

The regulation of driftnet fishing on the high seas: legal issues

FAO
LEGISLATIVE
STUDY

47



FOOD
AND
AGRICULTURE
ORGANIZATION
OF THE
UNITED NATIONS

The regulation of driftnet fishing on the high seas: legal issues

by

Ellen Hey

William T. Burke

Doris Ponzoni

Kazuo Sumi

FAO
LEGISLATIVE
STUDY

47



FOOD
AND
AGRICULTURE
ORGANIZATION
OF THE
UNITED NATIONS
Rome, 1991

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

M-40

ISBN 92-5-103009-X

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior permission of the copyright owner. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Publications Division, Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy.

© **FAO 1991**

Foreword

Driftnet fishing has received considerable attention during the last few years. Following studies by environmentally concerned non-governmental organizations (NGOs) and concerns expressed by several coastal states, action was taken at regional, national and international levels in order to regulate and, in some cases, to prohibit this fishing method. The question was considered important enough to be examined by the General Assembly of the United Nations, which in December 1989 adopted Resolution 44/225 calling for a moratorium on the use of driftnets if certain conditions were not met by 30 June 1992. The Resolution also requested "specialized agencies, particularly the Food and Agriculture Organization of the United Nations (FAO) and other appropriate organs, organizations and programmes of the United Nations system, as well as the various regional and subregional fisheries organizations, urgently to study large-scale pelagic driftnet fishing and its impact on living marine resources and to report their views to the Secretary-General".

Pursuant to Resolution 44/225, FAO organized an Expert Consultation. The Consultation examined a number of scientific, technical and economic issues raised by driftnet fishing and pointed out the necessity of undertaking further study of the legal questions. Thus, the Consultation recommended that "more attention should be given to legal rules and principles relevant to driftnet fishing on the high seas". It also recommended that further study of the legal regime governing high seas fishing should be undertaken by FAO, if possible in collaboration with other UN bodies, in particular the UN Office for Ocean Affairs and the Law of the Sea. In fact, whereas the real impact of driftnet fishery has still to be determined, there is no doubt that the legal issues involved by its regulation are of the utmost importance.

Resolution 44/225 explicitly says that it is not concerned with small-scale coastal driftnet fisheries. These fisheries may in fact be regulated by the coastal state like any other fishery within waters under its national jurisdiction. However, the subject of Resolution 44/225 and of past years' controversies is the large-scale pelagic driftnet fisheries operating on the high seas. Therefore, the real questions are, first, whether it is possible to regulate a fishing activity on the high seas in conformity with modern positive international law and, second, if the answer is yes, by whom and under which conditions can this activity be regulated?

Not only does the regulation of driftnet fishing raise the question of its compatibility with the principle of the freedom of the high seas as developed by customary and treaty law, it also pinpoints more general questions of public international law, such as the binding power of UN resolutions, the effects of a treaty on third parties and the validity and opposability of national legislation in international law. Eventually, the driftnet issue may also be taken as an example of the building up of international law through a series of actions and reactions taken at the national and international levels, ending in the establishment of new rules. Through the driftnet issue, states have in fact opened up the whole question of the legal regime governing fishing on the high seas. The new concept of global management of the earth's natural resources has been advocated in several fora and is already being taken into account by international law (forestry, climate change). One does not see why fisheries should not be concerned.

The present legislative study does not intend to provide an answer to the whole range of issues entailed by the regulation of driftnet fishing, but rather tries to illustrate them.

Four papers form this legislative study. The first one, by Ms E. Hey, a lecturer in international law, Erasmus University, Rotterdam, constitutes a general introduction to the problems encountered in the management of fisheries of living marine resources on the high seas. The second one, by Professor Burke of the School of Law, University of Washington, Seattle, examines the possible methods of regulating high seas fisheries given to coastal states by international law. The third one, by Ms D. Ponzoni from the University of Brest, Western Brittany, focuses on driftnet fishing as an internal environmental law issue. Finally, Professor Sumi, professor of international law, Yokohama City University, emphasizes the need for sound management of the resources by long-distance fishing nations.

These papers were written in 1990 and therefore do not take the latest developments into account. At the 45th session (1990) of the United Nations General Assembly, the Secretary-General presented a report (Document A/45/663) summarizing the existing knowledge of and any action already taken on the driftnet fishing issue. This report should be referred to by anyone who would to know more about this issue.

Two annexes supplement this study. Annex I is a summary of the national and international legal instruments adopted thus far on driftnet fishery. Annex II reproduces Resolution 44/225 of the UN General Assembly.

This legislative study should not, in any way, be interpreted as being the official position of either the FAO Legal Office or the Organization. Its aim is simply to provide background information on the legal issues raised by the regulation of driftnet fishing on the high seas.

L.C. Christy
Chief
Development Law Service
Legal Office

Contents

Foreword	iii
I. THE PROVISIONS OF THE UNITED NATIONS LAW OF THE SEA CONVENTION ON FISHERIES RESOURCES AND CURRENT INTERNATIONAL FISHERIES MANAGEMENT NEEDS	1
Ellen Hey	
The structure of the fisheries provisions	1
Coastal state sovereignty	2
Coastal state sovereign rights	2
The exclusive economic zone	2
The continental shelf	3
Flag state jurisdiction	3
Regimes applicable to transboundary marine fisheries resources	4
Transboundary stocks between exclusive economic zones	5
Transboundary stocks between exclusive economic zones and adjacent high seas areas	5
Highly migratory species	6
Marine mammals	7
Anadromous stocks	7
Catadromous species	8
The effect of the provisions on transboundary marine fisheries	9
The relevance of the provisions on the protection and preservation of the marine environment	9
Conclusion	10
II. THE LAW OF THE SEA CONCERNING COASTAL STATE AUTHORITY OVER DRIFTNETS ON THE HIGH SEAS	13
William T. Burke	
Rights of high seas fishing states	15
Freedom of fishing on the high seas	15
Obligations of high seas fishing states to the general community of states	16
Obligation to conserve the living resources of the high seas	16
Reference to "conservation" in the obligation to conserve the living resources of the high seas	18

Obligation to cooperate with other states in taking conservation measures	19
Obligation to negotiate conservation measures	20
Obligation to generate and to contribute scientific information about stocks being fished on the high seas	21
The scientific basis for high seas conservation measures	22
Obligations of high seas fishing states to coastal states	24
Article 63(2): Straddling stocks	25
Article 64: Highly migratory species	26
Article 65: Marine mammals	27
Article 66: Anadromous species	27
Other possible Issues	29
Abuse of rights	29
Impacts of driftnet regulation on the freedom of navigation	30
Regulations concerning loss or disposal of driftnets	31
III. THE INTERNATIONAL LEGAL FRAMEWORK FOR THE CONSERVATION AND MANAGEMENT OF LIVING MARINE RESOURCES	33
Doris Ponzoni	
Restrictions on the freedom of fishing on the high seas	33
Conservation and cooperation obligations	33
The customary nature of agreement obligations	34
Restrictions on coastal state sovereignty	34
Management of straddling stocks	34
Fishing of highly migratory species	36
Conservation of marine mammals	36
Fishing of anadromous species	37
Protection of marine animal species	37
Conventions prescribing particular protection methods	37
Convention on the Conservation of Migratory Species of Wild Animals	37
Convention on International Trade in Endangered Species of Wild Fauna and Flora	38
Regional seas conventions of the United Nations Environment Programme	39
Protected species	39
Cetaceans	39
Seals	40
Birds	40

Measures regulating driftnet fishing	41
International and regional measures	41
In the South Pacific	41
United Nations Resolution 44/225	42
Bilateral agreements	42
The role of regional fishery bodies	42
International North Pacific Fisheries Commission	42
Inter-American Tropical Tuna Commission	43
International Commission for the Conservation of Atlantic Tunas	43
Conclusion	43
IV. INTERNATIONAL LEGAL ISSUES CONCERNING THE USE OF DRIFTNETS WITH SPECIAL EMPHASIS ON JAPANESE PRACTICES AND RESPONSES	45
Kazuo Sumi	
United Nations Resolution 44/225	46
High seas fishery and the law of the sea	47
Freedom of fishing on the high seas	47
Obligation to conserve the living resources of the high seas	48
Obligation to cooperate	49
Conservation measures	49
Are unilateral measures justifiable?	49
Applicability of the "objective regime" concept	50
Historical background of the driftnet fishing issue	51
Large-mesh driftnet fishing	52
South Pacific large-mesh driftnet fishery	53
High seas salmon fishing	54
North Pacific squid driftnet fishery	55
What are the real problems?	57
High seas and coastal driftnet fisheries	57
Driftnet and other fishing methods	58
By-catch issue	58
Incidental catch in salmon fishing	59
High seas salmon interception problem	60
The problem of "salmon piracy"	60
Lawfulness of unilateral measures	62
Incidental catch in squid fishing	64
An "ecological" approach	65
Ghost fishing issue	66

Toward a solution to the problem	67
The need for scientific research	67
Environmental impact assessment	68
Resource management mechanism	70
Conclusion	71
Annex 1 REGULATION OF DRIFTNET FISHING	75
North Pacific	75
In areas under national jurisdiction	75
United States of America	75
Canada	76
Japan	76
Taiwan (Province of China)	76
Union of Soviet Socialist Republics	76
On the high seas	76
South Pacific	76
In areas under national jurisdiction	76
United States of America	76
Australia	76
New Zealand	76
Other states and territories in the region	76
On the high seas	77
Indian Ocean	77
In areas under national jurisdiction	77
Australia	77
Japan	77
Other states and territories in the region	77
On the high seas	77
Atlantic Ocean	77
In areas under national jurisdiction	77
United States of America	77
Spain	77
Portugal	78
European Economic Community	78
Norway	78
Republic of South Africa	78
Trinidad and Tobago	78
On the high seas	78
Japan	78
Taiwan (Province of China)	78
Other states and territories in the region	78

Mediterranean Sea	78
In areas under national jurisdiction	78
Italy	78
Spain	79
On the high seas	79
Arabian Gulf	79
In areas under national jurisdiction	79
United Arab Emirates	79
Bahrain	79
Annex 2	
UNITED NATIONS GENERAL ASSEMBLY RESOLUTION 44/225 ENTITLED "LARGE-SCALE PELAGIC DRIFTNET FISHING AND ITS IMPACT ON THE LIVING MARINE RESOURCES OF THE WORLD'S OCEANS AND SEAS"	81

I. The provisions of the United Nations law of the sea convention on fisheries resources and current international fisheries management needs

Ellen Hey

The 1982 United Nations Convention on the Law of the Sea¹ (UNCLOS) contains provisions for managing marine fisheries resources. These provide a framework for ensuring that marine fisheries resources are conserved and optimally utilized, i.e. these resources are to be exploited in a sustainable manner. Such provisions are intended for the exploitation of marine fisheries resources both within areas where coastal states exercise jurisdiction and within high seas areas.

Of special importance are the articles with respect to transboundary marine fisheries resources² and the article with respect to cooperation on the high seas.³ These articles recognize that fish migrate across boundaries conceived by man and that they do not distinguish between vessels flying different flags, and they draw the logical conclusion that cooperation between the states involved is necessary to achieve the sustainable exploitation of these resources. The articles in question provide the mechanisms for establishing such cooperation. The articles on the exploitation of marine fisheries resources in each case identify the state(s) that are both entitled to exploit the stocks and responsible for their conservation, the relevant geographical area and the regime to be implemented.

What the articles do not provide are the specific measures to be implemented in each case. These measures are to be developed by the states concerned, taking into account the conditions in the fisheries provisions. In fact, the fisheries provisions of UNCLOS can be compared, for example, with the provisions of the same Convention that concern the protection and preservation of the marine environment

from pollution by ships. These provisions also establish a framework that contains the instruments to be utilized by states. Also in this case UNCLOS does not provide the measures that are to be applied to ships. These measures are contained in other international instruments such as the MARPOL Convention.

At present there is the question of what the fisheries provisions of UNCLOS have to offer current fisheries management needs. There is a growing awareness that fisheries management cannot take place in isolation and that it must fit into the overall policy for the protection and preservation of the marine environment, i.e. an integrated approach is required. This awareness poses a challenge primarily to fisheries biologists rather than to fisheries lawyers. The difficulty seems to be how to indicate what factual information should be taken account of and the consequences this information should have for fisheries regulations, rather than how to develop the instruments required to implement these measures. In short, the question is what do we need to do, rather than via what procedures do we do it.

This paper gives an overview of the instruments for international fisheries management contained in UNCLOS. First, an analysis of the structure of the fisheries provisions of UNCLOS is given. Second, an analysis of the provisions for transboundary stocks follows. Third, a short section on the relevance of the provisions for the protection and preservation of the marine environment is included. Finally, some remarks are made on possible further action.

THE STRUCTURE OF THE FISHERIES PROVISIONS

The structure of the fisheries provisions of UNCLOS can be characterized as having nine regimes. The following three regimes govern the right to exploit, the right of access to and the duty to conserve marine fisheries resources in different ocean areas:

The author is a lecturer in international law, Erasmus University, Rotterdam

¹ 6 *International Legal Materials*, 1982, p. 1261.

² Arts 63-67, UNCLOS.

³ Art 118, UNCLOS.

- coastal state sovereignty in maritime internal waters,⁴ archipelagic waters⁵ and territorial seas;⁶
- coastal state sovereign rights in exclusive economic zones⁷ and continental shelf areas;⁸
- flag state jurisdiction in high seas areas.⁹

The remaining six regimes regulate the right to exploit, the right of access to and the duty to conserve various transboundary stocks or species. The transboundary stocks mentioned in UNCLOS are:

- transboundary stocks between exclusive economic zones;¹⁰
- transboundary stocks between exclusive economic zones and adjacent high seas areas;¹¹
- highly migratory species;¹²
- marine mammals;¹³
- anadromous stocks;¹⁴
- catadromous species.¹⁵

The transboundary marine fisheries resources provisions establish regimes that seek to accommodate the interests of different states in these resources. The basic regimes provide the legal basis for a state's claim to the right to participate in the exploitation of, the regulation of access to and the conservation of transboundary marine fisheries resources.

Coastal state sovereignty

The implications of coastal state sovereignty applying to the fisheries resources of maritime internal waters, archipelagic waters and the territorial sea are essentially the same for all three areas. In each of these areas it is up to the coastal state to determine how the marine fisheries resources within that zone are to be exploited. UNCLOS does not contain specific provisions on transboundary stocks in these zones, therefore, the general rules of international law relevant to the exploitation of transboundary resources apply. This means that a state engaged in the exploitation of the transboundary marine fisheries resources in these areas is to exercise due diligence *vis-à-vis* the rights of other

states to the resources. In most cases compliance with the duty of due diligence will require either that exploitation be ceased or that the states concerned cooperate. In these cases a state's sovereignty is not absolute, it has been qualified by the duty to cooperate.¹⁶

The main provisions of UNCLOS that deal with the fisheries resources in maritime internal waters, archipelagic waters and the territorial sea are those concerned with the enforcement powers of coastal states for the purpose of preventing foreign fishing in archipelagic waters¹⁷ and the territorial sea.¹⁸ UNCLOS does not deal with the regime applicable to the fisheries resources in maritime internal waters.

Only in the case of archipelagic waters does UNCLOS refer to cooperation between states.¹⁹ This provision requires that pelagic states recognize existing treaties with other states and the traditional fishing rights of those states, and that upon the request of any of the states concerned bilateral agreements be concluded to regulate such fishing.

Coastal state sovereign rights

The exclusive economic zone. In the exclusive economic zone coastal states have "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources", including the fisheries resources "of the waters superjacent to the seabed and of the seabed and its subsoil".²⁰ This zone found beyond the territorial sea extends up to 200 nautical miles from the baselines from which the territorial sea is measured.²¹ Part V of UNCLOS contains provisions about the regime that is to apply to the exploitation of the fisheries resources of the exclusive economic zone²² and about cooperation between states with respect to transboundary fisheries resources.²³ Sedentary species of the continental shelf are excluded from the regime of the exclusive economic zone; the regime of the continental shelf applies to them.²⁴ This means that the provisions for the

⁴ Art. 2, UNCLOS.

⁵ Arts 2 and 49, UNCLOS.

⁶ Art. 2, UNCLOS.

⁷ Art. 56(1)(a), UNCLOS.

⁸ Art. 77(1), UNCLOS.

⁹ Arts. 116 and 117, UNCLOS.

¹⁰ Art. 63(1), UNCLOS.

¹¹ Art. 63(2), UNCLOS.

¹² Art. 64, UNCLOS.

¹³ Art. 65, UNCLOS.

¹⁴ Art. 66, UNCLOS.

¹⁵ Art. 67, UNCLOS.

¹⁶ For a more detailed analysis of this subject, see E. Hey, 1989, *The regime for the exploitation of transboundary marine fisheries resources*, Dordrecht, Martinus Nijhoff, p. 25-41.

¹⁷ Arts 54 and 42(1) (c), UNCLOS.

¹⁸ Arts 19(2)(i), 21(1)(d) and (e) and 42(1)(c), UNCLOS.

¹⁹ Art 51, UNCLOS.

²⁰ Art 56(1)(a), UNCLOS.

²¹ Art 57, UNCLOS.

²² Arts 60 and 61, UNCLOS.

²³ Arts 63-67, UNCLOS.

²⁴ Art 68, UNCLOS.

exploitation of fisheries resources contained in Part V of UNCLOS do not apply to sedentary species.

The regime of the exclusive economic zone can be characterized as being based on two pillars. The first pillar is the interest of coastal states, which is based on the fact that coastal states have sovereign rights with respect to the exploitation of the fisheries resources. This interest is safeguarded by the right of coastal states to decide on the exploitation of, access to and conservation of the fisheries resources.²⁵ The second pillar is the interest of the community of states, which is based on the requirement to conserve and optimally utilize the fisheries resources. This interest is safeguarded by requiring coastal states to adopt conservation measures and grant other states access to any surplus.²⁶

Regarding the regime a coastal state is to implement in the exclusive economic zone, Part V of UNCLOS provides that a coastal state is to ensure the conservation²⁷ and promote the optimum utilization²⁸ of the fisheries resources. To this effect a coastal state is to adopt conservation measures²⁹ and determine the allowable catch (TAC) for each stock.³⁰ Such measures are to be adopted on the basis of the best scientific evidence available and shall take into account, among other considerations, "any generally recommended international minimum standards, whether subregional, regional or global".³¹ Once the TAC has been established, the coastal state is to determine its own harvesting capacity and subtract this from the TAC.³² In order to achieve the optimum utilization of the resource, other states are to be given access to any remainder of the TAC, i.e. the surplus.³³ UNCLOS contains a long list of provisions with the elements that a coastal state should consider when deciding which states should be given access to the resources of its exclusive economic zone³⁴ and the terms on which such access should be based.³⁵ It is submitted that these provisions include considerations that play a role in concluding access agreements, but they do not vest a

right in specific states to participate in the fisheries of a foreign exclusive economic zone, i.e. they only establish a right of access for other states in general. Ultimately the interests of the coastal state predominate when it comes to determining the conservation measures, the size of the surplus and the states to which access is to be granted. Enforcement authority within the exclusive economic zone is also vested in the coastal state.³⁶ The dispute settlement provisions related to the exploitation of marine fisheries resources in the exclusive economic zone also emphasize the predominant position of the coastal state.³⁷

The continental shelf. With respect to the sedentary species of the continental shelf, UNCLOS identifies coastal state sovereign rights³⁸ as the basis on which exploitation, access and conservation are to be regulated. However, it does not contain any specific provisions for the regime to be applied to the exploitation of these species or for cooperation between states with respect to the same. The absence of provisions defining the regime suggests that it is up to coastal states to determine how these resources are to be exploited. The reason why no provisions have been included for cooperation between states with respect to transboundary sedentary species may be because these species, as is implicit in their name, are relatively static as to their position. However, as in the case of maritime internal waters, archipelagic waters and the territorial sea, the general provisions of international law on the exploitation of transboundary resources also apply here.³⁹

Flag state Jurisdiction

The basic principle governing fishing activities on the high seas is the freedom of fishing.⁴⁰ According to this principle all states have the right for their nationals to engage in fishing on the high seas.⁴¹ Section 2 of Part VII of UNCLOS contains provisions concerning the regime that is to be implemented and the required cooperation between states with respect to the exploitation of the fisheries resources of the high seas.

The regime of the high seas, as the regime of the exclusive economic zone, can be characterized as being

²⁵ Arts 61 and 62, UNCLOS.

²⁶ Art. 61(2) and 62(2), UNCLOS.

²⁷ Art. 61, UNCLOS.

²⁸ Art. 62, UNCLOS.

²⁹ Art. 61(2), UNCLOS.

³⁰ Art. 61(1), UNCLOS.

³¹ Art. 61(2) and (3), UNCLOS.

³² Art. 62(2), UNCLOS.

³³ Art. 62(2), UNCLOS.

³⁴ Arts 62(3), 69 and 70, UNCLOS.

³⁵ Art. 62(4), UNCLOS.

³⁶ Art. 73, UNCLOS.

³⁷ Art. 297(3), UNCLOS. For further details see Hey, *op.cit.*, p. 48.

³⁸ Art. 77(1) and (4), UNCLOS.

³⁹ See *The exclusive economic zone* above.

⁴⁰ Art. 87(1)(e), UNCLOS.

⁴¹ Art. 116, UNCLOS.

based on two pillars. The first is the interest of the state(s) fishing for the resource, which is based on the freedom of fishing and is safeguarded by the right of each state to regulate fishing activities by vessels flying its flag.⁴² The second is the interest of the community of states, which is based on provisions related to the conservation and optimum utilization of the fisheries resources in question. This interest is safeguarded by the requirement that the measures applied by states to their vessels, either individually or in cooperation with other states, must ensure the conservation of the stocks and the maintenance of such stocks at levels that allow for their optimum utilization.⁴³

A state whose nationals fish on the high seas is to adopt measures that guarantee the conservation of the resources.⁴⁴ To this effect it is to adopt conservation measures and TACs for the stocks in question. Such measures are to be based on the best scientific evidence available, taking into account the objective of maintaining the stocks at levels that allow for their optimum utilization. As well, they are to consider, among other things, "any generally recommended international minimum standards, whether subregional, regional or global".⁴⁵

Regarding the cooperation between states with respect to high seas fisheries resources, Section 2 of Part VII of UNCLOS provides the following. First, the freedom of fishing on the high seas is subject to, among other considerations, the interests of coastal states as contained in Articles 63(2) and 64 through 67.⁴⁶ This means that states engaged in the exploitation of the transboundary marine fisheries

resources referred to in these articles are to cooperate pursuant to the arrangements referred to therein. Second, on the basis of Article 118, states exploiting identical fisheries resources or different fisheries resources in the same area are to cooperate. Third, Article 120 provides that states are to cooperate on the high seas with respect to marine mammals as provided in Article 65.

The assumption contained in Article 118 is that if a state enters a high seas fishery also exploited by other states or if a state engages in the exploitation of fisheries resources in the same high seas area as other states, the interests of those other states are affected and cooperation among the states involved is required. Actually engaging in exploitation, under the conditions expressed in Article 118, is therefore the only condition required for the obligation to cooperate to be applicable. Proof that their interests are affected need not be delivered by the other states. If there is a difference of opinion as to whether the obligation to cooperate applies, it is up to the state that disputes the application of the obligation to prove that the conditions contained in Article 118 have not materialized.

REGIMES APPLICABLE TO TRANSBOUNDARY MARINE FISHERIES RESOURCES

This section contains an analysis of the provisions of UNCLOS dealing with transboundary marine fisheries resources.⁴⁷ These provisions emphasize the fact that fish do not respect boundaries conceived by man; as a result several states are involved in their exploitation and conservation. Thus, if the sustainable development of the fisheries resource is to be ensured, cooperation between the states involved is essential.

These articles, together with the articles on cooperation with respect to high seas fishing, provide the framework for international cooperation for the purpose of managing marine fisheries resources.

Article 63 provides the general regime to be applied to the exploitation of transboundary marine fisheries resources between exclusive economic zones and between an exclusive economic zone and an adjacent high seas area, while Articles 64 through 67 provide specific regimes for specific species. The mechanisms established by these provisions identify the following main elements of the cooperative arrangements to be established: the states that have an interest in the resource in question and are to participate in the cooperative arrangements to be concluded, i.e. the community of interest; the geographical area to which

⁴² Art 117, UNCLOS.

⁴³ Art. 119, UNCLOS. In Article 119(1)(a) the concept of optimum utilization is worded as follows "... the maximum sustainable yield, as qualified by relevant environmental and economic factors...". This constitutes a description of the concept of optimum utilization. The words "... to maintain and restore populations of harvested species at levels which *can* produce..." optimum utilization means that states whose nationals are engaged in fishing for the resources on the high seas, as opposed to coastal states in the exclusive economic zone, are not under the obligation to actively further the objective of optimum utilization, but are under the obligation not to hamper the pursuance of this objective by other states. The regime of the exclusive economic zone contains both this obligation [Art 61(3)] and the obligation to actively pursue the optimum utilization of the stocks (Art. 62).

⁴⁴ Art. 119, UNCLOS.

⁴⁵ Art. 119(1)(a), UNCLOS.

⁴⁶ Art. 116, UNCLOS.

⁴⁷ For a more detailed analysis, see Hey, *op. cit.*, p. 53-70

the cooperative arrangement is to apply; and the regime that is to be implemented by the states concerned.

In addition, the provisions identify the interest of the community of states in conservation and/or optimum utilization. Thus, these provisions are also based on two pillars: the interests of states participating in the community of interest and the interests of the community of states as a whole.

Transboundary stocks between exclusive economic zones

With respect to transboundary and associated stocks occurring in the exclusive economic zones of two or more states, Article 63(1) provides that coastal states are to cooperate directly or through appropriate subregional or regional organizations and to adopt the measures necessary to coordinate and ensure the conservation and development of such stocks. These measures are to be adopted subject to the other provisions of Part V of UNCLOS.

Thus, the coastal states through whose exclusive economic zones a stock migrates are identified as the states that have an interest in the resource and that are to cooperate. The interest of each of these states is based on its sovereign right over the fisheries resources in its exclusive economic zone. They are to safeguard the interest of the community of states by ensuring the conservation of the stocks.

The area to which the arrangement is to apply is the migratory range of a stock within exclusive economic zones.

The fact that Article 63(1) is to be applied without prejudice to the other provisions of Part V of UNCLOS means that states cooperating pursuant to this article are to implement the regime of the exclusive economic zone. Article 63(1) requires that these states jointly ensure the conservation and development of the stocks in question, and not that they jointly promote their optimum utilization. Thus, these states are to jointly adopt or coordinate the conservation measures applicable to their shared stock(s), taking into account any generally recommended international minimum standards as referred to in Article 61(3), jointly determine the TAC for their shared stock(s) and allocate the TAC among themselves.

The obligation of coastal states to promote the optimum utilization of the resources in their exclusive economic zones rests upon each individual state. Thus, states cooperating pursuant to Article 63(1) are not under the obligation to jointly regulate access for their

own vessels and for vessels from third states. Once they have allocated the TAC among themselves, each state is entitled to determine its own harvesting capacity and regulate access to any surplus that may exist within its own allocation. The presumption is that each state has access to its allocation within its own exclusive economic zone. The states involved of course remain free to regulate access by agreement for their own vessels and for vessels from third states either within their respective zones or jointly for both zones.

Transboundary stocks between exclusive economic zones and adjacent high seas areas

In the case of transboundary and associated stocks occurring in an exclusive economic zone and a high seas area adjacent to that zone, Article 63(2) provides that the coastal state and the states fishing for the resource on the high seas are to cooperate either directly or through appropriate subregional or regional organizations. The objective of such cooperation is to adopt measures that ensure the conservation of the stocks in the adjacent high seas area. Conservation measures adopted pursuant to this provision are not made subject to Part V of UNCLOS. Article 116(b), however, subjects the freedom of fishing on the high seas to, among other things, the rights and interests of coastal states as contained in Article 63(2). Coastal states do not have a special right to participate in the exploitation of the stocks on the high seas, i.e. they may participate in the exploitation of these stocks based on the freedom of fishing to which all states are entitled. Coastal states are to be given special consideration only so far as their interest in the conservation of these stocks is concerned.

Thus, states fishing for the resource on the high seas and coastal states through whose exclusive economic zones the same stock migrates are identified as the states that have an interest in the resource and are to cooperate. The interest of the states fishing for the resource on the high seas is based on the freedom of fishing and the interest of the coastal states is derived from their sovereign rights over the fisheries resources in their exclusive economic zones. These states are to safeguard the interest of the community of states by ensuring the conservation of the stocks in question.

The cooperative arrangement concluded between these states is to apply to the migratory range of the stock within the high seas.

Article 63(2) does not apply without prejudice to the other provisions of Part V of UNCLOS and, except for

the cooperation requirement contained in this article, UNCLOS does not contain provisions indicating that a regime other than the high seas regime is to be applied. Thus, states cooperating pursuant to Article 63(2) are to implement the regime of the high seas. Accordingly, these states are to jointly adopt conservation measures and jointly determine the TAC for their shared stock(s).

The application of the high seas regime means that, in adopting conservation measures, these states, according to Article 119(1)(a), are to take into account any generally recommended international minimum standards. Thus, states cooperating pursuant to Article 63(2) share the right to exploit the stocks and are to cooperate in their conservation so far as these are located in high seas areas. In this case, as opposed to that of Article 63(1), allocations need not be made to the individual states involved and each state enjoys free access for its own vessels. The states involved of course, through agreement among themselves, may regulate the allocation of the resource.

Highly migratory species

Article 64(1) of UNCLOS provides that a coastal state and those states whose nationals fish for highly migratory species in the region are to cooperate directly or through appropriate international organizations to ensure the conservation and promote the optimum utilization of such species both within and beyond the exclusive economic zone. Also, paragraph 1 provides that, where no appropriate international organization exists, states shall cooperate in establishing such an organization. Paragraph 2 of Article 64 provides that the provisions of paragraph 1 apply in addition to the other provisions of Part V of UNCLOS.

In the case of highly migratory species Article 64 replaces Article 63(2), which applies to most species migrating between exclusive economic zones and adjacent high seas areas. Article 64, as opposed to Article 63(2), imposes on states implementing its provisions the obligation to cooperate in promoting the objective of optimum utilization. In this sense Article 64 is also to be distinguished from Article 63(1), which leaves the promotion of the objective of optimum utilization to be implemented by each state.⁴⁸ Article 64, as opposed to Article 63(2), also imposes the obligation to cooperate with respect to the full migratory range of the species - including both the

exclusive economic zone and the high seas areas within the migratory range. Article 116(b) reaffirms the latter obligation by providing that the freedom of fishing on the high seas is subject to the rights and interests of the coastal state as provided in, among others, Article 64. Article 64, as Article 63(2), entitles a coastal state to participate in the cooperative arrangements concluded, irrespective of whether the resource is exploited in its exclusive economic zone or not.

In the case of highly migratory species, all coastal states and all states fishing for the resource are identified as the states that have an interest in the resource and that are to cooperate. The interest of the coastal states is based on the sovereign rights that they exercise over the resources while in their exclusive economic zones and the interest of states fishing for the resource on the high seas is based on the freedom of fishing. The interest of the community of states is provided for by the requirement that the relevant states ensure conservation and pursue the objective of optimum utilization.

The area to which the cooperative arrangement is to apply is the whole of the migratory range of a highly migratory species.

The regime to be implemented by states cooperating pursuant to Article 64 constitutes a combination of the fisheries regimes of the exclusive economic zone and those of the high seas. The interests of both coastal states and other states fishing for the resource are to be accommodated. The regime to be implemented by these states should have the following characteristics:

- recognition of the special rights of coastal states through the allocation of quotas or other benefits to these states, based on the occurrence of the resource or on the catches taken by foreign vessels in their exclusive economic zone;
- coordinated or joint adoption of conservation measures, TACs and other measures that ensure the optimum utilization of the resource (allocations);
- as a result of the high seas component, acceptance of new entrants to the fishery as members of the arrangement at all times.

In short, coastal states and states fishing for the resource on the high seas share the right to exploit highly migratory species and are to cooperate in adopting conservation measures. Access to the resource is to be regulated by coastal states so far as their allocations are based on the occurrence of the resource in their exclusive economic zones, and it remains unrestricted but regulated for the remainder of the TAC.

⁴⁸ "See 'Transboundary stocks between exclusive economic zones' above.

This means that new entrants to the fishery must be accepted at all times, but that the TAC, on the basis of the obligation to promote optimum utilization, may be allocated among vessels while they are on the high seas. The states concerned remain free to restrict access among themselves. The conservation measures for the stocks, in accordance with both Articles 61(3) and 119(1)(a), must take into account any generally recommended international minimum standards.

Marine mammals

Article 65 of UNCLOS provides that a coastal state or an international organization, as appropriate, may prohibit, limit or regulate the exploitation of marine mammals more strictly than would be allowed by other fisheries provisions of UNCLOS. The article also provides that states -not only coastal states and states whose nationals fish for the resource - are to cooperate with a view to the conservation of marine mammals. With respect to cetaceans (whales), such cooperation is to take place through the appropriate international organizations. Thus, with the objective of conservation, cooperation between states in general and regulation by coastal states where appropriate are required. Article 116 recognizes the interest of coastal states with respect to marine mammals occurring in their exclusive economic zones by subjecting the freedom of fishing on the high seas to this interest. As a result of this provision, states exploiting marine mammals on the high seas are to take into account the measures adopted by coastal states. Article 120 provides that the exploitation of marine mammals on the high seas is subject to the regime as contained in Article 65.

The community of interest identified by Article 65 consists of all states. The interest each state has in these resources is not based on its jurisdiction over a certain area or vessel but on its general interest in the conservation of marine mammals.

Article 65 clearly envisages cooperation via the International Whaling Commission so far as cetaceans are concerned. This means that the full migratory range of all species is covered, both in high seas areas and in exclusive economic zones. However, the article, also with respect to cetaceans, leaves room for other cooperative mechanisms and for action by coastal states. It does not mention a specific geographical scope to which the cooperative arrangements should apply.

The regime to be implemented with respect to marine mammals is a conservation regime; it does not have the

dual goal of exploitation and conservation as the other regimes for transboundary marine fisheries resources do. This implies that considerations of a socio-economic nature, which are included in the objective of optimum utilization and may justify temporary over-exploitation of a fisheries resource in the interest of obtaining a sufficient supply of food, for example, are not to play a role with respect to the exploitation of marine mammals.

Anadromous stocks

Article 66 of UNCLOS provides that the state in whose rivers anadromous stocks originate has the primary interest in and the responsibility for such stocks. The state of origin is to adopt the measures required for regulating the conservation of and access to anadromous stocks landward of the outer boundary of its exclusive economic zone.⁴⁹ Exploitation of anadromous stocks on the high seas is allowed only in exceptional circumstances.⁵⁰ The TACs for anadromous stocks may be determined by the state of origin in consultation with other states having an interest in the resource as mentioned in Article 66.⁵¹ The duty to promote the optimum utilization of the resource and the related duty to give access to any surplus do not apply in the case of anadromous stocks. The primary interest of the state of origin is reinforced by Article 116(b), which subjects the freedom of fishing on the high seas to the rights and interests of coastal states as provided in, among others, Article 66.

The states that have an interest in an anadromous stock are the state of origin, the state that is entitled to continue fishing on the high seas on the basis of Article 66(3)(a), other states fishing for the resource on the basis of past catches,⁵² states that have participated in measures to renew the stocks⁵³ and the state through whose waters landward of the outer boundary of the exclusive economic zone the stock migrates.⁵⁴ The state of origin is to cooperate with these other states if certain conditions contained in the article materialize. That is, the state of origin has the right to exploit the stocks in principle, provided their conservation is ensured, unless one of the exceptions in Article 66 applies. The state of origin also has the primary responsibility to

49 Art. 66(2), UNCLOS.

50 Art.66(3)(a), UNCLOS.

51 Art. 66(2), UNCLOS.

52 Art. 66(3)(b), UNCLOS.

53 Art 66(3)(c), UNCLOS.

54 Art 66(4), UNCLOS.

ensure that the interest of the community of states in the conservation of the stocks is safeguarded.

The cooperative arrangements to be applied pursuant to Article 66 cover the full migratory range of the species.

As a result of the manner in which the interests of the different states are accommodated and of the goal of optimum utilization not being applicable, states cooperating pursuant to the provisions of Article 66 are to implement a regime distinct from those of the exclusive economic zone and the high seas. In fact, because of the predominant interest of the state of origin and because of the lack of provisions specifying the obligation of the state of origin with respect to any surplus that may exist, the regime to be implemented is best characterized as a combination of elements of the regimes of the territorial sea and the exclusive economic zone. The territorial sea component is provided by the extensive discretion of the coastal state with respect to anadromous species. Components of the exclusive economic zone are the recognition of the interest of the community of states in the conservation of the resource and the recognition, although limited, of the interests of other states. The only element related to the high seas regime is that enforcement of fishing activities on the high seas shall be carried out in agreement with the flag state. The following measures are to be taken by states implementing this regime:

- the right to regulate conservation rests with the state of origin, subject to the requirement that if TACs are determined it is to consult with other states as mentioned in Article 66;
- the regulation of access is a matter for the state of origin, subject to the allocations to be made to other states as provided in Article 66.

Catadromous species

Article 67 of UNCLOS provides that coastal states in whose waters catadromous species spend the greater part of their life cycles are responsible for the management of these species.⁵⁵ Exploitation of catadromous species is to occur only landward of the outer boundary of the exclusive economic zone.⁵⁶ When conducted in exclusive economic zones, the exploitation of catadromous species is subject to the provisions of Article 67 and the other provisions of

UNCLOS related to fishing in these zones.⁵⁷ In the case of catadromous species migrating through the exclusive economic zone of another state, the management and exploitation of such species is to be regulated by the state in whose waters the fish spend the greater part of their life cycles and the state through whose waters the species migrate.⁵⁸ Such agreements are to ensure the rational management of the species and to take into account the special interest of the state in whose waters the species spend the greater part of their life cycles. Article 116 subjects the freedom of fishing of the high seas to the rights and interests of coastal states as contained in, among others, Article 67.

With respect to catadromous species, UNCLOS thus identifies the state in whose waters the species spend the greater part of their life cycles and a neighbouring state through whose waters the species migrate as the states having an interest in the resource. The cooperative arrangements between neighbouring states required by Article 67, however, are not of the same nature as those required between neighbouring states by Article 63(1). In the latter case the relevant states cooperate on the basis of equality, whereas in the case of catadromous species the interests of the state in whose waters they spend the greater part of their life cycles are given special consideration. One can therefore assume that the interests of the state in whose waters the species spend the greater part of their life cycles will dominate when determining the measures to be adopted. In line with this position, it is also the state in whose waters the species spend the greater part of their life cycles that has the predominant responsibility for the conservation and optimum utilization of these species.

As exploitation on the high seas is not allowed, the arrangements required by Article 67 cover the extent of the migratory range of catadromous species where exploitation is allowed.

The cooperative arrangements to be concluded pursuant to Article 67 require the implementation of the regime of the exclusive economic zone, the other provisions of Section V also applying. Thus, the states that have an interest in the resource are to jointly adopt or coordinate the conservation measures applicable, taking into account any generally recommended international minimum standards as referred to in Article 61(3), to jointly determine TACs and to allocate the TACs among themselves.

⁵⁵ Art. 67(1), UNCLOS.

⁵⁶ Art. 67(2), UNCLOS.

⁵⁷ Art 67(2), UNCLOS.

However, in this case, as opposed to arrangements concluded pursuant to Article 63(2), the state in whose waters the species spend the greater part of their life cycles has a dominant interest.

The effect of the provisions on transboundary marine fisheries resources

The provisions for transboundary marine fisheries resources list the conditions under which the obligation to cooperate applies. The assumption is that if a state is engaged in the exploitation of a transboundary marine fisheries resource as indicated in Articles 63 through 67, there is an obligation to cooperate with other states having an interest in the resource. In all these cases the effect is that it is not up to the state claiming its interests are affected to prove that its interests have indeed been affected, i.e. it does not have to prove that the duty of due diligence owed to it by other states has been breached and that as a result cooperation is required. Instead, the assumption is that in such cases the interests of these other states per definition are affected and that cooperation between states is required. Thus, compared with the general rules of international law on the exploitation of a shared natural resource, a shift in the burden of proof has taken place.

Although it may be considered self-evident, it is pointed out that states may satisfy the obligations to cooperate contained in the fisheries provisions of UNCLOS by concluding arrangements that cover more than one type of transboundary fisheries resource. For example, an arrangement covering stocks that are transboundary between several exclusive economic zones and between these areas and the adjacent high seas areas may be agreed on. Such an arrangement would cover both the obligations in Article 63(1) and those in Article 63(2).

It is also of interest to note that the fisheries provisions of UNCLOS, besides being based on the interests of the states exploiting the resource, also recognize the interest of the community of states in conservation and optimum utilization. Although it may be questioned whether the states that have an interest in exploitation are the best protectors of this interest,⁵⁹ the importance of the explicit recognition of this interest should not be underestimated. In fact, international action could result in this interest being further materialized through the development of generally

recommended international minimum standards, as mentioned in Articles 61(3) and 119(1)(a) of UNCLOS.

THE RELEVANCE OF THE PROVISIONS ON THE PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

As stated at the beginning of this paper, there is a growing awareness that fisheries management cannot take place in isolation and that it must fit into the overall policy for the protection and preservation of the marine environment, i.e. an integrated approach is required. This means that the conservation of the marine ecosystem may require certain measures to be applied to fishing activities and, as a result, instruments for implementing such measures would also be required. The fisheries provisions described above provide these instruments.

Part XII of UNCLOS, "Protection and preservation of the marine environment", does not contain detailed instruments for the conservation of the marine ecosystem as it does for the prevention of marine pollution.⁶⁰ However, states have the duty to protect and preserve the marine environment,⁶¹ as well as the duty to cooperate in such protection and preservation.⁶² These obligations cover the adoption of measures for both the protection of the marine environment from pollution and the conservation of the marine ecosystem. As Part XII of UNCLOS does not contain detailed instruments for implementing the latter, it must be assumed that these measures are to be implemented through instruments provided elsewhere or through new instruments. If the conservation of the marine ecosystem requires that measures for the fishing sector be adopted, then on the basis of Article 192 states will have to apply such measures to fishing activities taking place under their jurisdiction. The instruments for implementing these measures are provided by the fisheries provisions of UNCLOS. In this case, a balance must be sought between the objectives of the provisions on the protection and preservation of the marine environment and the objectives of the fisheries provisions of UNCLOS, i.e. the sustainable exploitation of the stocks must be ensured.

⁵⁸ Art. 67(3), UNCLOS.

⁵⁹ Hey, *op cit.*, p. 123-124.

⁶⁰ See Part XII of UNCLOS, particularly Sections 5 and 6 on regulations for the protection of the marine environment against pollution. Similar sections have not been included for purposes of the conservation of the marine ecosystem.

⁶¹ Art. 192, UNCLOS.

⁶² Art. 197, UNCLOS.

CONCLUSION

What the fisheries provisions of UNCLOS have to offer current fisheries management needs is a set of instruments for managing marine fisheries resources. In addition to coastal state sovereignty/sovereign rights and flag state jurisdiction, specific instruments requiring cooperation between states have been included for managing transboundary marine fisheries resources and high seas fisheries resources. These instruments identify the states that are to cooperate in ensuring the sustainable exploitation of the resource. As was stated at a recent conference:

"... these rules (on high seas and transboundary marine fisheries resources) reflected in the United Nations Convention on the Law of the Sea constitute a sound framework, they must be given full effect in order to achieve the basic objective of conservation of living resources of the high seas."⁶³

As stated at the beginning of this paper, the fisheries provisions of UNCLOS do not provide the specific measures that are to be implemented in each case. These are to be developed by the state(s) identified as having an interest in the exploitation of the resource, taking into account the conditions contained in the fisheries provisions. One of the conditions is that, in developing conservation measures, "any generally recommended international minimum standards, whether subregional, regional or global"⁶⁴ must be taken into account. UNCLOS does not contain these standards; they must be developed through action at the international (global or regional) level. Thus, just as in the case of the prevention of pollution from shipping, international action is required to ensure that certain minimum requirements are met. However, a distinction must be made between regulations for the prevention of pollution from shipping and regulations for fisheries management when it comes to the importance of regional measures.⁶⁵ Fisheries resources will most likely have distinct regional or subregional characteristics that must be considered. Articles 61(3) and 119(1)(a) also recognize this by referring to

subregional, regional and global minimum standards. Thus, in the case of fisheries management, a set of coordinated regional standards is required in addition to global standards.

Generally recommended international minimum standards, whether subregional, regional or global, could be developed along the following lines. First, a global set of standards for the conservation of high seas fisheries resources may be formulated. It may be adopted in the form of a convention, such as the MARPOL Convention, or it could be in the form of a set of generally accepted rules and standards developed by a competent organization, as referred to in Article 211 with respect to ships for example. Whatever the form of the standards to be adopted, it should contain the minimum standards applicable to fishing activities taking place in high seas areas⁶⁶ and, where appropriate, could contain global minimum standards for the management of marine fisheries resources in other areas. Second, continued coordination of the activities of existing and new regional conventions is desirable. In this context it is of interest to note paragraphs 6(b) and (d) of Rule XXX of FAO's Committee on Fisheries (COFI):

"6. The Committee shall:...

- (b) conduct periodic general reviews of fishery problems of an international character and appraise such problems and their possible solutions with a view to concerted action by nations, by FAO and by other intergovernmental bodies;...
- (d) consider the desirability of preparing and submitting to Member Nations an international convention under Article XIV of the Constitution to ensure effective international cooperation and consultation in fisheries on a world scale."⁶⁷

COFI thus could provide the global international forum for dealing with current problems related to the exploitation of high seas and transboundary stocks. It could continue to review and coordinate the activities of regional fisheries bodies and forward the

⁶³ The first conclusion of the Conference on the Conservation and Management of the Living Resources of the High Seas, held at St John's, Newfoundland, Canada, 5-7 September 1990.

⁶⁴ Arts 61(3) and 119(1)(a), UNCLOS.

⁶⁵ Due to the specific international character of shipping, international regulations in this case often also represent the maximum restrictions a coastal state may impose on foreign vessels. This is not the case with international regulations pertaining to fishing, they, as is made explicit in Arts 61(3) and 119(1)(a), are minimum standards.

⁶⁶ The second conclusion of the recent Conference on the Conservation and Management of the Living Resources of the High Seas emphasizes the relevance of such standards: The freedom of fishing on the high seas must be exercised in a manner which takes into account... the need to respect internationally accepted conservation and management principles."

⁶⁷ General rules of the Organization, in *Basic texts of the Food and Agriculture Organization of the United Nations*, Vols I and II, 1964 ed., p. 72.

development of global minimum standards for fisheries conservation.

The more immediate focus of attention for many states, however, is the increasing problems raised by straddling stocks and highly migratory species. The following was one of the proposals put forward at the recent Conference on the Conservation and Management of the Living Resources of the High Seas:

"... States whose nationals carry out fishing activities on the high seas must ensure that such activities do not have an adverse impact on resources under the jurisdiction of coastal states; with respect to stocks occurring both within the exclusive economic zone and in an area beyond and adjacent to it, the management regime applied to the high seas portion of the stock must be consistent with the management regime of the coastal state."

This proposal received only qualified support, for it was concluded⁶⁸ that:

"14. Most participants agreed that, with respect to stocks occurring both within the exclusive economic zone and in an area of the high seas beyond and adjacent to it, the management regime applied to the high seas portion of the stocks should be consistent with the management regime of the coastal state applicable to its exclusive economic zone."

A similar agreement was reached on highly migratory species:

"15. Most participants agreed that management regimes applicable to highly migratory species must fully recognize the jurisdiction of coastal states in their exclusive economic zones and be consistent with conservation measures applied by them."

Whether the thrust of the measures regarding straddling stocks and highly migratory species is agreed to by most participants at the conference or not, what is certain is that the coordination of measures for such stocks will be

required if their conservation is to be assured. Regional fisheries organizations seem to be the proper fora for dealing with these matters.

It will be apparent from the foregoing that while UNCLOS provides a framework for future action regarding the regulation of high seas fishing, there is still much that awaits detailed elaboration. States have several non-mutually exclusive options for dealing with the problems involved in the exploitation of high

seas and transboundary marine fisheries resources at present. The more obvious of these are:

- introducing voluntary measures that apply restraints and prohibitions to vessels flying their flag;
- formulating and adopting global minimum standards, as referred to in UNCLOS, to ensure the conservation of the resources;
- formulating an overall conservation and management regime for high seas fisheries;
- implementing indirect controls over fishing activities on the high seas, for example, linking access to the living resources of the exclusive economic zone to the application by the flag state of adequate conservation measures on the high seas;
- strengthening and, where necessary, establishing new regional fisheries organizations to deal with these matters;
- pursuing the possibility of establishing a convention for effective international cooperation and consultation in fisheries on a world scale as provided for in the COFI rules of FAO.

The options mentioned here are intended as suggestions for further thought and further options may be required. Moreover, it is important to note that each option mentioned will almost certainly require further in-depth consideration and evaluation.

⁶⁸ Conclusions 14 and 15 of the Conference on the Conservation and Management of the Living Resources of the High Seas

II. The law of the sea concerning coastal state authority over driftnets on the high seas

William T. Burke

Many nations have recently expressed concern over the use of very large driftnets on the high seas. Driftnets are not a new type of fishing gear, they have been used for centuries to harvest marine animals.¹ In the past ten years, however, high seas driftnet fishing has increased significantly and considerably larger nets are now being employed. Much of the increase is a result of fishing effort having been displaced by the expansion of national jurisdiction to 200 nautical miles.

Despite this current preoccupation with high seas driftnet fishing, it is common practice in waters subject to coastal state jurisdiction.² It has been estimated, for example, that in the North Pacific alone the amount of driftnet gear employed within 200 miles is three times as great as that employed on the high seas outside national jurisdiction.³

A major difference between gear found within the 200 miles and that found outside is that inside gear is subject to regulation, assuming the area has been enclosed within national jurisdiction. Therefore, its length, location, time and duration of placement, composition, associated gear and so forth are all subject to national management. The problem with high seas driftnet gear is that there is no assurance of regulation and enforcement. It is known that the total length and total amounts of net deployed are very large.⁴

The recent increased attention given to high seas driftnet fishing does not, for the most part, rest on scientific knowledge about the impact of this gear on marine animals. With the possible exception of the effects of driftnet gear on salmon populations in the North Pacific, there does not appear to be an accepted body of knowledge about the effects of driftnets on particular target species, on incidentally affected species or on the marine ecosystem as a whole. At this writing, the public furor over the use of high seas driftnets is not supported, with the exceptions noted, by an established body of scientific information about effects on population abundance and structure. Particular efforts to remedy this lack are now under way in some areas, partly as a result of national legislation demanding better information. This lack of information and this scientific effort to produce improved data underscore the relevance and applicability of some of the international legal principles mentioned below.

In light of this general concern, the purpose of this discussion is to identify and examine the international legal issues involved in coastal state efforts (individual and collective) to regulate or ban the use of pelagic driftnets on the high seas, i.e. beyond 200 miles. The legal issues arise from the principles of international law claimed to be applicable to this fishing. The aim is to discuss such principles without attempting to demonstrate the validity or otherwise of claims that might be made. In particular, it is not the purpose to

The author is a professor of law at the University of Washington

¹ For details about this gear see FAO, 1978, *Catalogue of Fishing Gear Designs*, rev. ed.

² For a survey that includes use of driftnets in United States and Canadian waters, see O'Hara, Atkins and Iudicello, *Marine Wildlife Entanglement in North America*, p. 3-157. Center for Environmental Education, November 1986.

³ Alverson, 1989, Ghost netting and plastic debris, in *Proc. of North Pacific Driftnet Conference*, p. 101 and 104. However, Dr Alverson also indicated his belief that the actual fishing effort on the high seas is much more than within 200 miles. Id. at p. 105. These data refer to the mid-1980s, before the great increase in high seas driftnet fishing.

⁴ There is beginning to be a large literature on driftnets. In addition to the sources cited in notes 2 and 3, see *Report of the Secretary of Commerce to the Congress of the United States on the nature, extent and effects of driftnet fishing in waters of the North Pacific Ocean pursuant to Section 4005 of Public Law 100-220* (the Driftnet Impact Monitoring, Assessment and Control Act 1987), 1989; Center for Environmental Education, February 1987, *Plastics in the ocean: more than a litter problem* (originally prepared for the United States Environmental Protection Agency).

attempt to argue the application of any of the legal principles to particular problems of current interest.

The categories of relevant international law principles include those imposing obligations on fishing states owed to all other states, those establishing duties owed to coastal states with jurisdiction over waters adjacent to the high seas and those obligations assumed by bilateral or multilateral treaties. Fishing states may also invoke particular principles of the law of the sea, particularly those asserted to protect high seas fishing operations from the exercise of another state's jurisdiction.

The international law principles applicable to driftnets on the high seas according to the 1982 United Nations Convention on the Law of the Sea (UNCLOS) embrace the following obligations of fishing states owed to the general international community of states:

- to take the necessary measures to conserve the living resources of the high seas;
- to cooperate with other states in taking measures to conserve such resources;
- to enter into negotiations with other states fishing the same or different resources in the same area "with a view to taking the measures necessary for the conservation of the living resources concerned";⁵
- to contribute and exchange scientific information, catch and effort statistics and other data regarding conservation of stocks on the high seas;
- to take measures "designed, on the best scientific evidence available to the states concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors ...";
- to ensure that the measures adopted are nondiscriminatory against the fishermen of any state;
- to observe treaty obligations they have undertaken.⁶

An issue involving each of the above substantive principles (except the last) is whether it is also a principle of customary international law.

An additional principle relating to all of the above is the obligation not to abuse the rights and freedoms of the high seas while in the exercise of those rights and

freedoms.⁷ Flag state activities on the high seas are protected only to the extent that they are reasonable in relation to others' use, similar or otherwise.

High seas fishing states also have obligations (whether by explicit agreement or by customary law or both) to coastal states concerning animal populations that are subject at some phase of their life cycles to coastal state jurisdiction. Assertions have been made invoking the principle that high seas fishing states are obliged by agreement⁸ and perhaps by customary law to observe coastal state conservation regulations affecting high seas fishing for particular species. The coastal state regulations potentially or actually applicable include those addressed to shared stocks, particularly those that are common to coastal state jurisdiction and to the high seas (straddling stocks), anadromous species and highly migratory species. The provisions applicable in these instances are in Parts V, VII and XV of UNCLOS.

States fishing on the high seas may also be bound by specific commitments undertaken by agreement with other states (on a bilateral or multilateral basis). Such agreements specifically address driftnet fishing on the high seas and may deal with activities related to driftnets. Activities related to driftnets and potentially affected by such agreements include loss or disposal of driftnets at sea and practices to be employed in their use at sea, such as provisions for scientific observers to be employed aboard driftnet vessels, for carrying equipment designed to permit location of vessel operations, for record-keeping regarding such fishing and for subjection to boarding and arrest.⁹

⁷ Art 300 of UNCLOS is entitled "Good faith and abuse of rights" and provides: "States Parties shall fulfil in good faith the obligations assumed under this Convention and shall exercise the rights, Jurisdiction and freedoms recognized in this Convention in a manner which would not constitute an abuse of right". Although the doctrine of abuse of rights has occasionally been applied in International litigation, commentators differ about its scope and meaning in general international law. See note 50 *Infra* and accompanying text. See also Cheng, 1953, *General principles of law as applied by International courts and tribunals*, p. 121-136; 1 Schwarzenberger, 1957, *International law*, 3rd ed., p. 348-340; id., *The fundamental principles of International law*, 1955, *Recueil des Cours* I, 195:290-326.

⁸ Two general agreements might be advanced: the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas, *Infra* note 15, and UNCLOS, *supra* note 5.

⁹ Provisions on these matters are in the bilateral agreements recently negotiated between the United States and the main driftnet users in the North Pacific: Japan, Taiwan (Province of China) and the Republic of Korea. The agreements are not identical on the points mentioned. See also note 47 and accompanying text

⁵ UNCLOS, Art. 118, UN Doc. No. A/Conf. 62/122, opened for signature 10 Dec 1982.

⁶ All of the obligations in this listing are contained in Part VII of UNCLOS.

The major multilateral agreements relating to driftnet regulation include the London Dumping Convention¹⁰ and the 1973/78 Convention on the Prevention of Pollution from Ships (MARPOL), Annex V.¹¹ These agreements pertain to the disposal or loss of driftnets.¹²

Proposed restrictions on driftnets as harvesting tools meet objections based on international law principles safeguarding the independence of vessels conducting fishing activities on the high seas. Such principles include freedom of fishing and freedom of navigation on the high seas. It is argued, for example, that the customary international principle of freedom of the seas protects fishing vessels of any state from any interference by another state with high seas fishing. Similarly, it is asserted that freedom of navigation prohibits imposition of any requirements to install particular equipment on fishing vessels on the high seas. Acceptance of observers on board high seas fishing vessels or agreement to use special monitoring equipment are apparently regarded as inconsistent with the principle of freedom of the high seas and an intrusion on national independence.¹³ Some of these arguments might also be made in the context of freedom of navigation in the exclusive economic zone.

Principles about piracy at sea have been frequently mentioned in public statements by some public officials, but they will not be discussed here since they have no relevance to any of the problems of high seas driftnet fishing. Even if it were established that driftnet fishing on the high seas amounted to theft of property, which has not been the case, the law of piracy would not

¹⁰ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 26 *United States Treaty Series* (UST) 2406, *Treaties and Other International Agreement Series* (TIAS) 8165.

¹¹ *UN Legislative Series*, UN Doc. St/Leg/Ser. B/18 at 461 (1976).

¹² Driftnets lost while fishing or discarded later are not considered by those who have studied their use closely or who are familiar with their use (fishermen) to present a serious threat of continuing to fish for an extended period after loss or discard. True driftnets (as opposed to anchored gillnets) rather quickly (in a week or less) roll up into a ball of material that does not continue fishing. Nets that are fixed in place or become so may continue to fish for a long period.

¹³ It is not proposed to discuss these contentions in this paper. The principle underlying the freedom of the seas, that one state may not interfere with the use of the sea by another state, has urged some to rule out an agreement by a flag state to take measures to discover what the effects of driftnet fishing might be, as well as an agreement by the flag state to possible measures to deal with those effects. If this concept of freedom of the seas were accepted, it would be plainly impossible to do anything to deal with any problems with the use of this gear. That is, freedom of fishing should not be accepted as an obstacle to genuine international agreement, either to develop information about the impacts of driftnet fishing or to take conservation measures.

be applicable. Statements of this kind are made for political effect and internal national consumption; they have no application here.

The following is a more detailed discussion regarding the relevance, source and authority of the principles mentioned. In sequence, the issues examined are the high seas rights of fishing states, the obligations of these states to the general community of states, the obligations due to coastal states and various other specific matters, including the abuse of rights, possible impacts of driftnet regulation on freedom of navigation and the loss or disposal of driftnets.

RIGHTS OF HIGH SEAS FISHING STATES

Freedom of fishing on the high seas

Article 2 of the 1958 Convention on the High Seas embodies the general understanding, also considered to be part of customary law of the sea, that the freedoms of the high seas include the freedom of fishing in this area.¹⁴ This freedom, as all others on the high seas, must be conducted with reasonable regard to the interests of others in their exercise of the same or other freedoms of the high seas. Freedom of fishing has traditionally extended to all types of fishing gear, without exception.

Article 2 of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas contains a more qualified formulation of the rights of states to fish on the high seas, declaring:

"1. All States have the right for their nationals to engage in fishing on the high seas, subject (a) to their treaty obligations, (b) to the interests and rights of coastal States as provided for in this Convention, and (c) to the provisions contained in the following articles concerning conservation of the living resources of the high seas.

2. All States have the duty to adopt, or to cooperate with other States in adopting, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas".¹⁵

¹⁴ The preamble to the Convention notes also that the principles in this treaty were adopted as "generally declaratory of established principles of international law". UN Doc. No. A/Conf. 13/L. 53. II Official Records, United Nations Conference on the Law of the Sea 135(1958).

¹⁵ Doc. No. II, id. p. 139.

¹⁶ At this writing 36 states are reported to have ratified or acceded to this treaty, none since the adoption of UNCLOS. *Multilateral treaties deposited with the Secretary-General, status as at 31 December 1988*. UN Doc. No St/Leg/Ser. B/7 (1989)

Although Article 2 is in a treaty that has not been widely adopted,¹⁶ paragraph 2 at least is now considered to be part of customary law.¹⁷ As noted more fully below, the International Court of Justice in the Fisheries Jurisdiction Case (the United Kingdom vs. Iceland) declared that a high seas fishing state must take full account of necessary conservation measures in conducting its operations.¹⁸

The most recent multilateral agreement dealing with freedom of fishing on the high seas affirms it once again and also confirms that states generally are agreed on obligations that burden this right. Part VII of UNCLOS deals with the high seas and Article 87 entitled "Freedom of the high seas" provides:

"1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by the Convention and by other rules of international law. It comprises, *inter alia*, both for coastal and landlocked States:...

(e) freedom of fishing, subject to the conditions laid down in Section 2."¹⁹

In Section II, Article 116 repeats Article 1 of the 1958 Geneva Fishing Convention in declaring that "all States have the right for their nationals to engage in fishing on the high seas...", but adds significant new conditions that are relevant, *inter alia*, to high seas pelagic driftnets, as will be noted below.

While it is evident that the principle of freedom of fishing on the high seas continues to protect this activity, it is also evident that conditions burden the exercise of this right and need to be considered in relation to the use of driftnets (or the use of other fishing gear) on the high seas.

OBLIGATIONS OF HIGH SEAS FISHING STATES TO THE GENERAL COMMUNITY OF STATES

Obligation to conserve the living resources of the high seas

The decision in the Fisheries Jurisdiction Case (the

United Kingdom vs. Iceland)²⁰ establishes the principle that states fishing on the high seas have the duty to attend to the needs of conservation of the living resources affected. In a passage directly relevant to issues involved with high seas driftnet fishing, the International Court of Justice in the Fisheries Jurisdiction Case declared in reference to fishing in an area the majority of the Court considered part of the high seas:

"It follows that even if the Court holds that Iceland's extension of its fishery limits is not opposable to the Applicant, this does not mean that the Applicant is under no obligation to Iceland with respect to fishing in the disputed waters in the 12- to 50-mile zone. On the contrary, both States have an obligation to take full account of each other's rights and of any fishery conservation measures the necessity of which is shown to exist in those waters. It is one of the advances in maritime international law, resulting from the intensification of fishing, that the former *laissez-faire* treatment of the living resources of the sea in the high seas has been replaced by a recognition of a duty to have due regard to the rights of other states and the needs of conservation for the benefit of all. Consequently, both Parties have the obligation to keep under review the fishery resources in the disputed waters and to examine together, in the light of scientific and other available information, the measures required for the conservation and development, and equitable exploitation, of those resources, taking into account any international agreement in force between them..."²¹

Although this duty was first enunciated in the 1958 Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas,²² it is no longer considered to be only a treaty obligation binding the parties to that agreement, but is rather a general obligation owed to the community of nations as a whole. Elaborating on the Court's pronouncement quoted above, Judge Dillard's concurring opinion in the Fisheries Jurisdiction Case observed that "although Iceland was not a party to this (1958 Fishing) Convention, it is yet possible to surmise that, in light of the practice of States and the widespread and insistent

¹⁷ This was not the interpretation in 1968. Denmark ratified in that year and declared that it did not consider itself bound by the last sentence of Art 2. *Id.*

¹⁸ Text at note 20 below.

¹⁹ The Convention is not yet in force, but it has been signed by virtually all states in the world and some other entities for a total of 159 political units. The United States, the United Kingdom and Germany are the major non-signatories. The principal articles in the Convention concerning fisheries are now widely considered to be part of customary international law, especially those concerning fisheries in the exclusive economic zone.

²⁰ 1974 ICJ Rep., p.3

²¹ *Id.* At p.31

²² Art 3.

recognition of the need for conservation measures, the principle it announces may qualify as a norm of customary international law..."²³

Since the Fisheries Jurisdiction Case decision in 1974, the negotiations in the Third United Nations Conference on the Law of the Sea produced still further evidence of the general acceptance of the obligation to conserve high seas living resources. Article 117 provides that "all States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas". Thus, irrespective of another state's involvement in a high seas fishery, a state whose nationals fish on the high seas is obliged to adopt conservation measures for its own nationals. These obligations are now embodied in customary international law.

The state or states to whom the high seas fishing state is obliged are not specifically identified in the provisions of the various treaties. However, the injunction to have due regard to the interests of other states appears to establish that another state (not necessarily another fishing state) with an interest may secure redress for non-observance of the obligation involved. In the Fisheries Jurisdiction Case, the Court found that the United Kingdom's interests had been infringed upon by Iceland as a coastal state in exercise of its freedom of fishing, but indicated that "due regard" extended also to the interests of other states.²⁴ In the context of driftnet fishing, therefore, the obligation to conserve the living resources of the high seas harvested by this gear extends to other states with an interest in the resources affected.

As will be noted below in more detail, other provisions of UNCLOS also make provision for conservation obligations on the part of a high seas fishing state.

Article 116(b) places a burden on the high seas fishing state concerning Articles 63(2), 64, 65, 66 and 67 by specifying that the right to fish on the high seas is subject to the "rights and duties, as well as the interests of coastal States provided for, *inter alia*, in these articles. That coastal states have an interest in conserving the stocks mentioned in such articles goes without question".

In short, UNCLOS makes it clear that a high seas fishing state has the duty to take conservation measures

on the high seas, either for its own nationals alone or in cooperation with other nations for their nationals together.

That these obligations are not simply on paper is evident from the actions, including recent ones, by high seas fishing states in conjunction with other concerned states. The most recent indications of state expectations of obligations to conserve on the high seas include: the South Pacific negotiations concerning driftnets; the reactions of the fishing states of Japan, the Republic of Korea and Taiwan (Province of China) to demands for international measures; the South Pacific Forum Fisheries Agency (FFA) Convention on the Prohibition of Driftnets and any evidence in proceedings or subsequent action in that context; United States of America legislation and subsequent bilateral agreements with Japan, the Republic of Korea and Taiwan (Province of China)²⁵; and United Nations Resolution 44/225 of December 1989. Prior to international pressure in the South and North Pacific, the states concerned, except Japan in connection with salmon, gave little indication of a felt obligation to introduce conservation measures.²⁶

That the obligation to conserve in high seas fisheries is widely accepted and expected to be implemented is implied by action taken at the 44th session of the United Nations General Assembly. Resolution 44/225 of the General Assembly regarding driftnets provides evidence of the weight given this obligation by the world community as a whole. Preambular paragraph 8 of the Resolution affirms that, in accordance with the relevant UNCLOS articles, "all members of the world

²³ 1974 ICJ Rep., p. 69.

²⁴ Id. at p. 29, paras 68-69.

²⁵ The United States-Japan agreement is contained in letters dated 28 June 1989 and 2 May, 1989 regarding several matters, including the Japanese position on freedom of the seas in the context of high seas driftnet fishing, details of the voluntary observer programme for 1989 and steps to be taken to plan a 1990 observer programme; the 1989 regulatory and enforcement programme of Japan in the high seas squid driftnet fishery and plans for 1990; and plans for regulatory measures during 1990. It was made clear that all measures and programmes would be cancelled if Japan were certified under the Driftnet Impact Monitoring, Assessment and Control Act of 1987. The agreement between the United States and Taiwan (Province of China) is contained in an agreement annexed to an exchange of letters dated 30 June 1989. The United States-Republic of Korea agreement is in the arrangements concluded on 8 September 1989 by an exchange of letters between the two countries.

²⁶ Other concerns are reported to have been expressed by the Indian Ocean Marine Affairs Steering Committee, the International Commission for the Scientific Exploration of the Mediterranean, and the Commonwealth Heads of Government Sea Committee on Fisheries (COFI), *Large-scale pelagic driftnet fishing*, FAO Doc. November 1989, p. 3-6.

community" have a duty to cooperate in the conservation and management of the living resources of the high seas, and a duty to take, or to cooperate with others in taking, such measures for their nationals as may be necessary for the conservation of the living resources of the high seas. This appears to confirm that the duties are customary law principles since it does not refer to states party to UNCLOS, but to "all members of the world community".

The operative paragraphs of Resolution 44/225 are even more important in showing current perspectives. Operative paragraph 3 recommends that by 30 June 1991 "interested members of the international community" review the "best available scientific data on the impacts of large-scale pelagic driftnet fishing, and agree upon further cooperative regulation and monitoring measures, *as needed*". Despite this reference to measures needed after review of the "best available scientific data", operative paragraphs 4(a)-(c) make recommendations for actions that are not necessarily required by available data.

Paragraph 4(a) recommends that the states concerned terminate large-scale high seas pelagic driftnet fishing entirely unless effective conservation and management measures are in place by 30 June 1992. Under this paragraph, the burden is on those employing high seas pelagic driftnets to join with others in producing sound statistical analysis as a basis for taking effective conservation and management measures by the date indicated. The Resolution specifically calls for international actions to develop the required analysis, not only or solely national. If the measures are not in place by that date, paragraph 4(a) of the Resolution recommends that the pelagic driftnet fishery terminate until they are. Contrary to the normal sequence of events, the assumption underlying this action is that driftnets have undesirable impacts on stocks unless shown otherwise. In light of the absence of plausible data on the alleged undesirable effects of driftnets, this assumption that action is needed emphasizes the intensity of the view that high seas driftnet fishing states have an obligation to take conservation measures and to cooperate with other states.

Paragraphs 4(b) and (c) are also revealing, especially the former. According to paragraph 4(b), it is recommended that "immediate action" be taken "to reduce progressively large-scale pelagic driftnet fishing activities in the South Pacific region, leading to the cessation of such activities by no later than 1 July 1991, as an interim measure until appropriate

conservation and management measures for South Pacific albacore tuna resources are entered into by the parties concerned". This recommendation is unqualified by any reference to preconditions to cessation of activity, unless the appropriate measures were already in place by the date specified.

Paragraph 4(c) recommends an immediate cap on the amount of high seas pelagic driftnet fishing in all of the high seas part of the ocean except in the South Pacific, "with the understanding that this measure will be reviewed subject to the conditions in 4(a)".

In sum, there is strong evidence that states, including high seas fishing states, generally recognize the obligation to take measures aimed at conservation of the living resources of the high seas.

Reference to "conservation" in the obligation to conserve the living resources of the high seas. There do not thus far appear to be conflicting views about the objectives of conservation measures directed at living resources being taken by high seas driftnet gear. An issue could arise if some fishing states contended that the only acceptable regulations were those aimed at maximizing the sustainable yield, while other states, including other fishing states, took the view that conservation measures would perhaps place limits on catch such that the yield would be less than the maximum sustainable. The only authoritative source of guidance on this appears to be UNCLOS.

UNCLOS contains important innovations in its provisions for the conservation of living resources, including those for high seas living resources. Article 119 provides:

- "1. In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, States shall:
- (a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;
 - (b) take into consideration the effects on species associated with or dependent upon harvested

species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

2. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned.

3. States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State."

The most significant innovation in Article 119 is that departure from the maximum sustainable yield as the goal of conservation measures is permitted. Such departure is the intent of providing that relevant environmental and economic factors may be used to determine the level of abundance to be maintained in a fishery. In practice this enables the adoption of measures that provide for a higher level of abundance of stocks than might otherwise have to be maintained in order to produce the maximum sustainable yield. The resulting increased stock density permits a higher catch per unit of effort, which translates into lower costs and greater net returns for the harvester. The price of this achievement is a lower total catch. In the case of a high seas fishery, this means there are less fish to be shared among the fishing states concerned. The overall returns might be greater, but because of different costs to different national fleets the net returns might be less to some. It should be emphasized that in this context, as well as in others, there may be sound environmental or economic reasons for measures that seek a level of abundance that will produce the maximum sustainable yield. Nonetheless, there may be disputes about the alternatives allowed by Article 119.

Article 119 does not require that the states concerned with high seas conservation determine an allowable catch for the stocks of interest, although it does not exclude this form of regulation either. The article leaves it to the states concerned to determine the nature of the conservation measures, if any, that should be employed in the fishery. It is apparent that prohibiting any use of driftnet gear is not directed by this article, nor is it excluded.

It is also clear from Article 119 that high seas driftnet fishing states must make an effort to acquire

information about species associated with or dependent upon harvested species and must take into consideration the effects on such species. Driftnet technology is known to kill substantial quantities of marine mammals, therefore this obligation is an important one.

The substantive conservation obligation that must be considered for associated or dependent species is the obligation to maintain or restore populations "above levels at which their reproduction may become seriously threatened". Although this obligation permits substantial takings, it also may require considerable research effort since population abundance of high seas species, as well as the effects of the driftnet gear on such populations, may be difficult to determine.

Obligation to cooperate with other states In taking conservation measures

The previous discussion also shows that the obligation to cooperate is now clearly spelled out in UNCLOS, most particularly in Article 117,²⁷ and is probably considered also to be a customary law of the sea principle. In the Fisheries Jurisdiction Case, the International Court found that due to their respective rights in the high seas areas involved, beyond 12 miles (as the Court held), the parties were required "to examine together, in the light of scientific and other available information, the measures required for the conservation and development, and equitable exploitation, of those resources...".²⁸ In addition to this specific form of cooperation flowing from the simultaneous rights in the high seas, the Court found that the parties were to engage in negotiations to resolve the dispute between them and directed them to do so.

Cooperation can obviously take many forms and is not exhausted by any single activity, whether parallel or joint or coordinated. In the case of driftnets, there has already been significant cooperative activity of various kinds between the various states concerned at bilateral, regional and global levels, which might be taken as evidence of a perceived obligation to do so. Japan, in particular, has long been involved in research regarding its salmon driftnet fisheries in the North Pacific, in discussions regarding this research and in negotiations

²⁷ "All States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas."

²⁸ 1974 ICJ Rep., p. 34-35.

to deal with the impacts of this fishery on various stocks. More recently, several North Pacific states have reached bilateral agreements with the United States on a variety of measures to develop scientific information regarding the squid driftnet fishery in this region.

Elsewhere, the South Pacific albacore tuna fishery has recently attracted considerable attention, including meetings between Pacific island nations, among others, and the states using driftnet gear. At a meeting in June 1989 attended by Japan, the Republic of Korea and Taiwan (Province of China), the Pacific island nations called for a cessation of the use of driftnet gear in the South Pacific until a satisfactory management regime was established. The Republic of Korea reportedly agreed to such termination, but Japan and Taiwan (Province of China) did not. However, they did agree to various cooperative actions over the following season, including in the case of Japan a freeze on the number of boats at the 1988/89 level, the dispatch of a patrol vessel to the region and efforts to collect such relevant fishery data as coastal statistics.²⁹

The general record of international cooperation in seeking to cope with conservation of marine resources on the high seas is, of course, quite substantial and does not need to be discussed in detail. To do so would virtually entail retelling the history of fishery conservation over several decades. Practically every coastal nation in the world interacts in some fashion with other nations or international institutions concerning fisheries adjacent to their coast or of significant concern elsewhere. These forms of cooperation embrace a wide range of activities: the exchange of information and views in both bilateral and multilateral fora, separate adoption of parallel policies and positions, exchanges of scientific personnel and information, discussions concerning issues of common concern, formal participation in joint scientific investigations, participation in national and international scientific gatherings, international (bilateral, regional, multilateral or global) negotiations, specific agreements of various kinds and levels of formality, including those for establishing better cooperation.

The most recent evidence of individual and collective national concerns over fishery conservation is afforded by the Third United Nations Conference on the Law of

the Sea. Almost all states in the world participated in this most extensive cooperative effort to date dealing with the conservation of living resources. Although the problem was intensely political and controversial and involved large stakes for fishing and coastal states, the effort to negotiate relevant principles for fishery conservation was successful. Many of the principles in this agreement, as suggested elsewhere in this paper, reflected and continue to reflect customary law of the sea.

Seeking to resolve disputes through some form of settlement arrangement is a notable example of cooperative behaviour. Direct negotiations are the simplest, if still complex, form of cooperation however difficult the issues that remain to be settled. As well, other international procedural fora, such as arbitration, mediation or conciliation, and such formal legal processes as the International Court are pre-eminent forms of international cooperation. It is significant that UNCLOS provides for compulsory dispute settlement arrangements specifically aimed at fisheries disputes and that high seas fishing disputes are among those directly subject to such provisions.

To assess whether one state or another has engaged in cooperation thus requires assessing and evaluating a potentially wide field of behaviour.

Obligation to negotiate conservation measures

Article 118 of UNCLOS sharpens the expression of the duty to cooperate in conservation, specifying that high seas fishing states must negotiate "with a view" to taking the necessary conservation measures. This duty arises both where the nationals of different states take identical living resources or where they take different resources in the same area. Specifying an obligation to negotiate is a different burden than simple cooperation, which might be shown by other activities, and is more demanding. An obligation to negotiate does not require an agreement, but it does mandate good faith in the attempt to remove differences and reach substantive agreement.

This specification of cooperation as negotiations not new in the context of high seas fisheries problems. In the Fisheries Jurisdiction Case, the International Court of Justice linked the obligation of the United Kingdom and Iceland to cooperate regarding the high seas fishery to negotiations as the means of resolving their differences.³⁰ The Court repeated the declaration it

²⁹ This information is contained in a report by Judith Swan, Legal Officer, Fourth Fishery Agency, in Proc. Of the Northpacific Driftnet Conference, July 17-19, 1989, p.140 and 145.

³⁰ 1974 ICJ Rep., p. 31-32, paras 77-73.

made in the North Sea Continental Shelf Case, that negotiation is a special application of a principle recognized in the United Nations Charter Article 33 as one of the methods of settling disputes.³¹

In the context of high seas pelagic driftnets, there is ample evidence that the parties involved have engaged in negotiations, as well as other forms of international cooperation. Some long-established international agreements are concerned with pelagic driftnets³² and, most recently, special agreements have been reached to implement measures concerning the use of high seas driftnets and lay a basis for further cooperative action.³³

Obligation to generate and to contribute scientific information about stocks being fished on the high seas

The obligation to conserve fisheries exploited on the high seas seems necessarily to imply that the flag state has the corresponding responsibility of undertaking the requisite scientific investigation to inform an adequate conservation programme. Unless this state also has the duty to develop the scientific basis for such a programme, including knowledge of the significant effects of such fishing on species and stocks caught incidentally to the target fishery, it could hardly carry out the basic obligation to conserve.

The evidence is overwhelming that conservation measures for living marine resources are formulated to take account of scientific investigations carried out by individual nation states involved in the use of such resources. Many coastal and fishing states have entered into limited multilateral agreements on the conservation of fisheries and marine mammals. The agreements often provide for an institutional mechanism for cooperation among the states concerned and specifically call for scientific undertakings by the member states in order to provide a basis for conservation measures to be recommended by the agency thus established. In a few instances states have created independent scientific staffs to carry out the necessary

scientific work, but this has been the exception. The standard approach to international cooperative activity has been to have the necessary scientific investigation performed by scientific entities within the member states, followed by consultations and discussions regarding the results of the research and, sometimes, by joint recommendations to the nations involved.

It is therefore not surprising that the 1958 Geneva Convention on Fishing and the Conservation of the Living Resources of the High Seas (which was the first effort at general multilateral agreement on the subject) assumes, rather than directly provides, that states are responsible for the necessary scientific study that will underlie the conservation measures they are obligated to take on the high seas. It is impossible to read this agreement and understand the undertakings specified without assuming that high seas fishing states have the burden of doing the scientific research required to impose conservation measures in the areas involved. The treaty is otherwise meaningless. Similarly, the customary law obligation to take conservation measures when the flag state's vessels fish on the high seas would be without meaning if that state did not also have the duty to develop scientific knowledge of the fishery being exploited.

These considerations help to explain the decision of the International Court in the Fisheries Jurisdiction Case, which may again be cited for recognizing the obligation of the high seas fishing state (and the interested coastal state in that case) to "keep under review the fishery resources in the disputed waters and to examine together, in the light of scientific and other available information, the measures required for the conservation and development, and equitable exploitation, of those resources..."³⁴ The Court noted that resolving the dispute by negotiation, and thereby establishing catch and effort limitations, "necessitates detailed scientific knowledge of the fishing grounds."³⁵ "It is obvious that the relevant information and expertise would be mainly in the possession of the Parties."³⁶

UNCLOS unequivocally places the responsibility for fisheries research on coastal states within the exclusive economic zone where they have sovereign rights and upon high seas fishing states (in addition to coastal states) for fishing on the high seas. It not only provides that the coastal state has sovereign rights for the purpose of conservation of the living resources in the

³¹ *Id.* at p. 32, para. 75.

³² The International North Pacific Fisheries Convention, concluded in 1952, focused primarily on the harvest of salmon on the high seas by Japanese vessels employing driftnet gear.

³³ During the latter half of 1989, the United States concluded bilateral agreements with Japan, Taiwan (Province of China) and the Republic of Korea. See note 25 *supra*.

³⁴ 1974 *ICJ Rep.*, p. 31, para. 72.

³⁵ *Id.* at p. 32, para. 73.

³⁶ *Id.*

exclusive economic zone, which limits authority for the purpose to the coastal state, but it also specifically provides that only the coastal state has the authority to regulate and to conduct fishery research in the zone. A state fishing in the exclusive economic zone may be required to do fishery research in the zone, but Article 62(4) declares that this is subject to the authority and control of the coastal state. In short, there is no question that the obligation to conduct research in the zone rests with the coastal state, which has the duty to carry out conservation of the resources there.

The situation is analogous to that in the high seas. The responsibility for conservation measures is placed on high seas fishing states. Article 117 requires such states to take the measures necessary for conservation. Unless words have lost their meaning, this enjoins a high seas fishing state to produce or acquire the data, perhaps requiring direct research, that is necessary for conservation action.

Article 119 is similarly unequivocal in requiring the production and distribution of scientific information concerning high seas fisheries: "Available scientific information, catch and fishing effort statistics and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned."

As the Court remarked in the Fisheries Jurisdiction Case, it is obvious that the relevant information would be in the hands of those harvesting the living resources.

Recent events concerning high seas pelagic driftnets tend to confirm that states employing this gear now recognize a responsibility to provide information about its effects. These events include the agreements negotiated with the United States in the North Pacific Ocean concerning operations in the squid driftnet fishery. Prior to this, of course, and over several preceding decades Japan had conducted research into the salmon driftnet fishery in the North Pacific, and in more recent years into the squid driftnet fishery.

This evidence is in some measure equivocal, because at least some major users of high seas driftnet gear other than Japan had not previously exerted any significant effort to keep their own fisheries under review or to undertake any noticeable level of regulation of these fisheries. One possible legal issue involved in this context arises from the provisions for sanctions in national legislation addressing the need for information about the effects of high seas pelagic driftnets on certain

fisheries. The Executive Branch of the United States is required by legislation³⁷ to negotiate agreements with states using high seas pelagic driftnets in order to produce information about the impact of such fishing on its marine resources. The United States considers its marine resources to include fish that migrate beyond its 200-mile exclusive economic zone to the high seas. Similar agreements were to be negotiated regarding the enforcement of applicable laws, regulations and agreements governing high seas driftnet fishing vessels.

This legislation provided that if these negotiations did not produce agreements with the designated nations by a certain date, this fact would be certified by a United States government agency to the President of that country. Such certification would also serve for the purpose of the Fisherman's Protective Act, under which the President may place an embargo on fish and fish products from the nation concerned.

The perception is that the threat of certification under this legislation was a factor leading to the conclusion of the various agreements between the United States and Japan, as one of the several high seas driftnet states using this gear in the North Pacific Ocean.³⁸ It has been argued by a Japanese law professor in another, but comparable, context that such an agreement is void under international law because it was brought about by the use or threat of force, in this instance the threat of economic sanctions. So far as is known, the Japanese Government has not made this claim nor has any other government concerned.³⁹

The scientific basis for high seas conservation measures

The standard of scientific evidence relating to conservation measures on the high seas is found in Article 119 of UNCLOS: "1. In determining the allowable catch and establishing other conservation measures for the living resources of the high seas,

³⁷ Driftnet Impact Monitoring, Assessment and Control Act of 1987.

³⁸ In the exchange of letters creating the agreement, it was made clear that the agreement would be invalid if Japan were certified under United States law. See letters cited *supra* note 25. A cable dated 10 May 1989 from the United States Embassy in Tokyo to the Department of State stated that it was the view of working level officials in Japanese government agencies that the Japanese Government had changed its position under threat of certification under the United States Driftnet Act of 1987.

³⁹ Sumi, 1988, The "Whale war" between Japan and the United States: problems and prospects, 17 *Denver J. Int Law and Policy*, p. 317.

States shall: (a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors...." This language is similar but not identical to that in Article 61(2), which spells out the authority of coastal states within their exclusive economic zone. In both instances the decision-maker is to employ the best scientific evidence available.⁴⁰

This formula is clearly relative, demanding only the best available evidence, not the "fullest" or "complete" or the best that can be conceived. Accordingly, this standard does not necessarily place a great or imposing burden that must be discharged before the necessary conservation measures can be taken by coastal or high seas fishing states. Taking action to conserve does not require these states to produce definitive studies or assessments of the data on particular fishery problems that allegedly involve excessive exploitation. It has long been recognized that in particular contexts information about catch statistics, population structures, characteristics of life history, population abundance, relationships to other species, interaction with the marine environment as a whole and long-term cycles, as well as other crucial data, is difficult to come by. Relevant information is sometimes scarce and may be produced by uncertain methods. It may be of variable quality and subject to

divergent interpretations. As a result, an absolute standard of scientific verity would inevitably mean a non-existent regulatory system, leaving fisheries open to continued exploitation no matter how probable it was that excessive harvests were being taken.

The "best available" standard even permits the use of poor evidence to justify conservation measures concerning a specific fishery, if that evidence is the best available. This may have some special importance in connection with high seas driftnet fisheries, which may be found in remote areas where the preceding investigations may be sketchy and doubtfully representative and where the coverage of investigations may be thin in relation to the size of the area of exploitation. Even this information, as poor as it may be, might be superior in quality relative to the initial efforts by regularly constituted scientific teams brought in for hurried studies. However, the "best available" standard may trigger regulatory activity that would otherwise have awaited more systematic or complete investigation.

Although this standard for scientific evidence appears to be widely accepted, its invocation in UN Resolution 44/225 on high seas pelagic driftnets raises questions. This Resolution can be interpreted, and probably should be interpreted, as recommending action regarding high seas driftnet use without the necessity of support from any information at all, scientific or otherwise. The following paragraphs address Resolution 44/225.

In a preambular paragraph, the Resolution "recognizes that any regulatory measures to be taken for the conservation and management of the living resources should take account of the best available scientific evidence and analysis". Enjoining that decision-makers must take this evidence into account is not necessarily the same as saying that they must take measures based on this evidence. Indeed, operative paragraph 4(a) recommends that all states agree to moratoria by 30 June 1992 on high seas driftnet fisheries, even in the absence of any information about the effects of fishing on specific stocks or on the marine ecosystem generally.

A moratorium is to take effect if certain events have not occurred, i.e. if effective conservation and management measures are not in place. A moratorium might be agreed pursuant to this Resolution therefore, even if there is no scientific evidence presented that indicates a sound basis for the termination of the

⁴⁰ However, the weight given this evidence may differ. In Art 61(2), concerning the exclusive economic zone, the coastal state "taking into account" such evidence is to take conservation and management measures. In Art 119, addressing the high seas, the states concerned are to "take measures which are designed on the best scientific evidence available... to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors...". The obligation "to take into account" differs from "take measures which are designed on the best scientific evidence available". The former may be the lesser of the two. For a discussion of a number of distinctions of this type, see Allott, 1983, Power sharing in the law of the sea, 77 *Am. J. Int Law* 1. Allott observes: Those who have not taken part in international negotiations tend to underestimate the significance of these boundary concepts within jural relations. Those who take part in international negotiations tend to become obsessed with such distinctions and may forget a few weeks later what the excitement was about and why one particular formula or another was a major national interest. But, whatever the actual rationality of the negotiating process at any given time, the outcome is a text that depends on such modifiers to express the substance of a specific legal relationship." *Id* at p. 11.

specific fishery. Inaction alone leads to the end, at least temporarily, of the fishery.⁴¹

In addition, the institution of conservation measures need not be based on the best available scientific evidence. According to paragraph 4, the measures may be introduced on the basis of "sound statistical analysis". This is not necessarily the same as "best scientific evidence available" and may be inconsistent with such evidence. It is conceivable that such an analysis would take account of the best evidence available, but there is no requirement to this effect unless one is implied by the preambular paragraph or from operative paragraphs 2 and 3.⁴²

Even if the term "sound statistical analysis" is understood to be qualified by the requirement that the parties use the "best scientific evidence available", it is also provided that the analysis must be "jointly made by the concerned parties". This appears to mean that the soundness of the analysis and the quality of the evidence are to be left to the combined judgement of the several concerned states. If one or more of these states do not concur in the analysis or have a different view of the evidence, the effect is to obstruct the production of the analysis. This could occur despite very good data and analysis. Since the analysis is the key condition to maintaining or resuming a fishery, the attitudes of the states concerned are critical. In the end, it seems possible that actions might be taken based upon less than the best scientific evidence available.

It is an additional complication in this Resolution that the aim of the measures to be taken is not limited to

⁴¹ There are several conceivable reasons why conservation measures may not be in place by the date proposed, including the possibility that there is insufficient time to produce the "sound statistical analysis". Another possibility is that the analysis which is "to be jointly made by concerned parties" cannot be completed because the concerned parties do not agree on it. Even if the analysis does not suggest the need for conservation measures, if the concerned parties are not in agreement, the fishery apparently would be terminated until they were. These same difficulties also afflict a fishery that is under a moratorium but which may be resumed. This can be done, according to the Resolution, if conservation measures are taken based upon the jointly produced analysis. An inability to produce such an analysis would prevent the reopening of the fishery.

⁴² Para. 2 calls upon those involved in driftnet fishing to cooperate "in the enhanced collection and sharing of statistically sound scientific data". Statistically sound scientific data is not equivalent to the "best available" scientific evidence. Statistics may be used to manipulate any data, including arbitrary numbers. Para 3 recommends a review of the "best available scientific data" on the impacts of driftnet fishing by no later than 30 June 1991 and agreement on further regulation and monitoring measures "as needed".

conservation, but also is "to prevent unacceptable impacts of such fishing practices in that region". Since "unacceptable impacts" is not defined and carries no generally accepted meaning, it is not clear what facts or information are to be considered the "best available scientific evidence". The Resolution distinguishes such impacts from "conservation," therefore the normal evidence that bears upon conservation does not appear to be involved.

In sum, Resolution 44/225 appears to obscure the meaning and utility of the principle of using the best scientific evidence available. In this respect, however, it is doubtful that a great deal of weight should be put on this Resolution. It emerged from an intensely political process and was negotiated in a situation where the amount of scientific information available was seriously deficient, if any was available at all. The Resolution actually reverses the normal burden of proof, requiring that conservation measures be in place *before* the scientific data supporting specific action is available and before fishing may begin or be continued. In this context, the provision for employing sound statistical analysis may be a sensible alternative. Without adequate data, statistical inferences are a viable alternative where the failure to take any action at all results in the termination of a fishery. Adhering to the Resolution does not diminish the value of and need for scientific evidence relating to proper conservation and management measures, when such evidence becomes available.

1b illustrate, population estimates of affected marine mammals may not be available for a long time to come for the high seas squid driftnet fishery in the North Pacific. As a result, it will be difficult to assess the impact of the known incidental take. In this instance, and perhaps others, it may be that the only way to continue the driftnet fishery is to adopt conservation measures based on statistical analysis. The latter may have little to do with the true situation since the numbers involved may be somewhat arbitrary, but it may be the best that can be done at the time.

OBLIGATIONS OF HIGH SEAS FISHING STATES TO COASTAL STATES

UNCLOS contains provisions that establish obligations for states fishing on the high seas for certain living resources that also occur in areas subject to coastal state jurisdiction and therefore are shared with the coastal state. Articles 63(2), 64 and 66 set out obligations for conservation on the high seas and would

be applicable to fishing with driftnets if applicable at all. Article 63(2) requires the high seas fishing state and the coastal state to seek agreement where the stocks being fished on the high seas are also found within the exclusive economic zone. The obligation is to seek agreement on the conservation of the shared stock in the adjacent area, i.e. the high seas.

Article 64 refers to another specific instance of shared stocks: highly migratory species that are fished within the exclusive economic zone as well as outside. Under Article 64, the high seas fishing state and the coastal state in a region are to cooperate "with a view to ensuring conservation... of the such species throughout the region". The last three words suggest that conservation measures here would be applicable on the high seas and also in areas subject to national jurisdiction, although the measures perhaps need not be identical.

Article 66 concerns anadromous species and provides, *inter alia*, that the state of origin has primary interest in and responsibility for such stocks. The state of origin is to establish regulatory measures for fishing within its exclusive economic zone and on the high seas beyond, including those regulating total allowable catches. The high seas fishing state and the host state of the anadromous species shall maintain consultations "with a view to achieving agreement on terms and conditions of such fishing giving due regard to the conservation requirements and the needs of the State of origin in respect of these stocks".

An obligation of the high seas fishing states under these several articles in Part V of UNCLOS differs from those previously discussed because it is owed to specific states rather than to the general community of states. Furthermore, these articles, coupled with those on high seas, provide that the high seas fishing state is not competent to decide alone on conservation measures for high seas fishing under the circumstances set out in these articles. A coastal state is a necessary associate of the high seas fishing state when it takes species subject to the coastal state's rights, duties and interests.

These various articles concerning shared stocks might be considered supplemental in nature, because if the high seas driftnet states and the coastal states cooperate and negotiate successfully, i.e. adopt and implement an effective regime of conservation measures, there is no need to resort to any other principles of international law to resolve conservation difficulties. However, if these states are unable to take

measures necessary for the conservation of living resources on the high seas by acting together, coastal states might invoke these other principles in UNCLOS to justify unilateral imposition of conservation measures on harvesting stocks on the high seas. At the present stage of affairs this seems unlikely, but it is not beyond the realm of possibility. Accordingly, the following discussion examines the purport of the articles mentioned in relation to possible coastal action to achieve conservation of the high seas stocks involved.

Article 63(2): Straddling stocks

Although Article 63(2) establishes that the high seas fishing state has the duty to seek agreement with the coastal state, it is Article 116 which provides that "the right... to engage in fishing on the high seas is subject to... (b) the rights and duties as well as the interests of coastal states provided for, *inter alia*, in Article 63, paragraph 2, and Articles 64 to 67". Article 87 in Part VII of UNCLOS declares that the freedom of fishing on the high seas is subject to several provisions, including Articles 116 to 120. Thus, Article 116 goes beyond requiring action to seek agreement to declare that the right to fish on the high seas is subject to the rights and duties of coastal states with respect to straddling stocks.

Because Article 56 establishes the sovereign rights of the coastal state over the living resources of the exclusive economic zone, Article 116 means that the right to fish on the high seas is subject to the sovereign rights, as well as the interests, of coastal states as provided in the articles of Part V of UNCLOS. Accordingly, UNCLOS might be interpreted to provide that the use of high seas driftnets upon stocks that also occur within a coastal state's exclusive economic zone is subject to the sovereign right of that coastal state.

The question that remains to be answered regarding Article 116 is how the apparently superior right of the coastal state might be implemented in the specific context of straddling stocks, the situation where high seas fishing takes stocks also occurring within the exclusive economic zone of the coastal state. Assuming the states concerned have not been able to conclude an agreement on conservation in the high seas area, one interpretation of Article 116 is that the coastal state be considered authorized to establish conservation measures applicable to the stock as a whole, including the high seas portion, and to demand compliance with those measures by high seas fishing states. Refusal to comply with genuine conservation measures by the

high seas fishing states would constitute a violation of the treaty if it were in force or, otherwise, of its customary international law obligation to join in conserving the living resources of the high seas. Appropriate enforcement of that customary law obligation could take the form of disruption of the driftnet operation by disabling the nets sufficiently to accomplish the conservation purpose. There would be no boarding or arrest of a foreign fishing vessel on the high seas, therefore no interference with the driftnet fishing vessels would be involved nor any claim to exercise jurisdiction over that vessel. The sole jurisdiction claimed would be to achieve compliance with conservation measures directed at and affecting the gear being used.

In accordance with UNCLOS, objections to this enforcement effort could be resolved by submitting the dispute to a third party dispute settlement whose decision would be binding on those concerned. Under the treaty, the coastal state and the high seas fishing state would be bound to submit to such a settlement procedure. Even apart from the treaty, the coastal state taking this course of action should consider itself bound to submit to such settlement. Conservation measures should remain in effect pending a decision.

Since UNCLOS is not in force, state practice becomes especially important. This practice has not yet established that there is any accepted or uniform approach to this problem. (In the specific context of straddling stocks states have cooperated to exchange information, and in one driftnet fishery [salmon in the North Pacific] agreements have been reached to resolve controversies in some circumstances.) Nor has this practice yet confirmed the initial point that Article 116 establishes a superior right that must be recognized and deferred to by high seas fishing states.

Thus far, despite the failure to resolve some well-known straddling stock problems through international cooperation, coastal states have not sought to take unilateral action to deal with conservation problems arising from unrestricted fishing on the high seas, whether by driftnets or other gear.⁴³ Even a pattern of inaction, however, if continued over a long enough

interval, will give rise to expectations about the relative rights involved. Thus, if coastal states do not take the initiative and demand that high seas fishing states observe particular conservation measures prescribed by the coastal state to regulate the harvest of the stocks concerned (salmon, tuna or straddling stocks), the inference may be drawn that under international law the superior right of the coastal state cannot be implemented by coastal state action prescribing regulations for high seas fishing. Furthermore, assuming that coastal states did demand compliance with measures prescribed by them for application on the high seas but did not take steps to enforce them, the failure to act might support the inference that such action was not consistent with international law.

Article 64: Highly migratory species

Among the principal stocks that appear to be affected by driftnet fishing is albacore tuna, both in the South Pacific and in the North Pacific.⁴⁴ It is now generally agreed that the UNCLOS articles on these species reflect or embody existing customary international law. In the case of tuna, nearly all states in the world consider that this species falls within coastal state jurisdiction while present within the exclusive economic zone and that this is consistent with Article 64 of UNCLOS. As noted above, under Article 64 coastal states and other states fishing for tuna in a region are to cooperate to ensure conservation throughout the region, including the high seas.

The South Pacific states are clearly on record regarding their general views about the obligations of high seas fishing states concerning the harvest of tuna by driftnets. The Tarawa Declaration of 11 July 1989 by the South Pacific Forum states in relevant part:

"... recalling the relevant provisions of the 1982 Convention on the Law of the Sea, and in particular Articles 63, 64, 87, 116, 117, 118 and 119; ... recognizing that the use of driftnets as presently employed in the Southern Pacific Albacore Tuna Fishery is not consistent with international legal requirements in relation to rights and obligations of high seas fisheries conservation and management and environmental principles;

...resolves for the sake of this and succeeding generations of Pacific peoples to seek the establishment of a regime for the management of albacore tuna in the South Pacific that would ban

⁴³ For a brief review of some of the straddling stock problems, see: Miles and Burke, 1989, Pressures on the United Nations Convention on the Law of the Sea of 1982 arising from new fisheries conflicts: the problem of straddling stocks, *Ocean Dev. Int. Law*, 20:343; Burke, 1989, Fishing in the Bering Sea donut: straddling stocks and the new international law of fisheries, *Ecology Law Q.*, 16:285.

⁴⁴ The species are the same but the populations are distinct.

driftnet fishing from the region; such a ban might then be a first step to a comprehensive ban on such fishing."

These statements appear to mean that any driftnet fishing on the high seas for albacore tuna is inconsistent with some principle or principles of international law, but the suggested principles are not elaborated upon in this statement. The subsequently adopted Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, discussed below, also does not further identify these principles.

The states fishing for tuna on the high seas with driftnets would appear to be subject also to the "rights, duties and interests" of the coastal state within whose waters those tuna also occur. As a straddling stock, tuna may differ from coastal species in the sense that tuna may be caught on the high seas in areas much further removed from the coastal areas in which they also occur, making the relationship in stocks and fishing activities more difficult to establish. Assuming that relationship is established, however, the legal relationship of dominant right would otherwise seem the same.

The South Pacific Convention does not assert any jurisdiction by South Pacific Forum states over high seas driftnet fishing by other states on the high seas. These states obviously oppose this fishing and demand its termination, but other than the possible implications of the general language in the Tarawa Declaration they have not suggested that they have jurisdiction over the fishing itself on the high seas. The Convention is limited to an agreement by the states of the region, other states adjacent to it and states fishing in it to prohibit their nationals or registered vessels from conducting a driftnet fishery for tuna in the region defined in the treaty. It does not claim jurisdiction directly to prohibit that fishing and to enforce that prohibition. There seems to be no other evidence of such a claim to jurisdiction.

Article 65: Marine mammals

Marine mammals under UNCLOS are subject to coastal state sovereign rights within the exclusive economic zone in the same sense as any other living resources of the zone. However, in accordance with Article 65, the other provisions of the treaty regarding coastal state obligations to provide access to a surplus of such species do not apply to marine mammals. Although there may be mammals available for exploitation in the exclusive economic zone, because there is little or no local take allowed, there is no

obligation to permit foreign harvesting.⁴⁵ It is well-known that some marine mammals found within coastal state jurisdiction are also found on the high seas and are often taken in driftnet operations there. The analysis above regarding stocks subject to Article 116 and its provision for the superior right of the coastal state also appears to apply here. Article 120 makes Article 65 applicable to the conservation and management of marine mammals on the high seas.

In at least one instance the marine mammal problem is aggravated because the species concerned, the northern fur seal, has a special relationship with land areas subject to coastal jurisdiction and is now regarded as depleted by the United States. The northern fur seal bears its young on North Pacific island rookeries, which are territorial possessions of some bordering states. The rookeries are located on islands of the United States and the Union of Soviet Socialist Republics, with the largest populations found in the United States. These animals were formerly dealt with by the North Pacific Fur Seal Convention, which prohibited their being taken by pelagic fishing on the high seas, but that treaty has been allowed to lapse because of environmental opposition within the United States. In a sense these mammals have a similar life history as anadromous species, with the pronounced difference that parent fur seals survive the reproductive phase.

While these species are not currently the target of high seas pelagic fishing, it is reported that Japan has declared it may have to "undertake procedures by which to resume pelagic sealing".⁴⁶

Article 66: Anadromous species

Because of their importance to the North Pacific states, salmon fisheries and the provisions of Article 66 of UNCLOS merit specific comment. This species is especially important because it is vulnerable to high seas driftnet fishing, both as a target species and as incidental catch. Much of the concern about driftnet fishing in the North Pacific Ocean arises from the

⁴⁵ A prohibition against local and foreign harvesting of a stock might also be authorized by Art. 61 of the treaty, which contains broad language permitting the coastal state to regulate yields in accordance with environmental and economic factors. In addition, the coastal state is authorized to protect associated or dependent species. Such protection may require a complete cessation of fishing that takes such species.

⁴⁶ Zilanov and vylegzhanin, 1989, Termination of the interim convention on conservation of North Pacific fur seals of 1957, in *Soviet Yearbook of Maritime Law*, 79:86.

incidental catch of salmon in the squid driftnet fisheries of Japan, the Republic of Korea and Taiwan (Province of China). Japan has targeted salmon with driftnet gear for many years, and the practice has been regulated by agreement with the United States and Canada through the INPFC⁴⁷ and in a bilateral agreement with the Union of Soviet Socialist Republics.⁴⁸ Driftnet fisheries by other nations believed to be targeting salmon are also attracting opposition.

Article 66 provides that in the absence of agreement with the state of origin of anadromous species there shall be no fishing for such species on the high seas, i.e. beyond an exclusive economic zone. States that suffer from economic dislocation as a result of this prohibition, essentially Japan, may by agreement with the state of origin conduct such fisheries after consultations that achieve agreement on the terms and conditions of such fishing. After such consultations the host state shall establish the total allowable catch for such species to ensure conservation on the high seas. The terms of the agreement between fishing state and host state shall include measures to renew anadromous species, particularly by fishing state expenditures for that purpose. The fishing state reaching this agreement is to be given special consideration by the state of origin in harvesting stocks originating in its rivers. An agreement for high seas fishing must include provisions for enforcement of regulations in harvesting stocks on the high seas. Since such an agreement is a requirement for any high seas fishing at all, it is apparent that there would normally be no high seas fishing without provision for enforcement.

An initial question is whether Article 66 applies to the incidental catch of salmon by driftnets on the high seas. Article 66 confines "fisheries for anadromous stocks" to areas landward of the outer limits of exclusive economic zones, "except in cases where this provision would result in economic dislocation for a State other

than the State of origin." Does "fishing for" mean only target fishing on the high seas or does it also include incidental catch.

As a practical matter, the difference between target catch and incidental catch does not appear to be a significant one. Anyone concerned about conservation and the high seas take of salmon would not limit concern to how the fish are taken. It is enough to know that fishing on the high seas for one species is expected also to take another species in appreciable quantities.⁴⁹

Any such incidental catch of salmon on the high seas diminishes the number of fish returning to the state of origin and affects the conservation of the stock as well as the catch of the state of origin. High seas fishing states manifest their awareness of concerns over incidental catch through legislation that forbids retention of high seas-caught salmon as well as the landing of such fish.

Article 66 implies that it is applicable to all catches of salmon on the high seas. The state of origin may establish the total allowable catch of such fish, which would include the incidental catch in the normal management procedure. It is the coastal state that has the authority to establish regulations, and only the coastal state can know of the conservation needs of particular salmon fisheries. If a significant portion of the catch is beyond regulatory control, the coastal state cannot act to take adequate conservation measures; it can only take ineffective ones. Accordingly, Article 66 should be interpreted to extend to direct fishing and also to fish expected to be taken by harvesting in a particular fishery.

Under UNGLOS, the key question that arises for states parties in this connection concerns a state that, not having fished these stocks before, harvests high seas stocks of anadromous species in violation of the prohibition, or a state that, suffering economic dislocation, fishes without the agreement of the state of origin and in disregard of regulations that provide, *inter alia*, for a high seas catch of zero. In either case, such fishing would be in violation of the UNCLOS prohibition on high seas fishing and may be subject to sanctions for this violation by the state of origin. In such circumstances where the high seas fishing state acts in violation of the treaty, it cannot in good faith rely on the

⁴⁷ International North Pacific Fisheries Convention, signed 9 May 1952, 205 *UN Treaty Series* 65, amended in 1962, 14 *UST* 953; amended in 1978, 30 *UST* 1095; amended in 1986, 86 *Department of State Bulletin* (DSB) 73-74 (June 1986). For a discussion of the INPFC, see Sathre, *The International North Pacific Fisheries Commission: a thirty-year effort to manage high seas salmon and some suggestions for the future*, *Anadromous Fish Law Memo*, No. 29, May 1985.

⁴⁸ For a discussion of the Japan-USSR agreement see Milles, *et al.*, 1982, *The management of marine regions: the North Pacific*, 88:127. For the outcome of more recent negotiations see National Marine Fisheries Service (NMFS), *Japan-USSR salmon fishery cooperative agreements*, 1985-87, 2 April 1987.

⁴⁹ But there may well be disagreement about what is appreciable. A given number of fish or birds may appear to be absolutely large, but in fact may be relatively small. Thus, one million fish sounds like a great many, but it loses impact if it is considered as part of a population of several hundred million.

treaty provision concerning prior agreement to enforcement measures as a means of escaping the consequences of violation of the same treaty. To countenance such a sleight would make a mockery of international law.

The above assumes that the treaty spells out the obligations for the parties concerned. Otherwise the applicable law is customary international law regarding high seas salmon fishing. The pattern of state practice in the North Pacific appears to be well-established. All traditional high seas fishing and coastal states in the region, including Japan, claim jurisdiction on the high seas over anadromous stocks originating in their rivers. All states whose vessels fish on the high seas with driftnets for species other than salmon forbid the retention of salmon by their vessels. Thus, the high seas fishing states recognize the authority of the state of origin to exercise its fishery management jurisdiction over the taking of salmon on the high seas. To take salmon in disregard of host state regulations, including those establishing the total allowable catch, would be a violation of customary international law. As noted in the discussion of straddling stocks, appropriate enforcement measures would extend to the prevention of illegal fishing and, where necessary for effective management, to the apprehension of vessels conducting such fishing.

OTHER POSSIBLE ISSUES

Abuse of rights

A major issue concerns the possible invocation of the doctrine of abuse of rights. Article 300 of UNCLOS, entitled "Good faith and abuse of rights", provides: "States Parties shall fulfil in good faith the obligations assumed under this Convention and shall exercise the rights, jurisdiction and freedoms recognized in this Convention in a manner which would not constitute an abuse of right."

Since UNCLOS is not in force, this article cannot be the basis for specific contentions in relation to high seas driftnet operations. This might be significant as there is room for dispute about whether the doctrine of abuse of rights is a recognized customary international law principle to which recourse can be made in the absence of the treaty. Even if the Convention provision were available, it is not unlikely that dispute would arise over the meaning given to it, just as there might be such dispute regarding abuse of rights doctrine apart from the treaty.

There appears to be significant disagreement today

about the scope and meaning of the doctrine. A recent study outlined existing differences (footnotes omitted):

"Commentators on the abuse of rights tend to fall into three categories, representing quite different perspectives on the meaning and role of the doctrine. In its broadest formulation, abuse of rights is conceived as a general principle of the international law of torts. Kiss, in an influential work on the subject, asserted that the doctrine imposes limits on the exercise of rights where (a) interference with the correlative rights of other states results, (b) the exercise is for a reason other than that for which the right was conferred, or (c) the exercise is otherwise arbitrary. Friedmann described it as the substantive rule that states may not use rights 'in such a manner that its antisocial effects outweigh the legitimate interests of the owner of the right'. In effect, these advocates view abuse of rights as a 'jural postulate' which will determine wrongfulness in the interstices between developed prohibitory rules. A second group of publicists accepts abuse of rights as a viable rule of decision, but rejects this expansive perspective in favour of a narrow interpretation focusing on the purpose of the exercise of the right. In the words of Taylor, the doctrine operates only to prohibit the exercise of a 'power for a reason, actual or inferred, which is contrary to the purpose or purposes for which international law contemplates the power will be used'. The International Law Association (ILA) has expressed an even more restrictive version of this formulation, basing wrongfulness on an intent to injure: 'No one may exercise his rights in such a manner as to damage another when causing this damage is the purpose of exercising such rights. 'A significant number of commentators deny entirely the function of abuse of rights as a rule of decision. Schwarzenberger speaks simply of the absence of such a rule in international law. Brownlie advocates the more common perspective that 'the doctrine is a useful agent in the progressive development of the law, but that, as a general principle, it does not exist in positive law'. The logic of this position is quite compelling. When international law defines conduct as wrongful, it is by reference to rules such as the obligation to prevent environmental harm, which may reflect the logic of abuse of rights; it is not, however, by recourse to the abstraction of abuse of rights itself. This is precisely the view taken by the International

Law Commission (ILC) in their study of state responsibility. No separate examination of the doctrine of abuse of rights was deemed necessary, for if there were situations in international law in which the exercise of a right was subject to limits, that was because there was a rule which imposed the obligation to not exceed those limits, in other words, the abusive exercise of a right then constituted failure to fulfil an obligation."⁵⁰

The specific contentions that might be made in the driftnet context could relate to the various obligations of high seas fishing states discussed above. It is conceivable that some may allege that the mere use of driftnet gear is an abuse of the right to fish on the high seas because of its lack of selectivity and indiscriminate impact.⁵¹ Others may allege that the conduct of driftnet fishing without accompanying timely measures to determine its impact and to provide for needed conservation is a failure to carry out in good faith the obligation to conserve stocks on the high seas. Outright rejection by coastal states to negotiate with high seas driftnet states might be considered a lack of good faith in carrying out the obligation to cooperate for the conservation of high seas stocks.

It is difficult to consider that either of the latter contentions would support a charge of abuse of rights for the reason identified in the excerpt above. A failure to conserve stocks or to cooperate to that end when under a duty to do so are violations of the applicable principle, and it adds nothing to characterize them also as abuses of rights. This same difficulty might attend other attempts to invoke the abuse of rights in this context.

On the other hand, if coastal states act to interfere with driftnet fishing on the high seas by cutting nets or sabotaging gear in order to implement coastal state rights over particular stocks, it might be contended that this is an abuse of coastal state rights.

It is sufficient here only to mention these possibilities. The reality of invoking the doctrine, and the limits on it, would need to be assessed in the specific context in which it is advanced. The reservations about the doctrine summarized in the above excerpt should be considered.

⁵⁰ Smith, 1988, *State responsibility and the marine environment: the rules of decision*, p. 84-85.

⁵¹ Acceptance of this view would also challenge the use of driftnet gear within national jurisdiction. This position is now gaining advocates.

Impacts of driftnet regulation on the freedom of navigation

Claims could arise in connection with the rights of navigation, including questions about the denial of access to ports.

Access to ports is not a right protected by international law. Port states are authorized deny access or to place conditions on it as a means of achieving important interests. Denial of access is often employed as an economic sanction and as a means of promoting environmental protection. Denial of access to vessels employing or carrying driftnet gear would appear to be within the authority of a port state.

Another question could arise from attempts to prohibit the carriage of driftnet gear through areas subject to national jurisdiction. Would the mere presence of driftnet gear aboard a vessel passing through the territorial sea suffice for a coastal state to claim it to be non-innocent and to take action to prevent its passage? Carriage of fishing gear does not appear to be an "act" or to constitute a fishing activity. A claim of this kind therefore does not appear to be consistent with the formulation of the concept of innocent passage in UNCLOS.

The same conclusion would appear to follow if a coastal state sought to prohibit the transport of such gear through its exclusive economic zone. In the case of the zone, however, because of its large size, the coastal state may have a genuine interest in knowing about the presence of vessels carrying such gear so that local driftnet regulations can be effectively implemented. For this reason, a requirement of radio notification from vessels carrying this gear would fall within the regulatory competence of the coastal state in the exclusive economic zone. Article 62(4) of UNCLOS specifically provides for coastal state regulation of the type, size and amount of gear in the zone, as well as of the information required of fishing vessels in the zone. Such a notice requirement easily falls within these provisions.

A more difficult question perhaps is whether support vessels may be regulated similarly by coastal states. These vessels are not equipped for fishing, and as a result their presence in and movement through the zone does not engage coastal state interest in illegal use of driftnet gear within the zone. Questions might therefore justifiably be raised about the lawfulness of regulations impinging on fishing support vessels merely moving through an exclusive economic zone.

Regulations concerning loss or disposal of driftnets

As noted earlier, international agreements address the pollution of the marine environment from plastic materials, and driftnets are made of plastic. Although this problem is not considered to be an important one by scientists who have studied it nor by fishermen who otherwise oppose the use of driftnets, it is an element of the overall impact of driftnets and merits mention.

The major agreements on this subject are the London Dumping Convention, Annex V of MARPOL 1973/78 and UNCLOS. The first agreement defines dumping as "any deliberate disposal at sea of wastes or other matter", but excludes such disposal at sea of wastes "derived from the normal operations of vessels". Accordingly, this Convention might not apply to the accidental loss of driftnets, considering that their loss is incidental to the normal operation of the fishing vessel. There is opinion, however, that these terms were not intended to apply to this activity.⁵²

For the most part, but not entirely, it is clear that the Convention extends to the deliberate disposal of driftnets at sea. Annex I lists materials whose dumping is completely prohibited, including "persistent plastics and other persistent synthetic materials, for example, netting and ropes, which may float or may remain in suspension in the sea in such a manner as to interfere materially with fishing, navigation or other legitimate uses of the sea". The question here is whether discarded driftnets have an impact on fishing or on "other legitimate uses of the sea", which are not defined by the agreement. Substantial arguments can be made that discarded driftnets may have highly detrimental impacts on navigation (for example, by fouling a propeller so that engine power is lost, they can threaten human life). With respect to their impacts on fishing, discarded nets may threaten the maintenance of a safe environment for marine mammals as well as other animals, they may variously affect species taken by this gear and they may reduce the marketability of fish that escape from the nets in damaged condition and are later harvested by other gear.

Annex V of MARPOL 1973/78 concerns regulations for the prevention of pollution by garbage from ships and prohibits the disposal of "all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags", but excepts "the accidental loss of synthetic fishing nets or synthetic material incidental

to the repair of such nets, provided that all reasonable precautions have been taken to prevent such loss". This prohibition applies to all areas of the sea both within and outside national jurisdiction. Violations occurring outside national jurisdiction are the responsibility of the flag state. Annex V has recently come into force.⁵³ Although there might be some difficulty with enforcement for accidental losses incidental to repair, this agreement appears to apply to losses during fishing operations as well as to deliberate disposal.

UNCLOS employs general language enjoining states to adopt international rules and standards to prevent, reduce and control pollution of the marine environment. Article 210 provides that states shall endeavour to establish rules, standards and recommended practices for pollution by dumping. Dumping is defined to include deliberate disposal of wastes but to exclude wastes from the normal operation of ships. The latter might be interpreted to exclude the loss of driftnets.

One suggestion is that the requirement that states conserve living resources, including those on the high seas, "could be applied to encourage regulatory schemes that prohibit fishing in areas where entanglement of marine birds and mammals is a serious threat".⁵⁴ The applicability of this to high seas fishing may be questioned.

⁵² See Center for Environmental Education, 1987, *Plastics In the ocean: more than a litter problem*, p. 74.

⁵³ As of 31 December 1968 there were 38 contracting state. International Maritime Organization, *Statue of multilateral conventions and instruments in respect of which the International Maritime Organization or its Secretary-General performs depositary or other functions*, p. 77-78.

⁵⁴ Center for Environmental Education, *supra* note 52, p. 79.

III. The international legal framework for the conservation and management of living marine resources

Doris Ponzoni

Our review will focus essentially on the provisions of the 1982 United Nations Convention on the Law of the Sea (UNCLOS). This Convention establishes a certain number of rules that are designed to eliminate or mitigate the adverse effects of implementing the principles of national sovereignty and freedom of the high seas fisheries.¹

RESTRICTIONS ON THE FREEDOM OF FISHING ON THE HIGH SEAS

Freedom of fishing has been considered a basic freedom of the high seas for several centuries. The 1958 Convention on the high seas makes such a provision in Article 2, as does UNCLOS in Article 87.

For many years, the living resources of the sea were considered to be limitless and were fished without restriction, but the need for some form of regulation has gradually emerged. Fishing is no longer an unrestricted activity.

Conservation and cooperation obligations

The Geneva Convention on Fishing proposed essentially that states manage high seas fishing collectively.² The conservation of living high seas resources was defined as "the body of measures that permit maximum sustainable yield to optimize the supply of marine food and other products".³ However,

the response to this Convention was extremely reluctant and it only entered into force in 1966.⁴

UNCLOS essentially reiterates the provisions for the conservation of living resources of the high seas. Thus, all states are required to subject their nationals to measures that conserve the living resources of the high seas and to cooperate with each other in taking such measures.⁵

Though the Convention fails to define conservation, Article 119 stipulates that the conservation measures should be based on the most reliable scientific data and should permit the harvesting of species at levels that can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors.

It is interesting to note that these factors include fishing patterns and interdependence of stocks. Thus, attention should also be paid to the effects of the envisaged measures on species associated with or dependent on the harvested species, "with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened."

These provisions are particularly relevant for the regulation of driftnet fishing, which seems to produce a high incidental catch of marine mammals and other forms of marine life. It would therefore seem essential that the scope of the conservation measures extend beyond the targeted species.

UNCLOS provides for a mandatory procedure to settle disputes arising from the implementation of provisions for the conservation of living resources of the high seas. However, this procedure can only be initiated upon the request of a party to the dispute and not of any party to the Convention as envisaged in

The author is at the Faculty of Law, University of Brest (Western Brittany)

¹ Cf. de Klemm, 1988, L'évolution de la protection de la faune et de la flore marines dans les conventions internationales, in *Droit de l'environnement marin, développements récents*, Colloque de Brest, Société française pour le droit de l'environnement (SFDE), Paris, *Economica*, p. 29.

² Cf. Arts 1,3 and 4, Geneva Convention on Fishing. States whose citizens engage in high seas fishing must subject these to resource conservation provisions and are required to cooperate in adopting measures for the conservation of collectively exploited fish stocks.

³ Cf. *ibid.*, Art 2.

⁴ By 31 December 1988, 36 states had ratified or acceded to the Geneva Convention on Fishing, but these excluded all the major fishing nations.

⁵ Arts 117-118, UNCLOS.

Article 8 of the Geneva Convention on Fishing.⁶ Moreover, the Montego Bay Convention does not envisage the coordination of existing fishery bodies,⁷ but considers them favoured partners of the coastal state.

Finally, UNCLOS has not yet come into effect⁸ It therefore remains to be seen whether the obligations to focus on conservation and to cooperate in the conservation of high seas living resources are simply by agreement or based on customary law.

The customary nature of agreement obligations

In its ruling of 25 July 1974 on fisheries jurisdiction, the International Court of Justice, having recognized the preferential rights of Iceland to fish stocks in waters in the 12- to 50-mile zone, stipulates that the two states in dispute must ensure the conservation of the resources of this zone when negotiating a settlement.⁹

At the time, this zone was considered part of the high seas. The conduct adopted by states within the regional fishery commissions has only confirmed the need for international cooperation to ensure the rational management of fisheries.

As it is now quite clear that the obligations to conserve the living resources of the high seas and to cooperate in such measures are regulations that derive from international customary law and as such concern all members of the international community who have not expressly lodged their opposition, we may question the actual implementation of these regulations in connection with driftnet fishing. The very vagueness of the laws discussed testifies to their lack of effectiveness. What does conservation imply and how is cooperation in this area to be organized?

The fact that the flag state alone has the authority to

⁶ See also Art. 9, Geneva Convention on Fishing.

⁷ Cf. Nguyen Quoc D., P. Daillier & A. Pellet, 1987, *Droit international public, Librairie générale de droit et de jurisprudence* (LGDJ), Paris, p. 1 024.

⁸ On 31 May 1989 the Convention had been ratified by 40 nations (60 are needed for it to come into effect).

⁹ Cf. ICJ, Fisheries Jurisdiction Case, decision of 25 July 1974, *1974 ICJ Rep.*, No. 72: "It follows that even if the Court holds that Iceland's extension of its fishery limits is not opposable to the Applicant, this does not mean that the Applicant is under no obligation to Iceland with respect to fishing in the disputed waters in the 12- to 50-mile zone. On the contrary, both States have an obligation to take full account of each other's rights and of any fishery conservation measures the necessity of which is shown to exist in those waters. It is one of the advances in maritime international law, resulting from the intensification of fishing, that the former *laissez-faire* treatment of the living resources of the high seas has been replaced by a recognition of a duty to have due regard to the rights of other States and the needs of conservation for the benefit of all."

prescribe appropriate regulations and to enforce these on the high seas only reinforces our observation.¹⁰ The Third Conference on the Law of the Sea rejected the proposal that the high seas and their resources be internationalized along the same lines as ocean beds. Most of the states opposed the establishment of an international organization to regulate world fisheries.¹¹

We may still hold reservations about the practical validity of regulations that restrict the freedom of high seas fishing and consequently the use of driftnets, considering that almost 99 percent of living resources currently being commercially exploited are found within the 200-nautical-mile limit.¹²

The creation of exclusive economic zones or fishing grounds has mainly served to provide each coastal state with sovereign jurisdiction over the prospection, exploitation, conservation and management of the living resources in these areas.¹³ However, coastal state sovereignty has been restricted in certain cases.

RESTRICTIONS ON COASTAL STATE SOVEREIGNTY

Each coastal state is required to take appropriate conservation and management measures to avoid the overexploitation of living resources in its economic zone.¹⁴ It therefore has ample scope regulate driftnet fishing by its nationals and by other states authorized to fish in its waters.¹⁵

Coastal states are also required to cooperate in the harvesting of straddling stocks and transboundary species.

Management of straddling stocks

With regard to fish stocks located both in an economic zone and in an adjacent high seas area, the Convention stipulates that "the coastal State and the States fishing for such stocks in the adjacent area shall seek, either

¹⁰ Cf. CA. Fleischer, 1988, The new regime of maritime fisheries, *Recueil des cours de l'Académie de droit international* (RCADI), 2(209): 171-172.

¹¹ Cf. J. Carroz, 1980, Les problèmes de la pêche à la Conférence sur le droit de la mer et dans la pratique des Etats, *Revue générale de droit international public* (RGDIP), p. 724.

¹² *Ibid.*, p. 707.

¹³ Art 56, para. 1(a), UNCLOS.

¹⁴ As with high seas fishing, these measures should aim to maintain or restore the stocks of harvested species at levels that ensure maximum sustainable yield. The coastal states should also consider the impact of these measures on the species that are associated with or dependent on the targeted species. Cf. Art. 61, UNCLOS.

¹⁵ Cf. Art. 62, UNCLOS.

directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area".¹⁶ These stocks are often harvested with driftnets, particularly in the South Pacific.

It would seem, however, that the obligation to cooperate as specified in this article is less restrictive than that for the exploitation of shared stocks in the high seas. Article 63, paragraph 2, calls for mutual state understanding, while Article 118 lays down that the states should negotiate the necessary measures. Yet in reality many of the fish stocks often straddle an economic zone and the high seas.¹⁷

Moreover, Article 63, paragraph 2, fails to specify the conservation measures that the states should jointly seek to determine. As a result, there is room for considerable disagreement¹⁸

Finally, the jointly determined conservation measures only apply to the high seas, which means that the same stock may be governed by two different conservation regimes.

In the event of disagreement on the conservation measures applicable to the exploitation of straddling stocks beyond the 200-mile limit, some commentators have asserted that the coastal state may impose the conservation measures it has unilaterally adopted for its economic zone. They justify this by comparing Article 63, paragraph 2, with Article 116, which seems to grant "preferential" rights to the coastal state: "All States have the right for their nationals to engage in fishing on the high seas subject to... the rights and duties as well as the interests of coastal States provided for, *inter alia*, in Article 63, paragraph 2 ...".¹⁹

This interpretation of UNCLOS is akin to acknowledging that a coastal state may have a special interest beyond the 200-mile limit. This special interest, which was introduced in the Geneva Convention on Fishing, was subsequently incorporated in the concept of the exclusive economic zone as

witnessed by the emergence of Article 63, paragraph 2, at the Third Conference on the Law of the Sea.²⁰

There is no doubt that UNCLOS grants the coastal state higher authority than the fishing nations regarding the management of straddling stocks beyond the 200-mile limit. In the event of disputes, the parties concerned have recourse to a mandatory settlement procedure.

As UNCLOS has not yet come into effect, we should examine the conduct of the states in this connection. On the whole, they would appear to abide by the agreed provisions with a tendency to harmonize measures for the high seas and the exclusive economic zones.²¹

We can also assert that the obligation of all the states to cooperate in the conservation of straddling stocks beyond the 200-mile limit is a rule of international customary law. This provision is in fact essentially regulatory and can therefore serve as the basis for a general rule of law, particularly as national lines of conduct in this regard have been virtually uniform.²²

In contrast, the notion of coastal state special interest over living resources situated beyond its exclusive economic zone does not appear to have acquired customary validity. The recognition of Canada's special interest in certain bilateral treaties and in the text of the Convention on Future Multilateral Cooperation in the North-West Atlantic Fisheries is only by agreement²³

International regulation of the fishing of highly migratory species is also of interest to our study as tuna fishing is largely conducted with driftnets.²⁴

¹⁶ Cf. Art. 63, para. 2, UNCLOS.

¹⁷ Cf. M. Dahmani, 1987, *The fisheries regime of the exclusive economic zone*, p.114, Dordrecht, Martinus Nijhoff publishers: "The brevity of this article and the general terms of its provisions might suggest that fish stocks falling within this category are only exception. In reality, however, they are more likely to be the general rule."

¹⁸ *Ibid.*, p.114-115.

¹⁹ Cf. E.L. Milies & W.T. Burke, 1989, Pressures on the United Nations Convention on the Law of the Sea of 1982 arising from new fisheries conflicts: the problem of straddling stocks, *Ocean Dev. Int. Law*, 20(4):343-357.

²⁰ f. S. Oda, 1989, *International control of sea resources*, Dordrecht, Martinus Nijhoff Publishers, p. xxi. See also the article by J.L. Meseguer, 1982, Le régime juridique de l'exploitation des stocks communs de poissons au-delà des 200 miles, *Annuaire français du droit international* (AFDI), p. 885-899.

²¹ f. B. Kwiatkowska, 1988, Conservation and optimum utilization of living resources in the law of the sea: what lies ahead? *Proc. Law of the Sea Institute 20th Annual Conference*, TA Clingan, ed., p. 252-253, Honolulu, University of Hawaii Press.

²² *ibid.*, p. 259: "The character of an emerging principle of customary law could also be attributed to the obligation of the coastal and fishing states to cooperate (and certainly to "seek" to cooperate, as UNCLOS provides) with regard to the conservation of the coastal zone/high seas stocks."

²³ *ibid.*, p. 253 and p. 259-560. See also J.L. Meseguer, *op. cit.*, p. 890-895.

²⁴ This refers to the fishing of albacore (*Thunnus alalunga*) in the North and South Pacific and in the Atlantic and of swordfish in the Mediterranean. Cf. S. Labudde, 1989, *Strip mining the seas: a global perspective on driftnet fisheries*, Hawaii, Earthtrust; and *Report to Congress on the nature, extent and effects of driftnet fishing in the waters of the North Pacific Ocean*, May 1989, 87 pp. (typed document).

Fishing of highly migratory species

Article 64 of UNCLOS specifies that the coastal state and other states whose nationals fish in the region for highly migratory species must cooperate directly or through international organizations to ensure conservation and to promote optimum exploitation of these species both within and beyond the exclusive economic zone.

In this case the obligation to cooperate concerns the whole stock regardless of the economic zone/high seas boundaries. It also extends to the establishment of an appropriate international organization, where one does not yet exist, and to participation in the activities of such an organization. Even though the obligation to cooperate at the international level is not equivalent to an obligation to draw up an international treaty, it would appear to be more restrictive with regard to highly migratory species than to straddling stocks.²⁵

However, this applies in addition to the provisions of Part V of the Convention, that is, in addition to the provisions establishing coastal state sovereign fishing rights in their respective economic zones.²⁶ Clearly, therefore, the highly migratory species are governed by state sovereignty in the exclusive economic zone in the same way as the other living resources, despite the obligation to cooperate just described.

The conduct of the states has not been wholly uniform in this connection. While the majority of coastal states claim sovereign jurisdiction over all the living resources in their economic zone, some countries such as the United States of America and the Bahamas consider tuna species exempt from such sovereignty and subject only to regulation through international agreements.²⁷ The United States approach has led to disputes, particularly with Canada and Mexico.²⁸

²⁵ f. W.T. Burke, 1984, Highly migratory species in the new law of the sea, *Ocean Dev. Int Law*, 14(3): 281-283; and T. Scovazzl, 1985, Les espèces hautement migratrices et le droit International de la mer, *In Budislav Vukas, ed., Essays on the new law of the sea., Zagreb*, p. 281-282.

²⁶ refer to T. Scovazzl, op. cit., p. 278-282 for a study of the origin of Art. 64 at the Third Conference on the Law of the Sea.

²⁷ f. T. Scovazzl, op. cit., p. 282-286. For the rationale behind the American standpoint, see W.T. Burke, op. cit., p. 303-308.

²⁸ f. R.W. Rosendahl, 1985, The development of Mexican fisheries and its effect on US relations. *In R.B. Krueger and S.A. Riesenfeld, eds, The Developing Order of the Oceans, Proc. Law of the Sea Institute 18th Annual Conference*, Honolulu, University of Hawaii Press, p. 614-628. See also E.L. Miles & W.T. Burke, op. cit., p. 345-347. The attitude of the United States has not prevented the establishment within the Inter-American Tropical Tuna Commission of effective cooperation aimed at reducing the level of dolphin mortality in eastern Pacific purse-seines. See *Infra* from p. 36.

Despite these differences, a number of commentators consider that the attitude of the United States has not prevented the emergence of a rule of customary law whereby the coastal state holds sovereign jurisdiction over the highly migratory species within its economic zone, though this is tempered by an obligation to cooperate internationally.²⁹

Conservation of marine mammals

Marine mammals often are caught incidentally in large driftnets in the Pacific Ocean and the Mediterranean Sea.³⁰ Their exploitation may be more strictly prohibited, limited or regulated by the coastal state in its economic zone than the exploitation of other species.³¹ The authority to regulate their exploitation may be assigned to an international organization, but the article fails to define its competence within a state's economic zone or even to identify the appropriate organizations.³² Moreover, "States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study". Article 65 also applies to the high seas.

In practice, government conduct complies with the provisions of the Convention. Thus, the International Whaling Commission adopted a moratorium in 1982 prohibiting all forms of commercial hunting from 1986 until 1990, when the impact of the moratorium on cetacean stocks was to be assessed. The moratorium

²⁹ f. B. Kwlatkowska, op. cit., p. 253-254 and 260: "The question to be answered is, in particular, whether dissent by the US, as one of the world's major tuna fishing states, prevented the sovereign rights of the coastal state over tuna from acquiring the status of a customary law rule or whether such a rule emerged that the US has a title to claim that the rule doesn't apply to it... Yet, and with full respect to the commentators who maintain to the contrary, the circumstances of the present case seem to give us the ground to ascertain the customary nature of a principle providing for sovereign rights of the coastal state over highly migratory species, including tuna." See also L. Juda, 1986, The exclusive economic zone: compatibility of national claims and the UN Convention on the law of the sea, *Ocean Dev. Int Law*, 16(1): 26-27; and W.T. Burke, op. cit., p. 307-310.

³⁰ f. S. LaBudde, op. cit., p. 32: "Many species of marine mammals, and especially small cetaceans, are prone to capture and death in driftnets for a number of reasons."

³¹ f. Art. 65, UNCLOS.

³² f. M. Dahmani, op. cit., p. 112: "Article 65 does not define to what extent, if any, the competence of international organizations extends to the exclusive economic zone. Will such competence, for example, be confined to recommending conservation measures or will it extend further to prohibit or limit the catches of marine mammals in the exclusive economic zones?"

came into effect in 1988 despite the opposition of certain whaling nations.³³ Similarly, all commercial whale hunting was prohibited in the Indian Ocean in 1979 for a period of ten years, which was subsequently extended for another three years.³⁴

Whatever the limitations of international cooperation in this area, its usefulness has been clearly demonstrated by the conduct of numerous whaling and non-whaling nations.

Fishing of anadromous species

Anadromous fish species live in the sea and spawn in fresh water. Salmon, the main species, is often caught incidentally or even illicitly during squid driftnet operations in the North Pacific.³⁵

Article 66 establishes the principle whereby the state of origin of anadromous stocks has primary interest in such stocks and is responsible for their conservation and fishing both within the economic zone and on the high seas. The state of origin may, after consultations with other states fishing these stocks in their economic zone or on the high seas, establish total allowable catches for stocks originating in its rivers.

Anadromous stocks cannot normally be fished in the high seas, except in cases where this restriction would result in economic dislocation for a state other than the state of origin. In such cases the states concerned hold consultations "with a view to achieving agreement on terms and conditions of such fishing, giving due regard to the conservation requirements and the needs of the State of origin in respect of these stocks".

In any case, whether the fishing of anadromous species takes place within the economic zones or exceptionally in high sea waters, it is always subject to cooperation between the state of origin and the other states concerned to ensure the conservation and management of the species.³⁶

³³ or the functioning of the International Whaling Commission and the implementation of the 1982 moratorium, see S. Andresen, April 1989, Science and politics in the international management of whales, *Marine Policy*, p. 99-117.

³⁴ f. Phillips, January 1990, What the moratorium means in practice, *Marine Policy*, p. 94.

³⁵ *Report to the Congress of the United States on the nature, extent and effects of driftnet fishing in waters of the North Pacific Ocean*, op. cit., p. 54-55 and 57-59. See also S. LaBudde, op. cit, p. 26-29.

³⁶ or a more detailed examination of the agreed provisions, refer to M. Dahmani, op. cit, p. 93-98; see also P. Copes, July 1981, The impact of UNCLOS III on management of the world's fisheries, *Marine Policy*, p. 219.

Actual state conduct conforms to the Convention. Whether in the North Atlantic or North Pacific, the two major international conventions regulating salmon fishing recognize the primary interest and responsibility of the state of origin, limit high seas fishing and provide for international cooperation for stock conservation and management³⁷ Most of the literature seconds the customary nature of these rules.³⁸

Our analysis reveals that the agreed-upon rules for the conservation and management of living marine resources are somewhat vague, and therefore they can only serve as a theoretical framework for a future code for driftnet fishing on the high seas.

The international conventions for the protection of selected species or groups of animal species clearly apply to this fishing technique as large numbers of protected animals are incidentally caught and killed in driftnets.

PROTECTION OF MARINE ANIMAL SPECIES

Some of the conventions we shall examine prescribe particular protection methods, while others focus on the protection of selected species.

Conventions prescribing particular protection methods

Convention on the Conservation of Migratory Species of Wild Animals (the "Bonn Convention"). This Convention, which is intended to have worldwide coverage, was signed on 23 June 1979 and entered into force on 1 November 1983. It sets out to protect animal species that have "a significant proportion of members cyclically and predictably crossing one or more national jurisdictional boundaries". It is interesting to note the intentionally broad definition of migratory species adopted in the Convention.³⁹

This also applies to the definition of the endangered species that are listed in Appendix I of the Convention.⁴⁰

³⁷ The major conventions applying to salmon fisheries are the Protocol amending the International Convention for the High Seas Fisheries of the North Pacific Ocean, adopted on 25 April 1978 and effective from 15 February 1979, and the 1982 Convention for the Conservation of Salmon in the North Atlantic Ocean, which came into effect on 1 October 1983. For the content, see M. Dahmani, op. cit, p. 98-103.

³⁸ f. B. Kwiatkowska, op. cit., p. 254-255 and 260. For a dissenting opinion see C.A. Fleischer, op. cit, p. 153: "It may be doubtful whether the specific systems provided for in Articles 66 and 67 can be said to conform to general, non-conventional law."

³⁹ f. S. Lyster, 1985, *international wildlife law.*, Cambridge, Grotius Publications limited, p. 280-282.

These species are granted total protection throughout the territories of the Convention parties and, of particular relevance to this paper, they cannot be captured, hunted or fished in the high seas by vessels flying the flag of signatory states except in highly circumscribed situations.⁴¹

Appendix I includes four species of whale, one species of seal and certain species of sea birds and sea turtles. This is important as some of these species become entangled in long driftnets.⁴²

Appendix II lists species that have poor conservation status and require international agreements for their conservation and management, as well as other species that would significantly benefit from international cooperation.⁴³ The parties are simply invited to draw up international agreements for these species, for which the Convention provides appropriate optional guidelines.⁴⁴

At the time of its drafting Appendix II only included one dolphin species. During the last meeting of the Convention parties held in October 1988, the populations of the North and Baltic Seas and six other small cetacean species were added and the Scientific Council was requested to examine the conservation status of all other small cetaceans. An agreement, whose scope should subsequently be extended, has been reached on two porpoise species of the North and Baltic Seas.⁴⁵

Though the Bonn Convention is one of the most important conservation measures to be adopted, its impact has been limited by the slow pace of ratification and acceptance and also by state reluctance to conclude the envisaged agreements.⁴⁶

⁴⁰ rt. I, 1(e) defines these as species in danger of extinction throughout all or a significant part of their range.

⁴¹ f. S. Lyster, op.cit., p.283-288.

⁴² his refers particularly to *Diomedea albatrus*, an albatross species, and to *Dermochelys Coriacea*, a sea turtle species. Cf. S. LaBudde, op.cit., p.33-34; and Report to the Congress of the United States, op.cit.,p.65 and 73.

⁴³ f. Art. IV, 1 of the Convention.

⁴⁴ f. C. de Klemmm, op. cit., p.31; and A. Kiss, 1989, *Droit international de l'environnement, Paris Pédone*, p.234-235.

⁴⁵ f. W.F. Perrin, ed., October 1989, Newsletter of the cetacean specialist group, international Union for the Conservation of Nature, 5:12.

⁴⁶ f. A. Kiss, op. cit., p.235. By October 1989, 27 states had ratified or acceded to the Bonn Convention. For a detailed analysis of this Convention, refer to S. Lyster, op. cit., p.278-296.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This Convention, which was signed in Washington on 3 March 1973 and entered into force on 1 July 1975, is included in this paper as it strictly regulates the import, export and, for sea species, the introduction of specimens of a wide variety of animal and plant species from the sea.

Article 1(e) of the Convention defines introduction from the sea as "transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State".

CITES also employs lists. The species listed in Appendix I (those that are endangered and affected or likely to be affected by trade) are protected by a prohibition on all transactions that are primarily commercial. Their introduction from the sea requires a prior permit from the Management Authority of the state of import. This permit is only issued following proof that the specimen imported will not be used for commercial purposes and that its importation will not be detrimental to the survival of the species. Appendix I includes various whale and sea turtle species.⁴⁷ The regulations for the introduction from the sea of species listed in Appendix II are less restrictive but also require a certificate.⁴⁸

The parties must draw up periodic reports on the implementation of the Convention, which are then to be sent to its Secretariat. It should be noted however that the provisions of CITES do not apply to the transit or transshipment of specimens on the territory of a party when these remain under customs control.

Though there are a large number of parties to the Convention, its scope is somewhat limited by the possibility of entering reservations. Any state may, at the time of ratification, accession, acceptance or approval, enter a specific reservation with regard to any species included in the appendixes. In such a case it is no longer considered a party to the Convention with

⁴⁷ Cf. S. Lyster, op. dt, p. 247-249: "A permit will only be granted if a Scientific Authority of the state of introduction advises that it will not be detrimental to the survival of the species and if a Management Authority is satisfied that the other conditions for imports have been met The objective of these requirements is to ensure that whales, sea turtles and other threatened marine animals are not taken on the high seas and then brought into the territory of a party for commercial purposes."

⁴⁸ *ibid.*, p. 249-255.

respect to trade in the species specified in the reservation.⁴⁹

Also, CITES cannot prevent a national of a party state from accidentally catching small cetaceans or other protected sea animals and then throwing them back before returning to port. Ibis appears to be a common practice among fishermen.⁵⁰

Regional seas conventions of the United Nations Environment Programme. These regional conventions are umbrella agreements that aim to conserve and develop the overall marine and coastal environment of the respective regions, particularly through the establishment of specially protected areas to safeguard the rare ecosystems and the habitat of endangered or dwindling species.⁵¹ Some of these even refer to the protection of fauna and flora species that are being depleted, threatened or endangered.⁵²

So far two protocols have been adopted for the protection of species. However, as with the conventions they supplement, they only apply to maritime areas under national sovereignty or jurisdiction.⁵³

Only the Noumea Convention extends to the high seas that lie beyond the 200-mile zones. Article 14 prescribes that "the Parties shall, as appropriate, establish protected areas, such as parks and reserves, and prohibit or regulate any activity likely to have

adverse effect on the species, ecosystems or biological processes that such areas are designed to protect".⁵⁴

This extension of the Convention's validity to the high seas is not unlimited as its provisions cannot be applied to third-party states without their consent.

Though the Noumea Convention has not yet entered into force, it constitutes an original model for the global protection of wild marine species. As states appear to be increasingly interested in this type of regional convention, it may well be replicated.

Protected species

Cetaceans. Whale hunting is currently regulated by the International Convention for the Regulation of Whaling, which was adopted on 2 December 1946 and became effective on 10 November 1948.

This Convention established the International Whaling Commission, which convenes annual meetings for representatives of all the party states. It has the authority to regulate hunting by determining the protected species, the areas where hunting is prohibited, closed seasons, quotas, etc. These decisions are adopted with a three-fourths majority and are compulsory except for parties who lodge their opposition within a certain period.

The Commission has adopted a more conservationist stance over the years, mainly because of pressure from international public opinion and from certain governments such as that of the United States.

By the end of the 1970s the number of party states had increased considerably and the whaling nations were in a minority. Since then, a number of ecology-oriented non-governmental organizations have sent observers to Whaling Commission meetings.⁵⁵ The United States has become the Commission's "policeman" on the basis of the Pelly Amendment to the Fishermen's Protective Act of 1967 and the Packwood-Magnuson Amendment to the Fishery Conservation and Management Act of 1976, through which the Government of the United States may implement economic sanctions against states whose activities

⁴⁹ f. Art. XXIII of the Convention; and S. Lyster, op. cit., p. 262-264. Japan, for example, has entered reservations with regard to various whale and sea turtle species.

⁵⁰ f. W.F. Perrin, op. cit, p. 1-2.

⁵¹ f. M. Dejeant-Pons, 1987, Les conventions du Programme des Nations Unies pour l'environnement relatives aux mers régionales, *Annuaire français du droit international*, p. 689-718.

⁵² his refers to the Noumea Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Art. 14), established on 25 November 1986; and the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Art. 10), agreed on 21 June 1985.

⁵³ he Nairobi Protocol concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region was adopted at the same time as the Nairobi Convention (21 June 1985). It notably prohibits all forms of capture, detention or slaughter of duly listed wildlife species, including sea birds, whales, sea turtles and sea cows, and provides for cooperation among the parties to ensure the conservation of migratory species. The Cartagena Protocol concerning especially protected areas and wildlife was adopted on 18 January 1990 by a conference of plenipotentiaries. An ad hoc group of experts has been appointed to draw up various appendixes identifying the species to be protected, and these will subsequently be adopted by consensus at a future conference of plenipotentiaries. Cf. Council on Ocean Law, February 1990, *Oceans Policy News*, p. 4-5.

⁵⁴ he Convention on the Conservation of Nature in the South Pacific adopted in Apia on 12 June 1976 requires each contracting party to draw up a list of endangered native fauna and flora species so that these may be protected.

⁵⁵ f. S. Andresen, op. cit, p. 108-109: "The International Whaling Commission, once considered a "whaling club" In the 1980s, has become an international organization where the large majority of nations have no material interests at stake in whaling."

reduce the effectiveness of the International Whaling Commission's conservation measures.⁵⁶

Yet the Commission only managed to stop all forms of commercial hunting in 1982. This moratorium became effective in 1986 and was to last until 1990, when the situation was to be reappraised by the Commission in view of a possible resumption of hunting. Japan, the Union of Soviet Socialist Republics and Norway had initially refused to adhere to the moratorium, but subsequently withdrew their opposition following pressure from the United States.⁵⁷

In practice, however, the Whaling Commission has so far ignored the issue of small cetaceans, which are often caught up in driftnets.⁵⁸ For a number of years the parties have been discussing the Commission's jurisdiction over small cetaceans. The Convention itself specifies that it regulates the exploitation of whales, which it however fails to define. Some states have linked this issue to the revision of the Convention to make it more compatible with UNCLOS. These states reason that as the small cetaceans are mainly hunted in sovereign waters, their conservation is necessarily the responsibility of the coastal state concerned. Similarly, the Convention should no longer be applicable to these waters.⁵⁹

As matters now stand, small cetaceans are not adequately protected.⁶⁰ The Scientific Committee requested reports on the by-catch of these animals at the last meeting of the International Whaling Commission.⁶¹

⁵⁶ Cf. Contemporary practice of the United States, *Am. J. Int Law*, 82(3): 577-579, July 1988. See also S. Andresen, *op. cit.*, p. 111-112

⁵⁷ The moratorium does not however prohibit states from issuing special permits authorizing the slaughter, capture and treatment of whales for scientific research. Such authorizations are reported to the Commission, which can only adopt non-enforceable resolutions on the matter. Cf. P. Birnie, January 1989, Whaling negotiations and hardcore issues, *Marine Policy*, p. 69-70; and Phillips, *op. cit.*, p. 94.

⁵⁸ Cf. C.E. Carlson, June 1981, The international regulation of small cetaceans, *San Diego Law Rev.*, 21(3): 580-588.

⁵⁹ Cf. P. Burnle, *op. cit.*, p. 70-72; and C. Phillips, *op. cit.*, p. 94-95.

⁶⁰ We should recall that eight small cetacean species are listed in Appendix II of the Bonn Convention and that two porpoise populations of the North and Baltic Seas have already been the subjects of an agreement

⁶¹ C. Phillips, *op. cit.*, p. 95: "Several delegations raised the issue of driftnet fisheries and the very high level of incidental of cetaceans and other marine life that is associated with their use. The Scientific Committee requested reports of the by-catches of cetaceans in these fisheries."

Seals. The North Pacific fur seal seems to be the species most threatened by long driftnets used in this region.⁶² They are protected by the Interim Convention on the Conservation of North Pacific Fur Seals, which was adopted by Canada, Japan, the United States and the Union of Soviet Socialist Republics in Washington on 9 February 1957 and became effective on 14 October 1957.⁶³

The Convention prohibits pelagic sealing except in two cases: when the sealing is conducted for limited research purposes or when it is undertaken by coast-dwelling Indians, Ainos, Aleuts or Eskimos, in canoes, without the use of firearms and on the condition that the skins are not sold.⁶⁴

It is interesting to note that pelagic sealing is defined as the killing, taking or hunting of seals at sea in any manner whatsoever [Article 1 (1)]. This would appear to include by-catches in driftnet fisheries.

Similarly, provisions are made for high seas control by duly authorized officials of any of the parties. They may board, search or seize a contravening vessel flying the flag of another party (Article VI).

Finally, each party agrees that no person or vessel may use any of its ports for any purpose that violates the prohibition of pelagic sealing. The importation of or trade in skins from such sealing is prohibited within the territories of the parties (Article VIII).

Will the Commission established by the Convention be capable of tackling the new problem arising from the intensification of driftnet fishing?⁶⁵

The Mediterranean monk seal, which can also fall victim to swordfish driftnet fishing, is included in both Appendix I and Appendix II of the Bonn Convention.⁶⁶ Italy ratified this Convention on 26 August 1983.

Birds. Sea birds are only protected on the high seas by the Bonn Convention on migratory species. Appendix I of the Convention includes one albatross and one petrel species that are found in the North Pacific squid

⁶² Cf. *Report to the Congress of the United States*, *op. cit.*, p. 47-49: "Little information is available on the distribution and abundance of fur seals in the squid driftnet fishing area, however, in the eastern portion of the fishing area the incidental take and number of sightings have been higher than expected."

⁶³ The Convention that was agreed to for an initial period of six years has been regularly extended. Cf. S. Lyster, *op. cit.*, p. 40-41; and A. Kiss, *op. cit.*, p. 258.

⁶⁴ Cf. Arts III, II (3) and VII of the Convention.

⁶⁵ Cf. S. Lyster, *op. cit.*, p. 46. For a detailed analysis of the Convention, *ibid.*, p. 40-48.

⁶⁶ This seal species is on the brink of extinction.

fishing area,⁶⁷ therefore nationals of the party states are not allowed to capture these birds on the high seas.

CITES is similarly applicable, as the introduction of animals from the sea is quite strictly regulated.⁶⁸ Otherwise, the legal instruments specific to birds only apply to the territories of the party states.⁶⁹

All the provisions we have examined for the conservation of selected wildlife species do not amount to total protection for species threatened by driftnet fishing. Some species are omitted and the methods envisaged are either ineffective or fail to cover satisfactorily this form of fishing. However, there are now a number of measures that directly regulate driftnet fishing, an activity some consider non-selective and destructive.

MEASURES REGULATING DRIFTNET FISHING

Attempts have been made internationally and regionally to prohibit or regulate driftnet fishing.

International and regional measures

In the South Pacific. In 1989 the independent and trust territories of the South Pacific islands realized the potential danger for their economies of the intensive use of driftnets for albacore fishing off their coasts. They therefore adopted two resolutions for their region.

Resolutions. The first resolution was adopted in July 1989 during the meeting of the South Pacific Forum. The Tarawa Declaration aimed at prohibiting the use of driftnets throughout the South Pacific and requested the formulation of an international convention to create an area free from this destructive fishing gear.

In October 1989 a second resolution was adopted at the 29th South Pacific Conference in Guam. The unanimously approved resolution demanded that pelagic driftnet fishing be immediately prohibited in the area served by the Commission of the South Pacific to avoid the extremely damaging and indeed irreversible impact of this fishing technique on fish resources.⁷⁰

Though these resolutions are in no way legally binding, they have opened the path for a regional conference on the issue.

⁶⁷ *Report to the Congress of the United States*, op. cit., p. 60-66.

⁶⁸ See supra from p. 20.

⁶⁹ Cf. A. Kiss, op. cit., p. 260-265; and S. Lyster, op. cit., p. 62-87.

⁷⁰ Besides the South Pacific states, France, the United Kingdom, the United States, Australia and New Zealand also approved the Resolution.

Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific. The Wellington Convention was adopted on 24 November 1989 by the states and territories of the South Pacific. It should soon enter into force as this is conditional on the presentation of four ratification instruments.

The Convention aims to prohibit all fishing activities involving driftnets longer than 2.5 km.⁷¹ The definition of these activities is extensive.⁷² To this end, each party undertakes to prohibit its nationals and its flag vessels from engaging in driftnet fishing in the Convention area, which includes the fishing waters of the parties and high seas areas.⁷³

Each party also undertakes to prohibit the use of large-scale driftnets and the transshipment of fish captured with this method in the area under its jurisdiction.

Finally, each party may take other and stronger measures, provided these are consistent with international law.⁷⁴ Even stricter measures are not excluded.

These provisions, however, will not prevent nationals of third-party states from engaging in driftnet fisheries beyond the exclusive economic zones.⁷⁵ For this reason, two protocols were attached to the Wellington Convention to enable the states whose

⁷¹ In the South Pacific, the Japanese, Taiwanese and South Koreans fish for albacore tuna with driftnets that may extend to 60 km in length. Ecological organizations have referred to these as "walls of death". Cf. Driftnetting on the high seas, *Greenpeace International*, November 1989; and S. LaBudde, op. cit., p. 6-10.

⁷² Cf. Art 1 (c) of the Convention: "Driftnet fishing activities' means catching, taking or harvesting fish or attempting to do so with the use of a driftnet, fish searching and locating operations, transporting, transshipping and processing any driftnet catch and providing supplies to vessels equipped for or engaged in driftnet fishing."

⁷³ Cf. Art 1 (a) of the Convention.

⁷⁴ Cf. Art 3 (2) of the Convention. These measures include the prohibition of landing, treating or importing within its territory fish netted with driftnets, restricted port access for vessels equipped for driftnet fishing and the prohibition of possessing driftnets on board any fishing vessel within areas under its fisheries jurisdiction. We may question the compatibility of some of these provisions with positive international law.

⁷⁵ At the Wellington Conference, the Japanese representative declared that his Government would not be party to a prohibition on the use of driftnets as present scientific data were not sufficient to demonstrate the negative effects of driftnet fishing on albacore stocks. To demonstrate his good faith, however, he announced a two-thirds reduction in the number of Japanese vessels fishing in the South Pacific. The Republic of Korea also agreed to withdraw its vessels from the area and Taiwan (Province of China) accepted a reduction in the number of flag vessels.

nationals engage in driftnet fishing in the region to accept its major provisions.

Article 8 provides for the introduction of conservation and management measures for albacore tuna within the Convention area by the parties to the Convention, the nations engaged in distant water fishing and the other entities or organizations concerned. A meeting was to be held with all the parties in Oniara at the beginning of March 1990 to negotiate a management system for the albacore tuna stock and the protocols attached to the Convention. This would help reconcile the various negotiating positions, particularly in view of the increased international pressure against driftnet fishing that has developed since the conference.

United Nations Resolution 44/225. On 22 December 1989 the Second Commission of the United Nations General Assembly adopted by consensus Resolution 44/225 calling on all members of the international community to cease large-scale high seas driftnet fishing in the South Pacific by 1 July 1991 and elsewhere in the world by 30 June 1992 at the latest.⁷⁶

Resolution 44/225 also recommends that all relevant members of the international community cooperate to improve the collection of scientific data on the matter and analyse these data so that the situation can be assessed on 30 June 1991 and new regulatory measures can be agreed on. This vast programme involves the states, the appropriate international and regional organizations and of course the specialized agencies of the UN system. It would appear that much remains to be done in this area for there is a general lack of reliable scientific data on the impact of driftnet fishing on living marine resources.⁷⁷

Bilateral agreements

On 29 December 1987 the United States Government approved the Driftnet Impact Monitoring, Assessment and Control Act. This law stipulates that agreements must be negotiated on the control and evaluation of driftnet fishing operations in the South Pacific with governments whose nationals engage in such

operations. If no agreement had been reached by 29 June 1989, the President of the United States could have imposed an embargo on the importation of fish from these countries.⁷⁸

The adoption of this law was mainly motivated by the substantial by-catch of United States salmon by Asian vessels engaged in squid fishing. It has been effective, as three bilateral agreements have been signed with Japan, Taiwan (Province of China) and the Republic of Korea respectively. The United States-Japan agreement of May 1989 is the least restrictive of the three, for it provides for the placement of observers on board only 32 of the estimated 400 Japanese vessels in the North Pacific. Vessels engaging in illegal salmon fishing are liable to penalties.

The other two agreements, with Taiwan (Province of China) on 24 August 1989 and with the Republic of Korea in September 1989, establish programmes for scientific observers. As well, all fishing vessels are to be equipped with a satellite navigation system by 1990, the nets used are to be marked and United States officials are authorized to board and inspect the vessels.

Even though these agreements disappointed the ecology lobby, they do represent a first step toward solving the problem of high seas driftnet fishing.⁷⁹ A number of regional fishery commissions have also begun to look into this problem and their actions may subsequently prove to be particularly important.

THE ROLE OF REGIONAL FISHERY BODIES

International North Pacific Fisheries Commission

Since 1978, when the protocol amending the International Convention for the High Sea Fisheries of the North Pacific Ocean was adopted, the International North Pacific Fisheries Commission has been responsible for promoting and coordinating scientific studies on anadromous fish species. It also serves as a cooperation framework for the study, analysis and exchange of scientific information on non-anadromous fish resources. Therefore, this Commission could deal with driftnet fisheries in the North Pacific as well. The contracting parties would also like to establish an international organization with a larger membership to manage species other than anadromous fish.⁸⁰

⁷⁶ Cf. United Nations Doc. A/C.2/44/L81, 11 December 1989.

⁷⁷ Cf. *Report to the Congress of the United States*, op. cit, p. XV and 87; see also S. LaBudde, op. cit, p. 4: "Because of the limited amount of data available on the activities of the driftnet fleets and the lack of information on historic levels of species populations within marine ecosystems, it has been virtually impossible to the real impacts posed to data by these fisheries."

⁷⁸ "This conforms to the Pelly Amendment to the Fishermen's Protective Act of 1967.

⁷⁹ "Cf. S. McCredie, November 1969, Controversy travels with Asian squid driftnet fleet, *National Fisherman*.

⁸⁰ Cf. J.E. Carroz, Institutional aspects of fishery management under the new regime of the oceans, *San Diego Law Rev.*, 21(3): 524.

Inter-American Tropical Tuna Commission

The Inter-American Tropical Tuna Commission has been responsible for the scientific study of dolphin management since 1976. A research programme was established in 1977 with the participation of all Commission members and non-member states whose nationals engage in tuna fishing in the East Pacific.

The programme's main objective is to reduce the high level of dolphin mortality caused by purse-seine tuna fishing in the area. Techniques now have been developed to reduce the mortality level and have been tested on board vessels fishing in the area. One such technique allows the dolphins to escape from the nets before they are lifted.⁸¹

Ideally, the cooperative spirit that produced these results should be extended to the negotiations on driftnet fishing.

International Commission for the Conservation of Atlantic Tunas

During its last session in November 1989, the International Commission for the Conservation of Atlantic Tunas (ICCAT) decided to implement a special three-year scientific research programme on the status of albacore stocks in the North Atlantic and on the impact of various fishing techniques on these resources. This was largely a result of increasingly strong European concern about the use of driftnets in the Atlantic.

A number of French vessels have been using driftnets since 1987 to fish albacore tuna in the Bay of Biscay, which has helped to revive the French tuna fleet. However, Spain has opposed their use on the grounds that they endanger stocks and interfere with tuna migration,⁸² and has tried to have driftnets banned from European Economic Community (EEC) waters.

As a result of this conflict, the EEC Director-General of Fisheries has requested IFREMER (Institut français pour l'exploitation de la mer) and the Spanish Institute of Oceanography to conduct research to be published in September 1990 and communicated to ICCAT.

The issue became even more contentious with the concurrent actions of the Greens in the European Parliament and the EEC Director-General of Fisheries,

⁸¹ Cf. Inter-American Tropical Tuna Commission, *Rep. Costa Rica tuna-dolphin workshop*, 14-16 March 1969, La Jolla, California, April 1989.

⁸² This is not a matter of by-catches of marine animals since the driftnets used in the Atlantic Ocean to fish albacore have an average length of 6.5 km.

who on 6 February 1989 submitted a text prohibiting the fishing of tuna, billfish and swordfish with driftnets in EEC waters. This proposal was vetoed by the French but will be retabled, and such a prohibition may well be adopted at the European level.

At the national level, Spain, which is a member of ICCAT, has prohibited tuna driftnet fishing in its coastal waters. Italy, which is a member of the General Fisheries Council for the Mediterranean, has prohibited the driftnet fishing of swordfish from 1 November 1989 to 31 March 1990, with a possible extension.⁸³

Other regional fishing commissions are examining the issue of driftnet fishing on the high seas, for example, the Indian Ocean Fishery Commission and the General Fisheries Council for the Mediterranean.

These commissions clearly will play an important role in collecting and examining in-depth scientific data on the impact of driftnet fishing on living marine resources and will constitute important fora for the design of appropriate regulations for each type of fishing.

CONCLUSION

The focus on the impact of driftnets on fish stocks and other forms of marine life has only emerged recently, since the intensification of this form of fishing in the Pacific Ocean. Hence, the limited number of corresponding legal provisions to date.

The issue has nevertheless grown very swiftly to international proportions, involving in its wake the coastal and fishing states, international organizations and regional fishery commissions. It will therefore become a substantially important matter in the future and should be closely monitored by legal experts.

It is already clear from agreement texts and state conduct that the freedom of high seas fishing is now subordinate to the need to conserve living marine resources. Driftnet fishing will therefore be the focus of increasingly strict international regulations and perhaps even prohibitions.

In the meantime it is up to the scientists to clarify the important aspects of this fishing technique. They will need to work in tandem with the legal experts if the rational management of living marine resources and human activities is to become a reality.

⁸³ Italy's decree of 25 October 1969 provides for three scientific studies on the matter. This prohibition appears to serve little real purpose given that swordfish trawling takes place during the summer.

IV. International legal issues concerning the use of driftnets with special emphasis on Japanese practices and responses

Kazuo Sumi

Driftnet fishing is a passive fishing method using gillnet, other net or a combination of nets. Its purpose is to enmesh fish in net left to drift in or on the surface of the water. This time-tested fishing method is suitable for catching fishery resources existing in large areas with low density. For this reason, driftnet fishing can be found in almost all coastal waters throughout the world.

In spite of its use for over a century, driftnet fishing has recently suffered harsh criticism from so-called environmentalists. Their accusations tend to be directed toward high seas driftnet fishing, which is a type of fishery using gillnets on the high seas.

First, driftnet fishing is accused of being an indiscriminate and destructive fishing method. Since high seas driftnets generally deployed are from about 10 m deep and up to 50 km in length, they hang in the water like large curtains. For this reason they are called "walls of death". According to Earthtrust, an environmental group in the United States of America: "By catching and killing virtually everything in an area that moves, driftnets are able to capture entire schools of fish, decimate species of wildlife and other non-target fish, and effectively depress the populations of some species to the point that annual recruitment and reproductive rates cannot maintain pace with the losses suffered in the course of the fishery. When this happens, species become depleted and, under continued fishing pressure, a downward spiral in population size develops, resulting in commercial or biological extinction."¹

Second, driftnet fishing is criticized for the alleged high rate of incidental catch of non-targeted species. In this context there persists a strong dissatisfaction with Asian squid driftnet fishing in the North Pacific, particularly among United States fishermen. They claim that salmonoids originating from the United States (salmon and steelhead trout) are being "fishnapped". Supporting this claim,

the environmental group Greenpeace insists that "action should be taken through the implementation of federal legislation, the strengthening of an international fisheries convention and other measures to gain regulation of the squid driftnet fleets and further mitigate the impacts of the salmon driftnet fisheries".²

The third accusation is related to the functioning of lost or discarded nets. It is claimed that since driftnets are made of fine monofilament nylon mesh, they will continue to fish permanently when they are lost or discarded. For this reason, they are called "ghost nets". Greenpeace points out that "lost and abandoned driftnets, combined with discarded trawlnets, other fishing gear, plastics and additional debris floating in the sea, entangle and kill thousands of seals, cetaceans, sea birds, marine turtles and fish every year".³

During testimony before the Committee on Commerce, Science and Transportation in the United States Senate, Mr Kate Troll, executive director of the Southeast Alaska Seiners Association, stated: "The very long nets used in this fishery are easily damaged or lost in rough weather. The discarded and lost nets continue to fish day after day and year after year. When the net accumulates too many birds, mammals and fish, it sinks, but as the dead carcasses rot, the net rises to the surface and begins to fish again. The cycle of death and destruction goes on long after nets have been abandoned by the high seas fleets."⁴

The author is a professor of international law at Yokohama City University, Japan

¹ Earthtrust, 17 May 1989, *Statement of Earthtrust to the United States Senate Committee on Commerce, Science and Transportation on the Magnuson Fishery Conservation and Management Act Reauthorization*, p. 17.

² Greenpeace, February 1989, *North Pacific high seas driftnet fisheries*, p. 1.

³ Greenpeace, Spring 1989, *Pacific campaign: driftnets*, p. 1.

⁴ Kate Troll, 17 May 1989. *Testimony before the US Senate Committee on Commerce, Science and Transportation and National Ocean Policy Study*, p. 2.

Fourth, there is criticism that the drop-out rate of driftnet fishing is so high that it is an inefficient and wasteful fishing method. This is supported by the following statement: "Driftnet fishing is a highly wasteful fishing technology. For example, as much as 40 percent of the catch in the South Pacific tuna fishery falls out of the net while it is being hauled back into the boat. Many of these lost fish eventually die or are caught later by longline or troll fisheries. However, since they are often badly net-scarred, these fish are unmarketable."⁵

Fifth, it is claimed that since driftnets range from 11 to 48 km each in length, they may be a source of navigational hazard. According to Greenpeace: "In the Bering Sea and around New Zealand there have been documented cases of propeller shafts and vessel intakes being fouled by floating net fragments. Several fishermen have lost their lives trying to untangle propellers fouled by driftnets. They have also claimed the lives of divers."⁶

The above-mentioned concerns have led to conflict between pelagic driftnet fishing nations and coastal fishing nations. The target species involved differs from region to region, for example, salmon and squid in the North Pacific and albacore tuna in the South Pacific. Despite this difference, however, a common thread running through all situations is that coastal fishing nations are trying to impose some regulations on high seas fishing outside the range of their respective exclusive economic zones.

Under such a situation, there is some doubt about the appropriateness of the historic concept of freedom of the high seas. The Government of New Zealand states that "the freedom of the high seas cannot be invoked to protect what is in effect a systematic assault on the regional marine ecosystem."⁷

Likewise, the Australian Government says that "if we are to achieve effective control of high seas fisheries, Australia believes that the time has come to elaborate a series of principles that might eventually form a part of customary international law to regulate high seas fishing activities."⁸

Therefore, the antidriftnet propaganda campaign is

intended to challenge the traditional principle of freedom of the high seas itself. Consequently, what needs to be examined is whether the long-lived principle of freedom of the high seas is outdated, and if so, what type of legal system should be adopted as an alternative to regulate human activities on the high seas.

In this paper, the intention is to examine the grounds for the accusations against driftnet fishing and, based upon these examinations, to consider whether the imposition of a complete ban on high seas driftnet fishery is needed. In addition, the paper will proceed to consider possible resource management mechanisms that may be adopted by the international community in response to increased global concerns about the conservation of the living resources of the high seas.

UNITED NATIONS RESOLUTION 44/225

In 1989, during the 44th session of the UN General Assembly, the United States presented a draft resolution calling for the "immediate ban" or "moratorium" on driftnet fishing.⁹ It was cosponsored by ten countries, including New Zealand, Australia, Canada and Vanuatu. In opposing the proposed moratorium, Japan submitted a counterproposal, suggesting that regulatory measures to be taken should be based upon scientific data or analysis.¹⁰

As a result of a compromise between the United States and Japan, Resolution 44/225, "Large-scale pelagic driftnet fishing and its impact on the living marine resources of the world's oceans and seas", was adopted by the UN General Assembly on 22 December 1989. Operative paragraph 4 of the Resolution recommends, *inter alia*, the following:

"(a) Moratoria should be imposed on all large-scale pelagic driftnet fishing on the high seas by 30 June 1992, with the understanding that such a measure will not be imposed in a region or, if implemented, can be lifted should effective conservation and management measures be taken based upon statistically sound analysis to be jointly made by concerned parties of the international community with an interest in the fishery resources of the region, to prevent unacceptable impacts of such fishing practices on that region and to ensure the conservation of the living marine resources of that region;

⁵ Greenpeace Australia, 1969, *Ocean ecology: driftnets*, p. 1.

⁶ *Ibid.*, p. 2.

⁷ Government of New Zealand, September 1990, *Statement on driftnet fishing* (paper submitted to the United Nations Office of Ocean Affairs and the Law of the Sea), p. 7.

⁸ Australian Government, 1990, *Australia's comments on United Nations Resolution 44/225 on driftnet fishing*, p. 6.

⁹ UN Doc A/C. 2/44/L.30

¹⁰ UN Doc. A/C. 2/44/L.28.

- (b) Immediate action should be taken to reduce progressively large-scale pelagic driftnet fishing activities in the South Pacific region with a view to the cessation of such activities by 1 July 1991, as an interim measure, until appropriate conservation and management arrangements for South Pacific albacore tuna resources are entered into by the parties concerned;
- (c) Further expansion of large-scale pelagic driftnet fishing on the high seas of the North Pacific and all the other high seas outside the Pacific Ocean should cease immediately, with the understanding that this measure will be reviewed subject to the conditions in paragraph 4 (a) of the present resolution."

A report on the implementation of this Resolution is to be submitted by the UN Secretary-General to the 45th session of the General Assembly. In July 1990, the United States Department of State presented the UN Office of Ocean Affairs and the Law of the Sea with a paper entitled "US policy concerning large-scale pelagic driftnets." The following position on this problem is expressed in it:

"The absence of suitably reliable data for impacts assessment will not justify continued large-scale pelagic driftnet fisheries beyond the 30 June deadline for the moratoria.

Unless joint assessment by all concerned members of the international community of scientifically sound data from a specific large-scale pelagic driftnet fishery concludes there is no reasonable expectation of unacceptable impacts by that fishery, the conditions of relief from the moratorium recommended in UNG A 44/225 are not met. In this event, such a pelagic driftnet fishery cannot operate legitimately in areas beyond the exclusive economic zone of any nation after 30 June 1992.

Even when such a joint assessment concludes that no unacceptable impacts are likely, a large-scale pelagic driftnet fishery should only be conducted pursuant to adequate monitoring and enforcement agreements between interested members of the international community."¹¹

From a similar viewpoint, the Australian Government submitted to the UN Office of Ocean

Affairs and the Law of the Sea the following comments on Resolution 44/225:

"Australia now sees the need for the development of a cooperative framework which would recommend some international minimum standards for the conduct of high seas fishing operations, in particular, to prevent indiscriminate and wasteful fishing techniques and the overexploitation of high seas fisheries. We emphasize that this needs to be a cooperative framework put together by fishing nations and coastal states of the regions concerned.

Australia believes that we have reached the point where we know enough about the effects of high seas pelagic driftnet fishing to proceed with the prohibitions contained in the UNG A resolution. We are in no doubt that driftnet fishing on the high seas should be condemned as an indiscriminate and wasteful fishing technique."¹²

As is known from the criticisms of driftnet fishing cited above, the problem in essence has not yet been resolved even after the adoption of Resolution 44/225. There remains a difference of opinion between countries calling for a complete and immediate ban on driftnet fishing and those calling for conclusive scientific evidence on the effects of driftnet fishing. More fundamentally, a perception gap concerning driftnet fishing remains wide between countries with fish-based diets and those with meat-based diets.

HIGH SEAS FISHERY AND THE LAW OF THE SEA

Freedom off fishing on the high seas

The principle of freedom of the high seas is one of customary international law. It includes freedom of fishing and freedom of navigation on the high seas. Article 2 of the 1958 Convention on the High Seas embodies this principle in the following terms:

"The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, *inter alia*, both for coastal and non-coastal States, the freedom of navigation, the freedom of fishing, the freedom to lay submarine cables and pipelines and the freedom to fly over the high seas.

These freedoms, and others which are recognized by the general principles of international law, shall be exercised by all States with reasonable regard to the

¹¹ United States Department of State, July 1990, *US policy concerning large-scale pelagic driftnets*, p. 3 and 6.

¹² Australian Government op. cit, p. 6.

interests of other States in their exercise of the freedom of the high seas."

In relation to driftnet fishing, two questions are posed under this article: whether a specific type of fishing gear may be excluded from its use, and if not, whether driftnet fishing is compatible with other uses of the high seas.

With respect to the former question, it must be noted that this article imposes no qualification on fishing gear. Freedom of fishing may be extended to all types of fishing gear without exception.

With respect to the latter question, it is true that the freedom of fishing, as all others of the high seas, is not unrestricted. A country exercising this freedom must pay reasonable regard to the exercise of the same or other freedoms by other countries, since driftnets are set in large high seas areas and may be navigational hazards. This problem of compatibility, however, may be solved by designating fishing zones.

The same is true of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas. Article 1 of the Convention states as follows:

"1. All States have the right for their nationals to engage in fishing on the high seas, subject (a) to their treaty obligations, (b) to the interests and rights of coastal States as provided for in this Convention, and (c) to the provisions contained in the following articles concerning conservation of the living resources of the high seas.

2. All States have the duty to adopt, or to cooperate with other States in adopting, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas."

In this article, while the right of countries to fish on the high seas is clearly declared, the obligation to conserve the living resources of the high seas is also enunciated. However, the 1958 Convention has not been widely accepted. Therefore, what should be examined is whether this obligation is to be considered part of customary international law.

Obligation to conserve the living resources off the high seas

Whether countries involved in high seas fishing should take conservation measures on the high seas was one of the items discussed in the Fisheries Jurisdiction Case between the United Kingdom and Iceland. On this point, the International Court of Justice declared:

"It follows that even if the Court holds that Iceland's

extension of its fishery limits is not opposable to the Applicant, this does not mean that the Applicant is under no obligation to Iceland with respect to fishing in the disputed waters in the 12- to 50-mile zone. On the contrary, both States have an obligation to take full account of each other's rights and of any fishery conservation measures, the necessity of which is shown to exist in those waters. It is one of the advances in maritime international law, resulting from the intensification of fishing, that the former *laissez-faire* treatment of the living resources of the sea in the high seas has been replaced by a recognition of a duty to have due regard to the rights of the States and the needs of conservation for the benefit of all. Consequently, both parties have the obligation to keep under review the fishery resources in the disputed waters and to examine together, in the light of scientific and other available information, the measures required for the conservation and development and equitable exploitation of those resources, taking into account any international agreement in force between them, such as the North-East Atlantic Fisheries Convention of 24 January 1959, as well as such other agreements as may be reached in the matter during the course of further negotiation."¹³

This decision confirms the existence of the principle that countries fishing on the high seas are obliged to conserve the living resources affected. Such a duty is no longer regarded as only a treaty obligation, but as a general obligation owed to the international community as a whole. In other words, it is considered a norm of customary international law.

This kind of obligation is incorporated in Article 117 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) in the following terms: "All States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas."

This article embodies the general principle under the customary law of the sea that high seas fishing countries have the duty to take conservation measures on the high seas, either for their own nationals alone or in cooperation with other nations for their nationals together.

¹³ International Court of Justice, 1974, *Reports of Judgements, advisory opinions and orders*, p. 31.

Obligation to cooperate

As is shown in Article 117, the basic policy of UNCLOS with respect to the conservation of living resources on the high seas is to leave conservation measures up to individual fishing nations, which are obliged only "to cooperate with" other nations in taking these measures. The same basic philosophy is reflected in Article 118, which provides as follows: "States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, cooperate to establish subregional or regional fisheries organizations to this end."

Under this article, fishing nations are obliged only to "cooperate" and to "enter into negotiations" In addition, with regard to the establishment of subregional or regional fishery organizations, the obligation is qualified by the words "as appropriate" Thus, with respect to the conservation of living resources of the high seas, individual fishing nations are obliged to take measures for their own nationals, but with regard to measures adopted in coordination with other nations only to cooperate and enter into negotiations.

Conservation measures

Another question involves whether the conservation measures mentioned in Article 118 are limited to an exchange of information and cooperation in research or whether they include actual adoption of joint regulations and management policies. In considering the matter, noteworthy is Article 119 of UNCLOS, which covers the measures to be taken for the conservation of living resources of the high seas. The article provides:

"1. In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, States shall:

(a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns,

the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

2. Available scientific information, catch and fishing effort statistics and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned.

3. States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State."

The provisions of this article set forth the measures to be taken for the purpose of conserving the high seas living resources. These measures include: the determination of the maximum sustainable yield as qualified by relevant environmental and economic factors, that is, determination of optimum yield for target species; the regulation of fishing effort within the determined level; due consideration of the effects of fishing on associated or dependent species; and the exchange of statistics and other scientific information.

Article 119, however, does not identify who should determine the allowable catch for the stock of interest. Instead it is left to the countries concerned to determine the nature and extent of the conservation measures to be employed in the high seas fishery.

It must be realized, therefore, that all these steps require agreement among all countries involved as to precisely what is called for. In addition, even the obligation to exchange statistics and scientific information through an international fisheries organization, which would be the primary prerequisite for any serious attempt at joint conservation and management, is qualified by the phrase "where appropriate".

Are unilateral measures justifiable?

Under positive international law, nothing prevents high seas fishing countries from employing driftnet gear. In the cause of conservation needs, however, some coastal nations are trying to regulate or ban the use of pelagic driftnets on the high seas, that is, beyond their 200-nautical-mile exclusive economic zones.

The practice of attempting to impose fishery regulations outside the area of national jurisdiction is not a new phenomenon. Ever since the concept of

territorial seas was established in the eighteenth century, the issue of fishery regulation outside these areas has been a subject of consistent debate.

However, it should be noted that all attempts by coastal nations to unilaterally extend their jurisdiction into the high seas areas have been firmly rejected in international courts. Take for example the following decision handed down by the international arbitral tribunal regarding the conflict between the United Kingdom and the United States over fur seal hunting in the high seas area of the Bering Sea: "The United States does not have any right of protection or property for the fur seals frequenting the islands of the United States in the Bering Sea when such seals are found outside the ordinary three-mile limit."¹⁴

The clear precedent set by this example could not possibly have been erased by Article 7 (1) of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas.¹⁵ In other words, the signing of the 1958 Convention did not in any way establish a basis in customary international law for coastal states to unilaterally extend their jurisdiction into the high seas areas adjacent to their territorial seas. In fact, many nations, including Canada, the Union of Soviet Socialist Republics, France, the Federal Republic of Germany, Norway and Japan, expressed reluctance to participate in the 1958 Convention because of their dissatisfaction with Article 7 (1).

In this respect, even the UNCLOS provisions do not change the customary law of the sea. Especially relevant to the issue is Article 63 on the use and management of straddling stocks, which occur both within an exclusive economic zone and an adjacent high seas area. Article 63 (2) provides: "Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the

¹⁴ John Baseett Moore, 1989, *International arbitrations*, Vol. 1, p. 939.

¹⁵ Art 7 (1) of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas reads: "Having regard to the provisions of paragraph 1 of Article 6, any coastal State may, with a view to the maintenance of the productivity of the living resources of the sea, adopt unilateral measures of conservation appropriate to any stock of fish or other marine resources in any area of the high seas adjacent to its territorial sea, provided that negotiations to that effect with the other States concerned have not led to an agreement within six months."

measures necessary for the conservation of these stocks in the adjacent area."

With regard to the conservation of straddling stocks, this provision clearly obliges the coastal nation to seek agreement on appropriate conservation measures either directly with the pelagic fishing nations or through a regional or subregional organization if such an organization exists.

An important point to remember, however, is that the provision does not commit the coastal nation or the pelagic fishing nations to "agree" on such appropriate conservation measures, but merely to "seek to agree" on them. Thus, if they participate in negotiations they cannot be found in violation of Article 63, even if these negotiations fail to produce such an agreement. If, on the other hand, any nation refuses to enter into such negotiations or concludes without really trying to reach an agreement "in good faith", then a question arises with regard to Article 63.

Applicability of the "objective regime" concept

Although the law of the sea clearly rejects any possibility of unilateral extension of a coastal state's jurisdiction over the high seas, another question that remains to be examined is whether or not a regime created among certain parties in the international community can produce effects *erga omnes*. If the concept of the "objective regime" is applicable to a regime that is created in a certain high seas area and that intends to regulate or ban driftnet fishing in that area, then the regime may affect non-parties.

In the South Pacific, the creation of such a regime was designed in the Tarawa Declaration, which was adopted by the 20th South Pacific Forum on 11 July 1989. The Declaration states in relevant part:

"...recognizing that the use of driftnets as presently employed in the Southern Pacific Albacore Tuna Fishery is not consistent with international legal requirements in relation to rights and obligations of high seas fisheries conservation and management and environmental principles;

...resolves for the sake of this and succeeding generations of Pacific peoples to seek the establishment of a regime for the management of albacore tuna in the South Pacific that would ban driftnet fishing from the region; such a ban might then be a first step to a comprehensive ban on such fishing."

This Declaration implies that the South Pacific Forum countries have jurisdiction over the fishing itself

on the high seas. From this standpoint, it suggests the application of the objective regime doctrine to high seas driftnet fishery.

This approach, however, is not reflected in the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific, which was concluded on 24 November 1989. Article 2 of this Convention states: "Each party undertakes to prohibit its nationals and vessels documented under its laws from engaging in driftnet fishing activities within the Convention Area."¹⁶

As is known from this provision, countries belonging to the South Pacific Forum do not assert any jurisdiction over high seas driftnet fishing by other countries.¹⁷ The application of the Convention is limited to the member countries, which accept to prohibit their nationals or registered vessels from conducting driftnet fishery in the Convention area. The Convention also requires the member countries to take certain measures to discourage driftnet fishing activities by non-member countries on the high seas. These measures include prohibiting the importation of fish or fish products that are caught with driftnets and restricting port access and port servicing facilities for driftnet fishing vessels.

It is clear that the Convention is based on the principle of traditional international law expressed in the well-known maxim *pacta tertiis nec nocent nec prosunt*, an agreement that neither imposes obligations nor confers rights upon third parties. From a theoretical point of view, however, an interesting problem is whether or not

¹⁶ The "Convention Area is defined as follows: "(i) subject to sub-paragraph (ii) of this paragraph, it shall be the area lying within 10 degrees North latitude and 50 degrees South latitude and 130 degrees East longitude and 120 degrees West longitude, and shall also include all waters under the fisheries jurisdiction of any Party to this Convention; (ii) in the case of a State or Territory which is Party to the Convention by virtue of paragraph 1(b) or 1(c) of Article 10, it shall include only waters under the fisheries jurisdiction of that Party, adjacent to the Territory referred to in paragraph 1 (b) or 1 (c) of Article 10."

¹⁷ Instead of claiming jurisdiction over high seas driftnet fishing by other countries, the member countries of the Convention are designing to adopt two protocols. Draft Protocol I, open for signature by any country whose nationals or vessels fish within the Convention Area, would bind parties to it to prohibit their nationals and vessels from driftnet fishing within the Convention Area Draft Protocol II, open for signature by any country on or within the Pacific Rim, would bind parties to it to take the same action and, in addition, to prohibit the use of driftnets and the transshipment of driftnet catches within their own 200-mile exclusive economic zones.

the regime created under the Convention is able to become an objective regime.

If the regime embodies the general interest of a specific region of the international community as a whole, it seems reasonable to postulate that all nations have an international duty to recognize and respect the total cessation of driftnet fishing on the high seas. As yet, however, little scientific knowledge about impacts of driftnet fishing on living resources has supported the development of such a belief. In such a situation, the general principle of law as expressed in Article 34 of the Vienna Convention on the Law of Treaties stipulates: "A treaty does not create either obligations or rights for a third State without its consent."

Nevertheless, this does not preclude rules enshrined in the South Pacific Convention from becoming binding on non-parties by way of international custom, as noted in Article 38 of the Vienna Convention: "Nothing in Articles 34 to 37 precludes a rule set forth in a treaty from becoming binding upon a third State as a customary rule of international law, recognized as such."

HISTORICAL BACKGROUND OF THE DRIFTNET FISHING ISSUE

In Japan, large-mesh driftnet fishing has a long history covering more than a century. This fishing method began in coastal waters on a small-scale with tuna and tuna-like species as the targets. With time, and especially after the Second World War, this type of fishing expanded to offshore and high seas fishing grounds with various target species such as salmon and squid.

In the North Pacific, driftnet operations aimed at salmon began at the beginning of the 1950s. Subsequently, application of this type of fishing to the squid operation began on the high seas of the North Pacific in 1979. This operation targets flying squid (*Ommastrephes bartrami*), which has a large, soft body and therefore cannot be caught efficiently by other fishing methods such as jigging. In the following year, Taiwan (Province of China) and the Republic of Korea joined squid fishing operations in that area. As a result of this increase in Asian driftnet fishing vessels in the North Pacific, an antidriftnet propaganda campaign was initiated by fishermen and environmentalists in the United States.

In the South Pacific, Japanese driftnet fishing vessels began operating in the high seas of the Tasman Sea in 1983. The main target species was albacore tuna

(*Thunnus alalunga*). The introduction of driftnet fishing into this area invited strong reactions from the South Pacific countries.

Against these backgrounds, large-scale high seas driftnet fishing has become a matter of international concern. This concern resulted in the adoption of Resolution 44/225.

The assumption underlying this Resolution is that high seas pelagic driftnet fishing has undesirable impacts on the living marine resources. However, this assumption does not rest on scientific knowledge about the effects of driftnets on particular target species, on incidentally caught species or on the marine ecosystem as a whole. On the contrary, the Resolution was motivated by political and economic considerations. It was adopted in a situation where the available scientific data and information for evaluating the alleged undesirable effects of driftnets was seriously deficient.

Before examining the appropriateness of this Resolution and its possible effects on driftnet fishing, it might be useful to review the reasons why this issue was presented to the UN General Assembly. What follows is a brief history of the driftnet fishing controversy.

Large-mesh driftnet fishing

As stated earlier, Japanese large-mesh driftnet fishery dates back more than 100 years. In earlier times, this method was used on a small-scale only in the waters around Japan. In 1905, it was applied to bluefin tuna (*Thunnus thymus*) in the coastal waters of Hokkaido. Subsequently, however, its use declined as a result of the reduced catch amount of this species.

In 1970, experiments were conducted using large-mesh driftnets to take striped marlin (*Tetrapturus audax*) and skipjack tuna (*Katsuwonus pelamis*) in the fishing grounds off Sanriku, the northeastern areas off of Japan's Pacific coasts. Their successful results led to the reopening of commercial driftnet operations. In 1973 the Japan Large-Mesh Driftnet Fishery Association was established. In the same year the Japanese Government issued the "Ordinance on regulatory measures in the large-mesh driftnet fishery", which aimed, among other things, to avoid competition with existing fisheries. Since then, this type of fishery, which targets albacore tuna, has spread to the North Pacific, and to the South Pacific since the mid-1980s.

There are two main reasons for the recent expansion of large-mesh driftnet fishery. First, there is a serious shortage of crew members. In Japan, wages for crews have increased sharply because fishing has become

more and more unattractive for young people. Since pole-and-line fishery requires a large crew, this type of fishery has become economically non-viable. Accordingly, fishing companies cannot help switching to large-mesh driftnet fishery.

Second, the increase of large-mesh driftnet fishery is an inevitable outcome of the adjustment policy that Japan was forced to adopt with the advent of the 200-mile exclusive economic zone regime. North Pacific longline and gillnet fishermen driven out of the 200-mile zones of the United States and of the Union of Soviet Socialist Republics have been obliged to convert to large-mesh driftnet fishery. In the course of the reduction of distant-water fishing vessels, large-mesh driftnet fishery has played the role of buffer.

However, this change in distant-water fishing fleet deployment has created conflict in terms of competition with existing fisheries and conservation of marine living resources. Thus, serious interaction problems occur between different gears and species. In the North Pacific, physical gear interactions have been detected between driftnet fishing and other fishing methods such as pole-and-line, troll or longline, and in the South Pacific between driftnet and troll fisheries.

In order to tackle the gear conflict problem, on 15 August 1989 the Japanese Government introduced a registration system to large-mesh driftnet fishery that requires fishermen to report to the Fisheries Agency about their operation plans. Under this system, fishing vessels are required to submit operation plans before their departure from port and operation reports after their return. Submission of information on catches to the Agency is compulsory.

Furthermore, on 15 August 1990 the Japanese Government adopted the limited-entry licensing system concerning large-mesh driftnet fishery. Under this system, if fishermen wish to operate in the areas outside Japan's 200-mile zone, they are required to obtain a licence from the Ministry of Agriculture, Forestry and Fisheries.¹⁸

¹⁸ Main feature* of the measures taken by the Japanese Government with respect to large-mesh driftnet fishery are:

- restriction on fishing ground and period;
- prohibition of retention of anadromous species and cetaceans, even when caught incidentally;
- mandatory display of vessel's name and registration number for facilitating identification of the vessel at sea;
- mandatory marking of fishing gear for identification;
- restriction on mesh size for stock conservation;
- mandatory submission of catch reports to the government.

In spite of these measures taken by Japan, strong opposition to driftnet fishing remains. This is especially the case among the South Pacific countries.

South Pacific large-mesh driftnet fishery

Large-mesh driftnet fishing operations for albacore tuna by Japan in the South Pacific began in 1975. Before 1988 approximately ten vessels had engaged in that fishery. However, during the 1988/89 season, 60 Japanese vessels operated in the Tasman Sea and to the east of New Zealand.

The sharp increase of boats in these areas was mainly attributed to the fact that Asian longline and gillnet fishermen driven out of the 200-mile zone of the United States since 1988 had to convert to large-mesh driftnet fishery. However, that posed an immediate threat to the albacore tuna fishery, which is of vital economic importance to New Zealand, Australia and Pacific Island nations.

In reference to this, Dr Talbot Murray says: "The rapid expansion of this driftnet fishery from ten vessels in 1986/87 to perhaps as many as 198 in 1988/89 and the magnitude of driftnet catches (estimated conservatively) resulted in considerable concern among coastal states of the region over the sustainability of continued harvests of juveniles at 1988/89 levels."¹⁹

Facing strong protest from the South Pacific countries, the Japanese Government decided to restrain the operation for the 1989/90 season to below the number of vessels before the 1987/1988 season, namely, up to 20 vessels.

The South Pacific countries, however, were not satisfied with this measure taken by Japan and made a complaint against the continuation of driftnet fishing itself. On 3 July 1989 the Government of New Zealand distributed a media release that stated:

"Over 160 Asian drift gillnet vessels are fishing in international waters in the South Pacific and Tasman Sea for albacore tuna. The catch by these vessels is likely to exceed the sustainable yield from the albacore stock for the South Pacific. As a direct result of drift gillnet fishing, albacore fisheries of New

Zealand, Tonga, Vanuatu, Fiji and other Pacific Island states are in danger of being overfished.

Big game fish and marine mammals are also being threatened by the large-mesh nets. About 25 km of net is being laid at night by each of the Taiwanese, Japanese and South Korean boats. As well as albacore tuna, catches include striped marlin, swordfish and dolphins."²⁰

Taking the complaint by the South Pacific countries into account, the Republic of Korea decided to cease driftnet fishing in the region, but Japan and Taiwan (Province of China) did not.

Under such a situation, at the 20th South Pacific Forum on 11 July 1989, the Tarawa Declaration was adopted. This Declaration requested that Japan and Taiwan (Province of China) follow the example of the Republic of Korea and "abandon immediately their damaging driftnet operations".

In the meantime some measures were taken by Japan to regulate driftnet fishery in the South Pacific. Thus, on 15 August 1989 the Japanese Government introduced the afore-mentioned registration system to this fishery.

The South Pacific countries, nevertheless, declared their total opposition to driftnet fishing in the region. In this context, at the 29th South Pacific Conference held in Guam from 9 to 11 October 1989 the countries and territories of the South Pacific region adopted the Driftnet Resolution. This Resolution called for an immediate ban on the practice of driftnet fishing in the South Pacific Commission region.

Then, in November 1989 representatives from the countries and territories of the South Pacific region met in Wellington, New Zealand, to draw up a legally binding document. As a result, the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific was concluded on 24 November 1989. In the Convention, the contracting parties made a commitment to ensure, *inter alia*, that their nationals and fishing vessels would refrain from any activity relating to driftnet fishing.

Considering the economic impacts of driftnet fishing on the albacore tuna fishery of the South Pacific countries and in view of Resolution 44/225, Japan decided to withdraw from driftnet fishing in the region. Thus, on 17 July 1990 Japan announced the suspension of driftnet fishing in the South Pacific as from the

¹⁹ Talbot Murray, *Review of research and of recent developments in South Pacific albacore fisheries with emphasis on large-scale pelagic driftnet fishing* (paper presented to the Expert Consultation on Large-Scale Pelagic Driftnet Fishing, which was convened by FAO in Rome from 2 to 6 April 1990), p. 4.

²⁰ Government of New Zealand, 3 July 1989, *Drift gill net fishing* (media release), p. 2.

1990/1991 fishing season, one year in advance of the date of cessation of driftnet fishing in the South Pacific stipulated in Resolution 44/225 as no later than 1 July 1991.

High seas salmon fishing

Conflict between Japan and the United States over salmon fishing can be traced back to the pre-war days. The Bristol Bay red salmon issue symbolizes such conflict.

In 1936 and 1937 Japan sent the research vessel *Taiyo Maru* to the Bristol Bay in order to investigate the resource state of red salmon. An airplane owned by a fisherman from the United States spotted this research vessel and took a photograph of it, which was then published in the United States by a newspaper that sensationally reported that Japanese fishing vessels were fishing illegally in the Bristol Bay and that plenty of salmon was on board.

Occurring on the eve of the Sino-Japanese War, this incident contributed to the idea of Japanese aggressiveness held by Americans. It became a political question between the two governments. In the end Japan was forced to stop investigation activities in 1938, taking into account Japan-United States relations over Chinese problems. Even after that, however, fishermen from the United States frequently made reference to the threat of Japanese factory ships.

It is against this background that the Proclamation on Policy of the United States with respect to Coastal Fisheries in Certain Areas of the High Seas was issued by President Truman on 28 September 1945. The main aim of that proclamation evidently was to limit the access of Japanese fishing vessels to the west coast of the United States after the recovery of Japanese independence.

One of the difficult issues that had to be solved before the peace treaty could be concluded was the fishery problem. Japan was requested to refrain from fishing east of 175° west longitude as a precondition for the ratification of the Peace Treaty by the United States. After hard negotiations, Japan signed the International Convention for the High Seas Fisheries of the North Pacific Ocean in 1952.

The Convention came into force in 1953. Its key feature is the so-called principle of abstention, under which non-coastal states are required to abstain from taking fish stocks already taken at the level of their maximum sustainable yield.

While the Convention requires some abstention from

Canada, the real purpose is to keep Japanese fishermen out of the high seas fishery for salmon species originating from North American rivers and out of the halibut and herring fisheries off North American coasts. In this sense, it can be viewed as an unfair treaty. It should be noted that it was concluded while Japanese territory was under occupation. This was the price Japan had to pay to recover its independence.

In spite of the great concession made by Japan, strong complaints by fishermen from the United States against Japanese high seas fishing persisted. Under such a situation, the Fishery Conservation and Management Act of 1976 was decreed.

The United States established unilaterally the 200-mile exclusive fishery zone without waiting for the final outcome of the Third United Nations Conference on the Law of the Sea mainly because of pressure from coastal fishermen, especially in the states of Alaska and Massachusetts. Fishermen in these states requested that unilateral action be taken to restrict fishing activities by foreign vessels off coasts of the United States.

Faced with this request, opinion was divided within the State Department over whether the unilateral measure was advisable or not. In the decision-making process, possible approaches were examined. One approach was to take unilateral action, which could trigger similar extensive maritime claims by other countries. The other approach was to adopt conservation measures on the basis of Article 7 (1) of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas.²¹ The latter approach, however, was not adopted.

The United States is opposed to the adoption of UNCLOS and has publicly voiced its intentions of neither signing nor ratifying the Convention. Nevertheless, the United States has tightly embraced the concept of the 200-mile exclusive economic zone.

The United States' interpretation of the 200-mile exclusive economic zone, however, ignores the surplus

²¹ Art. 7(1) of the 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas reads: "Having regard to the provisions of paragraph 1 of Article 6, any coastal State may, with a view to the maintenance of the productivity of the living resources of the sea, adopt unilateral measures of conservation appropriate to any stock of fish or other marine resources in any area of the high seas adjacent to its territorial sea, provided that negotiations to that effect with the other States concerned have not led to an agreement within six months."

principle as expressed in Article 62 (2) of UNCLOS.²² Thus, in 1988 the United States found it expedient to completely eliminate Japan's quota in its zone. As a result, Japanese vessels evicted from their traditional fishing grounds within this zone have tended to relocate their efforts in the international waters of the Bering Sea, the area commonly referred to as the "doughnut hole". Now the United States is also seeking to regulate these fisheries under the pretext of conserving straddling stocks, which occur continuously between an exclusive economic zone and an adjacent high seas area, and of preventing the interception in the doughnut hole of salmon that originated in the United States.

Salmon fishing on the high seas has been a long-pending issue between countries of origin of salmon species and countries fishing these species. In the United States there has been a strong voice asking for a complete cessation of high seas salmon fishing.

During testimony before the Committee on Commerce, Science and Transportation in the United States Senate, Mr Barry D. Collier, president of the Association, stated: "For those of us who are fishing in compliance with both domestic and international regulations governing salmon fisheries, you can imagine the anger which results from seeing illegally caught fish freely and openly marketed in competition with our product. This is the most immediate problem we seek to correct, especially in light of the fact that we are already seeing sharp decreases in returns of salmon to Alaska which do not seem to be explainable other than as a result of foreign interceptions."²³

Suggesting the strengthening of trade sanctions under the Pelly Amendment,²⁴ Collier continued: "If the Pelly Amendment could be expanded to give the President the option of embargoing any product from

an offending nation, then we would have a much stronger and more effective tool."²⁵

Needless to say, his contention is not compatible with the General Agreement on Tariffs and Trade (GATT). Under Article XX of GATT,²⁶ trade restrictions are permitted only when certain conditions are met, for example, when the need for conservation measures is demonstrated. An embargo on imports of "any" product, however, cannot constitute such an exemption.

North Pacific squid driftnet fishery

While the Japanese have a long dietary custom of eating squid, of which the most popular is common squid, the history of using flying squid is a relatively new one. Flying squid was first caught around 1974 for the purpose of utilizing it as raw material for the food-processing industry.

Initially, flying squid was taken with *Todarodes* jigging fishery like common squid. However, the use of this fishing method declined rapidly within a short period because of its high rate of loss.

In order to overcome this problem, experiments were conducted using driftnets, and these proved to be more efficient than jigging fishery. As a result, the squid driftnet fishery extended first to the coastal waters of Japan and later to offshore waters and the high seas areas.

The rapid expansion of this fishery, however, generated gear conflicts, particularly with the jigging fishery. Therefore, in order to avoid competition with existing fishing methods, the Japanese Government established closed areas for driftnet operations in 1979. Such a measure resulted in the prohibition of driftnet fishing operations west of 70° east longitude.

In addition, in August 1981 the Japanese Government issued the "Ordinance on regulatory measures in the squid driftnet fishery", through which a limited-entry licensing system was introduced. Under this system, driftnet fishing operation in the North Pacific aimed at squid was prohibited without a licence issued by the

²² Art. 62 (2) of UNCLOS reads as follows: "The coastal State shall determine its capacity to harvest the living resources of the exclusive zone. Where the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4, give other States access to the surplus of the allowable catch, having particular regard to the provisions of Articles 69 and 70, especially in relation to the developing States mentioned therein."

²³ Barry D. Collier, 17 May 1989, Statement *before the US Senate Committee on Commerce, Science and Transportation*, p. 2-3.

²⁴ Under the Pelly Amendment, the President, upon receipt of certification by the Secretary of Commerce, is authorized to embargo the importation of fish products from the offending country

²⁵ Barry D. Collier, *op. cit.*, p. 5.

²⁶ Art XX of GATT reads: "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: ...(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."

Minister of Agriculture, Forestry and Fisheries. Subsequently, the system was reinforced according to needs.²⁷

As seen previously, there is strong criticism that the recent increase in fishing efforts by squid driftnet vessels in the high seas areas of the North Pacific will lead to overfishing. Although this is a legitimate concern, it must be remembered that the life span of flying squid is short, namely, one to two years. In addition, it should be noted that such an unusual concentration of fishing efforts was created as a result of the subjective and arbitrary application of the 200-mile zone concept.

With this type of fishing, driftnets are set around sunset and retrieved after sunrise the next day. The total length of net deployed each night is about 40 to 60 km per vessel. This is the reason why they are accused of being "walls of death". This expression is not necessarily correct, however, because the nets used by one fishing vessel are not continuous but consist of several sets of net. One set is usually composed of 100 to 110 net units (known as tans). Thus, the length of one set is about 5 km, and between the sets there is a distance of 100 to 1 000 m.

Nevertheless, in another sense such an accusation is legitimate since this fishing practice cannot be considered normal. The enormous amount of net deployed by driftnet fishing vessels may have the same impact on both target and non-target species. Therefore, such a large-scale deployment of fishing gear cannot be seen as appropriate.

With regard to the problem of the accidental take of non-target species, grave concern has been expressed about the impact of driftnet fishing on marine mammals, sea birds and turtles. Also, there has been a strong outcry against the squid driftnet fishery,

especially in the United States, based on the incidental catch of salmon by this fishing. During his testimony mentioned previously, Mr Kate Troll stated: "For our nation, the squid fishery is an economic as well as an ecological disaster. Salmon and steelhead, which support lucrative commercial and sport industries in the United States, leave their freshwater rearing grounds to mature on the high seas before returning to spawn. While the Asian fleets claim to be directing their effort toward squid, they continue to set their nets in areas where the interception of American, Canadian and Russian salmon is inevitable. While each nation has laws prohibiting its own squid boats from keeping any salmon by-catch, overwhelming contrary evidence places the fleets' annual harvest of salmon at somewhere between 20 and 100 million pounds."²⁸

It seems that Mr Troll's contention is nothing but an exaggeration based on past exceptional cases where some Asian squid driftnet fishing vessels intentionally engaged in the taking of salmon. Citing these cases, Earthtrust also says that "a well-organized and lucrative system of salmon piracy is firmly established in the North Pacific".²⁹

As mentioned earlier, however, the Japanese Government has taken measures to reduce the accidental capture of non-target species. For example, squid driftnet fishing vessels are prohibited from retaining salmon even when it is taken unintentionally. Salmon incidentally caught must be returned to the sea and may not be retained on board.³⁰

Another relevant measure establishes limits on the fishing ground and period for squid driftnet fishing in order to minimize incidental takes of salmon. This fishing is permitted only within the limits of the waters surrounded by 20°N, 170°E, 145°W and the northern boundary that changes monthly (40°-46°N) and only from June to December. The northern boundary regulation is considered as effective as others since the segregation of flying squid and salmon between the south and north areas is conspicuous, as the latter prefers living in waters of lower temperature.

Most of the unfruitfulness of the driftnet controversy is derived from the paucity of data and information about the impact of this gear either on the fish being targeted or on the incidental catch. In order to overcome

²⁷ Main features of the measures taken under the system are:

- limit on the number of vessels engaged in the squid driftnet fishery;
- limit of the fishing ground and period;
- prohibition of retention of salmon species, even when caught incidentally;
- prohibition of transfer of catch at sea;
- mandatory display of the vessel's name, registration number and licence number on the hull for facilitating the identification of the vessel at sea;
- mandatory marking on fishing gears for identification;
- restriction on mesh size for stock conservation;
- mandatory record and submission to the Fisheries Agency of NNSS data in order to identify operational positions;
- mandatory vessel position reports;
- mandatory submission of catch reports to the government

²⁸ Kate Troll, *op. cit.*, p. 1.

²⁹ Earthtrust, *op. cit.*, p. 16.

³⁰ Personally, I have a doubt about the advisability of this measure. The problem will be discussed in more detail later.

this deficiency, the Japanese Government began placing Japanese observers on squid driftnet fishing vessels in 1988.

In 1989, this undertaking was extended to accept observers from the United States and Canada aboard these fishing vessels. The primary purpose of this cooperative observer programme is to collect information on the catch of flying squid and the incidental take of salmonoids, marine mammals, sea birds and other marine species. Under the July-August programme, five observers from Canada, four from the United States and 22 from Japan were placed on 22 Japanese squid driftnet vessels. Under the June-December programme, five observers from the United States and ten from Japan were established on ten Japanese squid driftnet vessels.

The scientific observer programme, an improvement over the previous year's programme, was jointly composed by Japan, the United States and Canada in early 1990. The programme is currently being implemented.

WHAT ARE THE REAL PROBLEMS?

High seas and coastal driftnet fisheries

Until now, the argument denouncing the use of driftnets has been directed only at large-scale high seas fishing. As a result, preambular paragraph 2 of Resolution 44/ 225 touches exclusively on this type of fishing: "Large-scale pelagic driftnet fishing, a method of fishing with a net or a combination of nets intended to be held in a more or less vertical position by floats and weights, the purpose of which is to enmesh fish by drifting on the surface of or in the water, can be a highly indiscriminate and wasteful fishing method that is widely considered to threaten the effective conservation of living marine resources, such as highly migratory and anadromous species of fish, birds and marine mammals."

Small-scale coastal driftnet fishery, on the other hand, is exempted from the application of the Resolution. Preambular paragraph 3 states: "The present resolution does not address the question of small-scale driftnet fishing traditionally conducted in coastal waters, especially by developing countries, which provides an important contribution to their subsistence and economic development."

As such, a clear distinction is made in the Resolution between driftnets on the high seas and those in coastal waters. The sole basis for making such a distinction is that driftnets used on the high seas are larger than those

used in coastal waters. From the viewpoint of conserving living marine resources, however, is it justifiable to discriminate between driftnets on the high seas and those in coastal waters?

In this respect, it should be noted that living marine resources, including marine mammals, sea birds and turtles, are far more abundant in coastal waters than on the high seas. Furthermore, although the length of net deployed per fishing vessel is less in coastal driftnet fisheries, the number of fishing vessels is far greater than in the high seas fleets. In this sense, the use of driftnets in coastal waters may actually be more destructive than on the high seas. Therefore, it is unthinkable that living marine resources are trapped only by large-scale driftnets and not by smaller-scale driftnets.

Nonetheless, only driftnets on the high seas have been denounced as environmentally destructive. Justifying the distinction made between driftnets on the high seas and those in coastal waters, the Australian Government says: "Obviously there are similarities between small length/set driftnet fisheries operating in coastal areas and high seas operations - there are also some significant differences. High seas driftnet fisheries present unique problems in terms of management and data collection. By comparison, it is much more likely that exclusive economic zone-based driftnet fisheries will be regulated or at least monitored than those on the high seas."³¹

This explanation, however, is not persuasive, because there is confusion between the problem of fishing gear and the problems of jurisdiction. It is doubtful that driftnets in coastal waters have been better managed than those on high seas and that more information and data about the former have been accumulated than about the latter. In addition, if driftnets trap almost every form of living marine resource, there is no reason why driftnet fishing in coastal waters within the 200-mile zone should be excluded from the ban or moratorium.

It seems that Resolution 44/225 stands on the strange assumption that, while large-scale high seas driftnets have adverse impacts on marine resources, smaller-scale coastal driftnets do not. Preambular paragraph 4 of the Resolution reads: "In addition to targeted species of fish, non-targeted fish, marine mammals, sea birds and other living marine resources of the world's oceans and seas can become entangled in large-scale pelagic

31 Australian Government, *op. cit.*, p. 1.

driftnets, both in those which are in active use and in those which are lost or discarded, and as a result of such entanglement are often either injured or killed."

Entanglement problems may occur not only in high seas driftnet fisheries but also in coastal driftnet fisheries. It should be noted that there is an exceedingly large number of driftnet fishing vessels operating in the coastal waters of the world and that the density of marine life affected by driftnets is far greater in coastal waters than in the high seas. Therefore, from the viewpoint of conserving living marine resources, it is unreasonable to treat high seas driftnet fisheries differently than coastal driftnet fisheries.

Driftnet and other fishing methods

In the above-mentioned preambular paragraph 2 of Resolution 44/225, driftnet fishery is denounced as "a highly indiscriminate and wasteful fishing method". Is this denunciation based on valid reasoning?

It is well-known that all fishing gears take species other than those targeted. As long as fishing activities are carried out in a natural milieu, their impact on non-target species is more or less inevitable whatever fishing gear is used. Therefore, what is important is how to reduce the side-effects of a specific fishing gear.

In the case of trawlnet fishery, both target and non-target species are caught without discrimination. In this sense, this type of fishing is literally "strip-mining" the seas. Furthermore, it is an energy-consuming fishing method.

Pointing out the possible occurrence of by-catches resulting from other fishing methods, Professor William T. Burke says: "Purse seines are well-known for their impact on dolphins. Trawls, especially in the shrimp fishery, probably take a larger ratio of by-catch to target than any other gear. Longlines are also indiscriminate among species of a certain size, not least being sharks, which are known to be very fragile in the face of intensive harvesting. This gear is also reported to attract and kill albatross."³²

It might at least be said that driftnet fishery is more selective than trawlnet fishery, because driftnets can be adjusted in terms of mesh size, net deployment, time and area. In addition, since little energy power is

needed to draw the nets, driftnet fishing is fuel-efficient.

At present, there is no persuasive evidence that driftnet fishery is any more environmentally destructive than any other method of commercial fishing. Comparative studies about the effects of various fishing gears on target and non-target species or on the marine ecosystem as a whole should proceed to political discussion and decision-making to set limits on their use.

By-catch Issue

As was seen already, one of the criticisms of driftnet fishery is the alleged high rate of the by-catch. From this point of view, the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce of the United States has condemned high seas driftnet fishing, saying that "open-sea driftnet fishing is killing substantial numbers of tuna, sharks, marine mammals and sea birds in incidental catches in the North Pacific".³³

In this statement there is no reference to incidental takes by coastal driftnet fishing. In the NOAA report, however, it is pointed out that "approximately 1 000 marine mammals were entangled or killed in the Prince William Sound/Copper River Delta salmon drift gillnet fishery during the 1978 season", and that "an estimated 335 harbour seals and 45 California sea lions were killed annually incidental to gillnet fishing in the Columbia River, Willapa Bay and Grays Harbor fisheries".³⁴

It has been suggested that it is self-contradictory for the Government of the United States to keep silent about the prohibition on the use of driftnets in coastal waters while claiming a total ban or moratorium on high seas driftnet fishing. If the use of driftnets in itself is detrimental to the conservation of living marine resources, the logical conclusion would be that prohibitive measures should be taken not only on high seas driftnet fishery but also on coastal driftnet fishery.

Without regard for the far-reaching effects of the moratorium on high seas driftnet fishery, the Government of the United States seeks to transform the moratorium recommendation embodied in Resolution

³² William T. Burke, *Unregulated high seas fishing and ocean governance* (draft paper prepared for workshop on the freedom of the seas, which was held in Honolulu, Hawaii, from 10 to 12 December 1990), p. 4.

³³ NOAA releases report on driftnet use, *United States Department of Commerce News*, 6 July 1990, p. 1.

³⁴ United States Department of Commerce, National Oceanic and Atmospheric Administration, 20 April 1989, *Federal Register*, 54(75):16 072.

44/225 into a binding legal principle. As was seen earlier, the United States policy statement on the Resolution says that "unless joint assessment by all concerned members of the international community of scientifically sound data from a specific large-scale pelagic driftnet fishery concludes that there is no reasonable expectation of unacceptable impacts by that fishery, the conditions of relief from the moratorium recommended in UNGA 44/225 are not met".

The introduction of the idea of "unacceptable impacts" will inevitably bring an unnecessary interpretative problem into the issue of high seas fisheries, since whether the impacts are "unacceptable" or not must be shown as a result of a joint assessment by "all concerned members of the international community", and not by a single state. Referring to this problem, Professor Burke says: "In application to high seas fishing, the policy statement creates or advocates two new standards: the fishing must not impose 'unacceptable impacts' on target and non-target species and a particular fishery cannot proceed unless it is shown that it can be conducted without unacceptable impacts."³⁵

In addition, the doctrine of unacceptable impacts will have a significant impact on coastal fisheries. Mentioning possible effects of this doctrine on coastal fishing, Professor Burke warns: "For fisheries within 200 miles, presumably the coastal state has sovereign rights which it may use to control their use. But these fisheries unquestionably have effects on marine mammals which are also found on the high seas. If high seas fisheries can be stopped because of unacceptable impacts, defined in biological terms, the same principle should be considered to burden the coastal state whose vessels also inflict mortality on the same species within national jurisdiction."³⁶

In spite of the exemption of coastal driftnet fishery from the application of Resolution 44/225, there is nothing to prevent the doctrine of unacceptable impacts from applying to coastal driftnet fishing from a biological point of view. If the application of this doctrine extends to coastal fishing, a number of fishermen who fish with small-scale driftnets or other gear will be deprived of their means of living.

Incidental catch In salmon fishing

Within the framework of the 1952 International

Convention for the High Seas Fisheries of the North Pacific Ocean, the Japanese high seas salmon driftnet fishery has been regulated through negotiation within the International North Pacific Fisheries Commission (INPFC). The Japanese high seas salmon fishery in the North Pacific has also been subject to a bilateral agreement between Japan and the Union of Soviet Socialist Republics. Nowadays, however, these long-lived cooperative legal frameworks are challenged by the antidriftnet propaganda campaign.

The INPFC Convention was renegotiated in 1978 following the establishment of the 200-mile fishery zone of the United States under the Magnuson-Packwood Act. As a result, Japanese fishermen were given permission to conduct a salmon driftnet fishery in this zone and were granted a three-year exemption from the Marine Mammal Protection Act (MMPA) of 1972 on the incidental catch of marine mammals.

In 1981, under the MMPA, a general permit for three years authorizing the annual incidental take of marine mammals (5 500 Dall's porpoises, 450 Northern fur seals and 25 tellar sea lions) within the 200-mile zone of the United States was issued to the Federation of Japan Salmon Fisheries Cooperative Association. The issuance of this general permit for the Japanese fishery was extended until 1986.

On 18 July 1986 the Japanese Salmon Federation called for the general permit to be issued for five-year periods authorizing the incidental take at the same level as the preceding years. Upon that request, on 22 May 1987 the United States Department of Commerce issued the general permit to the Japanese salmon driftnet fleet for the incidental take of up to 6 039 Dall's porpoises over a three-year period. In that permit, however, there was no reference to quota for the take of Northern fur seals.

Unhappy with this decision, the Japanese Salmon Federation filed a lawsuit challenging the permit. On the other hand, Alaskan fishing groups and environmental organizations, including the Sierra Club Legal Defense Fund and Greenpeace, challenged the permit on the grounds that it would be impossible for the fleet to operate in the waters of the United States without killing Northern fur seals, which are declared depleted and protected by the MMPA.

In June 1987 a court decision preventing the fleet from operating within the 200-mile zone of the United States was delivered on the grounds that no permit had been issued for Northern fur seals. Dissatisfied with the decision, the United States Department of Justice and

³⁵ William T. Burke, *op. cit.*, p. 35.

³⁶ *Ibid.*, p.

the Japanese Salmon Federation appealed this preliminary injunction in the United States Supreme Court.

In June 1988 a request for an emergency stay on the injunction was refused by a federal judge. Subsequently, on 9 January 1989, the Supreme Court rejected a petition by the United States Department of Justice for appeal and upheld the preliminary injunction. As a result, the Japanese fishermen are now unable to fish in the 200-mile zone of the United States.

High seas salmon Interception problem

In addition to the alleged incidental catch of marine mammals and salmon, driftnet fishing has also been condemned for the interception of salmon on the high seas. In this context, the concept of "national interest" has been invoked to justify the argument denouncing the use of driftnets on the high seas. This is especially true of the antidriftnet propaganda campaign in the United States. For example, Greenpeace stresses the need "to protect our sport and commercial fishing industries"³⁷ in its campaign against North Pacific high seas driftnet fisheries.

The United States Government has also exploited a similar logic. During testimony before the Committee on Commerce, Science and Transportation in the United States Senate, Mr William E. Evans, Under-Secretary for Oceans and Atmosphere of the United States Department of Commerce, stated that "in the 13 years since the Act took effect, the Magnuson Act has succeeded in Americanizing our nation's fishery resources". He went on to say: "Despite the greatly reduced foreign presence in our waters, illegal or adverse foreign fishing in the Pacific has become a serious problem with which we must deal. Recent instances in point have been the increased level of fishing in the doughnut hole off Alaska and the high seas salmon interception problems in the Pacific."³⁸

With regard to the salmon interception problem, the antidriftnet campaigners claim that Japanese high seas driftnet fishery in the North Pacific catches large amounts of North American salmon, causing adverse effects on its resource status. During the above-mentioned testimony, Mr Henry V. E. Mitchell, executive director of the Bering Sea Fishermen's

Association, stated: "We now believe as many as 100 000 000 salmon of North American origin do not make it into our waters annually due to the direct capture and harvest in the high seas gillnets, as well as to drop-out and ghost fishing (once nets are abandoned at sea). That is a staggering loss to our fishermen, to our processors and to the fishing communities throughout Alaska and in the Pacific northwest, to say nothing of the impact on our national revenue and trade balance posture. I have seen estimates of overall losses of US\$ 1 billion annually."³⁹

Supporting claims made by Alaskan and Pacific northwest fishermen, the United States Government has expressed the following view: "Although the Japanese salmon fisheries have been sanctioned under the bilateral agreement and the INPFC, we remain convinced that high seas driftnet fishing for immature salmon is inefficient and indiscriminate. We are also greatly concerned that other marine resources, such as non-target fish species, marine mammals, sea birds and turtles, become ensnared and die in this driftnet fishery."⁴⁰

The Governments of the United States and the Union of Soviet Socialist Republics held negotiations on the interception issue under the framework of the Intergovernmental Consultative Committee (ICC). As a result, both governments signed a Memorandum of Understanding (MOU) on anadromous species in the North Pacific on 9 February 1989, in which they agreed to cooperate on high seas enforcement activities and the exchange of information on "illegal" high seas salmon fishing. As an ultimate goal, both countries aim to conclude a high seas salmon interception multilateral convention by inducing at least Japan and Canada to participate in it. The proposed convention seeks to end high seas salmon fishing. The United States-USSR draft convention has been presented to Japan and Canada for consideration.

The problem of "salmon piracy"

Another serious problem relating to high seas driftnet fishing in the North Pacific is the accidental catch of salmon by squid driftnets. A widespread view held by

³⁷ Greenpeace, February 1989, *North Pacific high seas driftnet fisheries*, p. 8.

³⁸ William E. Evans, 17 May 1989, *Statement before the US Senate Committee on Commerce, Science and Transportation*, p. 1 and 4.

³⁹ Henry V.E. Mitchell, 17 May 1969, *Statement before the US Senate Committee on Commerce, Science and Transportation*, p. 3-4.

⁴⁰ United States Department of State, July 1990, *US actions concerning large-scale pelagic driftnets* (paper submitted to the United Nations Office of Ocean Affairs and the Law of the Sea), p. 3-4.

fishermen and environmental groups and even the Government in the United States, is that Asian squid driftnet fishermen are "pirating" salmon originating from the United States and "decimating" the stocks. According to Greenpeace: "Extremely large quantities of immature Pacific salmon and steelhead were taken in the 1987 and 1988 high seas gillnet squid fisheries conducted by the Taiwanese, Korean [Rep. of] and Japanese fleets. The squid fisheries are now operating largely as a front for the harvest and marketing of these salmon. The loss of these salmon has had a devastating impact on North American salmon and steelhead resources. These pirated salmon, some of which are laundered through the port of Singapore, have excluded legal American and Canadian salmon from many Asian and European markets in 1988."⁴¹

Likewise, during the afore-mentioned testimony before the United States Senate, Mr Troll spoke of "salmon piracy": "Under well-established international law, high seas salmon belong to the country of origin. Squid ships from Taiwan, Korea, and Japan are stealing them on the high seas. This constitutes piracy, pure and simple."⁴²

Supporting these arguments, the United States Government has stated: "Over 1 000 driftnet vessels from Japan, Korea [Rep. of] and Taiwan fish in the North Pacific, mainly for squid and tuna/billfish. The United States is especially concerned with the interception of valuable US-origin salmon and steelhead trout by these fisheries. Some driftnet vessels are also illegally targeting salmon which is then smuggled on to world markets where it competes with legitimate product."⁴³

Two questions arise concerning this point of view: first, does the norm of piracy under international law have application here and, second, is the taking of salmon on the high seas illegal.

The first question relates to the definition of piracy. Under traditional international law, piracy is defined as "every act of illegal violence committed on the open sea by the crew of a private vessel against another vessel" and a piratical act is treated as *hostis humani generis* - the enemy of all mankind. Therefore, "all maritime States are authorized by general international

law to capture on the open sea individuals who are guilty of piratical acts in order to punish them".⁴⁴

The definition of piracy under UNCLOS is somewhat broader (reference is also made to aircraft) than the traditional concept Article 101 of UNCLOS reads as follows:

"Piracy consists of any of the following acts:

- (a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:
 - (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;
 - (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;
- (b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;
- (c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b)."

According to this article, piracy must be an illegal act of violence, detention or depredation committed for private ends by the crew or passengers of a private ship or aircraft against another ship or aircraft (or the persons or property on board) on or over the high seas or any other place outside territorial jurisdiction. In view of this definition of piracy, the law of piracy is unequivocally not applicable to the case of salmon interception. Therefore, from the viewpoint of international law, the concept of piracy has no relevance to any of the problems of high seas driftnet fishing.

With regard to the second question, it must be pointed out that the claim of the United States over anadromous species such as salmon is based upon a special interpretation of the law of the sea. Under the Fishery Conservation and Management Act of 1976, it is provided that the United States exercises "exclusive fishery management authority" over all anadromous species throughout the migratory range of each of such species beyond the fishery conservation zone.

This provision, however, is in contravention of Article 66 of UNCLOS. Under Article 66, rights and jurisdiction of the state of origin of anadromous stocks are not exclusive. The article provides that "States in whose rivers anadromous stocks originate shall have the primary interest in and responsibility for such stocks" (paragraph 1) and that "with respect to such

⁴¹ Greenpeace, February 1989, *North Pacific high seas driftnet fisheries*, p. 7.

⁴² Kate Troll, *op. cit.*, p. 3.

⁴³ United States Department of State, *US actions statement*, *op. cit.*, p.1.

⁴⁴ Hans Kelsen, 1961, *General theory of law and state*, p. 343-344.

fishing beyond the outer limits of the exclusive economic zone, States concerned shall maintain consultations with a view to achieving agreement on terms and conditions of such fishing giving due regard to the conservation requirements and the needs of the State of origin in respect of these stocks" [paragraph 3 (a)]. It also provides that "enforcement of regulations regarding anadromous stocks beyond the exclusive economic zone shall be by agreement between the State of origin and the other States concerned" [paragraph 3 (d)].

It is one of the fundamental principles of international law that a state cannot invoke national law to evade obligations under international law. The logical corollary is that if the domestic legislation of a state is against international law, that state should rectify such an irregularity according to international law. It is the view of the writer that, instead of revising its domestic legislation, the United States has tried to impose restrictions on the exercise of legitimate rights by other countries on the high seas.

Furthermore, it must be added that since Asian-origin salmon intermingle with salmon originating from the United States in the North Pacific, it is not an easy task to differentiate between them. It is irrational that while claiming exclusive jurisdiction over anadromous species beyond its 200-mile zone, the United States has refused to allow Japanese fishermen to take Asian-origin salmon within the 200-mile zone of the United States. In the writer's view, this is clearly in contravention of the INPFC Convention.

Lawfulness of unilateral measures

With a clear objective to regulate driftnet fishing activities by Asian countries in the North Pacific high seas, the United States Congress passed the Driftnet Impact Monitoring, Assessment and Control Act of 1987. This legislation requires the Secretary of Commerce, through the Secretary of State and in consultation with the Secretary of the Interior, to negotiate cooperative agreements with those countries conducting high seas driftnet fishing. Specifically, the Act calls for the negotiation of adequate monitoring and assessment programmes concerning the deployment of scientific observers on driftnet vessels (Section 4004). Similar agreements are to be negotiated regarding effective enforcement of laws, regulations and agreements governing high seas driftnet fishing (Section 4006).

It is also provided that if these negotiations do not

produce agreements with the designated countries within 18 months after the date of the adoption of this Act, the Secretary of Commerce must certify such fact to the President of the United States. This is also regarded as a certification for the purpose of the Pelly Amendment to the Fishermen's Protective Act, under which the President is authorized to place an embargo on the importation of fish products from the country concerned.

The underlying consideration of this Act is that the threat of certification would contribute to the conclusion of agreements regulating high seas driftnet fishing by Asian countries. Thus, it appears to the present writer that the United States has undertaken a policeman's role in the international community regarding high seas driftnet fishing despite not having been granted such authority.

Under the threat of such an embargo, Japan was compelled to conclude an agreement with the United States on 23 June 1989. Through this agreement Japan undertook to: initiate two research programmes in order to measure the presence of salmonoids in the driftnet squid fishing areas and to determine the extent of interception, if any, and to determine the impact of squid driftnet fishing on marine mammals, other marine species, sea birds and the marine ecology; accept scientists from the United States and Canada on board Japanese squid vessels to observe the catch and carry out research; accept observers from the United States on board Japanese enforcement vessels; invite scientists from the United States and Canada to participate in research aboard Japan's research vessel; and notify the United States Government of any third-country fishing vessels that appear to be catching salmonoids that originated in the United States.

Subsequently, Taiwan (Province of China) and the Republic of Korea concluded similar agreements on North Pacific high seas driftnet fishing with the United States. The United States-Taiwan agreement and the United States-Republic of Korea agreement were concluded on 30 June 1989 and on 8 September 1989 respectively.

From the viewpoint of international law, however, the present writer suggests that these agreements are of dubious legal validity because they were brought about by the threat of sanctions under the Pelly Amendment.

Under international law, a treaty is void *ab initio* when concluded under coercion. The Vienna Convention on the Law of Treaties provides that "a treaty is void if its conclusion has been procured by the

threat or use of force in violation of the principles of international law embodied in the Charter of the United Nations" (Article 52).⁴⁵ Although there is a difference of opinion in the interpretation of the word "force", that is, whether it is concerned only with armed force or if it includes political or economic pressures, the *travaux préparatoires* of this article show that its meaning is open-ended.⁴⁶ In addition, the prohibition of "the threat or use of force" is regarded in the Vienna Convention as a typical example of *jus cogens*, that is, a peremptory norm of general international law from which no deviation is permitted (Article 53).⁴⁷

To this writer there is no doubt that since the free and voluntary consent of Japan, Taiwan (Province of China) and the Republic of Korea to those agreements was vitiated by the threat of sanctions under the Pelly and Packwood-Magnuson Amendments, they are an absolute and automatic nullity. As far as is known, however, no government of these three countries has made this claim.

On the other hand, there persists a strong dissatisfaction with these agreements among fishing groups and environmental organizations in the United States. Specifically, the Pacific Seafood Processors Association (PSPA) insists that "the Agreement tentatively reached between the State Department and Japan is completely insufficient to deal with the problems resulting from high seas driftnet fishing". And, suggesting the use of more effective enforcement leverage, PSPA adopted a resolution which states that "enforcement should include the imposition of automatic non-discretionary trade sanctions, not limited to fish products, against nations which fail to make provision for the elimination, or severe curtailment, of such fishing activity".⁴⁸

⁴⁵ The Charter of the United Nations provides that "all Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations" (Art. 2, para. 4).

⁴⁶ In the drafting process of this Article, Sir Humphrey Waldock, special rapporteur, said that "the text is open-ended in the sense that any future interpretation of the law of the Charter would affect the rule embodied in Article 36 (present Article 52)". *Yearbook of the International Law Commission*, 1966, Vol. 1, Part 1, p. 120, para. 100.

⁴⁷ According to the explanation of the International Law Commission, "the Law of the Charter concerning the prohibition of the use of force in itself constitutes a conspicuous example of a rule in international law having the character of *jus cogens*" (*Report of the International Law Commission*, 1966, p. 76, para. 1).

⁴⁸ Pacific Seafood Processors Association, 9 May 1989, *Resolution on high seas agreement*.

Likewise, the Bering Sea Fishermen's Association (BSFA) and the United Fishermen of Alaska (UFA) claim that "high seas drift gillnetting that takes directly, or as a by-catch, salmon, mammals and birds associated with North America (and, under our MOU for cooperative action with the Soviets, the USSR) must cease by 1992". In order to achieve this goal, BSFA and UFA have called on the United States Government to take such measures as the development of "a new international nation of origin convention, with at least Japan, the USSR and Canada as members, by 1992"; the "establishment through science of 'salmon zones' to identify where our (and, under our MOU for cooperative action with the USSR, the Soviet-origin) salmon are likely to be beyond our 200-mile zone(s)"; the "requirement of transponders for vessels fishing in salmon zones"; and the "expansion of coverage under the Pelly Amendment to include all products, not just those of marine origin".⁴⁹

In the United States Congress, there are also strong voices opposing the present driftnet agreement. Many senators and representatives have asked that the talks with Japan be reopened to force a new agreement. Supporting the claims of fishing groups such as BSFA, UFA and PSPA, they have suggested that the passage of the Pelly sanctions expanded to include products other than fishery would force Japan into further concessions.

In response to these pressures from economic and political circles, the United States Government has asked that the existing agreement between the United States and Japan be rejected and a new agreement be negotiated. The Japanese Government has been requested to agree to position-indicating satellite transponders being installed, to accept more observers from the United States on board Japanese vessels and to ban squid fishing activities in the northerly waters of the Pacific.

Under these circumstances, the Japanese Government decided in the 1990 fishing season to install satellite transmitter equipment on all fishing vessels engaging in North Pacific squid driftnet fishing and to increase the number of foreign observers on the squid driftnet fishing vessels.

There is no doubt, however, that the real intention of the United States is to stop squid driftnet fishery altogether. For that reason, the United States Government will attempt to compel driftnet fishing

⁴⁹ Henry V.E. Mitchell, *op. cit.*, p. 13.

countries to stop this type of fishing by applying expanded sanctions under the Pelly Amendment.

As mentioned already, such a unilateral measure is not compatible with GATT provisions. If an arbitrary application of trade sanctions or their extension is allowed, the GATT system itself will be undermined.

Furthermore, it must be remembered that, under general international law, fishing activities on the high seas are governed by the principle of the flag state. Accordingly, any step taken in the high seas fishery must be agreed to by all countries involved. If a country were free to coerce another country into abstaining from the exercise of legitimate rights by threatening sanctions under domestic legislation, it would vitiate the fundamental concept of treaty-making itself. It is a denial of the existence of international law, as well as a "might is right" approach.

Incidental catch in squid fishing

North Pacific squid driftnet fishery has been denounced as environmentally destructive by the antidriftnet campaign. According to Greenpeace: "High seas driftnet fisheries are taking a dangerous toll on marine resources in the North Pacific. The large driftnet fleets of Japan, Taiwan (Province of China) and the Republic of Korea are slaughtering tens of thousands of porpoises and dolphins, other marine mammals and hundreds of thousands of marine birds during fishing operations annually. Driftnets are also dangerously depleting fisheries resources, including salmon species of North American origin. If ocean wildlife is to be preserved and fish stocks kept at sustainable yield levels, this practice of strip-mining the seas must be phased out."⁵⁰

In response to this kind of criticism, the Japanese Government has taken the previously mentioned measures to reduce accidental takes of non-target species by squid driftnet fishing vessels. As well, it has undertaken scientific research programmes and foreign observer programmes in order to collect data and information concerning incidental takes. In spite of these measures, distrust prevails among fishermen and environmental groups in the United States. For instance, Earthtrust has expressed the following view:

"Although an observer programme for this fishery would doubtless be of value in assessing the impacts of the fishery for commercial species and their populations, data gathered on the negative impacts of

the fishery on wildlife would be redundant. Driftnet fisheries have a well-documented degenerative effect on wildlife, and it is apparent that any long-term presence of a driftnet fishery in a specific area would preclude the coexistence of viable populations of many species of dolphins, porpoises, seals, sea birds, turtles and small whales.

"The problem is further exacerbated by the absence of any reliable and specific information concerning the impacts of these fleets on species and stocks of marine life endemic to the fishing grounds. With the exception of minimal data gathered from observers, research vessels and through UN/FAO sources, the general absence of specific information on the largest fisheries operations being conducted anywhere in the world is nothing short of appalling. The cooperation exhibited by nations involved within these fisheries in supplying data has ranged from minimal to nonexistent. The little specific data that has been submitted to date must be viewed as extremely suspicious and in many cases is more likely the product of *ad hoc* formulations directed toward allaying international concerns over potentially negative impacts of the fisheries. Continued statements by the Government of Japan claiming that few marine mammals are killed in driftnet operations must be viewed as spurious and wantonly deceitful."⁵¹

Although it is true that the by-catch data and information currently available are seriously deficient in evaluating impacts of driftnet fishing on non-target species, a malicious accusation without scientific basis does not seem to be valid. Such a biased view is counterproductive and less likely to lead to a positive and lasting solution to the problem.

In this respect, it is interesting to see the results of the afore-mentioned cooperative observer programme between Japan, Canada and the United States that was carried out in 1989 in order to collect information on the catch and by-catch rates in the North Pacific squid driftnet fishery. A joint report on squid by-catch observations in the Japanese squid driftnet fishery for the 1989 season from June through December was recently issued by the relevant authorities of the three countries.⁵²

⁵¹ Earthtrust, op. cit, p. 10 and 22.

⁵² Fisheries Agency of Japan, Canadian Department of Fisheries and Oceans, United States National Marine Fisheries Service and United States Fish and Wildlife Service, *Final report of squid and bycatch observations in the Japanese driftnet fishery for neon flying squid (Ommastrephes bartrami)*, 30 June 1990.

⁵⁰ Greenpeace, Spring 1989, *Pacific campaign: driftnets*, p.1.

Tables 1 and 2 of that report show the research results of the 1989 observer programme. In the 1402 reported retrievals only 79 salmonoid were incidentally caught, while 3 119061 flying squid were taken. The accidental capture of marine mammals included 208 Northern fur seals (*Callorhinus ursinus*), 914 dolphins - of which 141 were Dall's porpoises (*Phocoenoides dalli*) - and 22 marine turtles. With respect to sea birds, 8 534 shearwaters were accidentally captured.

The problem here is how to evaluate these figures. Although there might be various interpretations, it must be pointed out that these figures should be seen in relation to the population sizes of the marine mammals concerned. For example, the projected population sizes of Dall's porpoise and of Northern fur seal in the North Pacific are 2.4 million heads and 1.15 million heads respectively. In view of the large population sizes of these marine mammals, it would appear that the incidental capture of these animals by squid driftnet fishery does not have any adverse effects on their resource status.

An "ecological" approach

It seems that among North Americans and Europeans there is a belief that, to be ecologically sound, fishing should be selective. From this point of view, driftnet fishery has been condemned on the grounds of its non-selectivity. For example, Greenpeace insists that "using driftnets makes sound, ecological management of fisheries resources impossible".⁵³

Based on a similar view, the Government of New Zealand says that large-scale driftnet fishing is "an environmentally unsound and unsustainable activity which threatens effective conservation and management of living marine resources" and that "driftnets are a relatively indiscriminate or unselective method of fishing".⁵⁴

There is doubt, however, about whether a selective method of fishing is possible from an ecological point of view. Fishing is conducted in the natural environment of a complicated food web. In this sense, the by-catch of fish other than those targeted is inevitable. Therefore, what is important is that all natural gifts are utilized to the maximum extent.

In addition, it must be noted that the concept of ecosystem balance is not static but dynamic. To cite one

example, as a result of past over-exploitation of some whale species in the Antarctic by Western countries, including Japan, the present ecosystem balance is quite different from the original one. While large whales such as the blue and fin have been reduced in number, smaller whales such as the sei and minke are considered to have increased to unknown numbers. Since the feeding basis of all baleen whales is the same, namely krill, there is scientific opinion that the taking of the minke whale will accelerate the recovery of the larger whales. Although this presumption is a subject of controversy among scientists, it should not be discounted.

Similar interspecific competitive interactions may occur between target and non-target species in other sea areas. Therefore, the selective catch of specific fish with commercial value may invite ecological change at local, regional or global levels.

Past experience shows us that when a few selected species are removed, the remaining undesirable fish may become dominant in the specific fishing ground and the undesirable species may suppress the recovery of the more desirable species. When a full cross-section of species is taken in a way that avoids the overfishing of each species, the original ecosystem balance is likely to be restored within the appropriate time span. Accordingly, fishing that removes a full cross-section of marine life in a specific fishing ground may be ecologically healthier than a fishing method that removes only a few selected species.

One of the charges against driftnet fishing made by environmental groups has been directed at the incidental takes of marine mammals, sea birds and turtles. It is estimated by Greenpeace that the Asian driftnet fishing vessels in the North Pacific are annually killing "tens of thousands of porpoises, dolphins and other marine mammals, and hundreds of thousands of marine birds".⁵⁵

This estimate is nothing more than an exaggeration. As was seen already, the research results of the 1989 cooperative observer programme between Japan, Canada and the United States demonstrate that the by-catch rate is less than expected.

It should be noted that there are tens of millions of dolphins and hundreds of millions, perhaps billions, of sea birds in the Pacific. The population sizes of these animals are more greatly affected by available food

⁵³ Greenpeace, Spring 1989, *Pacific campaign: driftnets*, p. 1,

⁵⁴ Government of New Zealand, op. cit., p. 1 and 11.

⁵⁵ See supra note 50.

supplies and environmental conditions than by driftnet fishing.

Obviously, efforts should be made to avoid unnecessary by-catches. It is not reasonable, however, to cry that there should be no incidental take of even a single animal. Instead, the population stock of the marine mammal to be taken must be measured and the allowable level of accidental take that will not disadvantage the marine mammal stock must be determined. Therefore, incidental take should be allowed at a level that will not adversely affect the population stock itself and the ecosystem as a whole.

Ghost fishing issue

As mentioned earlier, among the antidriftnet campaigners there is strong opinion that lost or discarded driftnets will always continue to fish because they are made of plastic. Greenpeace says that "since the plastic netting is non-biodegradable it can continue to ghost fish, entangling and killing these creatures indefinitely".⁵⁶ A similar charge is made against driftnet fishing by Mr John M. Leighty: "Lost or abandoned by commercial gillnet fishing boats, the cheap plastic nets are strong and virtually last forever. They sink to the bottom but are light enough to be lifted by the currents and carried vast distances –itinerantly 'fishing' all the while but with no one to clean out the nets."⁵⁷

The criticism against driftnet fishery by the Government of New Zealand stands on the same footing: "The enormous amount of netting deployed by driftnet fishing vessels on the high seas means that significant quantities of netting are thus released to the marine environment as 'ghost nets'. At times these net portions may ball up and sink to the ocean bottom, while other net scraps may float on or near the surface. Because the plastic mesh does not degrade, such 'ghost nets' continue to entangle fish and other marine living resources at the surface or on the seabed for a considerable period."⁵⁸

On the other hand, in defending driftnet fishery, the Japanese Government states as follows: "Even if the nets failed to be retrieved, it is reported that they will lose their ability as fishing gear quite rapidly. According to the results of independent experiments conducted separately by scientists in Japan and in the

United States, a lost net will lose its length exponentially as time goes by to be a solid mass in, at most, two weeks."⁵⁹ Although there is a difference of opinion about the fate and impact of lost or discarded gear, it is certain that the loss or disposal of netting poses to some extent a threat to marine life and the environment. Accordingly, it is obvious that the loss or disposal of driftnets should be discouraged to the maximum extent.

The problem, however, is not unregulated under international law. Some international conventions address the pollution of the marine environment from plastic materials. The major multilateral treaties concerning driftnet regulations include the 1972 Convention in the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the London Convention) and the 1973/78 International Convention for the Prevention of Pollution from Ships (MARPOL), Annex V.

The London Convention defines dumping as "any deliberate disposal at sea of wastes or other matter" (Article 3), therefore it does not apply to the accidental loss of driftnets.

Under Article 4 of the Convention, "the dumping of wastes or other matter listed in Annex I is prohibited". Annex I lists "persistent plastics and other persistent synthetic materials, for example, netting and ropes, which may float or may remain in suspension in the sea in such a manner as to interfere materially with fishing, navigation or other legitimate uses of the sea". Accordingly, the deliberate disposal of driftnets at sea is interpreted to be prohibited under this Convention. The disposal problem on the high seas must be regulated by the flag state.

Annex V of MARPOL concerns regulations for the prevention of pollution by garbage from ships. The disposal into the sea of "all plastics, including but not limited to synthetic ropes, synthetic fishing nets and plastic garbage bags", is prohibited (Regulation 5). However, an exemption is allowed for "the accidental loss of synthetic fishing nets or synthetic material incidental to the repair of such nets, provided that all reasonable precautions have been taken to prevent such loss" (Regulation 6).

⁵⁶ Greenpeace Australia, *op. cit.*, p. 2.

⁵⁷ John M. Leighty, 6 December 1988 Ghost nets taking tragic toll on ocean life, p. 1.

⁵⁸ Government of New Zealand, *op. cit.*, p. 14.

⁵⁹ Government of Japan, September 1990, The view of the Government of Japan concerning high seas driftnet fishing in conjunction with the UN Resolution 44/225 concerning large-scale driftnets" (paper submitted to the United Nations Office of Ocean Affairs and the Law of the Sea), p. 12.

Although the accidental loss of driftnets incidental to repair is exempted from the application of Annex V of MARPOL, deliberate disposal of driftnets and their loss during fishing operations are deemed to be under its regulation. Enforcement concerning violations occurring on the high seas is by the flag state.

In June 1983 Japan accepted Annex V of MARPOL. In compliance with this, Japanese fishing vessels are now prohibited from discarding fishing nets in all areas of the sea both within and outside national jurisdiction.

Pollution by dumping is also dealt within UNCLOS. Paragraph 1 of Article 210 provides that "States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping". The definition of "dumping", however, is almost the same as that in the London Convention, that is, "any deliberate disposal of wastes or other matter" (Article 1).

In view of these international conventions, the problem to be tackled is how to regulate the accidental loss of driftnets. The solution might be found in the conclusion of a new convention imposing an obligation on fishing vessels to mark and retrieve any gear.

The introduction of a system of mandatory marking of fishing gear for identification purposes would contribute to improving the situation. As was seen before, Japan has already adopted this system at the national level. Japanese driftnet fishing vessels are now obliged to mark all of their gear with identifying numbers. The adoption of this system at the international level should be considered. With regard to the retrieval problem, the establishment of an international obligation to retrieve accidentally lost nets should be examined. Within this framework, if it was impossible to retrieve nets at the time they were lost but they were later found by other vessels, a penalty would have to be paid to the appropriate international authority by the offending vessel. In this respect, the introduction of a system in which anyone in the world who found and retrieved lost fishing gear would be rewarded may be considered.

In addition, efforts should be made to improve net materials. Nets must be biodegradable so that lost gear does not continue to ghost fish.

TOWARD A SOLUTION TO THE PROBLEM

The need for scientific research

The current driftnet controversy is characterized by the paucity of data and information on the impact of this fishing gear either on the fish targeted or on non-targeted

species, especially marine mammals and sea birds. At present an emotional and political approach prevails. The widespread view of driftnets as environmentally destructive and indiscriminating has not been proven by any scientific data or information. As there is little reliable scientific analysis justifying this view, what is needed is more solid information about the impacts of this fishing method on the living marine resources.

The need for scientific research on this matter is recognized in Resolution 44/225. Preambular paragraph 6 of the Resolution states that "any regulatory measure to be taken for the conservation and management of living marine resources should take account of the best available scientific data and analysis". In addition, operative paragraph 3 recommends that "all interested members of the international community, particularly those within regional organizations, continue to consider and, no later than 30 June 1991, review the best available scientific data on the impact of large-scale pelagic driftnet fishing and agree upon further cooperative regulation and monitoring measures, as needed".

However, operative paragraph 4(a) concerning moratoria refers only to "statistically sound analysis", which is not the same as "the best available scientific data". The former may be inconsistent with the latter and may be less scientifically evident.

As is known, under the Resolution conservation and management measures need not be based on the best available scientific data. Accordingly, a moratorium is to take effect even if there is no scientifically solid evidence.

This is not the normal course of things. The assumption underlying this Resolution is that driftnets have adverse effects on marine ecology unless shown otherwise. This approach is counterproductive and is likely to lead to unnecessary conflicts.

The same is true of the doctrine of "unacceptable impacts" in the policy statement of the United States on Resolution 44/225. As to the interpretative conclusion of this doctrine, Professor Burke expresses the following concern: "A most important point to note is that the UN Resolution, like the United States policy statement, places the burden of proof on 'concerned parties of the international community', which must be discharged before vessels can continue or initiate fishing on the high seas. The United States statement specifically declares that if the absence of data prevents a showing that no unacceptable impacts occur, then the

fishing must cease or must not be initiated. Furthermore, the showing must be positive and agreed; if it is disagreed or cannot be made, the fishery must terminate even though no unacceptable impacts are shown. This mechanism seems almost to assure termination of fishing since an opponent of driftnet fishing may withhold approval of an alleged showing of no impact."⁶⁰

As is rightly pointed out by Professor Burke, the introduction of this sort of approach will bring confusion into sound conservation and management principles. Furthermore, its consequent effects will not be limited to the driftnet fishery issue. The adoption of the unacceptable impacts standard will have far more significant effects on fishery as a whole, not only on the high seas but also in coastal waters. Warning careless recourse to this standard, Professor Burke argues: "If these sound conservation and management principles require termination of driftnets on the high seas, it is difficult to understand why the reasoning involved and similar considerations would not apply to other gear on the high seas, such as tuna purse seines or longlines, or to this and all other gear taking fish within 200 miles. At the very least, if purse seines have effects on dolphins, as is known to be the case, this might be considered to be unacceptable to other states when the fishing states are unable to establish that it does not lead to declines in the dolphin population. Again, the fishery would be required to terminate because of the lack of information. The law of the sea treaty makes no such provision."⁶¹

Therefore, this kind of subjective standard should be replaced by a more objective one. In other words, a solution to the problem should be found on the basis of scientifically solid evidence. It must be emphasized that the real effects of driftnets on living marine resources require a thorough scientific investigation in order to evaluate all possible implications. Such an investigation should be carried out both on high seas and coastal driftnet fisheries. The denial of a specific type of fishery without enough scientific evidence of its impacts on living marine resources cannot be justified.

At any rate, much greater research is needed to evaluate the impacts of driftnet fishing on target and non-target species. Without sufficient information it is difficult to justify appropriate regulatory measures.

In addition to reinforced research activities, consideration must be paid to the introduction of a system of environmental impact assessment and monitoring. This system should be regarded as an important component of any research programme.

Environmental Impact assessment

The adoption of new or large-scale technology may have unintended or unforeseen effects of a significant extent and nature on the ecosystem balance. Therefore, it is essential to carry out prior evaluation of the possible impacts and risks before introducing such technology.

This kind of impact assessment should be made at local, regional and international levels. On the high seas, there is a need to devise an appropriate mechanism for assessing impacts of driftnet fishing technology on the marine ecosystem. This mechanism should also include the impact assessment of the exploitation of seabed mineral resources. At present very little is known of changes brought about by such seabed activities in the delicate ecologies of the seabed and superjacent waters.

In this sense, comprehensive assessments of the impact on marine ecosystems of such high seas human activities as fishing should be made under an appropriate institutional framework on an interdisciplinary basis. However, who should make this type of assessment and how should this system be organized? On this point some interesting ideas have been suggested. In 1973, Norway submitted to the United Nations Seabed Committee a proposal entitled "Draft articles on the protection of the marine environment against pollution."⁶² Article 15 of that proposal makes reference to the environmental impact statement: "Before any State or a person within its jurisdiction undertakes an activity which may lead to significant alteration of the marine environment, the State shall file an environmental impact statement with the international organization (United Nations agency) concerned. The statement shall provide all necessary information to assess the possibility of damage and shall be communicated to competent international organizations and to other States whose interests may be affected. If such States or organizations so wish, the first-mentioned State shall consult with them before any alteration to the environment is undertaken, with a

⁶⁰ William T. Burke, *op. cit.*, p. 35-36.

⁶¹ *Ibid.*, p. 38.

⁶² UN Doc. A/AC.138/80.III/L-43.

view to avoid damage to other interests and to preserve the environment against pollution."

Similarly, a United States Senate resolution⁶³ submitted by Senator Pell on 25 August 1976 in regard to a treaty requiring international environmental impact statements is interesting. In the preambular paragraph of the resolution, it is stated that "the United States Government should seek the agreement of other governments to a proposed treaty requiring the preparation of an international environmental impact statement for any major project, action or continuing activity which may be reasonably expected to have a significant adverse effect on the physical environment or environmental interests of another nation or a global commons area."

Until now the international community has not succeeded in adopting the international environmental impact assessment system. Nevertheless, the idea of environmental impact assessment is reflected in embryonic form in Part XI of UNCLOS. While Article 192⁶⁴ enunciates the general obligation to protect and preserve the marine environment, Articles 204⁶⁵, 205⁶⁶ and 206⁶⁷ of Section 4 make reference to monitoring and environmental assessment. Although these related provisions call for states to assess and monitor the effects of their activities on the marine environment, there is no mention of how these obligations should be implemented.

However, with regard to exploration and exploitation of mineral resources in the international seabed area,

⁶³ Senate Res. 521, 94th Congress, 2nd Session, 25 August 1976.

⁶⁴ Art 192 provides: "States have the obligation to protect and preserve the marine environment"

⁶⁵ Art. 204 states:

"1. States, shall, consistent with the rights of other States, endeavour, as far as practicable, directly or through the competent international organizations, to observe, measure, evaluate and analyse, by recognized scientific methods, the risks or effects of pollution of the marine environment

2. In particular, States shall keep under surveillance the effects of any activities which they permit or in which they engage in order to determine whether these activities are likely to pollute the marine environment."

⁶⁶ Art 205 stipulates: "States shall publish reports of the results obtained pursuant to Article 204 or provide such reports at appropriate intervals to the competent International organizations, which should make them available to all States."

⁶⁷ Art 206 says: "When States have reasonable grounds for believing that planned activities under their Jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in Article 205."

the environmental impact assessment system is introduced in a concrete and systematic way. Article 165, paragraph 2 (a), provides that a Legal and Technical Commission shall "prepare assessments of the environmental implications of activities in the [international seabed area]".

As to the superjacent waters of the high seas, there is no reference to any institutional mechanism for assessment and monitoring. Therefore, some appropriate mechanism for that purpose should be devised at a regional or international level. This should be part of a resource management mechanism.

In this context, it is noted that some efforts have been made to establish the environmental impact assessment system at the regional level. For example, in the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, which was concluded on 24 November 1986, this system is introduced as a component of the resource management mechanism in the region.

Article 16 of the Convention reads as follows:

"1. The Parties agree to develop and maintain, with the assistance of competent global, regional and subregional organizations as requested, technical guidelines and legislation giving adequate emphasis to environmental and social factors to facilitate balanced development of their natural resources and planning of their major projects which might affect the marine environment in such a way as to prevent or minimize harmful impacts on the Convention Area.

2. Each Party shall, within its capabilities, assess the potential effects of such projects on the marine environment, so that appropriate measures can be taken to prevent any substantial pollution of, or significant and harmful changes within, the Convention Area.

3. With respect to the assessment referred to in paragraph 2, each Party shall, where appropriate, invite: (a) public comment according to its national procedures, and (b) other Parties that may be affected to consult with it and submit comments.

The results of these assessments shall be communicated to the Organization, which shall make them available to interested Parties."

This system applies to the "convention area" that includes not only the 200-mile zones of the contracting parties, but also the high seas areas in the South Pacific region. However, each contracting party assesses the potential effects of the proposed projects on the marine

environment. Other contracting parties can only consult with it and submit comments. There is no guarantee that such opinions and comments will be respected by the recipient party. Although the results of the assessment must be communicated by the party concerned to the organization, namely, to the South Pacific Commission, no power except information exchange is conferred to the Commission itself.

From the long-term perspective, it is expected that institutional mechanisms allowing assessments to be made in a more integrated and systematic way will be devised and developed at a regional or international level. Ideally, at any level, a single comprehensive agency should be established to direct the diverse functions involved in effectively managing the marine environment and resources.

Resource management mechanism

To date, high seas fishery has been safeguarded by the ancient doctrine of the freedom of the high seas, which includes the freedom of fishing and the freedom of navigation on the high seas. Fishing activities on the high seas are under flag state jurisdiction. In addition, international law leaves it to the countries concerned to determine the nature of the conservation measures, if any, that should be employed in the fishery. Under international law, there are no restrictions imposed on fishing gear. Fishing with driftnets on the high seas is regarded as a lawful exercise of the freedom of fishing. Accordingly, until recently, no question has been raised about the lawfulness of this fishing activity.

Nevertheless, this does not mean that high seas fishery is under a *laissez-faire* principle. As was seen already, Article 117 of UNCLOS confirms the general principle of the law of the sea that fishing countries have the duty to take appropriate conservation measures on the high seas, either for their own nationals alone or in cooperation with other countries for their nationals together.

Therefore, countries fishing on the high seas may be bound by specific commitments undertaken by agreements with other countries on bilateral or multilateral bases. As far as driftnet fishery is concerned, the only fishing operation that is carried out under the auspices of a multilateral convention is the Japanese salmon driftnet fishery, which operates under the International Convention for the High Seas Fisheries of the North Pacific Ocean. The squid and billfish fisheries, however, are not regulated by any international fisheries convention. In addition, all other

high seas driftnet fisheries such as those in the Atlantic and Indian Oceans are not subject to any international treaty.

Complaining about the existing legal arrangements in the North Pacific, Mr Barry D. Collier, on behalf of the Pacific Seafood Processors Association, says: "We urge the Administration to keep up its negotiations with the other nations of the North Pacific with the possibility of setting up a multilateral framework for regulating all high seas fisheries in the North Pacific."⁶⁸ Likewise, Greenpeace insists that "the Administration should be lobbied to take a global initiative on the squid driftnet fishery problem by strengthening the INPFC and expanding it to include more Pacific Rim nations or by developing an alternative North Pacific regional fisheries convention".⁶⁹

From a similar point of view, Earthtrust offers the following suggestions:

"In the North Pacific, the INPFC should develop a phase-out plan to reduce the number of driftnet vessels remaining in Japan's high seas mother ship and land-based salmon driftnet fisheries. Reductions should be aimed at eliminating these fisheries by 1992, after which time both high seas salmon fisheries would cease operations.

The INPFC should also broaden its comprehensiveness as an international fisheries management authority, initially by working toward the inclusion of more Pacific Rim nations within the Commission. INPFC Member Nations should make a commitment to strengthen the Commission so that it can serve as an international authority over all pelagic driftnet fisheries in the North Pacific and thereby maintain the region's fisheries on a sustainable basis while insuring an adequate degree of environmental protection. As a first step, the INPFC should act to gain management of the pelagic squid, billfish and alba-core driftnet fisheries of Japan, the Republic of Korea and Taiwan (Province of China). Current INPFC members should work diplomatically to gain inclusion of the Republic of Korea, Taiwan and the USSR. Alternatively, a new and broader convention for management of the North Pacific fisheries should be developed to attain these goals."⁷⁰

⁶⁸ Barry D. Collier, *op. cit.*, p. 5.

⁶⁹ Greenpeace, February 1989, North Pacific high seas driftnet fisheries, p. 3.

⁷⁰ Earthtrust, *op. cit.*, p. 26-27

Along the lines of the above-mentioned allegations, the United States Government had bilateral talks with the Government of the USSR. The negotiations between the two governments resulted, on 9 February 1989, in the signing of a Memorandum of Understanding regarding bilateral cooperation on the conservation and management of Pacific salmon in the North Pacific Ocean. At the same time, both governments initiated the drafting of a new convention for regulating the North Pacific high seas salmon fishing. The proposed convention suggests to prohibit any high seas taking of salmon in the convention area. Until now, however, the Japanese Government is reluctant to accept it.

Although a multilateral approach is preferable to a patchwork of bilateral treaties, it is not necessarily reasonable to confine the coverage of the proposed convention to some specific fish species such as salmon. As mentioned earlier, since all living creatures compose a food chain, it is not advisable to deal with a few selected species. On this point, Professor Burke believes: "Proposals for international fishery bodies to deal with high seas fishery problems should include all of the species and populations that require regulation, including by-catch. It is not enough to establish regional or multilateral regimes to deal with some of the target species that are considered needful of regulation. In most instances there are by-catch problems that are significant and these also need to benefit from regulation."⁷¹

In addition, it must be recalled that since fishery resources do not respect political boundaries and most high seas stocks can also be found in adjacent exclusive economic zones, measures implemented solely in the high seas areas can never lead to viable long-term conservation of the North Pacific resources. Therefore, a solution to the problem should be sought in the direction of establishing a comprehensive management mechanism for resource uses at the level of the entire North Pacific region, including the areas within the exclusive economic zones of coastal states.

In the South Pacific, there is no appropriate organization to deal with high seas fishing, including driftnet fishery. However, some efforts were made to create a management authority in this region in the past. In 1977, when the South Pacific countries adopted 200-mile exclusive economic zones, they planned to

establish an international organization to manage highly migratory species, including tuna and skipjack. The organization was designed to include not only the South Pacific countries but also distant water fishing countries like Japan. At the meeting of the South Pacific Commission held in Suva, Fiji, in May 1978, a draft agreement to establish the organization concerned was almost finalized. As the result of opposition by some countries, however, such an international organization was not brought to realization.

In other sea areas such as the Atlantic and Indian Oceans, almost no information is available on driftnet fishery. In addition, no international treaty has been concluded to regulate and control this type of fishery. In those sea areas, improvements in the institutional arrangements will be required for better management of high seas resources.

In view of the increasing impact of human activities on the marine environment, a new innovative idea should be introduced into ocean management in lieu of the historic concept of the freedom of the high seas. From such a viewpoint, it is necessary to establish comprehensive resource management mechanisms at the regional and global levels. Furthermore, it must be noted that in order to achieve proper management of complex multispecies resources on the high seas, all the elements related to the marine ecosystem should be covered by the management authority.

Past experience indicates that conservation mechanisms were put into effect more rapidly when the necessity of scientific cooperation was realized and agreed on. Cooperative research activities are bases for joint conservation measures. Accordingly, agreement should be made on scientific research programmes in each high seas region.

In this context, FAO should play a catalytic role in initiating such research programmes and in creating regional management bodies, and where appropriate it should take the initiative toward those purposes. At the same time, FAO should act as clearing-house for the interregional exchange of data and information about conservation and management of living marine resources.

CONCLUSION

The increased attention recently given to the use of driftnets on the high seas is not necessarily derived from scientific knowledge about the impacts of this gear on living marine resources. It emerges for the most part from emotional and political considerations.

⁷¹ William T. Burke, *op. cit.*, p. 47.

Based on such considerations, some international Lawyers are suggesting the adoption of an international treaty to regulate driftnet fishing. Professor Douglas M. Johnston represents this approach. While he admits that 'apparently not enough is known about squid population levels to determine whether driftnet fishing represents a serious ecological threat', he insists that it should be brought under international control. To achieve this purpose Johnston suggests the following three-stage strategy:

"The first stage, involving leverage diplomacy, has already begun and is manifested in various ways. Ideally, the UN's role should include the adoption of a resolution calling on the affected states to cooperate in the negotiation of guidelines for the conservation and management of high seas fisheries under the auspices of UNEP or FAO or both.

The second stage, involving guidelines diplomacy, might require three or more years for the scientists, lawyers and diplomats of the interested states to develop and adopt acceptable guidelines to cover all major issues in high seas fishery conservation. During that period, driftnet fishing states should be persuaded, or if necessary induced, to adopt conciliatory measures, such as the voluntary reduction of driftnet fishing by limiting the number of vessels and the length of nets, as offered by Japan in the South Pacific. With the successful adoption of guidelines, the third stage, involving transactional diplomacy, would be devoted to the negotiation of legally binding arrangements for the regulation of driftnet fishing, whose strictness would depend on the best scientific knowledge available."⁷²

The adoption of such a short-sighted political approach in a situation lacking solid scientific evidence might be detrimental to the healthy development of fishery in the world. If driftnet technology is ecologically destructive, the logical conclusion should be that the use of the gear itself is to be prohibited not only on the high seas but also in coastal waters. The prohibition of the use of driftnets or gillnets will deprive countless coastal fishermen of a means of living. In addition, the situation will be aggravated if the same reasoning applies to other fishing gear such as trawls, purse seines and longlines.

On the other hand, it is also true that the existing fishing methods and trading patterns of fish products must be reconsidered in the light of growing environmental concern.

First of all, large-sized fishing vessels and gear should be reconsidered. Since high seas driftnets may reach about 50 km in length, there is no doubt that their use cannot be regarded as normal. Therefore, the real problem here is the appropriateness of the technology to be applied.

Modern technology has made possible a much more intensive use of the sea. Fishing vessels and gear technologies have become more and more large-scale. The recent development of large-scale commercial driftnet operations is the result of the pursuit of economic efficiency and cost reduction. It is an undeniable fact that although the new fishing method enhances the efficiency of catching efforts, it also encourages ecologically insensitive fishing. Therefore, existing fishing techniques and gear must be changed or improved and more appropriate technologies must be found.

The second serious problem is how to deal with the by-catch of undesirable or non-commercial species. A significant proportion of fish taken by driftnets is dumped overboard. Even potentially commercial species such as pomfret are discarded.

While efforts must be made to reduce the discard rate of potentially commercial species on the one hand, there is a need to minimize the incidental catch of marine mammals, sea birds and turtles on the other. Modification of net material and reduction of gear length might reduce the undesirable impacts on these animals, but in this respect, particularly interesting are experiments with subsurface fishing, which involves driftnets installed a few metres below the surface of the sea. The experiment results indicate the possibility of substantially reducing incidental take of non-targeted species while maintaining the catch rate of targeted species of fish at certain levels. In order to make this fishing method practical, more intensive study is needed.

Third, much more attention should be paid to the problem of transnational corporations involved in the trade of fish products. The argument of environmentalists who denounce Japanese fishing practices as smuggling illegally caught salmon to world markets is off the point. Most of such unfair practices, if any, are chargeable to Japanese trading corporations that invest in fishing companies in foreign countries.

⁷² Douglas M. Johnston, *The driftnetting problem in the Pacific Ocean: legal considerations and diplomatic options*, *Ocean Development and International Law*, 21:-9-10 and 24-25.

such as the Republic of Korea and Taiwan (Province of China). Unfortunately, such trading practices are out of the jurisdiction of the Japanese Fisheries Agency. Therefore, what is really needed is a method of regulating the irresponsible trading practices of transnational corporations.

To sum up, if it is scientifically demonstrated that driftnet fishery is ecologically destructive, such a fishing method should be prohibited without exception. Otherwise, there is no reason why this type of fishing should be excluded. According to scientific knowledge available at present, it is believed that driftnet fishing can be managed with gear restrictions and modifications as any other fishing method.

At the same time, it must be pointed out that the new management policy to conserve and manage marine resources as the common heritage of humankind should be formulated and adopted by the international community. In this context, it is now high time that the traditional concept of the freedom of the high seas is reconsidered. In this respect, preambular paragraph 8 of Resolution 44/225 states rightly that "all members of the international community have a duty to cooperate globally and regionally in the conservation and management of living resources on the high seas, and a duty to take or to cooperate with others in taking, such measures for their nationals as may be necessary for the conservation of those resources".

In light of today's understanding of global environmental interdependence, which is symbolized in the expressions "Only one earth" and "Spaceship earth" a review of the existing legal regimes of the seas, including the freedom of the high seas and the 200-mile exclusive economic zone, should be initiated by the international community. For that purpose, it might be advisable to hold a fourth United Nations Conference on the Law of the Sea.

Annex 1

Regulation of driftnet fishing

The Development Law Service of the Legal Office, FAO, is currently collecting information on instruments that relate to the management of driftnet fisheries.

These instruments assume considerable importance in light of United Nations General Assembly Resolution 44/225, which recommends moratoria on the use of large-scale driftnets, for it will be primarily through such instruments that the recommendations of the General Assembly can be transformed into specific and enforceable laws.

The present document sets out the information currently available to us region by region. Although most of our sources are original legal instruments or official documents and statements, in some cases we have relied upon unofficial documentation, such as FAO's INFOFISH or local newspapers. We would therefore appreciate being informed of any substantial or material error. Any additional data or clarification on the information contained in this annex is welcomed and should be sent to N. Bonucci, Development Law Service, Legal Office, FAO, Rome.

NORTH PACIFIC

In areas under national Jurisdiction

United States of America. The basic text in fisheries management, the Magnuson Fishery Conservation and Management Act of 1976 as amended in 1990,¹ includes the following provisions: large-scale driftnet fishing is defined as "a method of fishing in which a gillnet composed of a panel or panels of webbing with a total length of 1.5 miles or more is placed in the water and allowed to drift with the currents and winds for the purpose of entangling fish in the webbing" (Section 3); the Act prohibits anyone from engaging in large-scale driftnet fishing in waters under United States jurisdiction (Section 307.1); and the Act requires the

United States Government "to achieve international agreement on banning large-scale driftnet fishing on the high seas beyond the exclusive economic zone of any nation as soon as possible, including support for the Tarawa Declaration and other international efforts to achieve such a ban" (Section 2, c). In this respect, the Secretary of State is asked to "secure, as soon as possible after the date of the enactment of the Fishery Conservation Amendments of 1990, an international ban on large-scale driftnet fishing on the high seas beyond the exclusive economic zone of any nation". The Secretary of State is further required to transmit to Congress a report describing the steps taken by the Secretary to initiate and complete negotiations with respect to the securing of such a ban, detailing the progress of the negotiations, listing those nations that refused to enter into the negotiations and engage in large-scale driftnet fishing on the high seas beyond the exclusive economic zone of any nation, and making recommendations for legislative action that could be taken to encourage the nations listed pursuant to paragraph 3 to cease large-scale driftnet fishing. This report is to be submitted no later than 18 months after the date of the enactment of the Fishery Conservation Amendments of 1990 and every year thereafter until a ban is secured (Section 206).

Together with the Magnuson Act, other federal instruments may affect driftnet fishing in the waters under the jurisdiction of the United States. This is particularly the case with the Endangered Species Act, the Migratory Bird Treaty Act and the Marine Mammal Protection Act in relation to the taking of protected animals, which frequently occurs in the course of large-scale driftnet operations. Based on the provisions of the Marine Mammal Protection Act, a United States District Court order enjoined the United States Government from issuing marine mammals incidental take permits to Japanese salmon fishermen. This is in spite of the fact that the Japanese operation had been legitimately authorized by the International North Pacific Fisheries Convention (INPFC). The ruling, which was recently upheld by the United States Supreme Court, effectively denies Japan's mother ship

¹ Magnuson Fishery Conservation and Management Act of 1976 as amended by the Fishery Conservation Amendments of 1990 (Pub. Law 1016267).

salmon fishery the possibility of operating in the exclusive economic zone of the United States.

Canada. In Canada, an indefinite moratorium on the use of large driftnets in the 200-mile zone was imposed in 1987.

Japan. Japan strictly regulates the use of large driftnets within its own exclusive economic zone because of conflicts with other types of gear that were in use before the introduction of large driftnets.

Taiwan (Province of China). According to the Council of Agriculture in Taiwan, driftnet fishing will be banned as of 30 July 1992 (source: *Chinapost*).

Union of Soviet Socialist Republics. The USSR, according to its submission to the Secretary-General on 3 August 1990, has stipulated that the length of pelagic driftnets deployed by its vessels in waters outside or inside the exclusive economic zone may not exceed 3.7 km. Soviet authorities are recommending that fisheries organizations not engage in work geared to the modernization of large-scale pelagic driftnet fishing because the use of such fishing methods in the oceans causes serious harm to the marine fauna, in particular to anadromous species.

On the high seas

In December 1987, the United States enacted the Driftnet Monitoring, Assessment and Control Act.² This statute required the United States Government to negotiate agreements with those countries conducting driftnet fishing on the high seas of the North Pacific. The Act also provided for possible trade sanctions against any of the above-mentioned countries that did not enter into such an agreement by 29 June 1989. Subsequently, Canada and the United States negotiated an agreement for monitoring and enforcement with Japan. In addition, the United States negotiated such an agreement with the Republic of Korea, and the American Institute in Taiwan negotiated a similar agreement with the Taiwanese Coordination Council for North American Affairs. Under the latest agreement with Japan, 35 United States, ten Canadian and 29 Japanese scientific observers will be placed on 74 squid vessels to monitor 4 380 observations; 12 North

American and 12 Japanese scientific observers will monitor the operations of 24 large-mesh driftnet vessels; and seven North American scientists will participate in four research cruises in the squid driftnet fleet and one in the large-mesh driftnet fleet. The summary report of catch and by-catch rates from the 1990 Japanese observer programme is scheduled to be completed by 31 May 1991.

The agreements with the Republic of Korea and with the Taiwanese Coordination Council provide for monitoring and enforcement measures similar to those agreed on for Japanese vessels. There will be even more extensive observer coverage, as well as the placing of transponders for satellite tracking on board all vessels fishing with driftnets.

SOUTH PACIFIC

In areas under national jurisdiction

United States of America. See "North Pacific" above.

Australia. Australia prohibits any fishing by "trammel net, tangle net or gill net" in certain waters under its jurisdiction off the coasts of New South Wales and Tasmania.³ In all "proclaimed waters" under Australian jurisdiction, the use or possession of any pelagic gillnet or driftnet in fishable condition more than 2.5 km in length and lacking certain buoys, floats, markings and lights is prohibited.⁴

New Zealand. In 1989 New Zealand prohibited the use or possession of driftnets more than 1 km in length in waters under its jurisdiction.⁵

Other states and territories in the region. Each party to the Wellington Convention (discussed below) undertook to forbid the use of driftnets more than 2.5 km in length and the transshipment of fish taken with such driftnets within the areas under their jurisdiction. Thus, in December 1989 the Cook Islands prohibited all fishing activities in waters under its jurisdiction involving the use of driftnets more than 2.5 km long, including support and transport activities.⁶

² Driftnet impact Monitoring Assessment and Control Act of 1987 (Pub. Law 100.220 of 29 December 1987).

³ Fisheries Notices No. 88 of 19 July 1979 and No. 113 of 4 August 1983.

⁴ Fisheries Notice No. AFZ1 of 25 July 1989.

⁵ The Fisheries (Driftnet) Regulations 1989 and the Exclusive Economic Zone (Driftnet) Regulations 1989.

⁶ The Marine Resources Act 1989 of 22 December 1989.

On the high seas

On 11 July 1989, the Member States of the South Pacific Forum together at Tarawa, Kiribati, resolved to convene an urgent meeting to develop a convention that would ban pelagic driftnet fishing from the South Pacific region. In November 1989 this meeting was held in Wellington, New Zealand, and it produced the agreement known as the Wellington Convention. The Convention defines an area of the Pacific Ocean between 10° north latitude and 50° south latitude and between 130° east longitude and 120° west longitude. Each party agrees to take measures consistent with international law to restrain the use of pelagic driftnets in the zone, including the prohibition of such use and of the transshipment of fish caught with pelagic driftnet in waters under its jurisdiction. The Convention also specifically encourages the prohibition by parties of the landing of driftnet-caught fish in their territories; the processing of such fish in facilities under their jurisdiction; the importation of such fish; access to their ports by vessels equipped with driftnets; and the possession of such nets in areas under their jurisdiction. The Convention is not intended to prevent the parties from imposing even more stringent restrictions on pelagic driftnet fishing. It also provides for collaboration among the parties on scientific research and the development of conservation and management measures. On 27 October 1990, meeting with the leaders of South Pacific nations, the United States announced that it would sign the Wellington Convention.

The Japanese Fisheries Agency announced that its 1990 season of albacore driftnet fishery in the South Pacific would be cancelled effective 15 August 1990 in response to adverse public opinion (source: GLOBEFISH).

The Government of Taiwan (Province of China) declared that it would honour the United Nations resolution to end high seas driftnet fishing in the South Pacific by July 1991, with a worldwide moratorium after 30 June 1992 (source: *The New York Times*, 12 September 1990).

INDIAN OCEAN

In areas under national Jurisdiction

Australia. In 1986 Australia prohibited the use of driftnets longer than 2.5 km across the northern Australia fishery zone. In July 1989 the Government extended this prohibition to cover all proclaimed waters of this zone.

Japan. Japan, which has never engaged in driftnet fishing in the Indian Ocean, declared that it had taken steps to prohibit large-scale pelagic driftnet operations by its nationals in this area.

Other states and territories in the region.

Even if not directly related to driftnet fishing, a certain number of national laws may have provisions relevant to it. In particular a large number of states have enacted legislative measures prohibiting the capture of marine mammals. These texts can be interpreted as de facto bans on driftnet fishing.

On the high seas

At a recent meeting held in Bangkok from 9 to 12 July 1990, the 11th session of the Indian Ocean Fisheries Commission (IOFC) Committee for the management of Indian Ocean tuna recommended a moratorium on all large-scale pelagic driftnet fishing on the high seas of the Indian Ocean by 30 June 1992, with the understanding that such a measure could be lifted should effective conservation and management measures be taken. Finally, the Committee recommended that observers be placed on board vessels using large-scale pelagic driftnet on the high seas of the Indian Ocean.

ATLANTIC OCEAN

In areas under national Jurisdiction

United States of America. See "North Pacific" above.

Spain. On 11 August 1989 a cable was sent by the Secretariat of Marine Fisheries to a certain number of local marine authorities (Comandancias de Marina), including those from Huelva, Cádiz and Algeciras. The cable contained detailed instructions on the swordfish fishery. In particular, it stated that (i) swordfish may be fished only with "surface longlines" and "net fishing gears" are prohibited; (ii) in order to avoid incidents, Spanish vessels fishing in Moroccan waters should use longlines or other selective gear and should not carry on board any "Italian gillnet" (*volanta italiana*) or similar gear, and (iii) the non-selective gears mentioned in (ii) are to be taken away from the vessels and deposited with the competent local marine authority.

Finally, it must be noted that according to the accession treaty of Spain to the European Economic Community (EEC), Spanish vessels cannot use gillnets in those Portuguese waters included in the areas of the International Commission for the Scientific

Exploration of the Mediterranean Sea (ICSEM) and the Fishery Committee for the Eastern Central Atlantic (CECAF)⁷.

Portugal. According to the accession treaty of Portugal to the EEC, Portuguese vessels cannot use gillnets in those Spanish waters included in the ICSEM and CECAF areas.⁸

European Economic Community. At the beginning of 1990, the EEC envisaged a ban on the use of driftnets for EEC vessels and in all waters under its jurisdiction. The proposal was eventually withdrawn. The EEC is also considering banning the use of driftnets by EEC vessels fishing in third countries (source: INFOFISH).

Norway. Through a regulation adopted at Cabinet level, Norway proclaimed a total ban on driftnet vessels fishing for salmon. This ban, which took effect in the 1989 season, concerns all vessels operating in Norwegian waters.

Republic of South Africa. According to a regulation enacted under the Sea Fishery Act 1988, no person shall land or transship in any South African port or fishing harbour any tuna, including all species of *Thunnus*, *Allothunnus*, *Euthynnus* or *Katsuwonus*, that has been caught with gillnets. Also, no person shall fish using driftnet with a mesh measuring less than 44 mm or more than 64 mm stretched (measured from inside or knot or joint).

Trinidad and Tobago. The Government of Trinidad and Tobago, in a submission to the Secretary-General of the United Nations dated 2 October 1990, stated that it had imposed a ban on large-scale driftnet fishing in its national waters and a prohibition of landing rights to vessels with large-scale driftnet equipment.

On the high seas

Japan. The Government of Japan stated in its submission to the Secretary-General in pursuance of Resolution 44/225 that it had taken measures effective 15 August 1990 to prohibit Japanese large-scale driftnet fishing in the waters of the Atlantic Ocean.

Taiwan (Province of China). On 27 August 1990 the deputy representative of Taiwan's Coordination Council for North American Affairs stated that since 17 November 1989 the authorities in Taipei had issued no new licences to fishing vessels with driftnets (licences of vessels already so equipped would be renewed every year instead of every four years). As well, it was stated that the Government of Taiwan forbid the use of driftnets in the Atlantic and that violations would result in the permanent loss of the fishing licence of the vessel and the professional licence of the skipper (source: *The New York Times*, 12 September 1990).

Other states and territories in the region. By a special convention under the North Atlantic Salmon Conservation Organization (NASCO), high seas fishery for salmon, including driftnet fishing, is prohibited. For its part, Norway proclaimed that from the 1989 season onward the use of driftnets to fish for salmon by Norwegian vessels on the high seas would be prohibited.

The Organization of Eastern Caribbean States, in a declaration at Castries, Saint Lucia, in November 1989, resolved to establish a regime for the regulation and management of the pelagic resources in the Lesser Antilles region that would outlaw the use of driftnets.

MEDITERRANEAN SEA

In areas under national Jurisdiction

Italy. In 1989 the Italian Government enacted two temporary regulations prohibiting driftnet fishing until 31 March 1990. On 30 March 1990⁹ the Minister of the Merchant Marine issued a decree on the "technical measures relating to the fishing of swordfish with driftnets". The decree provided for a minimum mesh size, a maximum length and the marking of the nets. However, the legality of the decree was challenged in front to the regional administrative tribunal (TAR) of Lazio by Greenpeace International, the World Wildlife Fund and other conservationist movements. The tribunal decided to suspend the decree on the basis of its nonconformity with the provisions of the Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats, Bern, 19 September 1979). This decision was contested by the Minister who appealed to the Consiglio di Stato, which

⁷ *Official J. of European Communities*, L. 302,15/11/85, p. 127.

⁸ *Ibid.*, p. 73.

⁹ Decreto 30 marzo 1990. Misure tecniche concernenti la pesca del pesce spada con reti derivanti, *Gazzetta Ufficiale*, No. 76,31/3/90.

on 27 July 1990 ruled against the Ministry of the Merchant Marine. As a consequence, by a decree enacted on 30 July 1990,¹⁰ the Minister suspended driftnet fishing for swordfish and albacore *sine die*. However, in order to compensate the losses supported by this sector, which represents 800 vessels and employs 4 000 people, the Minister decided to allocate a compensatory sum of 10 billion lire both for 1990 and for 1991.¹¹

Spain. By an order signed by the Minister of Agriculture and Fisheries on 22 October 1990,¹² the use of driftnets is prohibited in the Mediterranean Sea in view of the great damage it causes to the seabed. The order is applicable to Spanish vessels and also to ships under foreign flags in Spanish waters. Licences to use driftnets will only be issued to vessels using driftnets with a maximum length of 1 500 m. Vessels that have already been authorized to use driftnets will be able to do so until 31 March 1991. Grants will be available up to 31 March 1991 for converting driftnets to other types of net and for converting fishing methods.

On the high seas

At its 48th session (February 1990), the Executive Committee of the General Fisheries Council for the Mediterranean (GFCM) recommended that the subject of pelagic driftnet use be considered by the GFCM Committee on Fisheries Management at its first session in 1991. This Committee should consider, *inter alia*, whether or not the moratorium recommended by the General Assembly should apply to the GFCM area. In a recent GFCM-ICC AT (International Commission for the Conservation of Atlantic Tunas) Expert Consultation on the evaluation of stocks of large pelagic fisheries in the Mediterranean area (Ban, 21-27 June 1990), it was agreed that the use of driftnets in the Mediterranean Sea should be strictly regulated, particularly through limitations on the size of the nets and through licensing schemes controlling the fishing effort.

ARABIAN GULF

In areas under national Jurisdiction

United Arab Emirates. In an effort to protect fishery resources, the Emirate of Ras-Alkhima has banned the use of monofilament driftnets (source: INFOFISH, 16 July 1990).

Bahrain. The Fisheries Authority in Bahrain has issued instructions on the application of severe measures to fishermen who trawl with driftnets (locally called *alhayyali*). This fishing method reportedly causes massive damage to the country's fishery as the nets extend to about 2 km scraping everything in the way, including wiretaps, floats, seaweeds and even small rocks, especially in shallow areas. The Directorate of Fisheries has notified the authorities concerned in the neighbouring countries of the new instructions. The measures prohibit the use of driftnets in the coastal areas (source: INFOSAMAK).

¹⁰ Decreto 30 luglio 1990. Sospensione della pesca del pesce spada e dell'alalunga con reti da posta derivanti, *Gazzetta Ufficiale*, N0.177,31/7/90.

¹¹ Decreto-Legge 4 agosto 1990, No. 213. Provvedimenti urgenti in materia de pesca con reti da posta derivanti.

¹² Orden Ministerial del 22 de octubre de 1990 por la que se prohíbe el uso de las artes de deriva y se regula su empleo como artes menores en el area mediterránea, *Boletín oficial del Estado*, 24/10/90.

Annex 2

**United Nations General Assembly
Resolution 44/225 entitled "Large-scale
pelagic driftnet fishing and its impact on
the living marine resources of the
world's oceans and seas"¹**

The General Assembly,

Noting that many countries are disturbed by the increase in the use of large-scale pelagic driftnets, which can reach or exceed 30 miles (48 km) in total length, to catch living marine resources on the high seas of the world's oceans and seas,

Mindful that large-scale pelagic driftnet fishing, a method of fishing with a net or a combination of nets intended to be held in a more or less vertical position by floats and weights, the purpose of which is to enmesh fish by drifting on the surface of or in the water, can be a highly indiscriminate and wasteful fishing method that is widely considered to threaten the effective conservation of living marine resources, such as highly migratory and anadromous species of fish, birds and marine mammals,

Drawing attention to the fact that the present resolution does not address the question of small-scale driftnet fishing traditionally conducted in coastal waters, especially by developing countries, which provides an important contribution to their subsistence and economic development,

Expressing concern, in addition to targeted species of fish, non-targeted fish, marine mammals, sea birds and other living marine resources of the world's oceans and seas can become entangled in large-scale pelagic driftnets, either in those in active use or in those that are lost or discarded, and as a result of such entanglement are often either injured or killed,

Recognizing also that any regulatory measure to be taken for the conservation and management of living marine resources should take account of the best available scientific data and analysis,

Recalling the relevant principles elaborated in the United Nations Convention on the Law of the Sea,²

Affirming that, in accordance with the relevant articles of the Convention, all members of the international community have a duty to cooperate globally and regionally in the conservation and management of living resources on the high seas, and a duty to take, or to cooperate with others in taking, such measures for their nationals as may be necessary for the conservation of those resources,

Recalling that, in accordance with the relevant articles of the Convention, it is the responsibility of all members of the international community to ensure the conservation and management of living marine resources and the protection and preservation of the living marine environment within their exclusive economic zones,

Noting the serious concern, particularly among coastal States and States with fishing interests, that the overexploitation of living marine resources of the high seas adjacent to the exclusive economic zones of coastal States is likely to have an adverse impact on the same resources within such zones, and noting also, in this regard, the responsibility for cooperation in accordance with the relevant articles of the Convention,

Noting also that the countries of the South Pacific Forum and the South Pacific Commission, in recognition of the importance of living marine resources to the people of the South Pacific region, have called for a cessation of such fishing in the South

¹ incorporating A/44/49/Corr. 2.

² *Official Records of the Third United Nations Conference on the Law of the Sea*, Vol. XVII (United Nations publication, Sales No. E.84.V.3), Doc. A/Conf. 62/122.

Pacific and the implementation of effective management programmes,

Taking note of the adoption of the Tarawa Declaration on this subject by the Twentieth South Pacific Forum at Tarawa, Kiribati, on 11 July 1989³ and the adoption by South Pacific States and territories of the Convention on the Prohibition of Driftnet Fishing in the South Pacific, at Wellington on 24 November 1989,⁴

Noting that some members of the international community have entered into cooperative enforcement and monitoring programmes for the immediate evaluation of the impact of large-scale pelagic driftnet fishing,

Recognizing that some members of the international community have taken steps to reduce their driftnet operations in some regions in response to regional concerns,

1. *Calls upon* all members of the international community, particularly those with fishing interests, to strengthen their cooperation in the conservation and management of living marine resources;

2. *Calls upon* all those involved in large-scale pelagic driftnet fishing to cooperate fully with the international community, and especially with coastal States and the relevant international and regional organizations, in the enhanced collection and sharing of statistically sound scientific data in order, to continue to assess the impact of such fishing methods and to secure conservation of the world's living marine resources;

3. *Recommends* that all interested members of the international community, particularly within regional organizations, continue to consider and, no later than 30 June 1991, review the best available scientific data on the impact of large-scale pelagic driftnet fishing and agree upon further cooperative regulation and monitoring measures, as needed;

4. *Also recommends* that all members of the international community, bearing in mind the special role of regional organizations and regional and bilateral cooperation in the conservation and management of living marine resources as reflected in the relevant articles of the United Nations Convention on the Law of the Sea, agree to the following measures:

- (a) Moratoria on all large-scale pelagic driftnet fishing on the high seas by 30 June 1992, with the

understanding that such a measure will not be imposed in a region or, if implemented, can be lifted, should effective conservation and management measures be taken based upon statistically sound analysis to be jointly made by concerned parties of the international community with an interest in the fishery resources of the region, to prevent the unacceptable impact of such fishing practices on that region and to ensure the conservation of the living marine resources of that region;

- (b) Immediate action to reduce progressively large-scale pelagic driftnet fishing activities in the South Pacific region leading to the cessation of such activities by 1 July 1991, as an interim measure, until appropriate conservation and management arrangements for South Pacific albacore tuna resources are entered into by the parties concerned;

- (c) Immediate cessation of further expansion of large-scale pelagic driftnet fishing on the high seas of the North Pacific and all the other high seas outside the Pacific Ocean, with the understanding that this measure will be reviewed subject to the conditions in paragraph 4(a) of the present resolution;

5. *Encourages* those coastal countries which have exclusive economic zones adjacent to the high seas to take appropriate measures and to cooperate in the collection and submission of scientific information on driftnet fishing in their own exclusive economic zones, taking into account the measures taken for the conservation of living marine resources of the high seas;

6. *Requests* specialized agencies, particularly the Food and Agriculture Organization of the United Nations, and other appropriate organs, organizations and programmes of the United Nations system, as well as the various regional and subregional fisheries organizations, urgently to study large-scale pelagic driftnet fishing and its impact on living marine resources and to report their views to the Secretary-General;

7. *Requests* the Secretary-General to bring the present resolution to the attention of all members of the international community, intergovernmental organizations, non-governmental organizations in consultative status with the Economic and Social Council, and well-established scientific institutions with expertise in relation to living marine resources;

³ See A/44/463, annex.

⁴ See A/44/807.

8. *Requests* the Secretary-General to submit to the General Assembly at its forty-fifth session a report on the implementation of the present resolution.

85 the plenary meeting

22 December 1989