers have been given to the kinds of ocean policy questions raised in this study. But this assumes that government departments are nothing more than vehicles for the implementation of "policy" within a relatively unchanging framework of basic law and established agency mandates. In reality, ocean development and management is too dynamic and "proactive" a process to fit this "reactive" model of government action. Government departments are also the principal forums for thinking out policy and management options, for conducting the appropriate research and analysis, and for advocating the forms of action that they and other institutions should undertake. As in other contexts, the first

organizational question in ocean development and management assumes the form of the familiar chicken-and-egg dilemma. Therefore, the matter must be perceived as one of judgment, not logic. To the extent that structure will influence these various processes, the political leadership must decide, at least in general terms, what new directions or priorities of policy it wishes to set before authorizing a significant restructuring of government.<sup>451</sup>

A few comments on the purposes of reorganization might be offered. First, it seems useful in this context to maintain a distinction between "ocean development" and "ocean management". The first term should be reserved for the process of deriving benefits from various productive uses of the sea: the traditional uses of fishing and shipping, the newer ones of offshore petroleum production and aquaculture, and prospective uses such as ocean mining, the generation of tidal power, and ocean thermal energy conversion. In these areas, where linear thinking tends on the whole to be conducive to efficiency of production, "sectoral logic" should perhaps prevail as a major influence on the response to questions of governmental organization. "Ocean management", on the other hand, seems to require something more than linear thinking. It must be thought out, and constantly adjusted, within a more comp-

licated framework of "cross-sectoral" considerations which reflects the "managerial reality" of conflicting uses, competing values, and contending orders of legitimacy. A holistic view of the ocean environment and a quest for "integrative" solutions to specific management problems should be dominant influences in the area of "ocean management", and these requirements should be reflected in government structure devoted to "ocean management" purposes.

"Ocean management", then, poses the most difficult problems of government reorganization. To the extent that "ocean development" should be subject to "ocean management" constraints and considerations, Canada ought to be taking an imaginative initiative, albeit on an experimental basis, in the reorganization of its ocean management capabilities. On the face of things, there are three, clearly distinguishable approaches: superministry, lead agency, and regional commissions.

The superministry notion - the French model - is theoretically attractive, because it promises to yield optimal efficiency through policy-making coherence, consolidation of information, avoidance of duplicated effort, and clarity of command. If the superministry (or cluster of agencies) is properly designed, virtually all relevant kinds of ocean management ideas and information are available within one unit of government. It is difficult, however, to envisage an effective Canadian superministry



of ocean affairs, given the cross-jurisdictional aspects of national ocean policy within our federal structure. Most areas of "ocean management" seem to fall within federal jurisdiction under the present constitution, but at least that of "coastal community development" falls - and should fall - within provincial jurisdiction. Even a strictly federal superministry of ocean affairs would involve an amalgamation of Fisheries and Oceans with massive segments of at least five other federal agencies (Transportation; Environment; Energy Mines and Resources; National Defence; and Indian and Northern Affairs) and perhaps smaller components of several others (e.g. Industry, Trade and Commerce and Science and Technology).<sup>452</sup>

The second approach involves naming one major department as lead agency with overall responsibility for co-ordinating the process of national ocean policy-making and creating a network of interdepartmental linkage procedures and arrangements with other ocean-related departments. This approach is the least disruptive of existing mandates and practices, but it requires the political leadership to find appropriate criteria for choosing the lead agency. By virtue of current management capabilities Fisheries and Oceans would be considered a strong contender, but a case can also be made for Environment Canada by reason of its overall responsibility for the natural environment and its holistic and integrative perspectives.

Both of these departments have given a good deal of recent thought to their new or expanded responsibilities under the U.N. Convention on the Law of the Sea.<sup>453</sup>

The boldest of the three options would involve the creation of several regional ocean management commissions. This is perhaps the most logical arrangement, if one thinks of the managerial advantages that would accrue from a division of the vast ocean areas under Canadian jurisdiction into carefully defined "regional ocean management areas". As suggested above,<sup>454</sup> two kinds of such ocean areas should be instituted: six binational management areas and a corresponding number of uninational management areas interspersed between the binational. These regional ocean management commissions or councils, composed of federal, provincial and non-governmental appointees, would be a multifunctional version of the existing regional fisheries commissions in the United States, subject to whatever institutional variations one would want to introduce for legal, administrative, or other reasons; but the idea is based essentially on a similar system of spatial (geographical) allocation around the coast.<sup>455</sup> To avoid unnecessary confusion and undue divergence of policy-making, it would, of course, be necessary to stipulate clearly the areas of management responsibility assigned to the regional commission level, and to vest in a national-level body

the power to prescribe policy guidelines which would be binding on all commissions, though subject to differing interpretation when applied to each region. Such an arrangement would certainly be more complicated than the first two, but it would also be potentially the most flexible and also the most democratic.

#### 4. Conclusions

An effort has been made in this section to review, and comment upon, most of the major national ocean policy issues and developments confronting Canada at this stage in the rebuilding of the international law of the sea. These issues and developments have been described in terms of "ocean development and management" requirements within a broad interdisciplinary framework. Yet it is recognized that however broadly one defines "ocean policy", the subject must be fitted into the much larger context of long-range economic and social planning. The primary purpose of this section has, therefore, been to set out at some length the many facets of national ocean policy and to show some of the ways that national ocean policy and general economic and social policy impinge upon each other.

The growth of ocean technology is certainly one of the most dramatic world-wide phenomena over the last 20-30 years. The Canadian tragedy in the next two or three decades may be a national failure to appreciate the role that Canada, as one of the great coastal states, can and

should play in ocean development and management. There is no guarantee that words, here or anywhere else, will have any effect on perceptions and interests in the national capital and other centres of inland Canada. It is an irony of Canadian history and geography that any centralized ocean policy thinking in this great coastal state must be done 1,000 miles removed from the Atlantic seaboard, over 2,000 miles from the Pacific, and over 3,000 miles from our Northern waters. Despite the impressive volume of ocean-related expertise available in Ottawa, within appropriate sectors of the federal government bureaucracy, the chief mental barrier to a systematic development of national ocean policy is likely to be the physical remoteness of these problems and opportunities from the locus of decision-making in Central Canada.

It is not enough to talk of this problem of remoteness as if it were soluble through further experiments in the decentralization of government. The establishment of regional ocean management commissions may be a useful contribution to the development of effective national ocean policy in this country, but Ottawa - and to a large extent Toronto and Montreal - will continue to dominate virtually all sectors of national economic and social planning in Canada for the foreseeable future. The major ocean-related policy decisions will have to be made within that larger context, inside and outside the "political system", by influential individuals psychologically remote from the world of ocean affairs.

To a large extent the problem is one of public information. Despite the fact that the national as well as regional media in Canada gave better-than-average coverage of UNCLOS III, report regularly on fishery issues (the most politicized aspect of ocean development and management), and exploit the newsworthiness of blow-outs, sinkings, and other tragedies at sea, it remains true that the general public have little exposure to the broader range of ocean policy issues in Canada.

What we need is both a national process and a national product. Because of the limitations of any document, however impressive, the first priority is the initiation of some kind of procedure which would be designed to bring together the best informed and most imaginative minds in the field of ocean development and management, drawn from government, industry, and the academic community. The most important requirement is that only the best qualified persons should be eligible for appointment to what must become immediately recognizable as a genuinely prestigious and influential body of opinion. The organization of the best possible judgment is, after all, one of the most important tasks of government in an open society such as ours, which is based essentially on the freedom of choice. If the right individuals can be drawn in, it is a secondary, though not unimportant, matter how and at what scale they should be organized, or what powers are entrusted to them. The

process should, however, be permanent and continuous, administered by a professional staff.

A permanent national institute or commission of this kind should, of course, be required to undertake the tasks of public information, especially those tasks that cannot be undertaken effectively by the media. The products of the national institute or commission should range from annual reports, overview planning documents (e.g. national and/or regional ocean management action plans), and more technical working papers (in various sectors of ocean development and management), to brochures, press releases, newsletters, and explanatory briefs for circulation to schools, public libraries, and other interested institutions.

Only with the establishment of a continuous process of thought and overview, involving individuals of genuine excellence, is there any assurance that the national requirements in ocean development and management will be given appropriate weighting within the larger context of national economic and social planning.

#### IV. BASIC FOREIGN POLICY ISSUES AFTER UNCLOS III

##### 1. Introduction

The Third U.N. Conference on the Law of the Sea (UNCLOS III) was the longest, biggest, most expensive most heterogenous, and, by general acknowledgment, one of the most ambitious intergovernment conferences in

diplomatic history. The entire process, including the U.N. Seabed Committee which prepared the way for UNCLOS III proper, lasted 14 1/2 years: from the summer of 1968 to December 1982. Most sessions of UNCLOS III proper (1973-1982) attracted 2,000-3,000 delegates. Between sessions most of these delegates spent much of their time, and many spent all of their time, on activities more or less directly related to the Conference. Although some of the features of UNCLOS III can, of course, be traced to earlier diplomatic conferences,<sup>456</sup> and others can be attributed to contemporary influences at work elsewhere,<sup>457</sup> there is little doubt that UNCLOS III will be viewed by posterity as a diplomatic landmark.

But the story of the new law of the sea is more than the story of a single conference, even one of unprecedented magnitude. The transformation of ocean law and policy reflected at UNCLOS III was brought about on many fronts. Even within the world of conference diplomacy, UNCLOS III was only the largest of a number of important global ocean-related conferences, especially in the contexts of shipping and environmental protection,<sup>458</sup> and a proliferation of regional fishery and other ocean-related arrangements also contributed to the reshaping of the law of the sea.<sup>459</sup> Moreover, the "revolution" in ocean law, policy and management was also assisted in no small measure by ingenious and creative exercises in bilateral diplomacy.<sup>460</sup>

In a few countries the new law of the sea has already begun to affect foreign policy priorities and can be expected to present new opportunities in the international community as well as at home. Canada, pre-eminently, is one of these few.

## 2. Canada as a Coastal State

A nation's general orientation to the international community can be seen to be derived from its perception of itself. In various ways, both subtle and obvious, self-imagery has an important influence on national "set" and posture in foreign policy and on its style of conducting foreign relations. Almost invariably, a national government wishes, above all, that its foreign policy will put the country, its culture and institutions in what it perceives to be a favourable light. What are judged to be its strengths, not its weaknesses, are put on display. Those who approach foreign policy from the viewpoint of specific benefits to be gained may be sadly disappointed if they do not give equal attention to general impression.

At this initial level of analysis, Canada has been permanently, and perhaps profoundly, affected by recent events in law of the sea diplomacy. However, it is difficult to make this argument for the period before 1968. The diplomatic activities culminating in UNCLOS I and UNCLOS II, held in 1958 and 1960 respectively, cast Canada in the role of a moderately progressive, cautiously reformist, western "middle power", less interested in



deriving conspicuous national advantage than in providing intermediary services in a global effort to codify and develop this particular area of international law.<sup>461</sup> Only 50 or so countries attended, and for most of them it was essentially a meeting of technical specialists, which was both politically and intellectually dominated by the developed countries and their closest allies in the developing regions.

At UNCLOS III almost everything was different. Virtually every nation on earth attended, and most of them were able to participate in a meaningful way, to the maximum extent possible within the limits of their interest and capability.<sup>462</sup> As never before, each active participant was on display, both literally and metaphorically, warts and all, before all the national governments, for a period of almost 15 years. Thousands of professional careers were made - and not a few broken - during that period, and the most prominent and distinguished of the UNCLOS III negotiators certainly now constitute much of the elite of the diplomatic corps around the world. In a minority of countries, including the most advanced industrial states like Canada, only a certain proportion of the brightest and best were assigned to UNCLOS III, but the point to be stressed is that the ablest diplomats in the majority of nations now have more or less permanent perceptions of Canada that are profoundly influenced by their experience at UNCLOS III.<sup>462</sup>

It is important, therefore, for Canadians to understand the image that our representatives projected over these 15 years on the U.N. Seabed Committee and at UNCLOS III proper. The image was that of an acquisitive, enormously capable, somewhat immodest, frequently aggressive, coastal state, willing to embrace fairly radical ideas and to forge new linkages and alignments with a wide range of friends, both old and new, if it served its immediate national interest to do so. The issues themselves dictated that UNCLOS III would be a highly acquisitive, self-interested undertaking for virtually all states, but the exceptionally high stakes for Canada forced the Canadian government to invest an enormous amount of capability into this extraordinary exercise in conference diplomacy. To play the game successfully, Canada's representatives had to depart, more or less abruptly, from the modest, unaggressive, conciliatory style of diplomacy cultivated in earlier years, featured by more altruistic Canadian initiatives in peacekeeping and other forms of intermediary U.N. diplomacy. Unlike the earlier post-war conferences of comparable magnitude, UNCLOS III and other major U.N. conferences held in that 15-year period coincided with the saliency of North-South, rather than East-West, issues, and the ideological significance of law of the sea diplomacy after 1967 was of a very different sort from that of the peacekeeping period of Canadian diplomatic history.<sup>463</sup>

The main division at UNCLOS III was between coastal states, on the one hand, and maritime (shipping or distant fishing) states, on the other. On most issues - certainly on all the so-called "jurisdictional" issues - Canada's position coincided with its interest as a coastal state, in a context where coastal states' interests were opposed by the interests of the maritime states. To the extent that the latter interests were forced to yield to the former at UNCLOS III, Canada was a major actor in "the rise of the coastal state" in the 1970's.<sup>464</sup> Because most of the coastal states were (and are) also developing states, and most of the non-coastal states were perceived (and described) as "maritime-powers", the imagery of UNCLOS III ensured that Canada would, if it played its hand skillfully, gain a favourable impression as a champion of the developing world at the same time that it zealously pursued its own national interests as a coastal state.

The implications of this coincidence of advantages in the new Canadian diplomacy are fairly obvious. Today most developed states - certainly most developed "middle power" states - would like to discover how to have the best of both worlds: their own and that of the developing countries. Especially for a country like Canada, which inherited a favourable reputation for good works and fair dealing in the developing world between 1950 and 1965, it has become a matter of priority to develop a type of foreign policy that seems to justify that repu-

tation within the contemporary context of North-South issues without incurring sacrifices of national interest that would be difficult to justify to the Canadian people. In "coastal state diplomacy" Canada seems to have discovered a new area of foreign policy operations that permits precisely this kind of balancing of considerations.

Inherent in the concept of the "coastal state", as developed at UNCLOS III, are several kinds of "creative tensions":

- (i) between "development" and "management";
  - (ii) between "rights" and "responsibilities";
  - (iii) between "state" and "society";
  - (iv) between "technology" and "nature";
  - (v) between "industry" and "community";
- and, not least,
- (vi) between "domestic" and "international" initiatives.

At UNCLOS III much of the publicized effort was directed at the realization of developmental opportunities for the coastal state within its expanded limits of national jurisdiction, such as the development of the living and non-living resources of the exclusive economic zone. Yet much of the diplomatic energy was expended, more quietly, on the design of regimes and systems for the management of these resources. Canada seems as well equipped as any country to make major contributions, in various international forums, to the synthesis of ocean development and ocean management ideas.

On the development side, the emphasis tends to be placed on the concept of rights; on the management side, the tendency is to stress the central concept of responsibility. At UNCLOS III the Canadian delegation deservedly earned a good reputation for its concern with the need to balance new resource development rights with commensurate environmental management responsibilities, albeit often in a context where Canadian initiatives were suspected by cynical observers of being designed to serve the sinister purpose of "creeping jurisdiction".<sup>465</sup> Now, after the negotiations, Canada has an opportunity to demonstrate that its earnest invocations to the responsibilities of the managing coastal state were based on something more substantial than a fleeting sense of opportunism.

In orthodox legal and political thinking, the new law of the sea represents an expansion of state authority (and public administration) into extensive and fairly distant areas of the ocean. To that extent it introduces fairly fundamental questions about the scope and form of government regulations in what until recently was regarded as an area of the planet relatively free of regulation. At the same time these newly expanded areas of national space are an extension of human society. Significantly, these national gains were made within the framework of international law for reasons associated with human, not merely statist, goals, such as the production of food and energy. Indeed the frequent emphasis on the special entitlement of developing coastal (and even non-coastal) states underlines the primacy of human needs as much as

the priority of certain states. Ideologically, Canada has found within its own national experience an especially interesting "middle ground" in matters of regulatory philosophy, and has much to contribute in these particular areas of human need, from the sea as well as the land.

The realization of a coastal state's potentiality in ocean development and management, particularly that of a developing coastal state, will require frequent, if not massive, infusions of marine technology. As argued above, Canada has a splendid opportunity to become a world-class supplier of certain kinds of ocean technology,<sup>466</sup> and of the marine science that provides the requisite information.<sup>467</sup> At the same time, Canada has attracted world-wide attention, and some admiration, as a defender of nature and the human environment, and not least as an advocate for strict controls over the marine environment.<sup>468</sup> A continuing effort at "coastal state diplomacy" seems appropriate in a country like Canada with a combination of these particular credentials.

By the same token, Canada is now in a position to become a world leader in at least three of the four ocean industries, and yet is forced within its own political culture to become sensitive to the impacts of industry on the small coastal community, especially in the Arctic and Atlantic regions but also in Northern British Columbia. Within the framework of "coastal state diplomacy" Canada should be able to hold the bal-

ance between the claims of industry and community for purposes of ocean development and management.

Finally, the concept of "coastal state management" consists, almost equally of domestic and international responsibilities. A marvelous economy of effort, serving national and foreign policy requirements simultaneously, can be achieved by a single but systematic approach to the development of ocean management systems within our expanded limits of jurisdiction.<sup>469</sup>

### 3. Canada and the United Nations

Reappraisal of the United Nations system is probably a continuous process, if not a full-time industry, within the Department of External Affairs. It is a matter that must be considered from every conceivable angle of perception. The UNCLOS III angle is only one of many, and in some respects an angle that might tend to distort the view. If UNCLOS III was indeed a unique phenomenon, we should be careful not to draw too many lessons from it. But to the extent that UNCLOS III reflects the age we live in and reveals certain trends in conference diplomacy, and international relations at large, what can we learn from it about the role of the United Nations today in world affairs? Three points in particular might be made.

First, UNCLOS III was very largely a delegation affair. Despite the many important services rendered by the U.N. Secretariat, most of them were either of the

management or maintenance type or were research or other services requested by the delegations. The participating governments were constantly on guard against "intrusions" from the U.N. Secretariat, and even more so against interventions from other sectors, such as the U.N. special agencies, other intergovernmental organizations, and above all the non-governmental organizations monitoring the Conference. Indeed, their common exclusion from positions of major influence tended to bound these disparate sectors together into a kind of Greek chorus, whose murmured comments on the unfolding drama were occasionally made audible to the participants. This "romantic" statist approach to policy-making and legal development in the United Nations, which means a decline in "world government" influence at the policy-making level, is likely to be taken in other U.N. forums in the years ahead.<sup>470</sup>

Second, the maintenance of control over the Conference by the participating governments added enormously to the financial cost, human energy input, and logistical complexity of the entire process. Since these burdens fall on the governments, the effect of UNCLOS III may be to discourage massive undertakings of this sort in the years ahead. Given the additional deficiencies of the U.N. system, the member states - and especially the developed states which contribute most of the U.N. budget - may now feel that "mega-conferences" of this sort should be discouraged. Yet U.N. experience suggests



that even the most rational and practical arguments of this sort, urging a simpler and more expeditious way of doing things, may not prevail over the emotional forces within the U.N. system behind the concept of "world participatory democracy". Moreover, thousands of national government officials around the world have now discovered the excitement of full-scale U.N. conference diplomacy - many of them previously unattached to foreign ministry matters - and career interest has almost certainly become a potent force in support of further excitements of the UNCLOS III variety.

Third, the modern concept of "development" shows no signs of abating in U.N. circles, despite the fact that it has now lost much of the clarity of meaning that it ever possessed as a policy goal. To save the concept of "ocean resource development" from degenerating into a vague, rhetorical reference to nation-building, some expertise at UNCLOS III was devoted to the effort to synthesize developmental ideals with more specific management principles and practices. Mainly because of the need to negotiate a compromise on basic jurisdictional issues in the form of the EEZ regime, some success was achieved in the synthesis of development and management thinking. In retrospect, it may appear that this was the most important intellectual achievement of UNCLOS III and that it will assist the development "movement" of the United Nations, both in oceanic and non-oceanic

contexts, by providing a "first model" framework of thought for refinement and consolidation.<sup>471</sup>

How should Canada now respond to these probable trends within the U.N. system in light of its experience at UNCLOS III? Again, it may be enough to offer three comments.

First, Canada's saliency in "coastal state diplomacy" at UNCLOS III was made possible by utilizing and co-ordinating very considerable national resources in the field of ocean development and management. As a result, Canada - especially the federal government bureaucracy of Canada - possesses a pool of human and other resources that can and should be drawn upon for U.N.-related purposes: both to enable the Canadian government to supply initiatives and to respond to the initiatives of others in various U.N. forums charged with responsibilities in the field of ocean development and management. Canada has no reason to shrink modestly from the world standard of excellence in this field. There is simply no reason why Canadian officials should not, in all U.N. sectors, be included almost invariably among the leading thinkers and doers in ocean policy affairs, as they are, for example, in the field of environmental affairs. Even the cynics, who permit only a self-interested approach to foreign policy, will have to concede that Canada, as one of the world's great "managing coastal states", has much to gain domestically from deep and constant

involvement in U.N.-directed activities in ocean development and management problems around the world. Moreover, the Canadian government's involvement in U.N. ocean affairs should be intensified not only through delegation initiatives and responses at intergovernmental conferences and other official meetings but also through secondments to U.N. agency secretariats. All of these things are already happening: they should be supported and intensified, through appropriate incentive arrangements, if necessary.

Second, the Canadian government should present itself publicly, on all appropriate occasions, as a prominent champion of the U.N. Convention on the Law of the Sea and related developments. The Convention is certainly one of the most impressive accomplishments of the United Nations, and whatever criticisms one may wish to make of the U.N. system in other contexts, there would be no excuse if Canada allowed itself to be interpreted as acquiescing in unwarranted policies and practices directed against the Convention. Not only should Canada itself ratify the text as expeditiously as possible, and urge others (especially other developed states) to follow suit, but it should also continue to participate in the sessions of the Preparatory Commission, which is authorized to carry forward the plans for deep ocean mining under the Convention in the period prior to its coming into force.<sup>472</sup> If the coming into

force of the Convention should be unduly delayed,<sup>473</sup> the Canadian government should be ready to assist the United Nations in other ways to advance the purposes of the Convention, and preferably to take leadership initiatives in the appropriate U.N. agencies.

Third, Canada's negotiating success at UNCLOS III (and the earlier U.N. Seabed Committee) and its central involvement in preparations for the Stockholm Conference on the Human Environment (and subsequent U.N. environmental activities) equip the Canadian government well for a major role in other, non-oceanic U.N. contexts of resource management (development-environment) issues: for example, Antarctica, space, deforestation, transboundary pollution, long-range transportation of atmospheric pollutants, waste disposal, and the transportation, handling, and storage of hazardous substances. These are all areas in which Canada can contribute exceptional expertise, not only from the government service, but also from industry, professional consultants, and the academic community. At least in these areas - and perhaps in others too - the federal government should be encouraged to constitute its national delegations, as the U.S. federal government does, from a larger, truly national pool of capabilities. For UNCLOS III purposes some effort was made to include provincial government and industry representation on the Canadian delegation, but mostly, it seems, in response to lobbying pressures.

Perhaps it is time to re-examine the "exclusionist" tendencies still prevailing in the Department of External Affairs.

#### 4. Canada and the Law-Making Process

This is not the place to attempt an evaluation of UNCLOS III as a contribution to the international law-making process, but perhaps this section should begin with a reference to what appear to be the novel features of the U.N. Convention on the Law of the Sea, viewed as a "law-making treaty".<sup>474</sup>

First, the U.N. Seabed Committee and UNCLOS III proper took place during the emergence of what might be described as the "romantic" period in the development of international law. That is, the remaking of the law of the sea took place at a time when legal development has been taken over, in large part, by the diplomatic arena, where classical virtues such as structural clarity, completeness, universality consistency, and order tend to yield to romantic virtues such as spontaneity, imaginativeness, diversity, and sensitivity. It is a time when the "process" may be judged to be more important than the product.<sup>475</sup> The 1982 U.N. Convention on the Law of the Sea is the definitive example of a product of the "romantic" approach to law-making. Just as the factors going into the process are different from the traditional factors, so the expectations raised by the

product should be different. The "tasks of implementation" arising out of such an extraordinarily diversified treaty instrument are themselves exceedingly diverse, going beyond what is normally judged to be mere "implementation".<sup>476</sup>

Second, when the language of the Convention is studied closely, it is seen to consist both of language tending to be conducive to uniformity of practices by conforming parties and of language tending to be differential, embracing double or multiple standards and making special provisions or allowances for states in designated categories. This combination of "convergence" and "divergence" language will presumably have a mixed effect on the "Pattern" of state practices around the world. Some countries will have an interest in invoking or emphasizing the uniform language, others the differential language.<sup>477</sup>

Third, content analysis of the text shows extreme variance in the concept of "duty" or "responsibility". Traditionally, law-making treaties were expected to create "obligations", and these obligations were normally expected to be couched in rule-making language which was sufficiently "hard" that it would be fairly clear in practice if a "violation" had occurred. Despite the almost invariable use of "shall", not "should", throughout the Convention, the majority of normative provisions are "soft" in the sense that the nature of the "obliga-

tion", in this strict juridical sense, is blurred. Often, what is created by a section of the Convention is a set of official responsibilities rather than a listing of immediately binding legal duties. More often than not, the responsibility points the way to a future course of action, and could therefore be said to be couched in the language of legal development rather than legal obligation.<sup>478</sup>

Fourth, consonant with the third feature of the Convention just described, the expectation underlying many of its provisions is not so much the resolute expectation of dispute settlement as the developmental expectation of conflict avoidance. Elaborate institutional and procedural arrangements are provided for the orderly regulation of ocean development and management around the world.<sup>479</sup>

Finally, the complicated process of negotiating and resolving issues at UNCLOS III, involving the new conference diplomacy technique of "consensus",<sup>480</sup> has created new strains on the theory of consent,<sup>481</sup> not least the doctrine of ratification which has traditionally been regarded as pivotal in the law of treaties, especially as applied to multilateral law-making conventions.<sup>482</sup> UNCLOS III has precipitated the need for new thinking about consent as a process rather than as an act.<sup>483</sup>

Of course, neither Canada nor any other country has any special responsibility to suggest improvements

in the law-making process generally. But to the extent that Canada does have a special international responsibility in the field of ocean development and management in the wake of UNCLOS III, Canadian government lawyers might be prepared to develop a proposal for U.N. review of current ocean-related legal developments that seem antithetical to the 1982 U.N. Convention on the Law of the Sea.<sup>484</sup> Indeed, if future events suggest that the viability of the Convention is likely to be sapped by non-ratification practices of a few crucial maritime powers or a few major coastal states, it may be useful to propose a U.N. review of the law of treaties applied to multilateral law-making conventions in general.<sup>485</sup>

Again, if the coming into force of the Convention is unduly delayed, and even then seems likely to leave important maritime and coastal states outside the Convention, Canada would be an appropriate country to suggest alternative ways of dealing with ocean-related disputes and conflicts between parties and non-parties. Given the "dissenting" policy of the present U.S. government, the Canadian government must give its mind to this kind of problem in the context of Canadian-U.S. relations. Some of the settlement or avoidance techniques developed for these bilateral purposes might prove to be useful more generally, and become the basis of a Canadian initiative in the Sixth (Legal) Committee of the U.N. General Assembly.<sup>486</sup>



Finally, whatever happens to the Convention in the years ahead, all legal and institutional developments related to ocean policy, both national and international should be closely monitored with a view to their compliance or non-compliance with the provisions of the Convention. Anything that could be said to constitute evidence of customary international law of the sea, whether or not in the traditional form of "state practice",<sup>487</sup> should be subject to some kind of "glossatorial" procedure.<sup>488</sup> It is difficult to see why Canada should not be deeply involved in any effort to provide an important juridical service of this kind to the international community.

##### 5. Canadian-U.S. Relations

It is not always easy to be a friend and neighbor of the United States. Even a capable country like Canada, with personal and institutional linkages with every sector and at every level of U.S. society, is at a chronic disadvantage in any dealings with the state across the border. There is, of course, the disadvantage of being so much smaller in population, and having to deal every day with the most competitive nation in the world. But the problems are governmental rather than cultural. Ironically, the compatibility of the two national cultures seems to aggravate the resentments and frustrations that often arise in official interactions between these two North American states.

At UNCLOS III, unlike the earlier conferences in 1958 and 1960, it became evident that Canada and the United States approached several important law of the sea issues from a different direction. To virtually all jurisdictional issues Canada's approach was quite clearly that of a coastal state, whereas the U.S. position was complicated by the need to balance a wider variety of domestic and international interests and to effect a compromise between coastal and maritime considerations. Reconciling these diverse viewpoints within the U.S. government, and securing a national position for the U.S. delegation to advance in UNCLOS III negotiations, proved to be the most difficult exercise in internal diplomacy associated with the new law of the sea.<sup>489</sup>

The most important substantive differences between Canada and the United States lay in five areas of the agenda: limitation of the prescribed levels of production for the mining of manganese nodules on the deep ocean floor;<sup>490</sup> coastal state regulatory authority over shipping and navigation within limits of national jurisdiction;<sup>491</sup> coastal state regulatory authority over the fishing of "highly migratory" species within limits of national jurisdiction;<sup>492</sup> coastal state regulatory authority over the conduct of marine scientific research within limits of national jurisdiction;<sup>493</sup> and boundary delimitation between opposite and adjacent states.<sup>494</sup>

On the first of these five substantive issues, Canadian-U.S. differences were sharpened by a fundamental divergence on the underlying symbolic issues between North and South: whereas Canada was relatively sympathetic, or at least acquiescent, with respect to the LOC ("Group of 77") proposal for a global regime over deep ocean mining (under the aegis of the proposed International Seabed Authority), the United States was unsympathetic, and eventually hostile. Moreover, there was originally a fundamental ("philosophical") difference between the two governments on the all-embracing question of extended coastal state jurisdiction (beyond a 12-mile territorial sea). But by 1974, after strenuous internal negotiations, the U.S. delegation was able to announce its qualified support for the general principle of a 200-mile exclusive economic zone regime,<sup>495</sup> and the debate thereafter focussed more sharply on specific features of the regime related to the coastal state's authority over navigation, "highly migratory" species, and marine scientific research.

In private, Canadian and U.S. negotiators clashed frequently, and sometimes bitterly, over some of these issues. Particularly, after the Reagan Administration took a hard-line stance in the final stages of the Conference, the differences between the two delegations were occasionally put on public display. By this time, however, the differences on the jurisdictional issues had been resolved or papered over,<sup>496</sup> and the basic cause

of Canadian-U.S. conflict was the hard-line stance of the U.S. government on UNCLOS III as a whole, and on the deep ocean mining provisions of the Convention in particular. Canadian resentment of U.S. policies after 1980 was, therefore, shared by almost all other delegations, and it is somewhat misleading to talk of Canadian-U.S. differences thereafter in bilateral terms.

Two years after announcement of the U.S. refusal to sign the Convention, most of these substantive and symbolic disputes continue to haunt Canadian-U.S. relations. Only one, the issue of marine scientific research, has become a non-issue. The seabed production issue is part of the larger question of seabed mining, which is a general problem in international relations and not essentially a bilateral dispute between Canada and the United States. But the other law of the sea issues must still be included among the many official irritants between the two governments. How should they be dealt with?

On the face of things, there are three principal methods of treatment: avoidance, negotiation, and adjudication. Each has its own merits and shortcoming. The avoidance method of treatment is non-provocative and may make short-term sense if the issue is particularly sensitive and cannot be treated satisfactorily in any other way. The navigational issue is perhaps the most likely to be viewed in this light. The Canadian govern-

ment's present reluctance to promulgate baselines and to make jurisdictional claims in the Arctic may be interpreted as a policy of avoidance. But the baselines cannot be negotiated and need not be adjudicated, and Northwest Passage issues will eventually have to be dealt with by the Canadian government through a variety of techniques, including consultation with prospective user states like the United States.<sup>497</sup> Eventually the Canadian government will also have to decide how rapidly it intends to develop vessel traffic control or other forms of "transit management" within designated areas of its EEZ in the Atlantic and Pacific Oceans.<sup>498</sup>

On the "highly migratory" issue the positions are reversed. The ball is in the U.S. court, because it is the Americans who wish to secure access to Canadian waters for tuna fishing, and it is the Canadians who may wish to block this on legal grounds for managerial or diplomatic reasons.<sup>499</sup> Now that the West coast salmon access issue is closer to resolution<sup>500</sup> and the question of entitlement to access by Canadian scallop fishermen to Georges Bank will be clarified by the I.C.J. Gulf of Maine boundary award,<sup>501</sup> it will soon be easier to compare the respective merits of negotiation and adjudication as alternative modes of treatment for the tuna issue.

The Gulf of Maine boundary award will, of course, be closely examined with a view to the wide range of boundary delimitation and related transboundary issues which must be resolved in all four of the transboundary (binational management) ocean areas shared by Canada and the United States: the Gulf of Maine, the Beaufort Sea, the Dixon Entrance offshore area, and the Juan de Fuca Strait and adjacent offshore area.<sup>502</sup> Negotiation proved to be an unsuccessful method of treatment in the Gulf of Maine, despite many years of investment of diplomatic skill and ingenuity.<sup>503</sup> Even without knowing the outcome of the resort to the Court, it is by no means evident that it lies in the interest of either country to use adjudication as a method of resolving boundary delimitation issues at sea. In all four areas, and especially in the Gulf of Maine, these delimitation issues are intricately linked with vital transboundary issues of access and management. Inevitably, a boundary delimitation award is just a new beginning for the next round of negotiations on these vital issues. It remains to be seen in the next two or three years whether the boundary award will help or hinder these negotiations in the Gulf of Maine, and therefore whether the two governments will wish to resort to further adjudication of issues in this or any of the other three boundary areas.<sup>504</sup>

It is difficult to take a happy view of the impact of the new law of the sea on Canadian-U.S. relations.

The highly acquisitive nature of most law of the sea issues forced both countries, like every other, to focus very sharply on the prospect of national gain, not only extensively in terms of space but also very specifically in terms of resources. In the "hard-headed" area of ocean development and management there has been little room for traditional loyalties or cultural and ideological affinities. The best hope for harmony at sea is that Canadians and Americans, in thinking together about their shared problems in ocean development and management, will discover that their management interests are complementary: that more is to be gained than lost on both sides by designing a variety of joint or consultative management arrangements in these shared ocean areas.<sup>505</sup> But there should be no illusion that this will be an easy course to follow. There are basic differences in the public administration structure and style of the two countries,<sup>506</sup> and also in the attitudes of their coastal communities to the role of government.<sup>507</sup> If anything, these gaps are widening.<sup>508</sup> At least it is clear that ocean development and management must have a high ranking on the list of priorities for Canadian-U.S. diplomacy for many years to come.

#### 6. International Trade and Ocean Development

Canada has always been a trading country, and yet most thoughtful Canadians, unlike Americans, lack confidence in their own commercial vitality. Today the

question of Canada's future role in the international economy has raised the need to challenge conventional views about the nation's industrial strategy and its contribution to technology development. As noted above,<sup>509</sup> most of the ocean-related industries present export development opportunities: fishing, offshore natural gas, tidal energy, and much of the new "ocean technology" industry.

As to fishing, which in Canada has always been primarily an export industry, the problems of export development are technical, attitudinal, and political. Much of the Canadian offshore fishing industry is controlled by large companies, but since the financial restructuring of the industry in 1983, the two largest companies are at least partly controlled by the federal government.<sup>510</sup> In recent years the industry has made fairly bold and sophisticated efforts to develop new markets in Europe for increased Canadian landings, and to offset the risk of displacement from the traditional U.S. market for Canadian fishery exports, but there are still unsolved technical problems of quality control,<sup>511</sup> and the corporate effort has, of course, been hampered by financial and structural uncertainties. There is also an educational problem in the attitudes of many Canadian fishermen, who have not yet adjusted to the modern necessity for more professional practices in the harvesting as well as the processing of fish



intended for highly selective and discriminating markets overseas.<sup>512</sup> Even more frustrating are the political and diplomatic problems associated with the negotiation by government of long-term marketing arrangements for Canada's fishery products, which cannot be entirely divorced from other international trade issues with Western Europe and the United States.<sup>513</sup>

Canada has also a surplus supply of natural gas, like fish, and much of the natural gas produced in the Canadian offshore is intended for export to the United States. The first supply, from the Sable Island area off the coast of Nova Scotia, will be delivered by undersea and overland pipeline to New England.<sup>514</sup> After some years of doubt and recalculation, it now seems likely that the New England states will ask Canada to proceed with this project, but the national energy policy of the United States is not yet sufficiently clearly defined to indicate the extent of future U.S. dependency on Canadian supplies of offshore petroleum.<sup>515</sup>

Similarly, it is still unclear whether, or to what extent, the United States will wish to incorporate the proposed Fundy tidal power project into its long-term energy import strategy. Obviously, Canada cannot proceed with the construction of this extremely expensive (and moderately controversial) undertaking without a long-term commitment by U.S. government and industry.<sup>516</sup> Although there is a continuing prospect of European

financing for Fundy tidal power development, it is likely that there will be U.S. funding on a fairly massive scale if it is intended to play an important role in the New England region.<sup>517</sup>

As noted earlier, it is difficult to find any short-term Canadian interest in mining manganese nodules for export purposes,<sup>518</sup> but on the other hand there is an opportunity to develop certain sectors of the newly evolving ocean technology at the regional, and to a lesser extent the national, level.<sup>519</sup>

The other side of the trade question is whether ocean development can help Canada reduce its traditional dependency on imported goods and services in other sectors of the economy. One of the most notorious examples of Canadian overdependency, as emphasized earlier,<sup>520</sup> is in the area of shipping: shipping services, shipbuilding, and related "invisible" service sectors such as marine insurance and banking. It is suggested that in the new age of ocean development and management Canadians in industry and government alike should re-think these questions. The re-thinking should be imaginative as well as careful. Hundreds of millions of dollars are "wasted" every year in Canada, spent on foreign suppliers of shipping, shipbuilding, underwriting and banking services to Canadian importers and exporters. It may be questioned whether the Canadian import-export economy will ever be rescued from its present vulnerable state until, among other things,

Canada has secured a degree of control over the marine sector of its "delivery system". Until Canadian government and industry together have developed a degree of national capability in these risky areas of service to our international traders, we shall have no share at all in the control of the infrastructure of international trade.<sup>521</sup>

7. International Development and the New Law of the Sea

One of the chief motivating factors behind UNCLOS III, without which the Conference could not have survived fifteen difficult years of negotiation, was the prospect that under the new law of the sea the developing coastal (and perhaps even non-coastal) states would acquire security of access to previously unavailable ocean resources. Rather than have to compete with the ocean technologies of the industrially advanced nations, they hoped to gain control of an extensive area of national ocean space, whose resources could then become part of the base of the national economy. In the years since Arvid Pardo first envisaged a new order of ocean development and management, in his famous speech of 1967,<sup>522</sup> several new ideas have emerged in response to the need to derive significant international development benefits from the new law of the sea.

The problem was first conceived essentially in terms of professional training and technical assistance requirements. From the late 1940's to the mid-1960's,

in the "foreign aid" period, the primary emphasis tended to be placed on the development of Western-style knowledge and skills and the donation of Western-style equipment and facilities, mostly under various kinds of U.N. programmes and projects. This approach was sectoral, confined in the early years to the sector of fisheries and aquaculture under FAO auspices<sup>523</sup> but later extended to that of shipping under UNCTAD sponsorship.<sup>524</sup> In retrospect these sectoral efforts now seem to have been of rather limited effectiveness. Often these well intentioned contributions were less a reflection of the recipient country's requirements than of the donor country's own "surplus" capacity. In most cases neither the recipient nor the donor was well placed to assess the recipient's requirements. Moreover, the problem was complicated by uncertainties about the design of such programmes and projects. Foreign aid agencies had difficulty in evaluating the respective merits of bilateral and multilateral aid, and of national and regional initiatives.<sup>525</sup> This was the period when global idealism was strong in the developed world and many first-class Western fishery scientists were deeply involved in the work of the United Nations. It was also the period when regional fishery commissions - some inside, some outside, the FAO family - were dominated by conservation rather than development concerns and staffed by Western or Western-trained scientists.<sup>526</sup>

By the mid-1960's it had become apparent that a new approach had to be taken to the problem. Pardo's vision of ocean space had the effect of revelation in many developing countries, holding out an oceanic, or at least a coastal, dimension to national economic planning. Under this new influence, developing coastal state began to give increasing emphasis to the need for a larger and more instructive framework for nation-building purposes: to make an inventory of problems, resources, and opportunities; to establish objectives; to set priorities; to identify strategies; to prescribe time-limits; to assign tasks; and to convert ideas into action. But in most developing countries, national development planning, with or without an ocean component, had to be assisted at the international level. This period, in the late 1960's and early 1970's, was also the period of global, cross-sectoral perspectives on the problems of the human environment, and the U.N. Stockholm Conference, held in 1972, provided the world with its first truly comprehensive Action Plan.<sup>527</sup> Assisted by the holistic and also focussed perspectives of environmentalists, development planners found a better balance between developmental and environmental requirements. Given the oatholiety of its reach, Stockholm served to draw attention to the developmental importance of the marine environment in particular, and helped to sensitize some governments to the continuing

need for conservation policy within the framework of ocean development and management.<sup>528</sup> Since Stockholm the United Nations Environment Programme (UNEP), located in Nairobi, has continued to hold the balance between environment and development through various programmes directed at the ends of "eco-development". Prominent among these UNEP initiatives is the much-acclaimed Regional Seas Programme, based in Geneva, which has had considerable success, despite financial constraints, in the promotion of Regional Action Plans and other arrangements in ten designated "regional seas" in all parts of the developing world. All strongly influenced by the original global Action Plan approved at Stockholm, these regional ocean action plans have combined elements of environmental management, resource development, and species and habitat conservation.<sup>529</sup>

The third (and current) stage of thinking about the ocean in the context of international development was, of course, triggered by the concept of a 200-mile EEZ regime and its quick acceptance in state practice around the world, in the mid-1970's. But it was quickly apparent that, in most cases, these new spatial gains by developing coastal states would not necessarily result in substantial benefits without effective new ideas in the context of international development. Most of the relevant language in the 1982 U.N. Convention on the Law of the Sea focussed on the concept of

"transfer of technology",<sup>530</sup> which was fashionable in the United Nations throughout the 1970's and still has many adherents. But the Conference failed to break through the barriers, technical as well as political, which have obstructed real (as distinct from nominal) progress in the transfer of technology from developed to developing countries.<sup>531</sup> Perhaps the most useful idea on international development promoted at UNCLOS III was that of regional and national centres for the development of marine science and technology,<sup>532</sup> but it is too early to predict the success of such initiatives under the Convention. Two other new ideas are worth noting. First, most developing coastal states have begun to experiment with joint ventures: that is, some form of bilateral co-operative arrangement with a public or private enterprise of a developed, and usually distant, state with expertise and advanced technology in some area of ocean development and management. Most of these joint ventures are concerned either with a fishery or an offshore petroleum resource within the developing coastal state's limits of national jurisdiction. The jury has not yet returned a verdict on the developmental effectiveness of these experiments.<sup>533</sup> Second, by the late 1970's, many developing coastal states had begun to realize the importance of ocean management training, if they were to take advantage of new ocean development opportunities within the EEZ. By this term one

means an exposure to virtually all aspects of ocean affairs with a view to assisting in government planning and administration, not an in-depth immersion in any one technical area of ocean development or management.<sup>534</sup> This extensive, cross-sectoral approach to training is totally different from the intensive, sectoral approach emphasized in the 1950's and 1960's. The success of ocean management training, which depends on many factors,<sup>535</sup> is not yet proven, but it certainly supplies what the governments of many developing coastal states demand and seem to require.

Canadian efforts in this context depend mostly on three organizations: the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC), and the International Centre for Ocean Development (ICOD). CIDA is, of course, the official arm of the Canadian government, whereas IDRC and ICOD, though financed with Canadian public funds authorized by Parliament, have their own international boards and staffs and operate independently of the Canadian government. CIDA has expended hundreds of millions of dollars on ocean-related projects since its inception, mostly in the sectors of fishery development and aquaculture, but by and large it was not strongly ocean-conscious until the importance of ocean development and management became widely apparent in the final stages of UNCLOS III.<sup>536</sup>



IDRC has a much more limited budget and more narrowly defined objectives, but this has enabled it to focus quite usefully on types of needs that are somewhat neglected by larger organizations, and at times to embrace experimental and unconventional ideas.<sup>537</sup> Like CIDA, however, IDRC is new to the field of ocean development and management,<sup>538</sup> as distinct from the traditional sectors, and with the recent establishment of ICOD in Halifax, Nova Scotia, devoted exclusively to these purposes, it remains to be seen what IDRC's ocean-related role will be in the coming years.

ICOD, modelled to some extent on IDRC, was established early in 1984, and it is the result of the personal desire of (then) Prime Minister Trudeau to offer Canadian assistance to developing countries in ocean development and management, as a suitable way of acknowledging the benefits gained by Canada at UNCLOS III. ICOD's mission is to "co-operate with and support developing countries in the comprehensive management of their ocean resources"<sup>539</sup> [emphasis added]. Seven objectives have been enumerated:

- (i) to encourage co-operation between the people of Canada and those of developing countries in the field of ocean development;
- (ii) to identify, initiate, develop and support improved and innovative

- approaches to the use of ocean resources of developing countries, particularly as a source of food;
- (iii) to foster the development of expertise and to promote and support the extension of experience on cross-sectoral, integrated ocean use management, and to make this available to developing countries;
  - (iv) to use relevant capabilities and expertise of people and institutions from Canada, developing countries and other countries to fulfill ICOD's mandate;
  - (v) to develop and sponsor appropriate training programs, technical assistance and advisory services;
  - (vi) to develop and sponsor the gathering and dissemination of information; and
  - (vii) to sponsor a limited amount of necessary research consistent with the mandate and mission of ICOD.

With sufficient funding and appropriate direction, ICOD, seems certain to strengthen Canadian contributions

to the enhancement of ocean management capabilities of many developing coastal (and island) states around the world.

#### 8. Conclusions

After this review of Canadian foreign policy implications of the new law of the sea, the main conclusion to be drawn is fairly obvious. The national ocean policy council, which should be created to maintain an overview of ocean development and management for the domestic reasons discussed earlier in this study, should also be authorized to undertake the task of monitoring this area of Canadian foreign policy and to make appropriate recommendations. Domestic and foreign policies and practices in ocean development and management should be held together by a common understanding of Canadian needs, opportunities and responsibilities. There is no reason to believe this will happen by some kind of osmosis. It has to be arranged, and arranged in the conviction that Canada's destiny in the next millennium will be profoundly affected by the ocean.

#### V. CONCLUSIONS: CANADA IN THE AGE OF OCEAN DEVELOPMENT AND MANAGEMENT

Finally, of course, the potential role of the ocean in Canada's second century as a modern independent nation is a matter of vision, judgment, and attitude. This study has been largely concerned with describing

recent trends in the new international law of the sea and with reviewing some of the current implications for Canada in domestic and foreign policy contexts. But the underlying purpose has been to offer a vision of Canada's future.

The vision offered in this study may not be that of the decision-makers in Canadian government and industry. Indeed, "vision", in the sense of a general view of the future, may be rarely a factor in the decision-making process. Though forced to engage in planning within a short time-frame, both government and industry behave more comfortably and more characteristically as mechanisms for effective response to existing situations. Typically, government responds especially to issues and problems, and the relevant opportunities; industry to opportunities, and the relevant issues and problems. But rarely does either wish to "invest" substantially in anything as easily assailable as a vision of the future. Yet the government and industry of Canada must take stock of the solid realities behind the vision of ocean development and management; if they are to serve the Canadian people.

Canada is governed from the centre. The ocean is, literally, peripheral to the perceptions and concerns of most Canadians. Many Canadians, perhaps most Canadian decision-makers, may view the ocean as a regional matter in the affairs of the state. Yet ocean policy is no

less national in significance than agriculture or manufacturing. The regional impacts of ocean policy are no more localized than any other resource sector of the Canadian economy. There is only a national vision of Canada's ocean frontier, there is only a national policy to be developed, albeit one in which all levels of government have a role to play.

There is also a question of judgment. This frame of reference, Canada and the new international law of the sea, is much too large to deal with specific questions that call for hard-headed judgment. How much should Canada be willing to invest in a transit management system for the Northwest Passage or the Fundy tidal power mega project? More than for Churchill Falls? Three times as much as for the Olympic Games? How should they be compared with the DEW line, the St. Lawrence Seaway, or the original Canadian Pacific Railway? How should we weight the elements of Canadian fishery policy suggested in the Kirby Report? How far, precisely, should Canadian government and industry go toward the development of our own shipping and shipbuilding capabilities? How much more should the federal government spend on the exploration of offshore petroleum deposits? What new ocean management tasks should be shared by the federal and provincial governments? How should they be asked to co-operate for the purposes of regional ocean management? And what foreign policy risks, expenditures and

sacrifices are justified in Canada's march into the age of ocean development and management?

These and many other important policy questions, calling for the exercise of judgment by Canadian leadership, must be asked and eventually answered. But this order of judgment must not be dealt with in the normal political course of random selection. These questions must be raised and resolved within the same context of national planning, the context of ocean development and management. The best possible answers to these difficult questions confronting the Canadian nation will be available only if a serious effort is made to institute a process for this purpose. With the best possible participants, a national ocean policy institute, suitably funded and staffed, would serve as a continuing focus on all of the critical components of Canadian ocean policy, domestic and international, and as a forum for the exchange of the best available information and advice.

Sadly, there is no guarantee that Canadians are ready to give the ocean such priority on the national agenda and Canada's leaders may decline to offer this kind of leadership. Canadian history has generated various insights into the psyche of the Canadian people. One hypothesis maintains that there is no Canadian people: only a scattered assemblage of regional societies, cultures, and communities, owing common allegiance

to an idea rather than a reality. Some even argue that the idea of Canada draws support mainly from the outside: that Canada is a response to the world's need for a common understanding of "Canadians". Most Canadians are likely to dismiss such a conception of Canadian attitude, and yet we have only ourselves to blame if we continue to astonish other peoples with our lack of national unity.

As long as our resource abundance was limited to the land, we might have been excused for our obsession with the soil and the riches it has yielded to the nation. In the age of ocean development and management Canadian resource wealth is even more abundant, and ostentatiously displayed before the rest of the world. The ocean can now be entered into our national dreams. It is the newest and most challenging part of the Canadian national identity.

But are we ready for our future?